

The Samtec logo is positioned in the top left corner. It consists of the word "samtec" in a bold, lowercase, sans-serif font. The letters are white with a black outline, and the entire logo is set against a background of vibrant, curved stripes in shades of orange, red, and yellow that sweep across the left side of the cover.

samtec

A large, stylized, grayscale graphic of a tiger's face is centered in the background. The tiger is looking directly forward with a focused expression. The graphic is semi-transparent, allowing the underlying color stripes to be visible through it.

RF INTERCONNECT CATALOG

COMPLETE RF INTERCONNECT SOLUTIONS

24-HOUR
SAMPLES & QUOTES

NO MINIMUM ORDER
QUANTITY ON
STANDARDS

2 TO 5 DAY
LEAD TIME ON
STANDARD PRODUCTS

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit rf.samtec.com



TABLE OF CONTENTS

Overview

Bulls Eye®	4-5
50Ω Cables & Connectors	6-7
75Ω Cables & Connectors	8-9
Cable Selector & Specification Chart	10-11
Original RF Solutions	12

Bulls Eye®

Cable Adaptors	14-17
Test Points	18-21
Cable Assemblies	22-24

RF Cable Assemblies

Micro High Frequency U.FL/W.FL Cable Assemblies	26-27
50Ω Standard Cable Assemblies	28-33, 35
50Ω Double-Shielded RG 316 Cable Assembly	34
50Ω High Frequency Cable Assemblies	36-38
75Ω Standard Cables	39-42

Don't see what you want? Contact RFGroup@samtec.com

*Compatible with Amphenol's HD-BNC™

RF Connectors

2.92 50Ω	45-46
SMA 50Ω	47-49
SMB 50Ω & 75Ω	50-51
SMP 50Ω	52
DIN 1.0/2.3 75Ω	53
MMCX & MCX 50Ω	54-57
MMCX & MCX 75Ω	58-59
*HD-BNC™ 75Ω	60-61
BNC 50Ω & 75Ω	62-63
N Type 50Ω	64
Adaptors	65-66

Original RF Solutions

100Ω Shielded Twisted Pair System	68
Micro-Mini Ganged Systems	69-75
IsoRate® Systems	76-80
Combination High Speed/RF	81

Custom RF Solutions

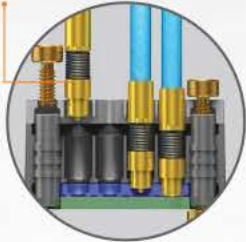
Index	82
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HIGH PERFORMANCE TEST POINT SYSTEM



Push/twist/latch for easy on/off



Compression spring for tolerance variations

Extensive surface area of the ground ferrule helps maintain compression & aids in signal stability

Round tip for higher cycles

Rugged solid FEP dielectric

Braided shield, max flexibility & isolation

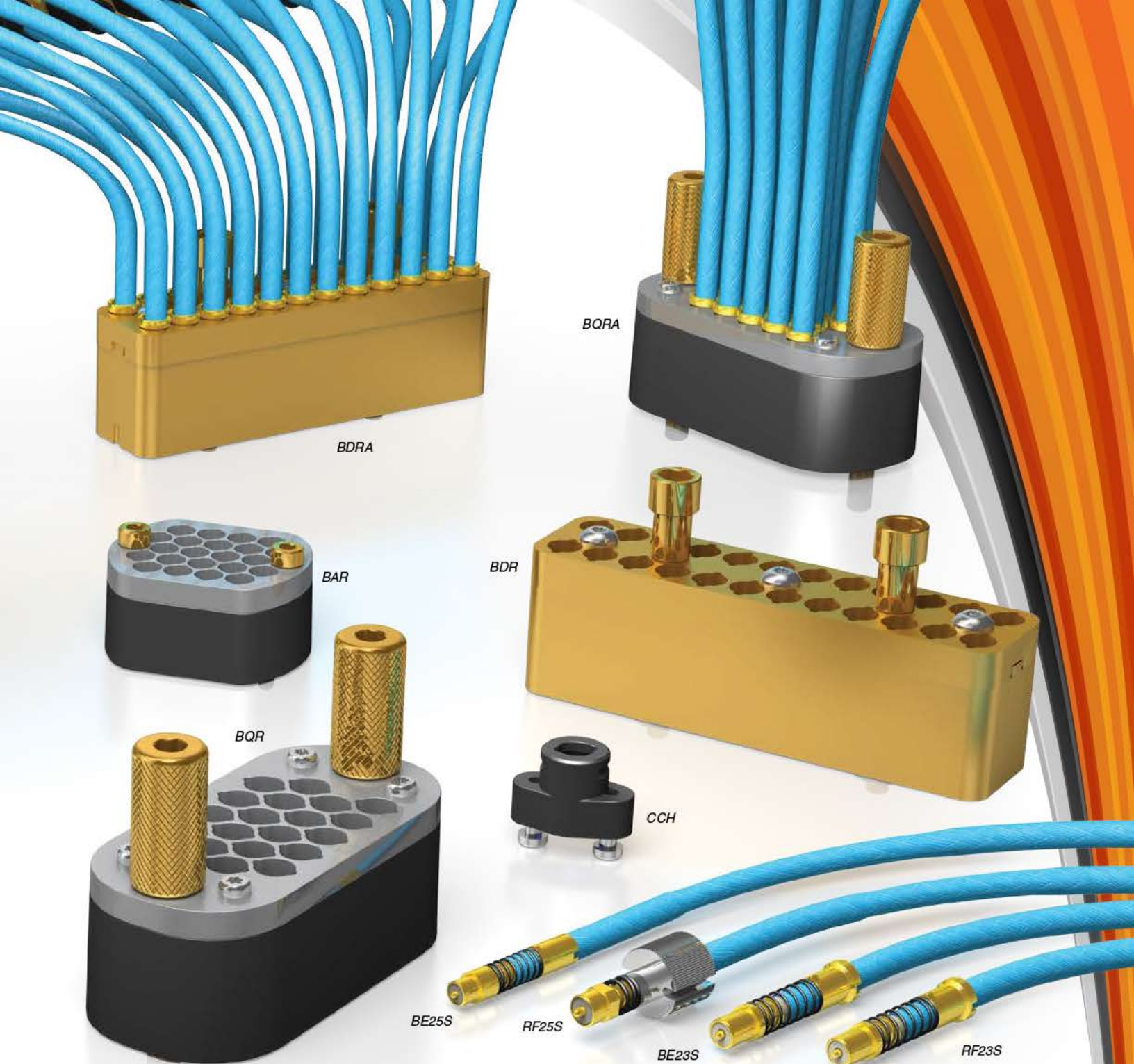
FEP jacket for durability & high temp rating (200°C)

Silver plated copper conductor



BULLS EYE® TEST POINTS, MICROWAVE CABLE ADAPTORS & CABLE ASSEMBLIES

- Rapid and simple connectivity of multiple signal channels to the board
- SMA performance with a board connector that is 10% of the cost
- Multi and single port in various configurations help significantly reduce board size
- 4:1 density vs. SMA
- 2.0, 5.0 and 10.0 pico-second phase matching
- Compression interface to the board
- Bayonet mechanical latch for quick press-and-twist locking
- Probe cable adaptor connects directly to existing instrument cables via SMA, 2.92 or SMP terminations
- 2.4 mm (50 GHz) and 1.85 (65 GHz) terminations in development
- Low loss microwave coax cable
- Low cost plastic housing option replaces expensive machined metal interfaces
- Solderless termination to PCB
- Fluorosilicone-based conductive elastomer provides excellent grounding
- Optimized layouts available upon request
- Field reconfigurable or replaceable



TEST POINTS

Series	CCH	BQR	BAR	BDR
No. of Positions	1	20 Quad Row	22	24 Double Row
Cable Mates	RF25S	BE23S, RF23S	BE25S, RF25S	BE23S, RF23S
Page	18	19	20	21

CABLE ADAPTORS

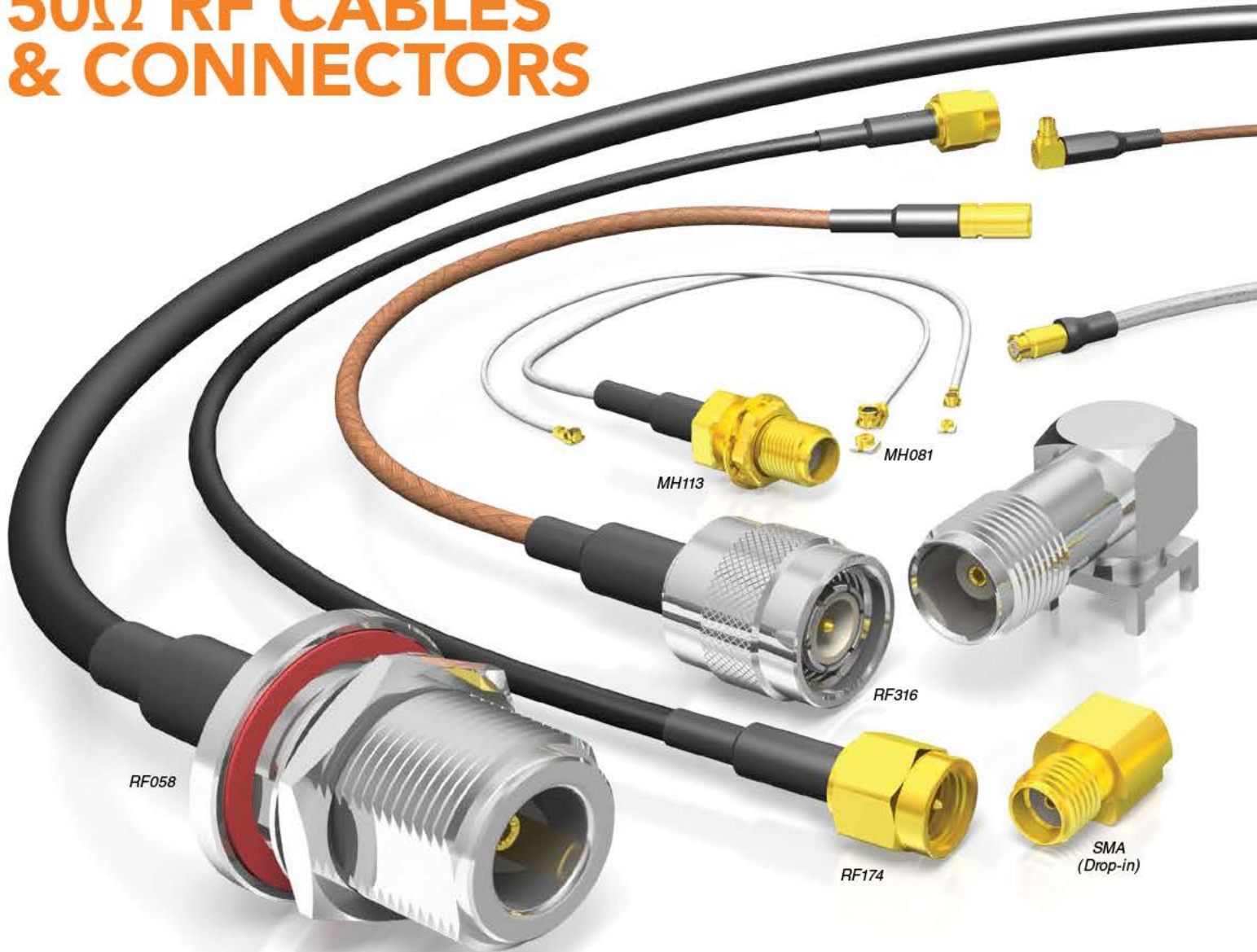
Series	BE23S	RF23S	BE25S	RF25S
Cable	23 AWG	23 AWG	25 AWG	25 AWG
Type	50Ω Phase Matched Pairs	50Ω Single	50Ω Phase Matched Pairs	50Ω Single
End 2 Options	2.92	2.92, 2.4*, 1.85*	SMA, SMP	SMA, SMP
Page	14	15	16	17

CABLE ASSEMBLIES

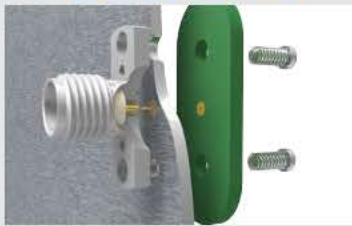
Series	BQRA	BARA	BDRA
Cable	23 AWG	25 AWG	23 AWG
Type	20 positions Quad Row	22 positions	24 positions Double Row
End 2 Options	2.92	SMA, SMP	2.92
Page	22	23	24

*In Development

50Ω RF CABLES & CONNECTORS



HIGH SPEED SOLUTIONS



2.4 mm (50 GHz) and 1.85 mm (65 GHz) in development

WIDE VARIETY OF CABLES

- High frequency microwave cables:
 - Hand-formable semi-flexible cables at .047" DIA, .086" DIA or .141" DIA
 - 23 AWG or 25 AWG rugged solid dielectric cables to 40 GHz
 - 10 GHz, 500 cycle U.FL HMHF1 plug terminations
 - 2.92 terminations to 40 GHz, SMP terminations to 20 GHz
- 2.4 mm (50 GHz) and 1.85 mm (65 GHz) for 23 AWG cable in development
- Micro High Frequency U.FL/W.FL cable assemblies
- Industry standard cables with mix-and-match end options: RG 316, RG 174, RG 178, RG 58
- Double-shielded RG 316 cable with SMA terminations

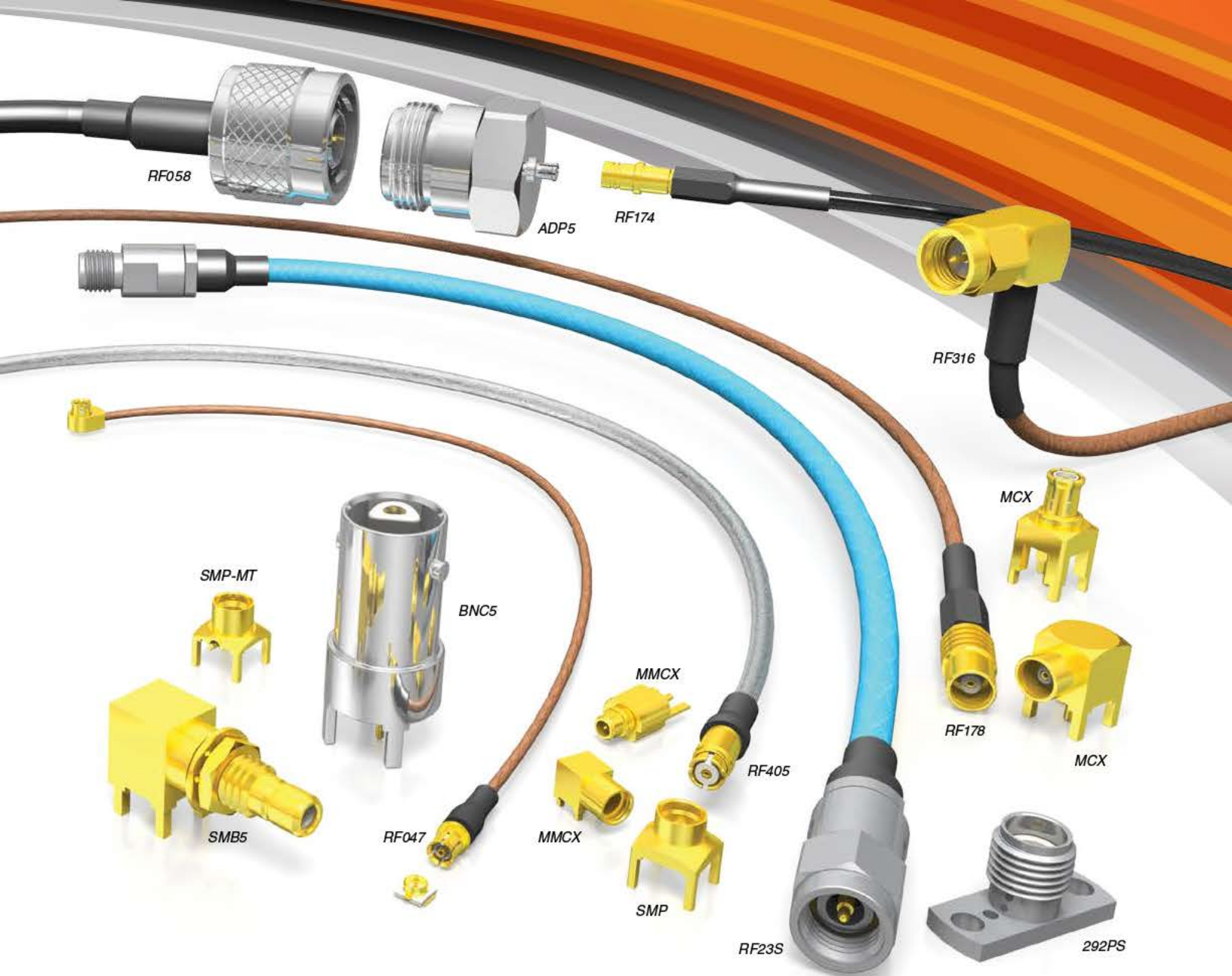
50Ω HIGH FREQUENCY CABLE ASSEMBLIES

Series	RF23S	RF25S	RF047	RF405	RF402
Type	23 AWG	25 AWG	.047" DIA	.086" DIA	.141" DIA
Type Cable	Rugged solid dielectric, microwave		Hand-formable, semi-flexible and flexible		
Terminations	2.92, 2.4*, 1.85*	SMA, SMP	SMA, HMHF1 (U.FL)	SMA, SMP	SMA
Page	15	17	36	37	38

50Ω STANDARD CABLE ASSEMBLIES

MH081/MH113	RF174/RF316	RF178	RF058	RS316
U.FL & W.FL	Commodity components & assemblies			Double-shielded
0.81 mm/ 1.13 mm	RG 174/RG 316	RG 178	RG 58	RG 316 (double-shielded)
MHF1, MHF3, SMA	SMA, SMB, MCX, MMCX, MMCXv, BNC, TNC, N Type	SMA, SMB, MCX, MMCX, BNC, TNC, N Type	SMA, TNC, N Type	SMA, MCX, MMCX, TNC, BNC
26-27	28-31	32-33	35	34

*In Development



WIDE VARIETY OF TERMINATIONS

- MHF (U.FL/W.FL), HMMHF1 (High Speed, High Cycle U.FL)
- 2.92, SMA, SMP, SMB, MCX, MMCX, BNC, TNC, N Type
- 2.4 mm (50 GHz) and 1.85 mm (65 GHz) terminations in development
- Straight and right angle available for most; variety of jacks and plugs
- Bulkhead jack or Panel Mount jack options

BOARD LEVEL INTERCONNECTS AND ADAPTORS

- Straight or right angle orientations
- Through-hole, surface mount, edge mount or mixed technology
- Board level connectors with speeds of 50 GHz & 65 GHz in development
- 2.92, SMA, SMB, BNC and TNC jacks
- MCX jacks/plugs

- MMCX jacks/plugs and switchable internal/external antenna jack (High Vibration jacks/plugs available)
- Cable adaptors (ADP5 Series): N Type to MMCXV
- SMP Plugs & Adaptors
 - Compensates for misalignment in X & Y directions
 - Bullet adaptor allows for flexible connections
 - Frequency range: DC to 40 GHz

50Ω BOARD LEVEL INTERCONNECTS, ADAPTORS

Series	292PS	SMA	SMB5	SMP	MMCX*	MCX	BNC5	ADP5
Type	SMA 2.92	SMA	SMB	Floating Systems	MMCX	MCX	BNC	Adaptor
Orientation	Straight	Straight, Right Angle	Right Angle	Straight	Straight, Right Angle	Straight, Right Angle	Straight, Right Angle	Straight
Terminations	Panel Mount	T/H, SM, MT, Edge Mount, Panel Mount	T/H	T/H, MT, Edge Mount	T/H, SM, MT, Edge Mount	T/H, SM, MT, Edge Mount	T/H	N/A
Page	45	48-49	50	52	54-55	56	63	65

*High vibration available. Contact Samtec.

75Ω RF CABLES & CONNECTORS



75Ω CABLES OPTIMIZED FOR 3G-SDI BROADCAST VIDEO

- Industry standard cables with mix-and-match end options: RG 179, RG 6, Belden 1694A, Belden 1855A
- RFB8T Series (with Belden 1855A cable) designed to meet SMPTE 424M 3G-SDI specification
- Components are available for customer-installed field termination to cable

WIDE VARIETY OF TERMINATIONS

- Micro-mini components with higher extraction force (MMCX7)
- MCX, SMB, DIN 1.0/2.3, HD-BNC™, BNC
- Performance to 8 GHz (SMB)
- Jack or plug available for micro-mini and BNC components
- Straight and right angle orientations
- Die cast options available

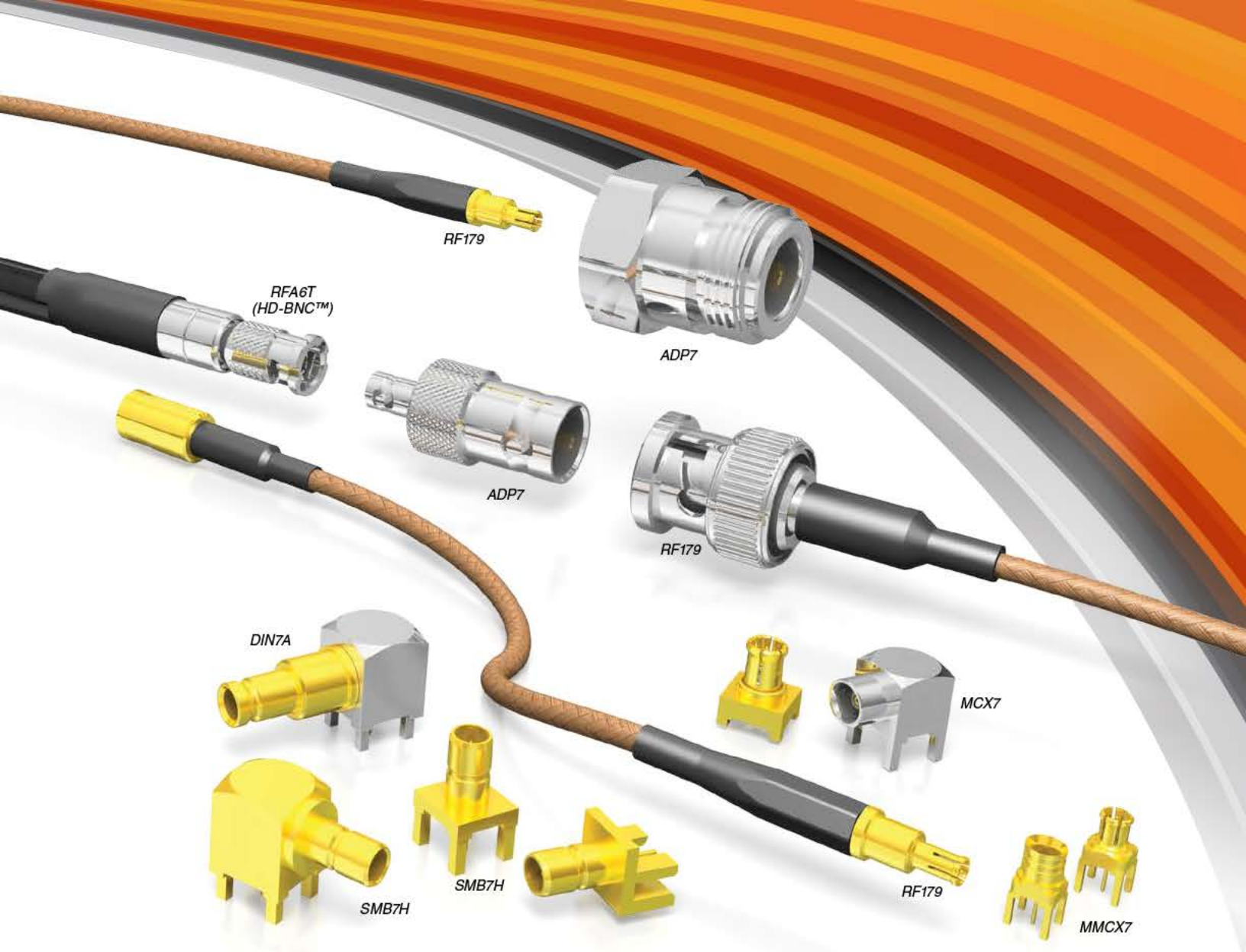
BOARD LEVEL INTERCONNECTS AND ADAPTORS

- Through-hole, surface mount, edge mount or mixed technology
- Straight or right angle orientations
- Performance to 12 GHz on through-hole and edge mount (HD-BNC™ & BNC)
- Performance to 6 GHz (MMCX7, MCX)
- Micro-mini (MMCX7), MCX jacks/plugs
- SMB, DIN 1.0/2.3, HD-BNC™, BNC jacks
- Cable adaptors (ADP7 Series): BNC to HD-BNC™, N Type to Micro-mini (MMCX7 Series)

75Ω, True75™ STANDARD CABLE ASSEMBLIES

Series	RFA6T	RFB6T	RF179	RFB8T
Type	Commodity components & assemblies			
Type Cable	RG 6	1694A	RG 179	1855A
Terminations	HD-BNC™, BNC, DIN 1.0/2.3	HD-BNC™, BNC, DIN 1.0/2.3	MMCX7, MCX, SMB, BNC, DIN 1.0/2.3	HD-BNC™, DIN 1.0/2.3
Page	39	39	40-41	42

HD-BNC™ is a trademark of Amphenol.



HIGH DENSITY BNC SYSTEMS

- Designed to meet SMPTE 424M 12G-SDI specifications
- 4X the panel density of traditional BNCs
- Patented design and bayonet latch
- 20% reduction in weight of traditional BNCs
- Extended performance of 12 GHz for high density requirements of future systems (-TH and -EM only)
- Crimp style plugs use industry standard termination tools
- Compatible with Amphenol's HD-BNC™

HD-BNC



RF GROUP

- Personal support from Samtec's highly qualified, in-house staff of RF engineers
- Assistance in selecting the right RF product for your application
- Express modifications to standard products to complete engineering, design and prototype support
- Design, simulation and processing assistance
- Dedicated engineers and technicians for application specific RF products
- Contact RFGroup@samtec.com

RF SOLUTIONATOR®

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



75Ω , True75™ BOARD LEVEL INTERCONNECTS

Series	SMB7H	DIN7A	MMCX7	MCX7	ADP7
Type	SMB	DIN 1.0/2.3	Micro-mini	MCX	Adaptor
Orientation	Straight, Right Angle	Straight, Right Angle	Straight	Straight, Right Angle	Straight
Terminations	T/H, Edge Mount	T/H	T/H, SM, MT	T/H, SM	N/A
Page	51	53	58	59	66

12G-SDI

	HDBNC	BNC7T
	High Density BNC	BNC
	Straight, Right Angle	Straight, Right Angle
	T/H, Edge Mount	T/H, Edge Mount
	60	62

RF CABLE SPECIFICATIONS

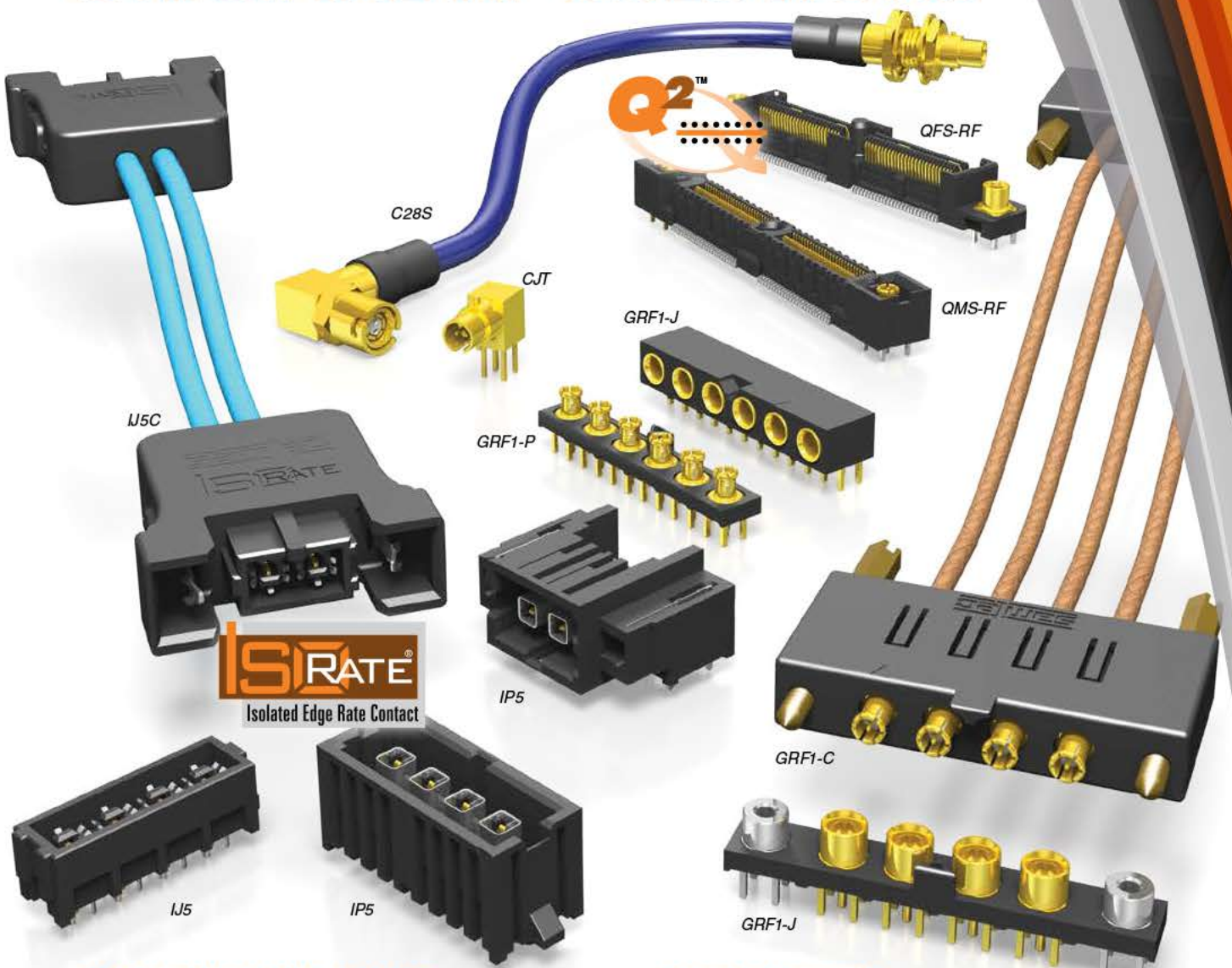


CABLE TYPE		50Ω CABLES							
		0.81	1.13	RG 178	CTB-2650F-01	RG 174	RG 316	RG 316 DS	RG 58
Impedance	Ω	50 ± 3	50 ± 2	50 ± 2	50 ± 2	50 ± 5	50 ± 2	50 ± 3	50 ± 3
Attenuation (dB/m)	100 MHz	1.0	0.6	0.5	0.68	0.4	0.3	1.4 @ 2 GHz	0.2
	1 GHz	3.1	1.9	1.7	2.37	1.4	1.25	1.6 @ 3 GHz	0.8
	6 GHz	8.6	4.9	5.9	6.53	4.4	4.25	2.2 @ 5 GHz	5.4
Dielectric Constant (dk)	-----	2.0	2.0	2.1	1.56	2.3	2.1	2.1	2.3
Dielectric Strength	VAC	1000	500	1000	-----	500	1200	-----	1400
Propagation Delay	nS/m	4.70	4.70	4.83	4.17	5.06	4.83	-----	5.05
Current Rating	Amps	1.2	2.1	3	3	5	5	-----	-----
Capacitance	pF/m	100	95	96	85.6	101	96	95.8	102
Center Conductor	Material	Silver plated Copper	Silver plated Copper	Silver plated Copper Clad Steel	Silver plated Copper	Bare Copper	Silver and Copper plated Steel	Silver plated Copper Clad Steel	Tinned Copper
	AWG	36	32	30	26	26	26	26	20
	Stranding (No./mm)	7/0.05	7/0.076	7/0.10	19/0.10	7/0.16	7/0.17	7	19/0.018
	Diameter (mm)	0.15	0.23	0.31	0.48	0.48	0.51	0.53	0.80
	Max Resistance (Ω/m)	1.40	0.60	0.34	0.12	0.14	0.13	-----	-----
Dielectric	Material	FEP	FEP	PTFE	Foamed FEP	KLPE	PTFE	FEP	Solid Polyethylene
	Diameter (mm)	0.40	0.68	0.84	1.29	1.52	1.52	1.53	3.00
Shield	Material	Silver plated Copper	Tinned Copper	Silver plated Copper	Silver plated Copper	Tinned Copper	Silver plated Copper	Silver plated Copper	Tinned Copper
	Diameter (mm)	0.65	0.89	1.37	1.5	2.57	1.73	2.38	3.81
Jacket	Material	PFA	FEP	FEP	FEP	PVC	FEP	FEP	PVC
	Diameter (mm)	0.81	1.13	1.80	1.80	2.79	2.53	2.90	5.00
	Temp Rating	-40°C to +90°C	-40°C to +90°C	-50°C to +165°C	-40°C to +200°C	-20°C to +80°C	-55°C to +165°C	-----	-50°C to +90°C
	Color	Gray	Gray	Brown	Blue	Black	Brown	Brown	Black
Bend Radius	Min	5 mm	6.8 mm	10.2 mm	3.175 mm	25.4 mm	12.7 mm	12.8 mm	48.3 mm
Termination Options		MHF1, MHF3, SMA	MHF1, SMA	MMCX, MCX, SMA, SMB, BNC, TNC, N Type		MMCX, MMCXV, MCX, SMA, SMB, BNC, TNC, N Type		MMCX, MCX, SMA, BNC, TNC	SMA, TNC, N Type
Samtec Series		MH081	MH113	RF178	IJ5C	RF174	RF316, IJ5C, IJ5H, GRF1-C, GRF1H-C, ACP, ACR	RS316	RF058



50Ω MICROWAVE CABLES					75Ω CABLES				100Ω CABLES
MWC-2550-01	MWC-2350-01	RG 047 (.047")	RG 405 (.086")	RG 402 (.141")	RG 179	BELDEN 1855A	BELDEN 1694A	RG 6	TPS-28100-RF
50 ± 1	50 ± 1	50 ± 1	50 ± 2	50 ± 2	75 ± 3	75 ± 3	75 ± 3	75 ± 3	100 ± 5
0.65 @ 1 GHz	0.17	0.80 @ 0.5 GHz	0.72 @ 1 GHz	0.40 @ 1 GHz	0.3	0.12	0.07	0.07	-----
1.37 @ 4 GHz	0.7	1.15	2.59 @ 4 GHz	1.04 @ 4 GHz	0.8	0.37	0.21	0.21	-----
3.36 @ 20 GHz	1.7	2.62 @ 4 GHz	4.26 @ 20 GHz	2.30 @ 20 GHz	3.6	0.97	0.59	0.59	-----
2.1	2.15	2.1	2.04	1.99	1.8	1.42	1.44	1.44	2.1
-----	300	-----	1000	1000	1200	300	300	2000	-----
4.76	4.72	-----	4.79	4.79	4.83	4.12	4.06	4.03	-----
5.3	7.4	-----	-----	-----	3	5	-----	-----	-----
96.8	95.45	95.14	104.97	98.072	64	55.7	53.14	53.14	38
Silver plated Copper	Silver plated Copper	Silver plated Copper	Silver plated Copper Clad Steel	Silver plated Copper Clad Steel	Silver plated Copper	Bare Copper	Bare Copper	Bare Copper	Silver plated Copper
25	23	46	24	19	30	23	18	18	28
1/0.45	1/0.57	1/0.29	1/0.51	1/0.92	7/0.10	1/0.58	1/1.02	1/1.02	2/0.85
0.45	0.57	0.29	0.51	0.92	0.30	0.58	1.02	1.02	1.97
0.105	0.071	-----	0.67	0.02	0.34	0.066	0.021	0.021	0.029
Solid FEP	Solid FEP	FEP	PTFE	PTFE	PTFE	FHDPE	FHDPE	FHDPE	FEP
1.46	1.85	0.92	1.68	2.98	1.58	2.59	4.57	4.57	1.97
1. Flat Silver plated Copper 2. Silver plated Copper Braid	1. Flat Silver plated Copper 2. Silver plated Copper Braid	1. Flat Silver plated Copper 2. Silver plated Copper Braid	Tinned Copper	Tinned Copper	Silver plated Copper	1. Al Foil-Polyester Tape-Al Foil 2. Tinned Copper	1. Bonded Al Foil 2. Al Wire	1. Al Foil-Polyester Tape-Al Foil 2. Tinned Copper	Silver plated Copper
1.87	2.25	1.12	2.20	3.58	2.13	3.00	-----	-----	2.41
FEP	FEP	FEP	-----	-----	FEP	PVC	PVC	PVC	PVC
2.06	2.59	1.42	-----	-----	2.54	4.04	6.96	7.00	3.66
-40°C to +200°C	-40°C to +200°C	-65°C to +165°C	-40°C to +125°C	-40°C to +125°C	-50°C to +165°C	-30°C to +75°C	-30°C to +75°C	-30°C to +75°C	-20°C to +105°C
Blue	Blue	Brown	-----	-----	Brown	Black	Black	Black	Blue
9 mm	12 mm	10 mm	3.18 mm	6.35 mm	10.2 mm	38.1 mm	69.85 mm	69.85 mm	19.05 mm
SMA, SMA 2.92, SMP	SMA 2.92	HMHF1 (U.FL), SMA	SMA, SMP	SMA	MCX, MMCX7, SMB, BNC, DIN 1.0/2.3	HD-BNC™, DIN 1.0/2.3	BNC, HD-BNC™, DIN 1.0/2.3		CJT
RF25S, BE25S	RF23S	RF047	RF405	RF402	RF179, GRF7-C, GRF7H-C	RFB8T	RFB6T	RFA6T	C28S

ORIGINAL RF SOLUTIONS



GANGED MICRO-MINI SYSTEMS

- Board stacking and cable assemblies
- High performance rugged contacts
- 50Ω & 75Ω
- 5.00 mm pitch

SHIELDED TWISTED PAIR SYSTEM

- 100Ω differential pair
- 28 AWG shielded twisted pair cable assembly
- High reliability BeCu contacts
- 1/4-turn bayonet lock

ISORATE® SYSTEMS

- 50Ω board stacking and cable assemblies
- 75Ω board stacking assemblies
- Isolated signal systems for 90 percent performance of traditional RF at 50 percent of the cost
- 4.00 mm pitch
- Single or double-ended cable assemblies with rugged latching

HIGH SPEED Q2™ COMBO RF SYSTEM

- Q2™ ground plane strips with one isolated RF plug per end
- Increased insertion depth for rugged applications
- 10 mm stack height

CABLE SOLUTIONS

Series	C28S/CJT	GRF1-C	GRF1H-C	GRF7H-C	IJ5C/IJ5H
Application	Shielded Twisted Pair	50Ω Micro-Mini Ganged	50Ω Micro-Mini Hybrid Ganged	75Ω Micro-Mini Hybrid Ganged	50Ω IsoRate®
Page	68	69	70-71	72-73	76-77

BOARD-TO-BOARD SOLUTIONS

Series	GRF1-P/GRF1-J	GRF7-P/GRF7-J	IJ5/IP5	IJ7/IP7	QMS-RF/QFS-RF
Application	50Ω Micro-Mini Ganged	75Ω Micro-Mini Ganged	50Ω IsoRate®	75Ω IsoRate®	Q2™ High Speed Ground Plane
Page	74	75	78-79	80	81



BULLS EYE®

CABLE ADAPTORS

23 AWG, 50Ω Phase Matched, Microwave Cable Adaptor Pairs (BE23S)	14
23 AWG, 50Ω Single, Microwave Cable Adaptor (RF23S)	15
25 AWG, 50Ω Phase Matched, Microwave Cable Adaptor Pairs (BE25S).....	16
25 AWG, 50Ω Single, Microwave Cable Adaptor (RF25S).....	17

TEST POINTS

Single Test Point (CCH)	18
Quad Row Test Point Array, 20 Positions (BQR)	19
Test Point Array, 22 Positions (BAR).....	20
Double Row Test Point Array, 24 Positions (BDR).....	21

CABLE ASSEMBLIES

Quad Row Cable Assembly, 20 Positions (BQRA)	22
Cable Assembly, 22 Positions (BARA)	23
Double Row Cable Assembly, 24 Positions (BDRA).....	24

APPLICATIONS

Bulls Eye®	4-5
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BE23S-SCC31-92SPP-02-0152

BE23S SERIES

50Ω MICROWAVE CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?BE23S

RF Connector:

Outer Contact Material:
Brass (SMA)

Center Contact Material:
Brass (SMA Plug)
BeCu (SMA Jack)

Insulator Material:
PTFE

Operating Temperature:
-65°C to +165°C

Insulator Resistance:
5,000 MΩ

Impedance:
50Ω

Frequency Range:
Testing Now!

V.S.W.R:
Testing Now!

RoHS Compliant:
Yes

MWC-2350-01

Cable:

Cable Type:

Low Loss Microwave Coax

Gauge:

23 AWG Silver plated Copper

Dielectric:

Solid FEP

Jacket Material:

FEP

Bend Radius:

12 mm

Impedance:

50Ω ±1Ω

Propagation Delay:

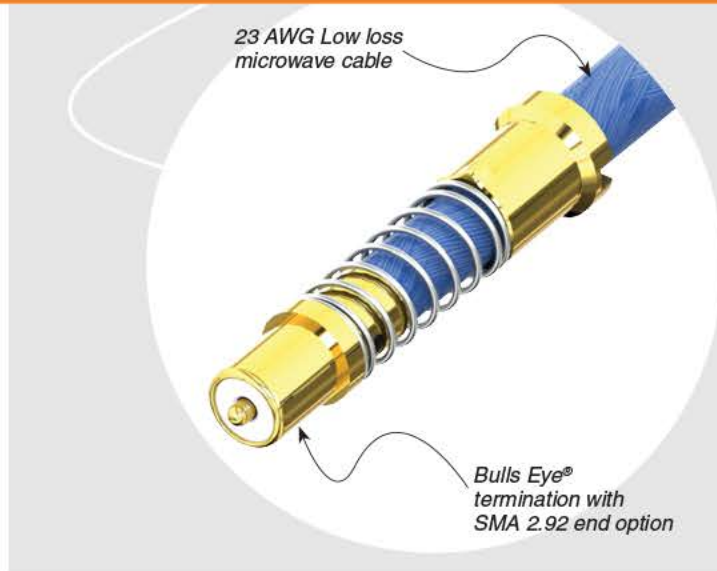
4.76 nsec/meter

Capacitance:

95.45 pF/meter

Mates with:

BQR, BDR, 292PS



23 AWG Low loss
microwave cable

Bulls Eye®
termination with
SMA 2.92 end option

CABLE TYPE

BE23S

= Rugged solid FEP
Dielectric 23 AWG,
MWC-2350-01
Microwave Cable

END 2 OPTION

Specify
END 2
OPTION
from chart

PHASE MATCHING

-02
= 2.0 Pico-second
(-0305 maximum
overall length)

-05
= 5.0 Pico-second
(-0457 maximum
overall length)

-10
= 10.0 Pico-second

NO. OF CABLES

-2
= 2 phase matched
cable assemblies

-4
= 4 phase matched
cable assemblies

-6
= 6 phase matched
cable assemblies

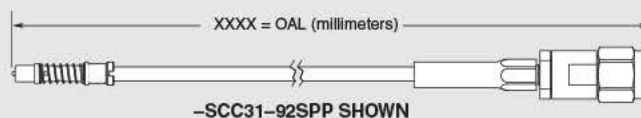
-8
= 8 phase matched
cable assemblies

OVERALL LENGTH

XXXX
= Overall
Length
in millimeters
-0100
(100 mm) 3.94"
to
-9999
(9999 mm)
.393.7"

EXTRACTION TOOL

- SCC31: CAT-EX-SCC-03



END OPTIONS

-92SJP = SMA 2.92 Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Passivated Stainless Steel on Shell)	
-92SPP = SMA 2.92 Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Passivated Stainless Steel on Shell)	
-SCC31 = Bulls Eye® Test Point with standard ferrule (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	

Notes:

Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

Some lengths, styles and options are non-standard, non-returnable.



RF23S-SCC31-92SPP-0100

RF23S-92SPP-92SJP-0100

RF23S SERIES

50Ω MICROWAVE CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF23S

RF Connector:

Shell Material: Brass or Stainless Steel

Contact Material: Brass

Cable Body: Brass or Stainless Steel

Socket: BeCu

Insulator Material: PCTFE

Operating Temperature: -40°C to +85°C

Insulator Resistance: >10,000mΩ

Impedance: 50Ω

Frequency Range: 40 GHz

V.S.W.R: 1.6 max

RoHS Compliant: Yes

MWC-2350-01 Cable:

Type: Low Loss Microwave Coax

Gauge: 23 AWG Silver plated Copper

Dielectric: Rugged solid FEP

Jacket Material: FEP

Bend Radius: 12 mm

Impedance: 50Ω ±1Ω

Propagation Delay: 4.76 nsec/meter

Capacitance: 95.45 pF/meter

Mates with:
292PS, BDR, BQR

23 AWG microwave cable with rugged, solid FEP dielectric

EXTRACTION TOOL

- -SCC31: CAT-EX-SCC-03

APPLICATION

rugged solid FEP dielectric

SMA 2.92 (40 GHz), SMA 2.40 (50 GHz), SMA 1.85 (65 GHz) or Bulls Eye® Test Point terminations

CABLE TYPE

RF23S

= Rugged solid FEP Dielectric 23 AWG, MWC-2350-01 Microwave Cable

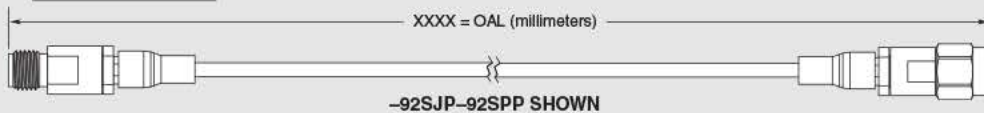
END 1 CONNECTOR

Specify END OPTIONS from chart

END 2 CONNECTOR

OVERALL LENGTH

-“XXXX” = Overall Length in millimeters -0100 (100 mm) 3.94" minimum



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options Contact Samtec.

Note: Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

Note: Some lengths, styles and options are non-standard, non-returnable.

END OPTIONS	
-92SJP = SMA 2.92 Straight Jack -18SJP* = SMA 1.85 Straight Jack -24SJP* = SMA 2.40 Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Passivated Stainless Steel on Shell)	
-92SPP = SMA 2.92 Straight Plug -18SPP* = SMA 1.85 Straight Plug -24SPP* = SMA 2.40 Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Passivated Stainless Steel on Shell)	
-SCC31 = Bulls Eye® Test Point with standard ferrule (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	

END OPTIONS	
-SING = Single Ended (End 2 only)	
XXXXXX = Stripped & Tinned (End 2 only)	

STRIPPED & TINNED (Dimensions in mm)			
CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

*In Design.



BE25S-01SP1-02.0-02-0305

BE25S SERIES

50Ω MICROWAVE CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?BE25S

RF Connector:

Outer Contact Material:
Brass (SMA), Gold (SMP)
Center Contact Material:
Brass (SMA Plug)
BeCu (SMA & SMP Jack)
Insulator Material:
PTFE

Operating Temperature:
-65°C to +165°C

Insulator Resistance:
5,000 MΩ

Impedance:
50Ω

Frequency Range:
0-20 GHz (SMA),
DC to 20 GHz (SMP)

V.S.W.R.:
1.3 max

RoHS Compliant:
Yes

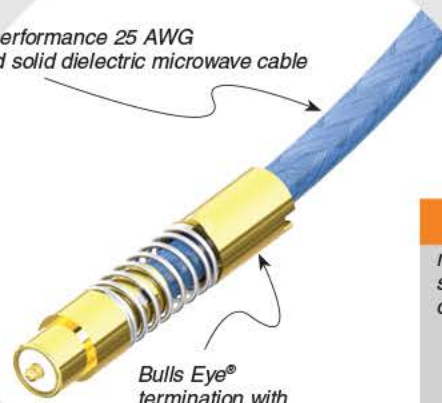
MWC-2550-01

Cable:

Cable Type:
Low Loss Microwave Coax
Gauge:
25 AWG Silver plated Copper
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
9 mm
Impedance:
50Ω ±1Ω
Propagation Delay:
3.84 nsec/meter
Capacitance:
75.4 pF/meter

Mates with:
BAR, SMA, SMP

High performance 25 AWG
rugged solid dielectric microwave cable



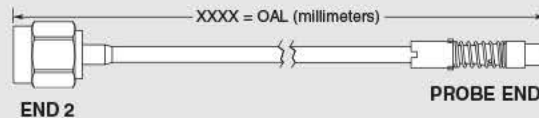
Bulls Eye®
termination with
SMA or SMP
end option

APPLICATION

rugged
solid FEP
dielectric



CABLE TYPE	END 2 OPTION	PHASE MATCHING	NO. OF CABLES	OVERALL LENGTH
BE25S = Rugged solid FEP Dielectric 25 AWG, MWC-2550-01 Microwave Cable	Specify END 2 OPTION from chart	-02 = 2.0 Pico-second (-0305 maximum overall length) -05 = 5.0 Pico-second (-0457 maximum overall length) -10.0 = 10.0 Pico-second	-02 = 2 phase matched cable assemblies -04 = 4 phase matched cable assemblies -06 = 6 phase matched cable assemblies -08 = 8 phase matched cable assemblies	XXXX = Overall Length in millimeters -0100 (100 mm) 3.94" to -9999 (9999 mm) 393.7"



EXTRACTION TOOLS

- SCC41: CAT-EX-SCC-01
- SMP: CAT-EX-SMP-01

Notes:
Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

END 2 OPTIONS		END 2 OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-SCC41 = Bulls Eye® Test Point (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-01BJ1 = SMA Bulkhead Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-00SJ7 = SMP Straight Jack (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)	
		-00RJ7 = SMP Right Angle Jack (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)	



RF25S SERIES

50Ω MICROWAVE CABLE ASSEMBLIES

SPECIFICATIONS

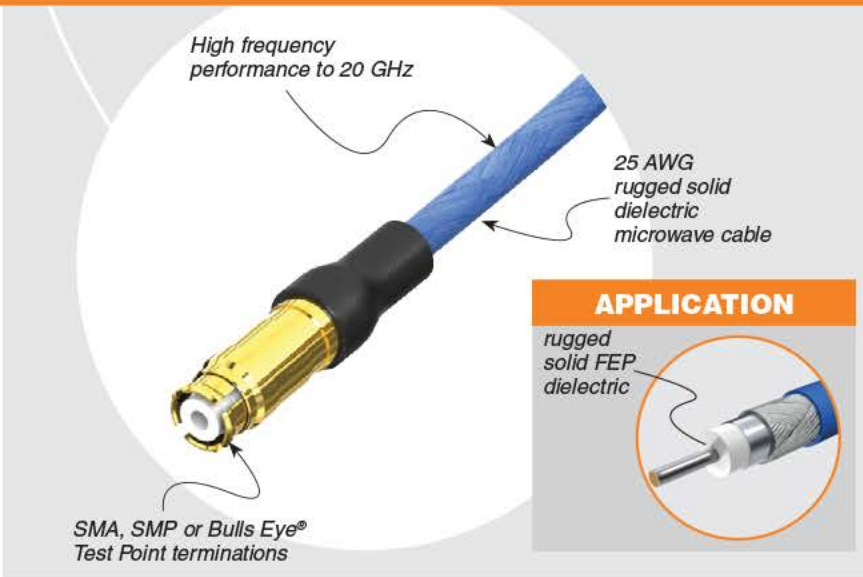
For complete specifications see www.samtec.com?RF25S

- RF Connector:**
Outer Contact Material: Brass (SMA), Gold (SMP)
Center Contact Material: Brass (SMA Plug), BeCu (SMA & SMP Jack)
Insulator Material: PTFE
Operating Temperature: -65°C to +165°C
Insulator Resistance: 5,000 MΩ
Impedance: 50Ω
Frequency Range: 0-20 GHz (SMA), DC to 20 GHz (SMP)
V.S.W.R.: 1.3 max
RoHS Compliant: Yes

MWC-2550-01

- Cable:**
Type: Low Loss Microwave Coax
Gauge: 25 AWG Silver plated Copper
Dielectric: Rugged solid FEP
Jacket Material: FEP
Bend Radius: 9 mm
Impedance: 50Ω ±1Ω
Propagation Delay: 3.84 nsec/meter
Capacitance: 75.4 pF/meter

Mates with:
BAR (Requires -SCC41),
CCH (Requires -SCC21),
SMA, SMP



APPLICATION

rugged solid FEP dielectric



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
- Contact Samtec.

EXTRACTION TOOLS

- -SCC41: CAT-EX-SCC-01
- SMP: CAT-EX-SMP-01

Notes:
 Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

Some lengths, styles and options are non-standard, non-returnable.

END OPTIONS		END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm)) Gold on Center Contact, Gold Flash on Shell		-SCC41 = Bulls Eye® Test Point with standard ferrule (30μ" (0.76 μm)) Gold on Center Contact, Gold Flash on Shell	
-01BJ1 = SMA Bulkhead Jack (30μ" (0.76 μm)) Gold on Center Contact, Gold Flash on Shell		-SCC21 = Bulls Eye® Test Point with knurled ferrule (30μ" (0.76 μm)) Gold on Center Contact, Gold Flash on Shell	
-00SJ7 = SMP Straight Jack (10μ" (0.25 μm)) Gold on Center Contact, Gold Flash on Shell		-SING = Single Ended (End 2 only)	
-00RJ7 = SMP Right Angle Jack (10μ" (0.25 μm)) Gold on Center Contact, Gold Flash on Shell		XXXXXX = Stripped & Tinned (End 2 only)	

STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



CCH-J-01



CCH-J-04



CCH-J-02

CCH SERIES

HIGH PERFORMANCE TEST POINTS

SPECIFICATIONS

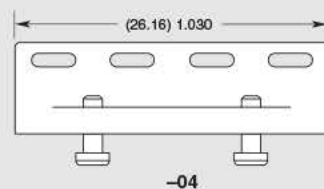
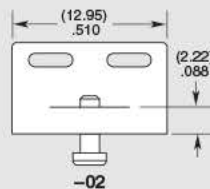
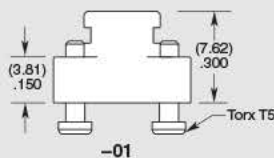
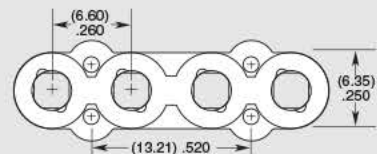
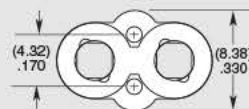
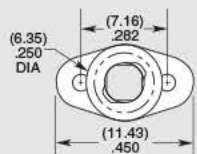
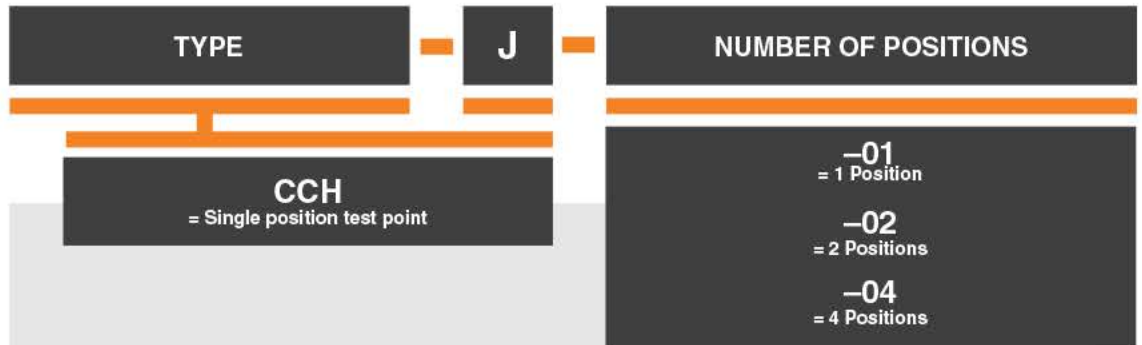
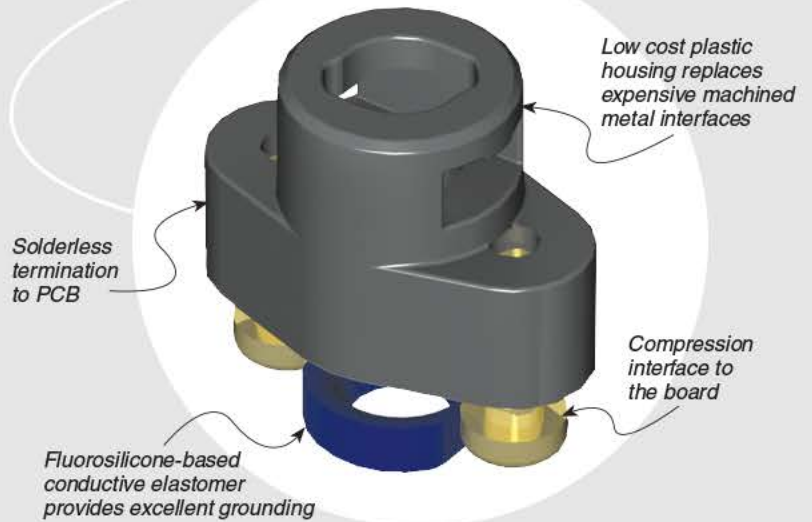
For complete specifications and recommended PCB layouts see www.samtec.com?CCH

Insulator Material:
Black LCP
Gasket Material:
MIL-DTL-83528C, Type D

Mates with:
RF25S

OTHER SOLUTIONS

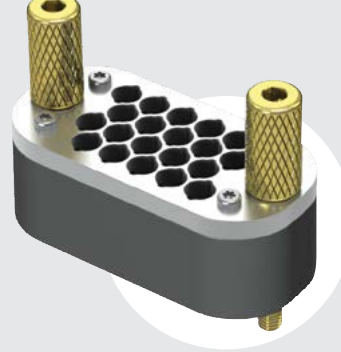
- Replacement elastomer gaskets available
- Contact Samtec.



Note: Some sizes, styles and options are non-standard, non-returnable.



BQR-J-20



BQR SERIES

QUAD ROW ARRAY 20 POSITIONS

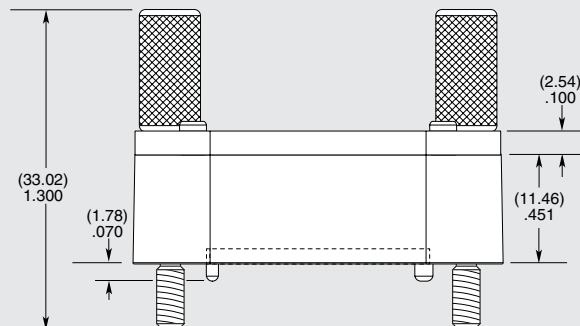
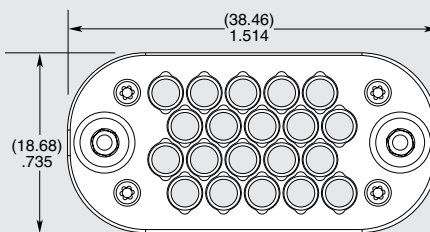
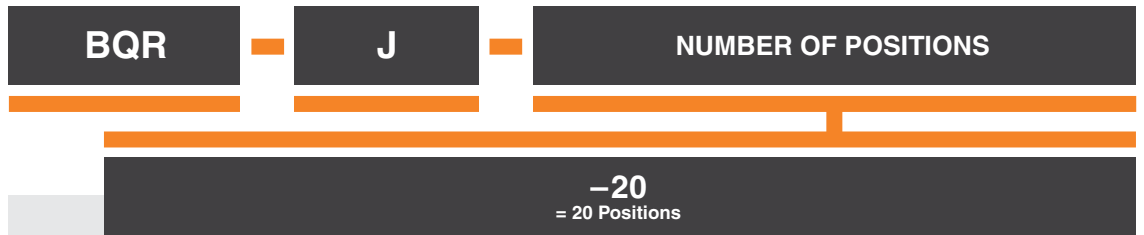
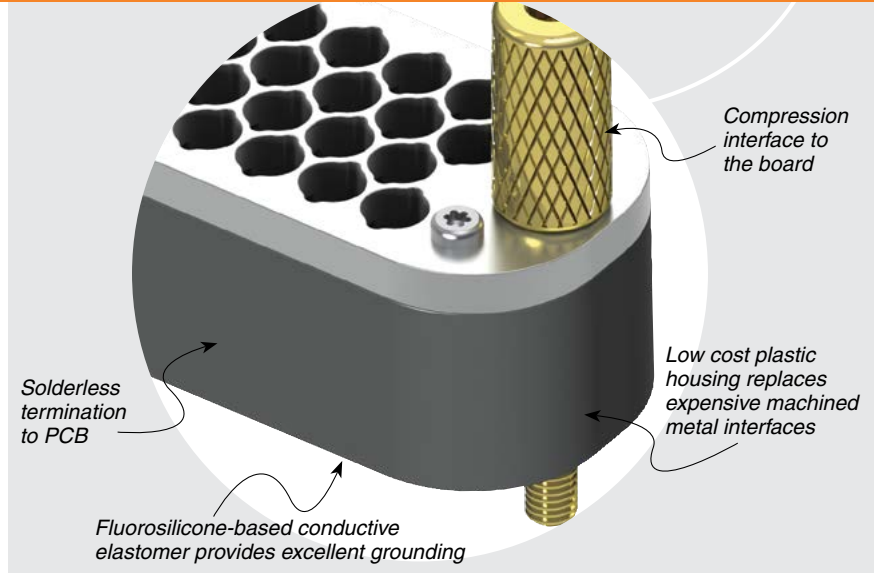
SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?BQR

Mates with:
BE23S, RF23S

OTHER SOLUTIONS

- Replacement elastomer gaskets available
- Contact Samtec.



Note: Some sizes, styles and options are non-standard, non-returnable.



BAR SERIES

TEST POINT ARRAY 22 POSITIONS

SPECIFICATIONS

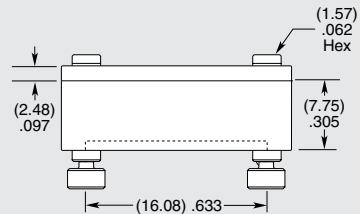
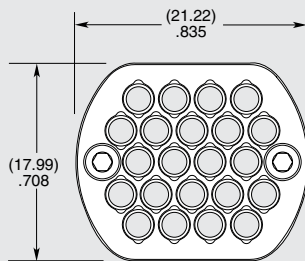
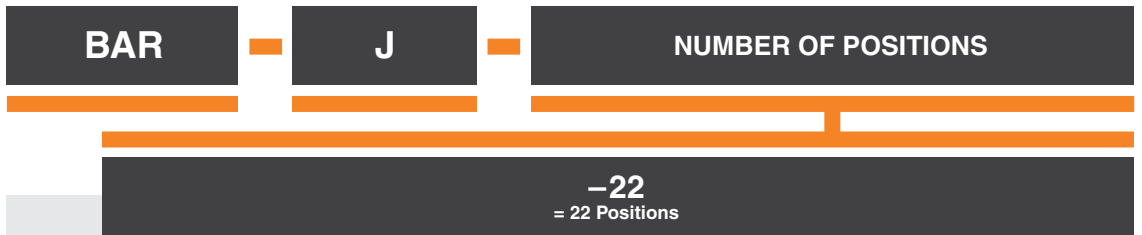
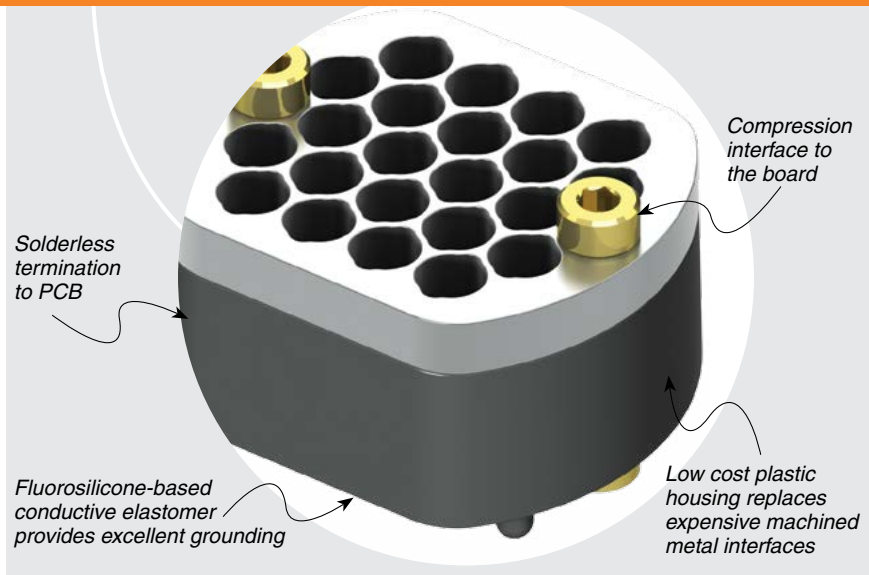
For complete specifications and recommended PCB layouts see www.samtec.com?BAR

Insulator Material:
Black LCP
Gasket Material:
MIL-DTL-83528C, Type D

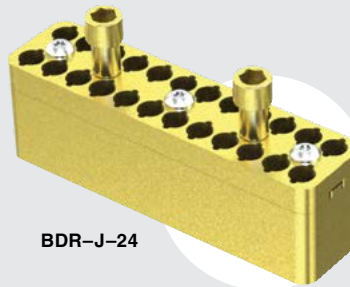
Mates with:
BE25S, RF25S

OTHER SOLUTIONS

- Replacement elastomer gaskets available
- Contact Samtec.



Note: Some sizes, styles and options are non-standard, non-returnable.



BDR-J-24

BDR SERIES

DOUBLE ROW ARRAY 24 POSITIONS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?BDR

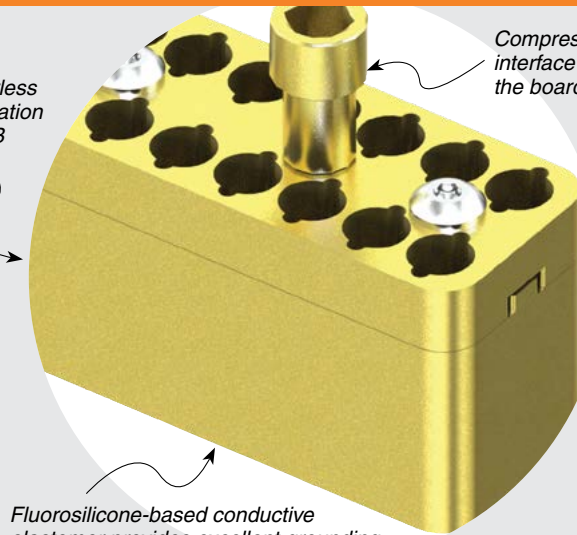
OTHER SOLUTIONS

- Replacement elastomer gaskets available
- Contact Samtec.

Mates with:
BE23S, RF23S

Solderless termination to PCB

Compression interface to the board



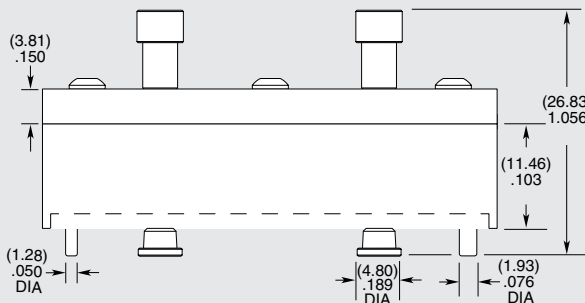
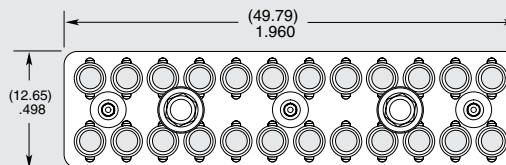
Fluorosilicone-based conductive elastomer provides excellent grounding

BDR

J

NUMBER OF POSITIONS

-24
= 24 Positions



Note: Some sizes, styles and options are non-standard, non-returnable.



BQRA-92SPP-02-10-0200

BQRA SERIES

BULLS EYE® 20 POSITION ASSEMBLY

SPECIFICATIONS

For complete specifications see www.samtec.com?BQRA

RF Connector:

Outer Contact Material:
Brass (SMA)

Center Contact Material:
Brass (SMA Plug)
BeCu (SMA Jack)

Insulator Material:
PTFE

Operating Temperature:
-65°C to +165°C

Insulator Resistance:
5,000 MΩ

Impedance:
50Ω

RoHS Compliant:
Yes

MWC-2350-01

Cable:

Cable Type:
Low Loss Microwave Coax
Gauge:
23 AWG Silver plated Copper
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
12 mm
Impedance:
50Ω ±1Ω

Mates with:
292PS



OTHER SOLUTIONS

- Replacement elastomer gaskets available
- Contact Samtec.

BQRA

END 2 CONNECTOR

PHASE MATCHING

10

OVERALL LENGTH

Specify
END 2 OPTION
from chart

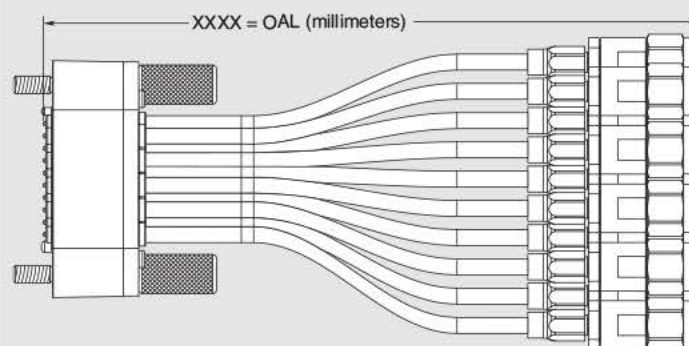
-02
= 2.0 Pico-second
(-0305 maximum
overall length)

-05
= 5.0 Pico-second
(-0457 maximum
overall length)

-10
= 10.0 Pico-second

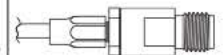
-10
= Number
of phase
matched
pairs

XXXX
= Overall Length
in millimeters
-0100
(100 mm) 3.94"
to -9999
(9999 mm) 393.7"



END 2 OPTIONS

92SJP = SMA 2.92
Straight Jack
(30μ" (0.76 μm)
Gold on Center Contact,
Passivated Stainless
Steel on Shell)



-92SPP = SMA 2.92
Straight Plug
(30μ" (0.76 μm) Gold
on Center Contact,
Passivated Stainless
Steel on Shell)



Note: Some sizes, styles and options are non-standard, non-returnable.



BARA-00SJ7-05-11-0200



BARA SERIES

BULLS EYE® 22 POSITION ASSEMBLY

SPECIFICATIONS

For complete specifications see www.samtec.com?BARA

RF Connector:

Outer Contact Material:

Brass (SMA), Gold (SMP)

Center Contact Material:

Brass (SMA Plug)

BeCu (SMA & SMP Jack)

Insulator Material:

PTFE

Operating Temperature:

-65°C to +165°C

Insulator Resistance:

5,000 MΩ

Impedance:

50Ω

RoHS Compliant:

Yes

MWC-2550-01

Cable:

Cable Type:

Low Loss Microwave Coax

Gauge:

25 AWG Silver plated Copper

Dielectric:

Solid FEP

Jacket Material:

FEP

Bend Radius:

9 mm

Impedance:

50Ω ±1Ω

Propagation Delay:

3.84 nsec/meter

Capacitance:

75.4 pF/meter

Mates with:

SMA, SMP



BARA

END 2
CONNECTORPHASE
MATCHING

11

OVERALL
LENGTH

Specify
END 2 OPTION
from chart

-02
= 2.0 Pico-second
(-0305 maximum
overall length)

-05
= 5.0 Pico-second
(-0457 maximum
overall length)

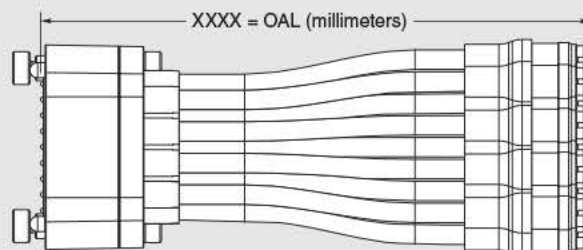
-10
= 10.0 Pico-second

-11
= Number
of phase
matched
pairs

XXXX
= Overall Length
in millimeters
-0100
(100 mm) 3.94"
to -9999
(9999 mm) 393.7"

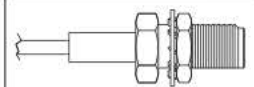
OTHER SOLUTIONS

- Replacement elastomer gaskets available
- Contact Samtec.

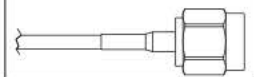


END 2 OPTIONS

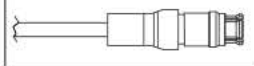
-01BJ1 = SMA
Bulkhead Jack
(30μ" (0.76 μm) Gold
on Center Contact,
Gold Flash on Shell)



-01SP1 = SMA
Straight Plug
(30μ" (0.76 μm) Gold
on Center Contact,
Gold Flash on Shell)



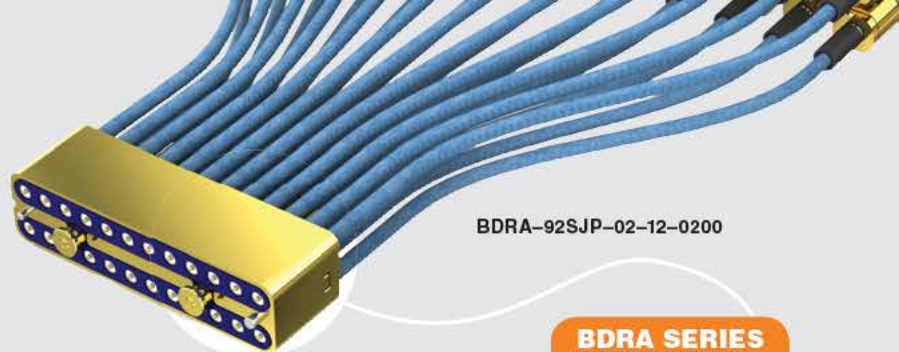
-00SJ7 = SMP
Straight Jack
(10μ" (0.25 μm) Gold
on Center Contact,
Gold Flash on Shell)



-00RJ7 = SMP
Right Angle Jack
(10μ" (0.25 μm) Gold
on Center Contact,
Gold Flash on Shell)



Note: Some sizes, styles and options are non-standard, non-returnable.



BDR-92SJP-02-12-0200

BDR SERIES

BULLS EYE® DOUBLE ROW ASSEMBLY

SPECIFICATIONS

For complete specifications see www.samtec.com?BDR

RF Connector:

Outer Contact Material:
Brass (SMA)

Center Contact Material:
Brass (SMA Plug)
BeCu (SMA Jack)

Insulator Material:
PTFE

Operating Temperature:
-65°C to +165°C

Insulator Resistance:
5,000 MΩ

Impedance:
50Ω

RoHS Compliant:
Yes

MWC-2350-01

Cable:

Cable Type:
Low Loss Microwave Coax
Gauge:
23 AWG Silver plated Copper

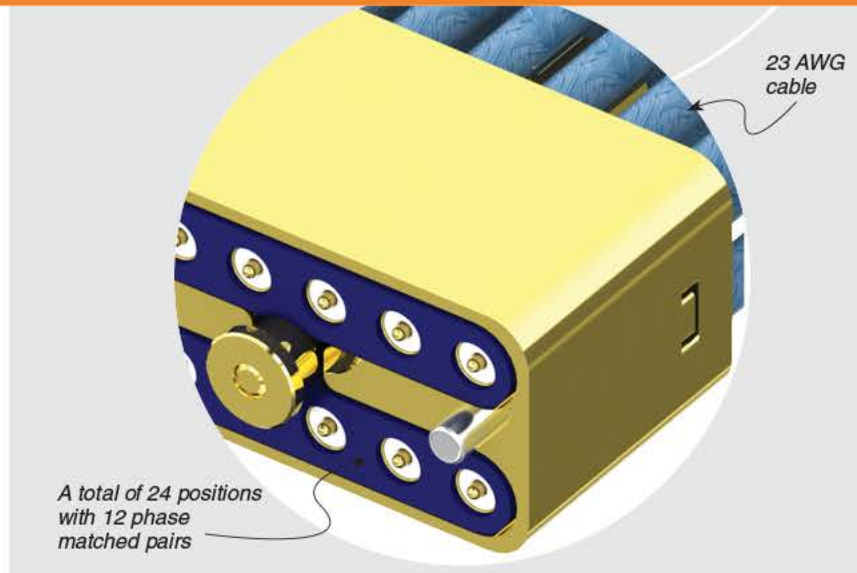
Dielectric:
Solid FEP

Jacket Material:
FEP

Bend Radius:
12 mm

Impedance:
50Ω ±1Ω

Mates with:
292PS



A total of 24 positions
with 12 phase
matched pairs

23 AWG
cable

OTHER SOLUTIONS

- Replacement elastomer gaskets available Contact Samtec.

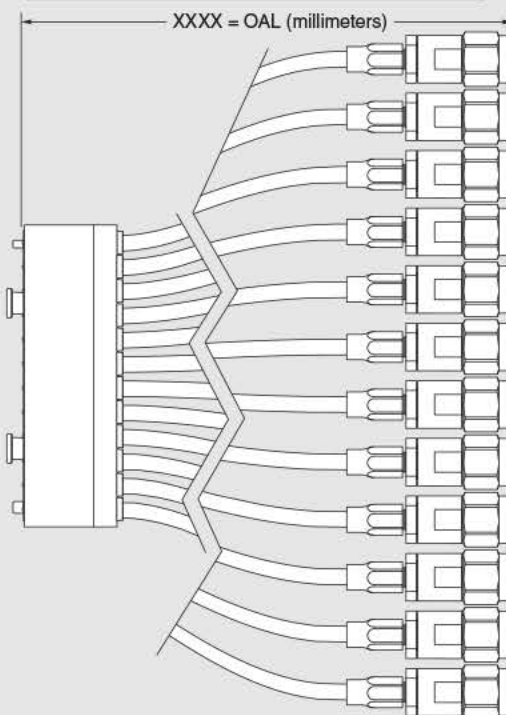
BDR

END 2
CONNECTORPHASE
MATCHING

12

OVERALL
LENGTH

Specify END 2 OPTION from chart



-02
= 2.0 Pico-second
(-0305 maximum
overall length)

-05
= 5.0 Pico-second
(-0457 maximum
overall length)

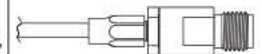
-10
= 10.0 Pico-second

-12
= Number of phase
matched
pairs

XXXX
= Overall Length
in millimeters
-0100
(100 mm) 3.94"
to -9999
(9999 mm) 393.7"

END 2 OPTIONS

92SJP = SMA 2.92
Straight Jack
(30μ" (0.76 μm) Gold on Center Contact,
Passivated Stainless Steel on Shell)



-92SPP = SMA 2.92
Straight Plug
(30μ" (0.76 μm) Gold on Center Contact,
Passivated Stainless Steel on Shell)



Note: Some sizes, styles and options are non-standard, non-returnable.



50Ω & 75Ω CABLE ASSEMBLIES

MICRO HIGH FREQUENCY

50Ω RF Cable Assembly, 0.81 mm Diameter (MH081).....	26
50Ω RF Cable Assembly, 1.31 mm Diameter (MH113).....	27

50Ω CABLE ASSEMBLIES

RF Cable Assembly, RG 174 Cable (RF174)	28-29
RF Cable Assembly, RG 316 Cable (RF316)	30-31
RF Cable Assembly, RG 178 Cable (RF178)	32-33
RF Cable Assembly, Double Shielded RG 316 Cable (RS316).....	34
RF Cable Assembly, RG 58 Cable (RF058)	35
30 AWG Flexible RF Cable Assembly, (.047" DIA) (RF047).....	36
24 AWG Semi-Flexible RF Cable Assembly, (.086" DIA) (RF405).....	37
19 AWG Semi-Flexible RF Cable Assembly, (.141" DIA) (RF402).....	38

75Ω CABLE ASSEMBLIES

True75™ RF Cable Assembly, RG 6 Cable, 1694A Cable (RFA6T, RFB6T).....	39
True75™ RF Cable Assembly, RG 179 Cable (RF179)	40-41
True75™ RF Cable Assembly, 1855A Cable (RFB8T)	42

APPLICATIONS

50Ω Cables & Connectors.....	6-7
75Ω Cables & Connectors.....	8-9

MH081-MH3RP-MH3RP-0300

MH081-MH3RP-01BJ1-0300

MH081* SERIES

MICRO HIGH FREQUENCY RF CABLES

SPECIFICATIONS

For complete specifications see www.samtec.com?MH081

Outer Contact Material:
Au plated Phosphor Bronze
Center Contact Material:
Au plated Phosphor Bronze (MHX)
Au plated BeCu (SMA)
Insulator Material:
PBT (MHX)
PTFE (SMA)
Operating Temperature:
-40°C to +90°C
Voltage Rating:
170V max
Dielectric Withstanding Voltage: 200 Vrms
Frequency Range:
0-3 GHz
Contact Resistance:
Center Contact: 6mΩ max
Outer Contact: 2mΩ max
Insulator Resistance:
5,000 MΩ
Impedance: 50Ω
RoHS Compliant: Yes

0.81 mm Cable:

Impedance: 50Ω
Capacitance: 100 pF/meter
Max Attenuation (cable only): 3.1dB @ 1 GHz
Conductor Size:
36 AWG, (0.81 mm) .032" dia.
Conductor Material:
Silver Plated Copper
Conductor Resistance:
1.40Ω/meter max
Insulator Diameter:
(0.4 mm) .016"
Insulator Material: FEP
Shield Material:
Silver Plated Copper
Jacket Material: FEP
Jacket Diameter:
(0.81 mm) .032" dia.
Bend Radius:
5.0 mm
Jacket Temp Rating:
-40°C to +90°C
RoHS Compliant: Yes

ALSO AVAILABLE (MOQ Required)

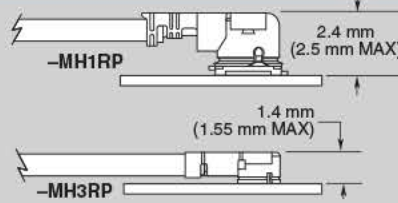
- Additional stripping and tinning options
- Additional end connector combinations
- Overall lengths
- Contact Samtec.

EXTRACTION TOOLS

- -MH1RP = RSP-122893-01
- -MH3RP = RSP-122893-02

* MH081 Series was previously RF081 Series

APPLICATION



U.F.L and W.F.L Types

Micro High Frequency RF, MHF or SMA Bulkhead

(0.81 mm) .032" Diameter Cable

Mating PCB connectors available

MATING SOLUTIONS

- Micro RF PCB connectors for Micro High Frequency RFs
- MH1RP end mates with RSP-122811-01 (Cycles: 30 max.)
- MH3RP end mates with RSP-122811-02

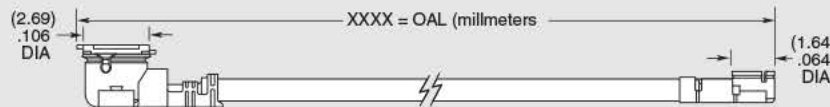
MH081

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart



-0030 = 1.18" (30 mm)

-0050 = 1.97" (50 mm)

-0100 = 3.94" (100 mm)

-0150 = 5.91" (150 mm)

-0300 = 11.81" (300 mm)

END OPTIONS

-MH1RP = MHF1 Type Plug
(30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)



-MH3RP = MHF3 Type Plug
(30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)



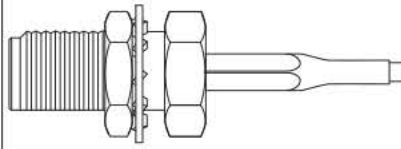
-01BJ1 = SMA Straight Bulkhead Jack

-01BJ2 = SMA Straight Bulkhead Jack, Reversed Polarity

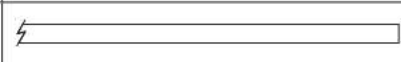
-01SB1 = SMA Straight Jack, Sealed Bulkhead

-01SR1 = SMA Straight Jack, Sealed Bulkhead, Reversed Polarity

(30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)



-SING = Single Ended (End 2 callout)



XXXXXX = Stripped & Tinned (End 2 callout)



STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



MH113-MH1RP-MH1RP-0300

MH113-MH1RP-01BJ1-0300

MH113* SERIES

MICRO HIGH FREQUENCY RF CABLES

SPECIFICATIONS

For complete specifications see www.samtec.com?MH113

Outer Contact Material:
Au plated Phosphor Bronze
Center Contact Material:
Au plated Phosphor Bronze (MHX)
Au plated BeCu (SMA)
Insulator Material:
PBT (MHX)
PTFE (SMA)
Operating Temperature:
-40°C to +90°C
Voltage Rating:
170V max
Dielectric Withstanding Voltage:
200 Vrms
Frequency Range:
0-3 GHz
Contact Resistance:
Center Contact: 6mΩ max
Outer Contact: 2mΩ max
Insulator Resistance:
5,000 MΩ
Impedance: 50Ω
RoHS Compliant: Yes

1.13 mm Cable:

Impedance: 50Ω
Capacitance:
95 pF/meter
Max Attenuation (cable only):
2dB @ 1 GHz
Conductor Size:
32 AWG, (1.13 mm) .045" dia.
Conductor Material:
Silver Plated Copper
Conductor Resistance:
0.60Ω/meter max
Insulator Diameter:
(0.66 mm) .026"
Insulator Material: FEP
Shield Material:
Tinned Copper
Jacket Material: FEP
Jacket Diameter:
(1.13 mm) .045" dia
Bend Radius:
6.8 mm
Jacket Temp Rating:
-40°C to +90°C
RoHS Compliant: Yes

ALSO AVAILABLE (MOQ Required)

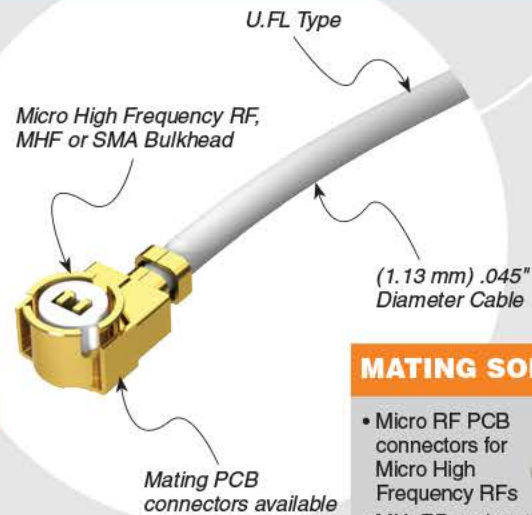
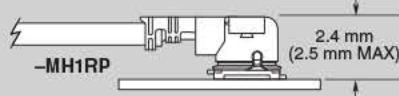
- Additional stripping and tinning options
- Additional end connector combinations
- Overall lengths
- Contact Samtec.

EXTRACTION TOOL

- -MH1RP = RSP-122893-01

* MH113 Series was previously RF113 Series

APPLICATION



MATING SOLUTIONS

- Micro RF PCB connectors for Micro High Frequency RFs
- MH1RP end mates with RSP-122811-01 (Cycles: 30 max.)



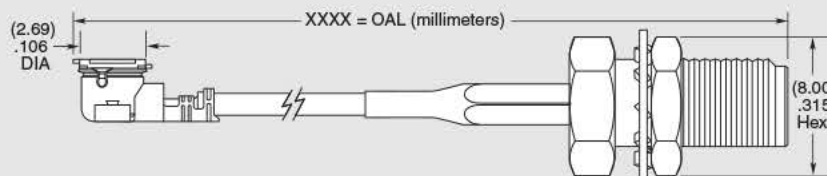
MH113

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify
END OPTIONS
from chart



-0030
= 1.18" (30 mm)

-0050
= 1.97" (50 mm)

-0100
= 3.94" (100 mm)

-0150
= 5.91" (150 mm)

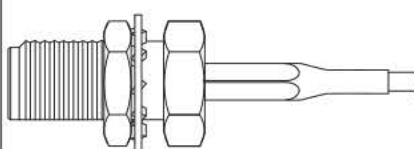
-0300
= 11.81" (300 mm)

END OPTIONS

-MH1RP = MHF1 Type Plug
(30μ" (0.76 μm) Gold on Center Contact,
Gold Flash on Shell)



-01BJ1 = SMA Straight Bulkhead Jack
-01BJ2 = SMA Straight Bulkhead Jack,
Reversed Polarity
-01SB1 = SMA Straight Jack, Sealed Bulkhead
-01SR1 = SMA Straight Jack, Sealed Bulkhead,
Reversed Polarity
(30μ" (0.76 μm) Gold on Center Contact,
Gold Flash on Shell)



-SING =
Single Ended
(End 2 callout)



XXXXXX =
Stripped & Tinned
(End 2 callout)



STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

RF174-07SP1-01BJ1-0300



RF174-01RP1-02RP1-0200

50Ω RG 174 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF174

RF Connector:

Outer Contact Material:
 Ni plated Brass (BNC)
 Au plated Brass (SMB & SMA)
 Au plated BeCu (MCX & MMCX)
Center Contact Material:
 Au plated Brass (BNC-P, MCX-P, MMCX-P & SMA-P)
 Au plated BeCu (SMB-P & SMA-J)
 Au plated Phos. Bronze (BNC-J)
Insulator Material:
 PTFE

Operating Temperature:
 -50°C to +90°C

Insulator Resistance:
 5,000 MΩ

Impedance:
 50Ω

Frequency Range:
 0-6 GHz
 (Cable & connector dependent)

RoHS Compliant:
 Yes

RG 174 Cable:

Impedance:
 50Ω
Capacitance:
 101.024 pF/meter
Max Attenuation (cable only):
 1.4dB @ 1 GHz for 1 meter
Conductor Size:
 26 AWG, (0.48 mm) .019" dia.
Conductor Material:
 Copper
Insulator Material:
 LEP
Shield Material:
 Tin Copper
Jacket Material:
 PVC
Jacket Diameter:
 (2.70 mm) .106"
Jacket Color:
 Black
Bend Radius:
 25.4 mm
RoHS Compliant:
 Yes

Mates with:
 MCX, MMCX, MMCXV,
 SMA, SMB5, BNC5,
 TNC, NTPPE

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



Standard performance 26 AWG RG 174 coax cable

2.3dK

Plugs and Jacks

Straight or Right Angle

Single or Double Ended

CABLE TYPE

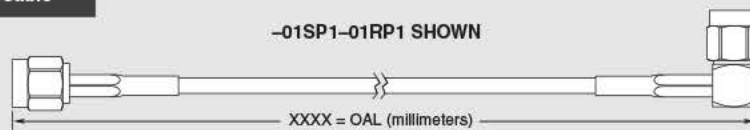
END 1 CONNECTOR

END 2 CONNECTOR

RF174 = RG 174 Cable

Specify END OPTIONS from chart

-01SP1-01RP1 SHOWN

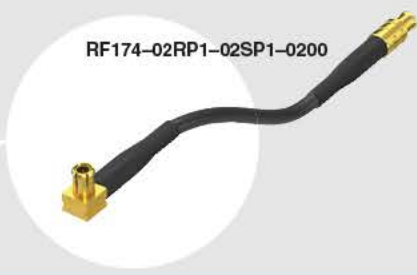


END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-01RP1 = SMA Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-07SP1 = SMB Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-07RP1 = SMB Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-02SJ1 = MCX Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	

END OPTIONS	
-02RP1 = MCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-02SP1 = MCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-03SP1 = MMCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-03RP1 = MMCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-V3SP1 = MMCXV Straight Plug, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	
-V3RP1 = MMCXV Right Angle Plug, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	
-V3SJ1 = MMCXV Straight Jack, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	



RF174-03RP1-07RP1-0200



RF174-02RP1-02SP1-0200



RF174-04BJ2-07SP1-0100

RF174 SERIES



Heavy Gold plated

Standard heat shrink wraps

Choice of RF connector styles

ALSO AVAILABLE
(MOQ Required)

- Additional stripping and tinning options
- IP67 TNC option
- Additional plating options
- Additional end connector combinations
- Knurled nuts with BNC option
- Contact Samtec.



Variety of Bulkhead Jacks

Single or Double ended

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

OVERALL LENGTH

—“XXXX”
= Overall Length in millimeters —0100 (100 mm) minimum
(Cable lengths larger than 1000 millimeters are not supported by S.I. Test data)

END OPTIONS	
<p>–04SP3 = BNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)</p>	
<p>–05SP3 = TNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)</p>	
<p>–07BJ1 = SMB Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Gold flash on Shell)</p>	
<p>–01BJ1 = SMA Straight Bulkhead Jack –01SB1 = SMA Straight Bulkhead Jack, Sealed –01SR1 = SMA Straight Bulkhead Jack, Sealed, Reversed Polarity –01BR1 = SMA Straight Bulkhead Jack, Reversed Polarity (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</p>	

END OPTIONS	
<p>–01PN1 = SMA 4-Hole Panel Mount Jack (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</p>	
<p>–04BJ2 = BNC Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)</p>	
<p>–05BJ3 = TNC Bulkhead Jack (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)</p>	
<p>–06BJ2 = N Type Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)</p>	

END OPTIONS	
<p>–SING = Single Ended (End 2 Callout)</p>	
<p>XXXXXX = Stripped & Tinned (End 2 Callout)</p>	

STRIPPED & TINNED (Dimensions in mm)			
CALLOUT	A	B	C
–303030	3.0	3.0	3.0
–303040	3.0	3.0	4.0
–403030	4.0	3.0	3.0
–403040	4.0	3.0	4.0
–404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



RF316-07SP1-01BJ1-0300



RF316-01RP1-02RP1-0200

50Ω RG 316 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF316

RF Connector:

Outer Contact Material:
Ni plated Brass (BNC)
Au plated Brass (SMB & SMA)
Au plated BeCu (MCX & MMCX)
Center Contact Material:
Au plated Brass (BNC-P, MCX-P, MMCX-P & SMA-P)
Au plated BeCu (SMB-P & SMA-J)
Au plated Phos. Bronze (BNC-J)
Insulator Material:
PTFE

Operating Temperature:

-50°C to +165°C

Insulator Resistance:

5,000 MΩ

Impedance:

50Ω

Frequency Range:

0-6 GHz
(Cable & connector dependent)

RoHS Compliant:

Yes

RG 316 Cable:

Impedance:

50Ω

Capacitance:

96.432 pF/meter

Max Attenuation

(cable only):

1.25dB @ 1 GHz for 1 meter

Conductor Size:

26 AWG, (0.51 mm) .020" dia.

Conductor Material:

Silver Plated Copper

Insulator Material:

PTFE

Shield Material:

Silver Plated Copper Clad Steel

Jacket Material:

FEP

Jacket Diameter:

(2.54 mm) .100"

Jacket Color:

Amber

Bend Radius:

12.7 mm

RoHS Compliant:

Yes

OTHER SOLUTIONS

- Double shielded RG 316 cable available, see RS316 Series
- Cable connector kits (see cable components catalog pages)

Mates with:
MCX, MMCX, MMCXV,
SMA, SMB5, BNC5,
TNC, NTPPE

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



High performance 26 AWG
RG 316 coax cable

Plugs and
Jacks

Straight or
Right Angle

Double shielded
RG 316 cable
also available
(RS316 Series)

CABLE TYPE

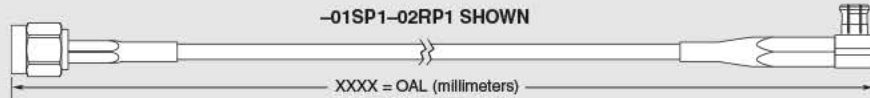
END 1
CONNECTOR

END 2
CONNECTOR

RF316
= RG 316 Cable,
Single Braid Shield

Specify END OPTIONS from chart

-01SP1-02RP1 SHOWN



END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-01RP1 = SMA Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-07SP1 = SMB Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-07RP1 = SMB Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-02SJ1 = MCX Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	

END OPTIONS	
-02RP1 = MCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-02SP1 = MCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-03SP1 = MMCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-03RP1 = MMCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-V3SP1 = MMCXV Straight Plug, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	
-V3RP1 = MMCXV Right Angle Plug, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	
-V3SJ1 = MMCXV Straight Jack, High Vibration (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	



RF316-03RP1-07RP1-0200



RF316-02RP1-02SP1-0200



RF316-04BJ2-07SP1-0100

RF316 SERIES



ALSO AVAILABLE
(MOQ Required)

- Additional stripping and tinning options
- IP68 Sealed AccliMate™ end options
- IP67 TNC option
- Additional plating options
- Additional end connector combinations
- Knurled nuts with BNC option
- Contact Samtec.

OVERALL LENGTH

—“XXXX”

= Overall Length in millimeters -0100 (100 mm) minimum
(Cable lengths larger than 1000 millimeters are not supported by S.I. Test data)

END OPTIONS		END OPTIONS		END OPTIONS																							
-04SP3 = BNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)		-01PN1 = SMA 4-Hole Panel Mount Jack (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)		-SING = Single Ended (End 2 Callout)																							
-05SP3 = TNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)		-04BJ2 = BNC Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)		XXXXXX = Stripped & Tinned (End 2 Callout)																							
-07BJ1 = SMB Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)		-05BJ3 = TNC Bulkhead Jack (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)																									
-01BJ1 = SMA Straight Bulkhead Jack		-06BJ2 = N Type Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)		STRIPPED & TINNED (Dimensions in mm)																							
-01SB1 = SMA Straight Bulkhead Jack, Sealed				<table border="1"> <thead> <tr> <th>CALLOUT</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>-303030</td> <td>3.0</td> <td>3.0</td> <td>3.0</td> </tr> <tr> <td>-303040</td> <td>3.0</td> <td>3.0</td> <td>4.0</td> </tr> <tr> <td>-403030</td> <td>4.0</td> <td>3.0</td> <td>3.0</td> </tr> <tr> <td>-403040</td> <td>4.0</td> <td>3.0</td> <td>4.0</td> </tr> <tr> <td>-404040</td> <td>4.0</td> <td>4.0</td> <td>4.0</td> </tr> </tbody> </table>	CALLOUT	A	B	C	-303030	3.0	3.0	3.0	-303040	3.0	3.0	4.0	-403030	4.0	3.0	3.0	-403040	4.0	3.0	4.0	-404040	4.0	4.0
CALLOUT	A	B	C																								
-303030	3.0	3.0	3.0																								
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-403030	4.0	3.0	3.0																								
-403040	4.0	3.0	4.0																								
-404040	4.0	4.0	4.0																								
-01SR1 = SMA Straight Bulkhead Jack, Sealed, Reversed Polarity				Both center conductor and braid shield are stripped, only the center conductor is tinned.																							
-01BR1 = SMA Straight Bulkhead Jack, Reversed Polarity (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)																											



50Ω RG 178 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF178

RF Connector:

Outer Contact Material:
Au plated Brass (SMA & SMB)
Au plated BeCu (MCX & MMCX)
Nickel (BNC & TNC)
Center Contact Material:
Au plated Brass (MCX-P, MMCX-P, BNC, TNC & SMB)
Au plated BeCu (SMA-J & MCX-J)
Insulator Material:
PTFE

Operating Temperature:
-50°C to +165°C

Frequency Range:
0-5 GHz
(Connector dependent)

Insulator Resistance:
5,000 MΩ

Impedance:
50Ω

RoHS Compliant:
Yes

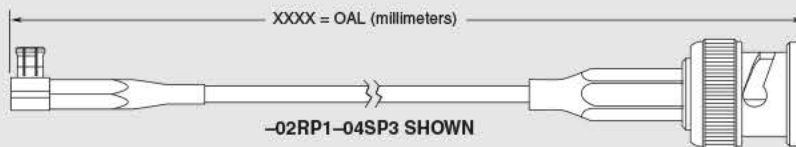
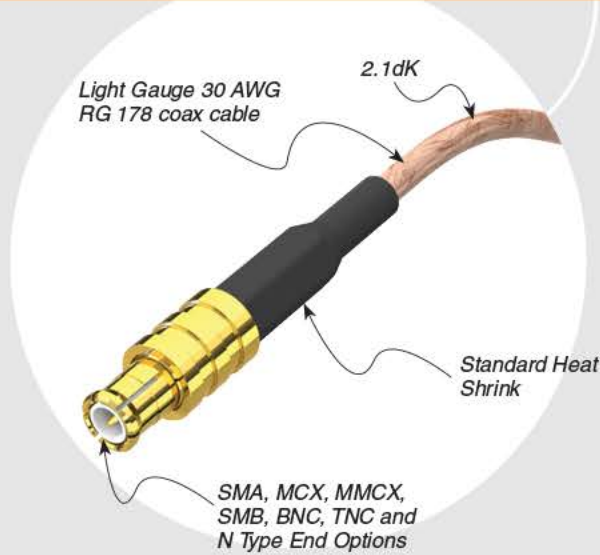
RG 178 Cable:

Impedance:
50Ω
Capacitance:
89.61 pF/meter
Propagation Delay:
4.83 nsec/meter
Max Attenuation (cable only):
1.7dB @ 1 GHz for 1 meter
Conductor Size:
30 AWG, (0.31 mm) .012" dia.
Conductor Material:
Silver Plated Copper
Conductor Resistance:
0.34Ω/meter max
Current Rating:
3A DC
Insulator Diameter:
(0.86 mm) .034"
Insulator Material:
PTFE
Dielectric Constant:
2.1dK
Shield Material:
Silver Plated Copper Clad Steel
Jacket Material:
FEP
Jacket Diameter:
(1.80 mm) .071"
Jacket Temp Rating:
-50°C to +165°C
Jacket Color:
Amber
Bend Radius:
10.2 mm
RoHS Compliant:
Yes

Mates with:
MCX, MMCX, BNC5,
TNC, SMA, SMB5, NTPE

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



END OPTIONS		END OPTIONS	
-01BJ1 = SMA Straight Bulkhead Jack		-02SP1 = MCX Straight Plug	
-01BR1 = SMA Straight Bulkhead Jack, Reversed Polarity		-03SP1 = MMCX Straight Plug	
(30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)		-03RP1 = MMCX Right Angle Plug	
-02SJ1 = MCX Straight Jack		(30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
(30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)			
-02RP1 = MCX Right Angle Plug			
(30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)			

RF178-04SP3-02SJ1-0100

RF178-01BJ1-03RP1-0200

RF178-07BJ2-03SP1-0200

RF178 SERIES

Straight or Right Angle

Variety of Bulkhead Jacks

Single or Double ended

ALSO AVAILABLE
(MOQ Required)

- Additional stripping and tinning options
- IP67 TNC option
- Additional plating options
- Additional end connector combinations Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

OVERALL LENGTH

—“XXXX”

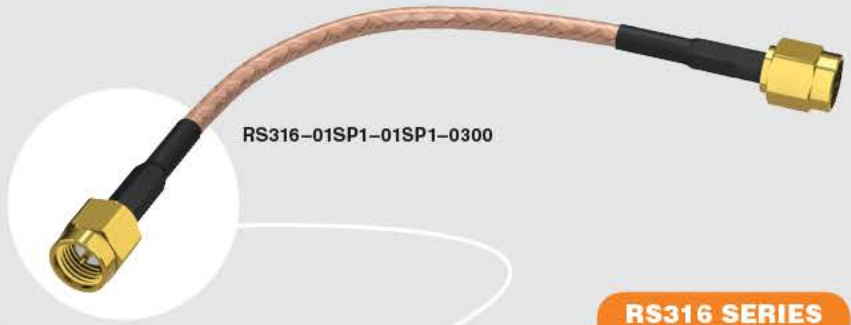
= Overall Length in millimeters -0100 (100 mm) 3.94" minimum

END OPTIONS		END OPTIONS	
-04SP3 = BNC Straight Plug (10µ" (0.25 µm)) Gold on Center Contact, Nickel on Shell)		-05BJ3 = TNC Straight Bulkhead Jack (10µ" (0.25 µm)) Gold on Center Contact, Nickel on Shell)	
-05SP3 = TNC Straight Plug (10µ" (0.25 µm)) Gold on Center Contact, Nickel on Shell)		-06BJ2 = N Type Straight Bulkhead Jack (30µ" (0.76 µm)) Gold on Center Contact, Nickel on Shell)	
-04BJ2 = BNC Straight Bulkhead Jack (30µ" (0.76 µm)) Gold on Center Contact, Nickel on Shell)		-SING = Single Ended (End 2 Callout)	
-07BJ2 = SMB Straight Bulkhead Jack (30µ" (0.76 µm)) Gold on Center Contact, Nickel on Shell)		XXXXXX = Stripped & Tinned (End 2 Callout)	

STRIPPED & TINNED
(Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



RS316 SERIES

50Ω DOUBLE SHIELDED RG 316 CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?RS316

RF Connector:

Outer Contact Material:
Ni plated Brass (BNC),
Au plated Brass (SMA),
Au plated BeCu (MCX, MMCX)

Center Contact Material:
Au plated Brass
(SMA, MCX, MMCX),
Au plated Phosphor Bronze
(BNC)

Insulator Material:
PTFE

Operating Temperature:
-50°C to +165°C

Insulator Resistance:
5,000 MΩ

Impedance: 50Ω

Frequency Range:
0-6 GHz
(Cable & connector dependent)
RoHS Compliant: Yes

RG 316 DS Cable:

Impedance: 50Ω
Capacitance:
95.8 pF/meter
Max Attenuation
(cable only):
1.4dB @ 2 GHz for 1 meter

Conductor Size:
26 AWG, (0.51 mm) .020" dia.

Conductor Material:
Silver Plated Copper

Insulator Material: FEP

Shield 1 Material:
Silver Plated Copper

Shield 2 Material:
Silver Plated Copper

Jacket Material: FEP

Jacket Diameter:
(2.90 mm) .114"

Jacket Color: Amber

Bend Radius:
12.8 mm

RoHS Compliant: Yes

Mates with:
SMA, MCX,
MMCX, TNC, BNC

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



Straight SMA Plugs



Single or Double ended

Double shielded, 26 AWG RG 316 coax cable

ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
- Contact Samtec.



OTHER SOLUTIONS

- Single shielded RG 316 cable available, see RF316 Series
- Cable connector kits (see cable components catalog pages)

END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
02SJ1 = MCX Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-02SP1 = MCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-03SP1 = MMCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
05SP3 = TNC Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	

END OPTIONS	
-01BJ1 = SMA Straight Bulkhead Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-04BJ2 = BNC Bulkhead Jack (30μ" (0.76 μm) Gold on Center Contact, Nickel on Shell)	
SING = Single Ended (End 2 Callout)	
XXXXXX = Stripped & Tinned (End 2 Callout)	

STRIPPED & TINNED (Dimensions in mm)			
CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

RF058-01SP1-01SP1-0100



RF058-05SR3-05SR3-0100

RF058 SERIES

50Ω RG 58 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF058

RF Connector:

Outer Contact Material:
Ni plated Brass (TNC, N Type), Au plated Ni (SMA)

Center Contact Material:
Au plated Ni (TNC, N Type), Au plated Brass (SMA)

Insulator Material:
PTFE

Insulator Resistance:
5,000 MΩ

Frequency Range:
0-1 GHz

Impedance:
50Ω

RoHS Compliant:
Yes

RG 58 Cable:

Impedance:
50Ω

Capacitance:
101pF/meter

Max Attenuation (cable only):
0.8dB @ 1 GHz

Conductor Size:
20 AWG, (0.90 mm) .036" dia.

Conductor Material:
Tinned Copper

Insulator Diameter:
(2.95 mm) .116"

Insulator Material:
Solid Polyethylene

Shield Material:
Tinned Copper

Jacket Material:
PVC

Jacket Diameter:
(4.95 mm) .195" dia.

Bend Radius:
48.3 mm

Jacket Temp Rating:
-40°C to +85°C

RoHS Compliant:
Yes

Mates with:
TNC, SMA, NTPE

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



20 AWG
RG 58 coax cable



Single or Double Ended

SMA, TNC or N Type end options

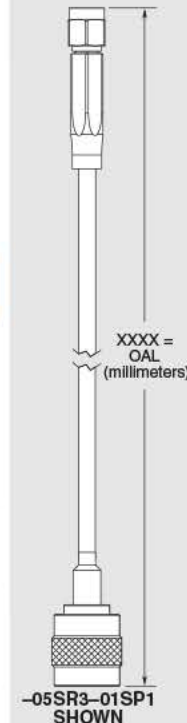
RF058

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart



END OPTIONS	
-01SP1 = SMA Straight Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Outer Contact and Shell)	
-05SR3 = TNC Reversed Polarity Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	
-06SP3 = NType Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	
-01BJ1 = SMA Straight Bulkhead Jack -01SB1 = SMA Straight Bulkhead Jack, Sealed (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Outer Contact and Shell)	
-SING = Single Ended (End 2 Callout)	
-XXXXXX = Stripped & Tinned (End 2 Callout)	

– "XXXX"
= Overall Length in millimeters
–0100 (100 mm) 3.94" minimum

STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
 - Additional plating options
 - Additional end connector options
- Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)



RF047-11RP9-11SP9-0100



RF047-01SP1-11SP9-0100

RF047 SERIES

50Ω .047" DIA FLEXIBLE COAX CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?RF047

RF Connector:

Outer Contact Material:

Brass (SMA),
BeCu (HMHF1)

Contact Material:

Brass (SMA),
BeCu (HMHF1)

Insulator Material:

PTFE

Impedance:

50Ω

Frequency Range:

0-10 GHz (HMHF1)

0-20 GHz (SMA)

V.S.W.R.:

1.4 max (SMA)

Dielectric Withstanding:

1,000 Vrms (SMA)

Contact Resistance (SMA):

Center Contact: 6mΩ max

Outer Contact: 2mΩ max

Insulator Resistance (SMA):

5,000 MΩ min

CCA-047 (.047")

Cable:

Impedance:

50Ω microwave

Capacitance:

95.14 pF/meter

Max Attenuation (cable only):

1.15 @ 1 GHz for 1 meter

Conductor Size:

30 AWG (0.29 mm) .011" dia.

Conductor Material:

Silver plated copper

Insulator Material:

FEP

Shield Material:

Metallic Alloy

Jacket Material:

FEP

Jacket Diameter:

(1.42 mm) .056" dia.

Bend Radius:

5 mm

Mates with:

SMA, RSP-122811-01

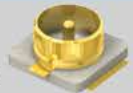
HMHF1 U.FL plugs
to 500 cycles

(1.2 mm) .047" DIA
flexible coax cable

High frequency
performance to 10 GHz
with high cycle U.FL

MATING SOLUTION

- Micro RF PCB connectors for Micro High Frequency RFs
- HMHF1 end mates with RSP-122811-01 (Cycles: 30 max.)



CABLE TYPE

RF047
= (1.2 mm) .047" DIA
30 AWG Flexible coax cable

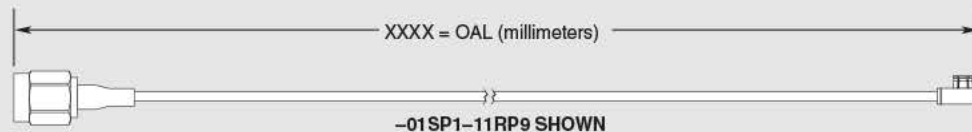
END 1 CONNECTOR

Specify END OPTIONS from chart

END 2 CONNECTOR

OVERALL LENGTH

– "XXXX"
= Overall Length
in millimeters
–0100 (100 mm) 3.94"
minimum



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

END OPTIONS

–01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
–11SP9 = HMHF1 U.FL Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
–11RP9 = HMHF1 U.FL Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
–SING = Single Ended (End 2 Callout)	
–XXXXXX = Stripped & Tinned (End 2 Callout)	

STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
–303030	3.0	3.0	3.0
–303040	3.0	3.0	4.0
–403030	4.0	3.0	3.0
–403040	4.0	3.0	4.0
–404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

RF405-01SP1-01RP1-0500

RF405-00SJ7-00SJ7-0500

RF405 SERIES

50Ω .086" DIA SEMI-FLEXIBLE CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?RF405

RF Connector:

Shell Material:
Brass (SMA),
Au plated BeCu (SMP)
Contact Material:
Brass (SMA),
Au plated BeCu (SMP)
Impedance:
50Ω
Frequency Range:
0-20 GHz (SMA),
DC to 20 GHz (SMP)
V.S.W.R.:
1.4 max (SMA, SMP)
Dielectric Withstanding:
1,000 Vrms (SMA),
500 Vrms min (SMP)
Contact Resistance (SMA & SMP):
Center Contact: 6mΩ max
Outer Contact: 2mΩ max
Insulator Resistance (SMA & SMP):
5,000 MΩ min

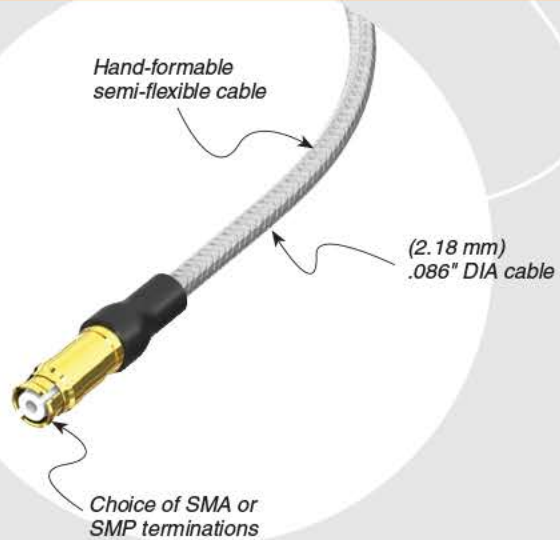
RG 405 (.086")

Cable:
Impedance:
50Ω microwave
Capacitance:
96.79 pF/meter
Max Attenuation (cable only):
1.20 @ 1 GHz for 1 meter
Conductor Size:
24 AWG (0.56 mm) .022" dia.
Conductor Material:
Silver plated copper clad steel
Insulator Material:
PTFE
Shield Material:
Tinned Copper
Bend Radius:
3.18 mm
RoHS Compliant:
Yes

Mates with:
SMA, SMP

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

RF405
= (2.18 mm) .086" DIA
24 AWG Semi-flexible
coax cable

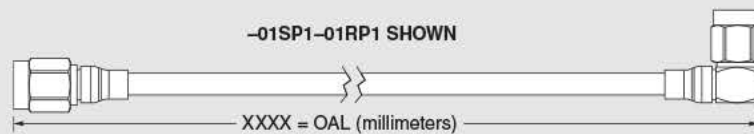
Specify
END OPTIONS
from chart

–“XXXX”
= Overall Length in millimeters
–0100 (100 mm) 3.94" minimum

STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B
-3030	3.0	3.0
-4030	4.0	3.0
-4040	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
- Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

Note: Cable lengths longer than (1000 mm) 39.40" are not supported with S.I. test data.

END OPTIONS		END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-00SJ7 = SMP Straight Jack (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)	
-01RP1 = SMA Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-00RJ7 = SMP Right Angle Jack (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)	
		XXXX = Stripped & Tinned (End 2 callout)	

RF402-01SP1-01RP1-0500

RF402-01RP1-01SP1-0500

RF402 SERIES

50Ω .141" DIA SEMI-FLEXIBLE CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?RF402

RF Connector:

Shell Material:

Brass

Contact Material:

Brass

Insulator Material:

PTFE

Impedance:

50Ω

Frequency Range:

0-20 GHz

V.S.W.R.:

1.4 max

Dielectric Withstanding:

1,000 Vrms

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 2mΩ max

Insulator Resistance:

5,000 MΩ min

RG 402 (.141")

Cable:

Impedance:

50Ω microwave

Capacitance:

96.79 pF/meter

Max Attenuation (cable only):

0.48 @ 1 GHz for 1 meter

Conductor Size:

19 AWG (0.92 mm) .036" dia.

Conductor Material:

Silver plated copper clad steel

Insulator Material:

PTFE

Shield Material:

Tinned Copper

Bend Radius:

6.35 mm

RoHS Compliant:

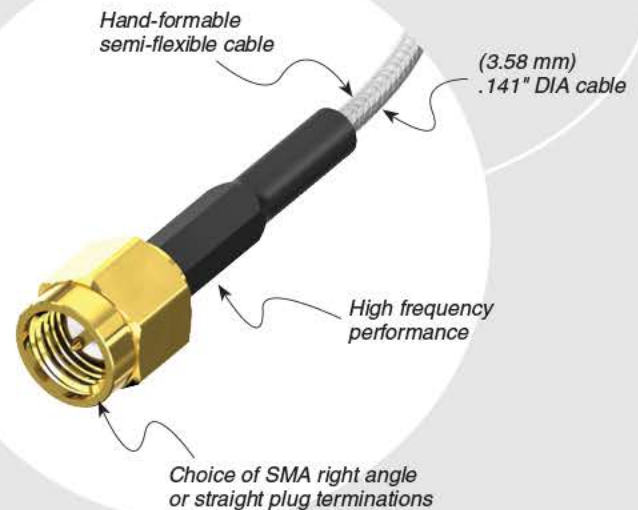
Yes

Mates with:

SMA

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



CABLE TYPE

RF402
= (3.58 mm) .141" DIA
19 AWG Semi-flexible
coax cable

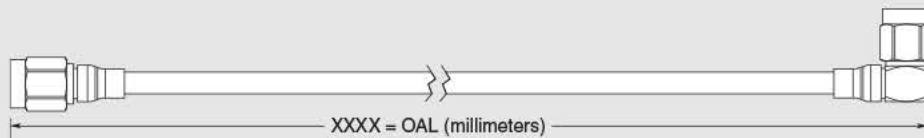
END 1 CONNECTOR

Specify END OPTIONS from chart

END 2 CONNECTOR

OVERALL LENGTH

– “XXXX”
= Overall Length
in millimeters
–0100 (100 mm) 3.94"
minimum



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
- Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

Note: Cable lengths longer than (1000 mm) 39.40" are not supported with S.I. test data.

END OPTIONS

<p>–01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)</p>	
<p>–01RP1 = SMA Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)</p>	
<p>XXXX = Stripped & Tinned (End 2 callout)</p>	

STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B
–3030	3.0	3.0
–4030	4.0	3.0
–4040	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.



RFA6T, RFB6T SERIES

75Ω OPTIMIZED BNC CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RFA6T or www.samtec.com?RFB6T

RF Connector:

Outer Contact Material:
Ni plated Brass (BNC),
Au plated BeCu (DIN),
Au plated Phosphor Bronze (HDBNC)

Center Contact Material:
Gold plated Brass

Insulator Material:
PTFE

Operating Temperature:
-65°C to +125°C

Impedance:
75Ω ± 3Ω (-ST)
75Ω ± 4Ω (-RA)

Frequency Range:
0-3.5 GHz *

Working Voltage:
500 Vrms max

Dielectric Withstanding:
1500 Vrms min *

Contact Resistance:
Center Contact: 1.5mΩ max
Outer Contact: 0.4mΩ max

RoHS Compliant: Yes

RG 6/1694A Cable:

Impedance:
75Ω ± 3Ω

Capacitance:
54 ± 3pF/meter

Max Attenuation (cable only):
0.21dB @ 1GHz for 1 meter

Conductor Size:
18 AWG, (1.02 mm) .040" dia.

Conductor Material:
Bare Copper

Insulator Material:
Gas Injected Foamed Polyethylene

Shield Material:
Tinned Copper Braid over Aluminum Foil Wrap

Jacket Material: PVC

Jacket Diameter:
(7.00 mm) .275"

Bend Radius: 69.85 mm

Jacket Color: Black

RoHS Compliant: Yes

* See connector component pages for specific range.

Mates with:
BNC7T, DIN7A, HDBNC

18 AWG 75Ω
RG 6 coax cable,
or 1694A Belden cable

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
 - Additional plating options
- Contact Samtec.

OTHER SOLUTIONS

- Hand tool available. Contact RFGroup@samtec.com
- Cable connector kits (see cable components catalog pages)

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

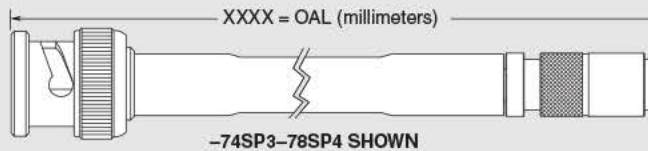
OVERALL LENGTH

RFA6T
= RG 6 Cable

RFB6T
= Belden
1694A Cable

Specify END OPTIONS from chart

—“XXXX”
= Overall Length in millimeters
—0300 (300 mm)
11.81" minimum



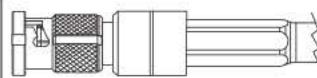
STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

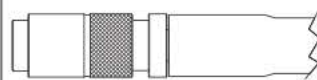
Both center conductor and braid shield are stripped, only the center conductor is tinned.

END OPTIONS

-H4SP3 = 75Ω High Density BNC Straight Plug
(10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)

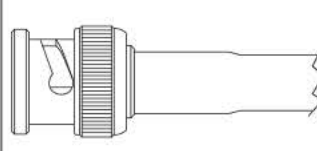


-78SP4 = 75Ω DIN Straight Plug
(10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)



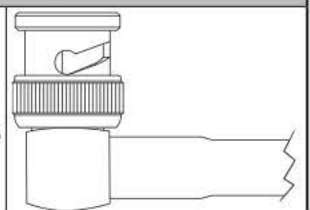
-74SP3* = 75Ω BNC Straight Plug
(10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)

(*Die Cast also available = -D4SP3)



END OPTIONS

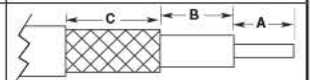
-74RP3 = 75Ω BNC Right Angle Plug
(10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)

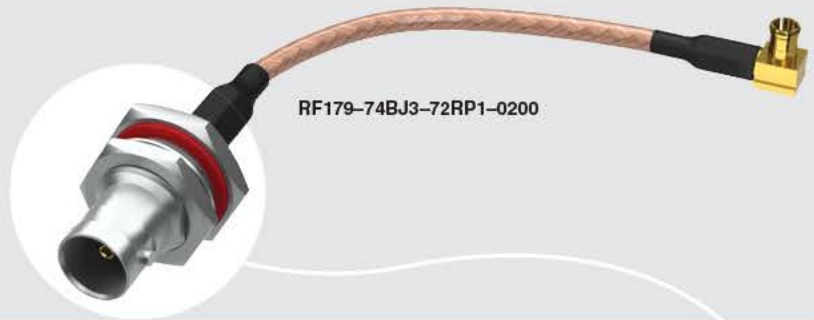


-SING = Single Ended (End 2 callout)



-XXXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)





RF179-74BJ3-72RP1-0200

75Ω OPTIMIZED RG 179 CABLES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF179

RF Connector:

Outer Contact Material:
Ni plated Brass
(BNC)

Au plated Brass
(SMB)

Au plated BeCu
(MCX, MMCX7, DIN)

Center Contact Material:

Au plated Brass
(BNC-P, MCX, MMCX7)

Au plated BeCu
(SMB)

Au plated Copper Alloy
(DIN, BNC-J)

Insulator Material:
PTFE

Operating Temperature:
-50°C to +165°C

Impedance:
75Ω

Frequency Range:

0-4 GHz *
(Cable & connector dependent)

RoHS Compliant:
Yes

RG 179 Cable:

Impedance:
75Ω ±3Ω

Capacitance:
64pF/meter

Propagation Delay:
4.83 nsec/meter

Max Attenuation
(cable only):

0.8dB @ 1GHz for 1 meter

Conductor Size:
30 AWG, (0.31 mm) .012" dia.

Conductor Material:
Silver Plated Copper

Conductor Resistance:
0.34Ω/meter max

Current Rating:
3A DC

Insulator Diameter:
(1.6 mm) .063"

Insulator Material:
PTFE

Dielectric Constant:
1.8 dK

Shield Material:
Silver Plated Copper

Jacket Material:
FEP

Jacket Diameter:
(2.54 mm) .100"

Bend Radius:
10.2 mm

Jacket Temp Rating:
-55°C to +165°C

Jacket Color:
Amber

RoHS Compliant:
Yes

* See connector component
pages for specific range.

Note:
Designed to meet SMPTE
424M 3G-SDI specifications.

Mates with:
BNC7T, MCX7, MMCX7,
SMB7H, DIN7A

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



30 AWG
75Ω RG 179
coax cable



Standard
Heat Shrink

Single or Double
Ended

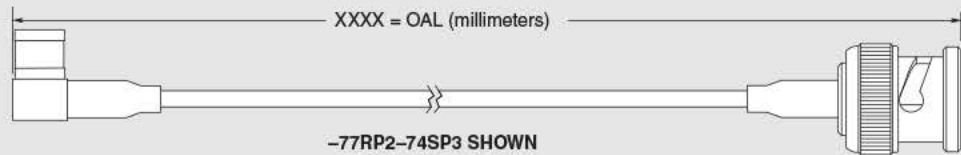
CABLE TYPE

END 1
CONNECTOR

END 2
CONNECTOR

RF179
= RG 179 Cable

Specify END OPTIONS from chart



END OPTIONS		END OPTIONS	
-73SP4 = 75Ω MMCX7 Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)		-72RP1 = 75Ω MCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-73RP1 = 75Ω MMCX7 Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-72SP1 = 75Ω MCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-73SJ4 = 75Ω MMCX7 Straight Jack (10μ" (0.25 μm) Gold on Center Contact, Gold Flash on Shell)		-77SP1 = 75Ω SMB Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	



RF179-78SP4-77SP1-0200



RF179-72SP1-73SJ4-0100

RF179 SERIES



Wide variety of 75Ω end options including BNC, MCX and SMB

Straight or Right Angle terminations



ALSO AVAILABLE
(MOQ Required)

- Additional stripping and tinning options
- Additional plating options
- Additional end connector combinations Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

OVERALL LENGTH

—“XXXX”

= Overall Length in millimeters -0100 (100 mm) 3.94" minimum

STRIPPED & TINNED
(Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

END OPTIONS

-77RP1 = 75Ω SMB Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-74SP3 = 75Ω BNC Straight Plug -D4SP3 = 75Ω BNC Die Cast Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	
-74BJ3 = 75Ω BNC Bulkhead Jack (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	

END OPTIONS

-78SP4 = 75Ω DIN Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	
-SING = Single Ended (End 2 callout)	
XXXXXX = Stripped & Tinned (End 2 callout)	



RFB8T SERIES

75Ω OPTIMIZED 1855A CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RFB8T

RF Connector:

Outer Contact Material:
Ni plated Brass (BNC)
Au plated BeCu (DIN)
Center Contact Material:
Au plated Brass
Operating Temperature:
-65°C to +125°C
Impedance:
75Ω ±2Ω (ST), 75Ω ±4Ω (RA)
Frequency Range:
0-3.5 GHz*
Working Voltage:
250 Vrms (DIN),
330 Vrms (BNC)
Dielectric Withstanding:
750 Vrms (DIN),
1000 Vrms (BNC)
Contact Resistance:
Center Contact: Testing Now!
Outer Contact: Testing Now!
RoHS Compliant: Yes

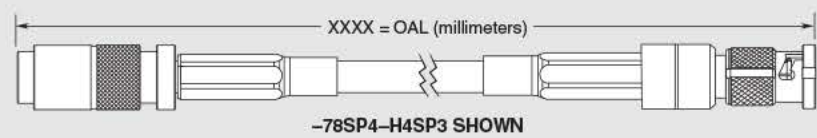
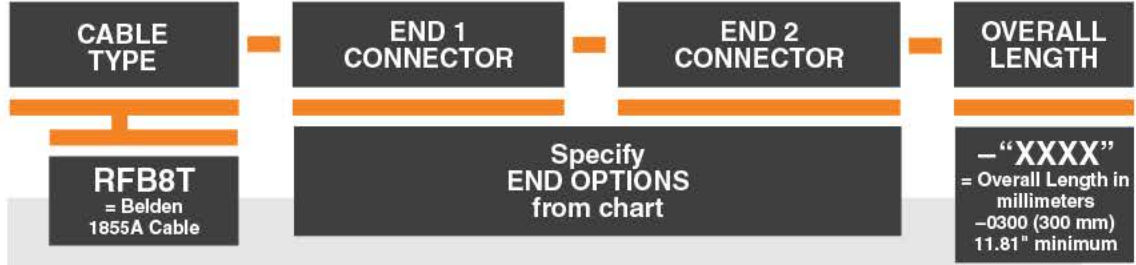
1855A Cable:

Impedance: 75Ω ±3Ω
Capacitance: 56 ±3pF/meter
Max Attenuation (cable only):
0.37dB @ 1GHz for 1 meter
Conductor Size:
23 AWG, (0.58 mm) .023" dia.
Conductor Material:
Bare Copper
Insulator Material:
Gas Injected Foamed Polyethylene
Shield Material: Tin Copper
Jacket Material: PVC
Jacket Diameter:
(4.03 mm) .159"
Bend Radius:
38.1 mm
Jacket Color: Black
RoHS Compliant: Yes

Mates with:
DIN7A, HDBNC

THINK OUTSIDE THE CATALOG

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com



STRIPPED & TINNED (Dimensions in mm)

CALLOUT	A	B	C
-303030	3.0	3.0	3.0
-303040	3.0	3.0	4.0
-403030	4.0	3.0	3.0
-403040	4.0	3.0	4.0
-404040	4.0	4.0	4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
 - Additional plating options
- Contact Samtec.

OTHER SOLUTIONS

- Hand tool available. Contact RFGroup@samtec.com
- Cable connector kits (see cable components catalog pages)

* See connector component pages for specific range.

Note:
Designed to meet SMPTE 424M 3G-SDI specifications.

END OPTIONS	
-H4SP3 = 75Ω High Density BNC Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	
-78SP4 = 75Ω DIN Straight Plug (10μ" (0.25 μm) Gold on Center Contact, Nickel on Shell)	

END OPTIONS	
-SING = Single Ended (End 2 callout)	
-XXXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)	



50Ω & 75Ω CONNECTORS

SUBMINATURE CONNECTORS

50Ω Passivated Stainless Steel 2.92 Jacks & Cable Components (292PS, 292PS-CA)	45-46
50Ω SMA Jacks & Cable Components (SMA, SMA-CA)	47-49
50Ω SMB Jacks & Plugs (SMB5)	50
75Ω True75™ SMB Jacks & Plugs (SMB7H)	51
50Ω SMP Jacks/Plugs & Adaptor (SMP)	52
75Ω True75™ DIN 1.0/2.3 Jacks & Plugs (DIN7A)	53

MINI & MICRO-MINATURE CONNECTORS

50Ω MMCX & MCX Jacks & Plugs (MMCX, MMCX-SW, MCX)	54-56
50Ω MMCX & MCX Cable Components (MMCX-CA, MCX-CA)	57
75Ω True75™ MMCX & MCX Jacks & Plugs (MMCX7, MCX7)	58-59

BAYONET & N TYPE CONNECTORS

75Ω True75™ High Density BNC Jacks & Cable Components (HDBNC, HDBNC-CA)	60-61
75Ω True75™ BNC Jacks & Plugs (BNC7T)	62
50Ω BNC Bulkhead Jacks & Plugs (BNC5)	63
N Type RF Cable Components (NTPE)	64

ADAPTORS

50Ω & 75Ω Adaptors (ADP5, ADP7)	65-66
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APPLICATIONS

50Ω Cable & Connectors	6-7
75Ω Cable & Connectors	8-9

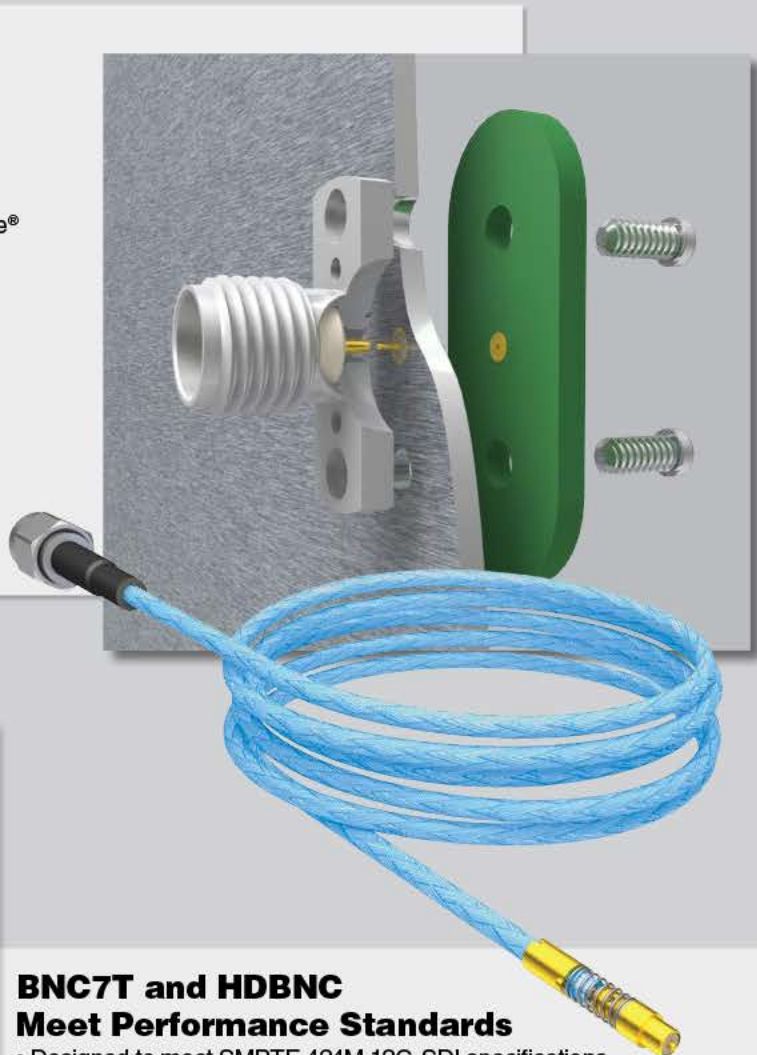


HIGH SPEED RF SOLUTIONS

Cable Assemblies And Board Level Connectors In Development

- 2.4 mm with performance up to 50 GHz
- 1.85 mm with performance up to 65 GHz
- High speed solutions will complement Bulls Eye®
- Compression mount to board
- 50Ω impedance
- Passivated stainless steel
- Vertical orientation board level connectors
- Straight cable connector end options

For more information on high speed RF solutions, contact RFGroup@samtec.com



12G-SDI

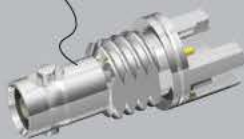
BNC7T-TH



BNC7T-EM



HDBNC-EM



HDBNC-TH



BNC7T and HDBNC Meet Performance Standards

- Designed to meet SMPTE 424M 12G-SDI specifications
- Ideal for the ever-evolving demands of the broadcast video industry
- Combined with other Samtec products such as SEARAY® and Edge Rate® on boards to produce 12G-SDI applications
- Through-hole and edge mount jacks available
- HDBNC provides 4X the panel density of traditional BNCs

For more information on 12G-SDI interconnect solutions, contact RFGroup@samtec.com



292PS-J-P-HP-ST-PN2



292PS SERIES

50Ω SMA 2.92 JACKS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?292PS-PN

Shell Material:

Stainless Steel

Insert:

Stainless Steel

Socket:

BeCu

Insulator Material:

PCTFE

Impedance:

50Ω

Frequency Range:

Testing Now!

V.S.W.R.:

Testing Now!

Working Voltage:

Testing Now!

Dielectric Withstanding:

Testing Now!

Contact Resistance:

Testing Now!

Operating Temperature:

Testing Now!

RoHS Compliant:

Yes

Lead-Free Solderable:

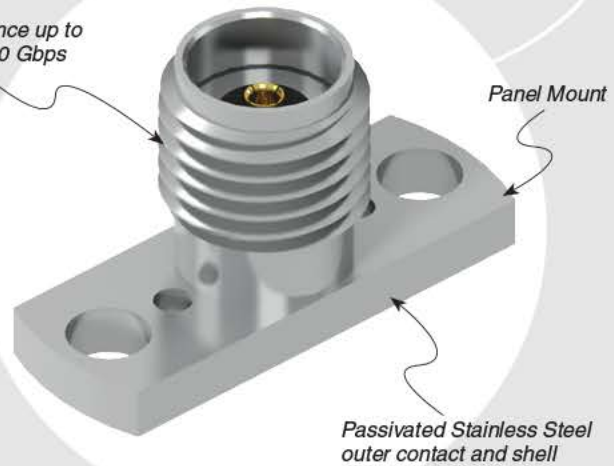
Yes

Mates with:
RF23S, RF405, BE25S

APPLICATION



Performance up to
40 GHz/80 Gbps



TYPE

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

292PS
= Passivated
Stainless Steel

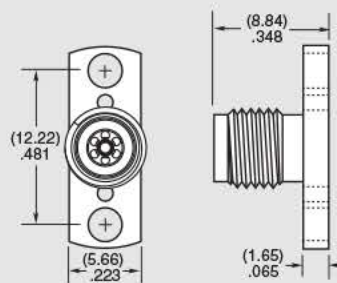
-J
= Jack

-P
= PCB
Mount

-HP
= 30μ"
(0.76 μm) Gold
center contact,
Passivated
outer contact

-ST
= Straight

-PN2
= Panel Mount





292PS-J-C-HP-ST-CS3



292PS-P-C-HP-ST-CS3

292PS-CA SERIES

50Ω SMA 2.92 COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?292PS-CA

Shell Material:

Stainless Steel

Contact Material:

Brass

Cable Body:

Stainless Steel

Socket:

BeCu

Insulator Material:

PCTFE

Insert Material:

Stainless Steel

TYPE

292PS
= Passivated
Stainless Steel

GENDER

-J
= Jack

TYPE

-C
= Cable

PLATING

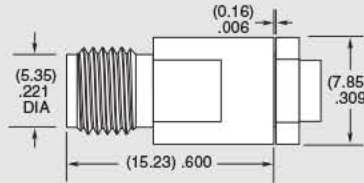
-HP
= 30μ" (0.76 μm)
Gold center contact,
Passivated
outer contact

ORIENTATION

-ST
= Straight

TERMINATION

-CS3
= MWC-2350-01
23 AWG
Microwave
Cable



SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?292PS-CA

Shell Material:

Stainless Steel

Contact Material, Nut:

Brass

Cable Body:

Stainless Steel

Insert Material:

Stainless Steel

Socket:

BeCu

Insulator Material:

PCTFE

Gasket:

Silicone

C-Ring:

Stainless Steel

TYPE

292PS
= Passivated
Stainless Steel

GENDER

-P
= Plug

TYPE

-C
= Cable

PLATING

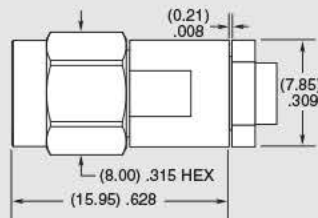
-HP
= 30μ" (0.76 μm)
Gold center contact,
Passivated
outer contact

ORIENTATION

-ST
= Straight

TERMINATION

-CS3
= MWC-2350-01
23 AWG
Microwave
Cable



SMA-P-C-H-ST-CA1

SMA-J-C-H-ST-BH1

SMA-J-C-H-ST-S10

SMA-J-C-H-ST-PN1

SMA-CA SERIES

50Ω SMA COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?SMA-CA

Shell Material:

Brass

Contact Material:

Brass

Center Contact:

Soldered

Outer Ferrule:

Crimped

Operating Temperature:

-65°C to +125°C

Voltage Rating:

335V

Dielectric Withstanding Voltage:

1,000 Vrms

Frequency Range:

0~20 GHz

(Cable dependent)

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 2mΩ max

Insulator Resistance:

5,000 MΩ

Impedance:

50Ω

SMA	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION
	-J = Jack	-C = Cable -C4 = Cable 4-Mounting Screws (-PN1 only)	-H = 30μ" (0.76 μm) Gold center contact, 3μ" (0.08 μm) Gold outer contact (N/A with -BH1S) -HF = 30μ" (0.76 μm) Gold center contact, 3μ" (0.08 μm) Gold outer contact (-BH1S only)	-ST = Straight	-BH1 = Bulkhead RG 174 / 316 Cable -BH2 = Bulkhead RG 178 Cable -BR1 = Bulkhead RG 174 / 316, Reversed Polarity -BR2 = Bulkhead RG 178 Cable, Reversed Polarity -BH1S = Bulkhead RG 316 Cable, Double Shield -B10 = Bulkhead RG 58 Cable -PN1 = 4-Hole Panel Mount RG 174 / 316 Cable -S10 = Sealed Bulkhead RG 58 Cable

Supplied with pins, washers, nuts and ferrules. See website for dimensions.

SMA	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION
	-P = Plug	-C = Cable	-H = 30μ" (0.76 μm) Gold center contact, 3μ" (0.08 μm) Gold outer contact (-CA1, -CA10 only) -HF = 30μ" (0.76 μm) Gold center contact, 3μ" (0.08 μm) Gold outer contact (-CA7, -CA9, -CA1S only)	-ST = Straight -RA = Right Angle	-CA1 = RG 174 / 316 Cable -CA7 = RG 405 (.086" DIA) Semi-flexible Cable -CA9 = RG 402 (.141" DIA) Semi-flexible Cable -C10 = RG 58 Cable (-ST only) -CA1S = RG 316 Double Shielded Cable (-ST only)

Supplied with pins and ferrules. See website for dimensions.



SMA-J-P-H-ST-TH1

SMA-J-P-H-RA-TH1



SMA-J-P-H-ST-EM1

50Ω SMA JACKS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?SMA-TH, www.samtec.com?SMA-SM, www.samtec.com?SMA-EM, www.samtec.com?SMA-MT or www.samtec.com?SMA-PN

Contact Material:

BeCu

Shell Material:

Brass

Insulator Material:

PTFE (-PN)

Operating Temp Range:

-65°C to +125°C

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 2mΩ max

Insulator Resistance:

5,000 MΩ

Impedance:

50Ω

Dielectric Withstanding Voltage:

1,000 Vrms

Frequency Range:

0-20 GHz

(Cable dependent)

Working Voltage:

335V

RoHS Compliant:

Yes

Processing:

Lead-Free Solderable:

Yes

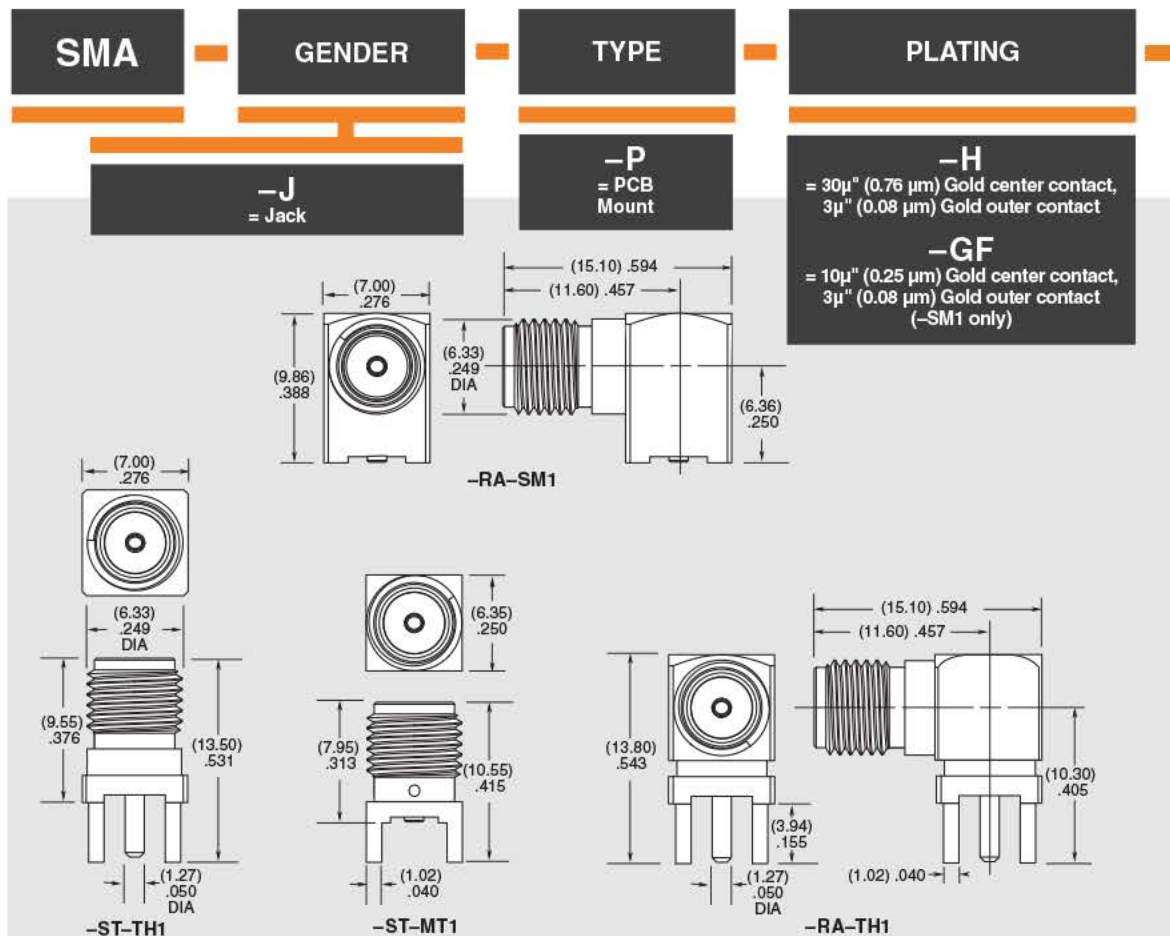
Mates with:

RF174, RF316, RF058,
RF405, RF402, RS316,
GRF1H-C, IJ5H, RF23S,
BE25S



Mates with a wide variety of cable assemblies

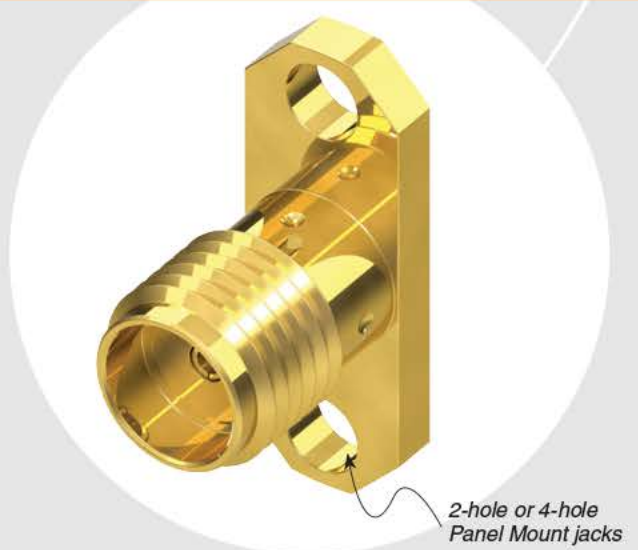
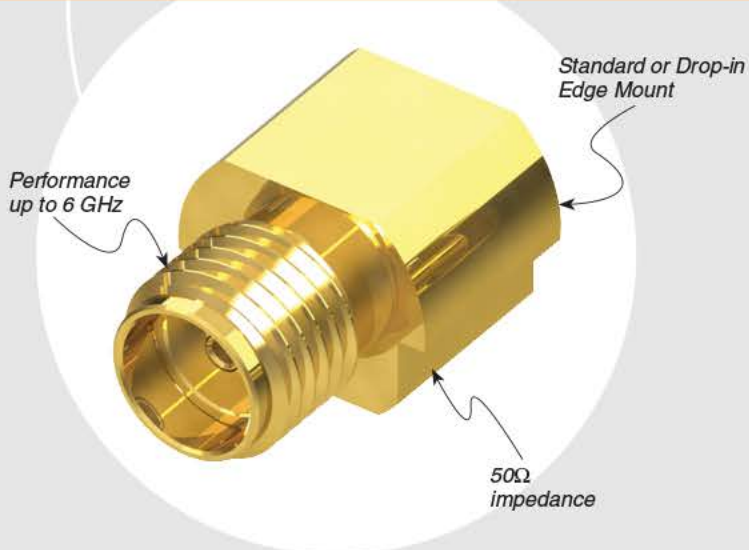
Panel Mount, Edge Mount,
Mixed Technology, Through-Hole
or Surface Mount termination



Note: While optimized for 50Ω applications, this connector can also perform well in certain 75Ω applications. Contact RFGroup@samtec.com for further information.



SMA SERIES



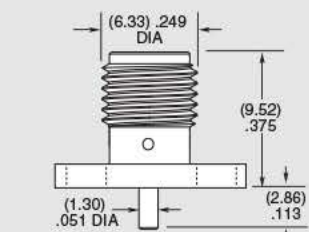
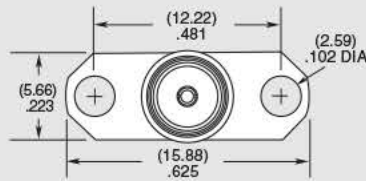
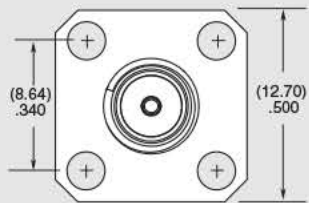
ORIENTATION

- ST
= Straight
- RA
= Right Angle

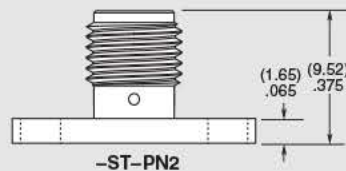
TERMINATION

- TH1
= Through-hole
- SM1
= Surface Mount (-GF-RA only)
- EM1
= Edge Mount (-ST only)
- EM3
= Drop-in Edge Mount (-ST only)

- MT1
= Mixed Technology (-ST only)
- PN2
= 2-Hole Panel Mount (-ST only)
- PN4
= 4-Hole Panel Mount (-ST only)



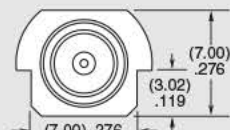
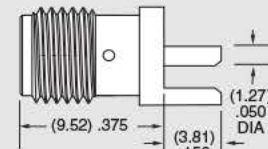
-ST-PN4



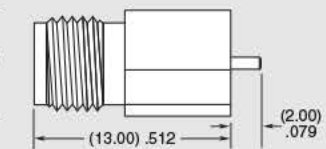
-ST-PN2



-ST-EM1



-ST-EM3





SMB5-P-C-H-ST-CA1



SMB5-P-C-H-RA-CA1

SMB5 SERIES

50Ω SMB JACKS & PLUGS

Mates with:

RF174, RF316, GRF1H-C

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?SMB5-TH

Shell Material:

Brass

Contact Material:

Brass

Insulator Material: PTFE

Impedance: 50Ω

Frequency Range: 0-4 GHz

V.S.W.R: 1.5 max

Working Voltage:

250 Vrms max

Dielectric Withstanding:

750 Vrms min

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 2.5mΩ max

Insulator Resistance:

1000 MΩ min

Operating Temp Range:

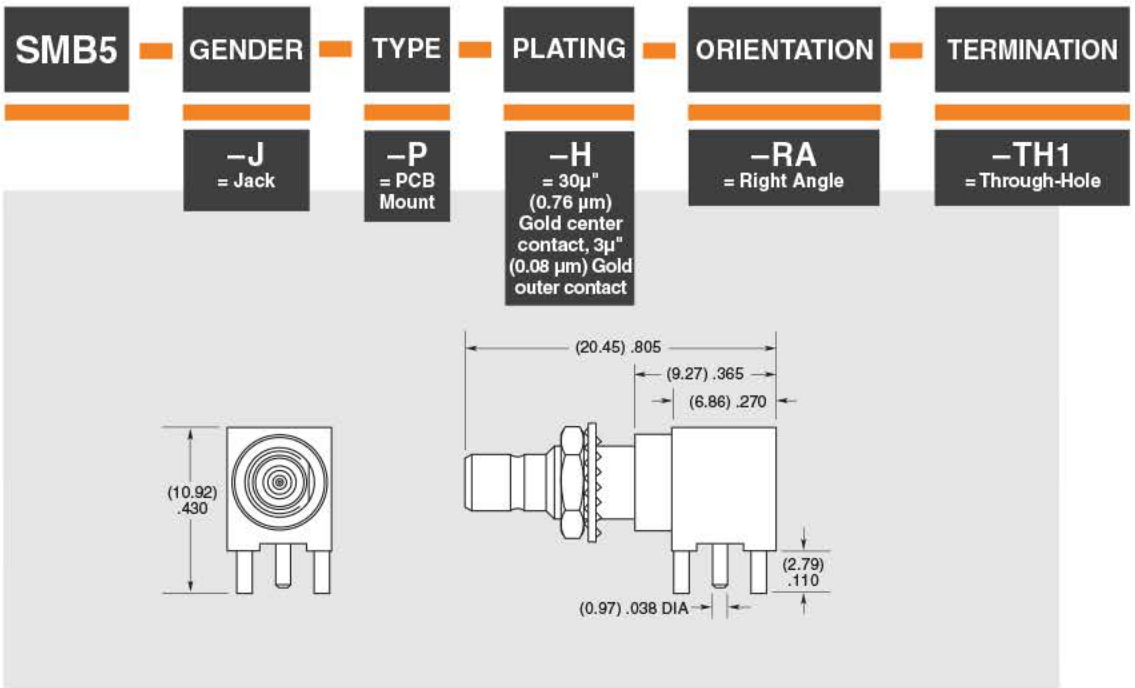
-65°C to +165°C

RoHS Compliant: Yes

Processing:

Lead-Free Solderable: Yes

Note: 75Ω version available.
See SMB7H Series.



SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?SMB5-CA

Shell Material:

Brass

Contact Material:

Brass (-J),

Phosphor Bronze (-P-ST),

BeCu (-P-RA)

Center Contact:

Soldered

Outer Ferrule:

Crimped

Insulator Material:

PTFE

Impedance:

50Ω

Frequency Range:

0-4 GHz

V.S.W.R:

1.3 max (-ST),

1.5 max (-RA)

Working Voltage:

335 Vrms max

Dielectric Withstanding:

1000 Vrms min

Contact Resistance:

Center Contact: 6mΩ max

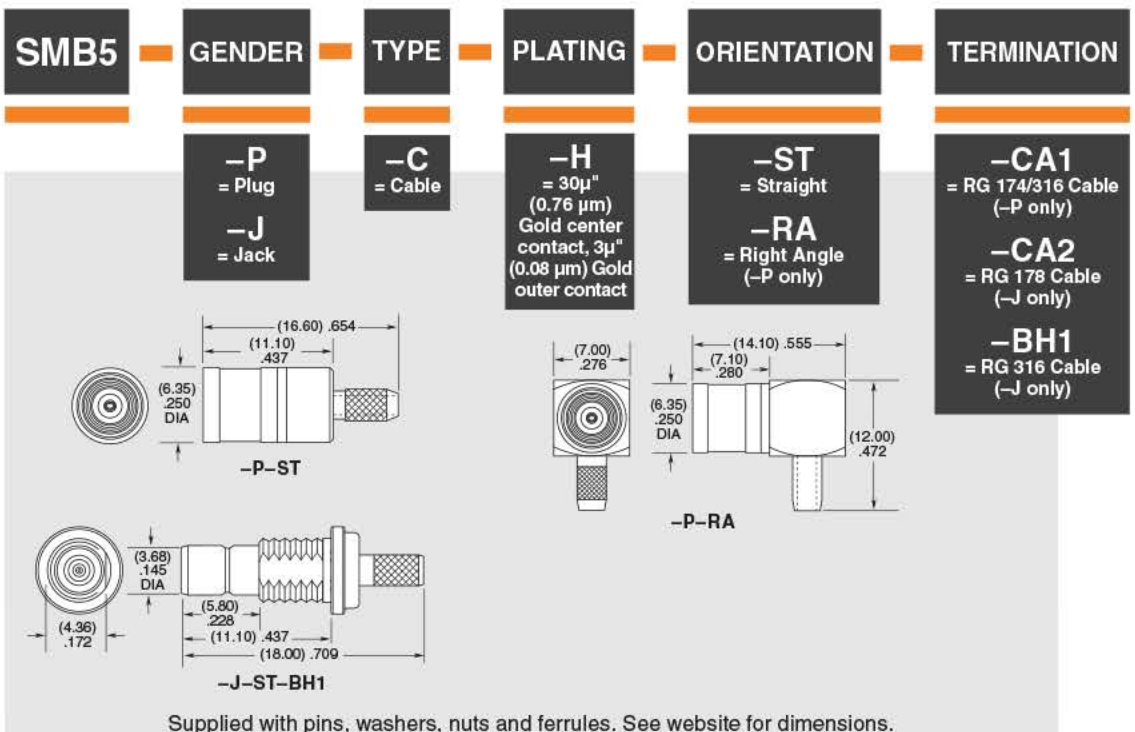
Outer Contact: 2.5mΩ max

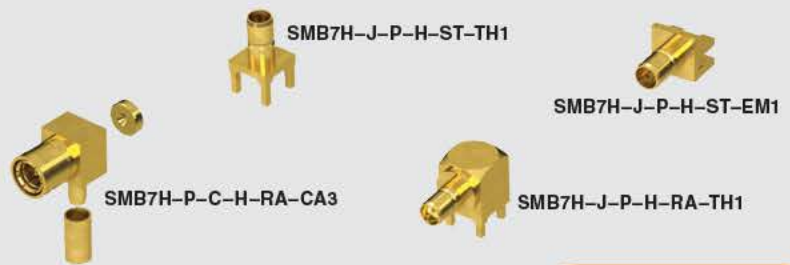
Insulator Resistance:

1000 MΩ min

Operating Temp Range:

-65°C to +165°C





SMB7H SERIES

75Ω OPTIMIZED SMB JACKS & PLUGS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?SMB7H-TH or www.samtec.com?SMB7H-EM

Shell Material: Brass
Contact Material: Brass
Insulator Material: PTFE

Impedance:
ST = 75Ω ±3Ω
RA = 75Ω ±4Ω

Frequency Range:
0-4 GHz

V.S.W.R.: 1.3 max
(With optimized launch design)

Working Voltage:

335 Vrms max

Dielectric Withstanding:

1000 Vrms min

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 1mΩ max

Insulator Resistance:

1000 MΩ min

Operating Temperature:

-65°C to +165°C

RoHS Compliant: Yes

Processing:

Lead-Free Solderable: Yes

Note:
Designed to meet SMPTE
424M 3G-SDI specifications.

SMB7H

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

Mates with:
RF179, GRF7H-C

-J
= Jack

-P
= PCB
Mount

-H
= 30μ" (0.76 μm)
Gold center
contact,
3μ" (0.08 μm)
Gold outer
contact

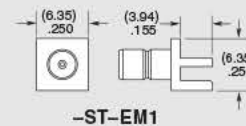
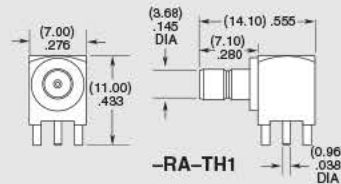
-ST
= Straight

-RA
= Right Angle

-TH1
= Through-hole
(0.90 mm) .035" DIA
Signal Pin

-TH2
= Through-hole
(0.51 mm) .020" DIA
Signal Pin

-EM1
= Edge Mount
(-ST only)



TERMINATION	A (DIA)
-TH1	(0.90) .035
-TH2	(0.51) .020

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?SMB7H-CA

Shell Material:

Brass

Contact Material:

BeCu

Insulator Material:

PTFE

Center Contact:

Soldered

Outer Ferrule:

Crimped

Impedance:

75Ω

Frequency Range:

0-8 GHz (-ST)

0-7 GHz (-RA)

V.S.W.R.:

1.3 max

Working Voltage:

335 Vrms max

Dielectric Withstanding:

1000 Vrms min

Contact Resistance:

Center Contact: 6mΩ max

Outer Contact: 1mΩ max

Insulator Resistance:

1,000 MΩ min

Operating Temperature:

-65°C to +165°C

Note:
Designed to meet SMPTE
424M 3G-SDI specifications.

SMB7H

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

-P
= Plug

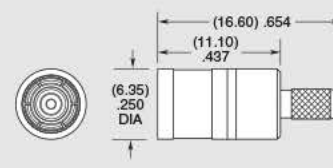
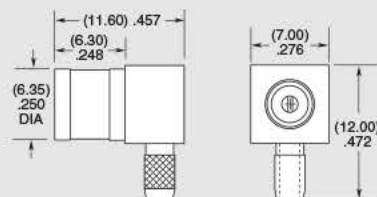
-C
= Cable

-H
= 30μ" (0.76 μm)
Gold center
contact,
3μ" (0.08 μm)
Gold outer
contact

-ST
= Straight

-RA
= Right Angle

-CA3
= RG 179 Cable



Supplied with pins and ferrules. See website for dimensions.

SMP-J-B-GF-ST-1450



SMP-J-C-GF-ST-CA5



SMP-PF-P-HH-ST-EM3



SMP-PF-P-GF-ST-TH2



SMP-J-C-GF-RA-CA7



SMP-PF-P-HH-ST-MT1



SMP SERIES

50Ω SMP JACKS/PLUGS & ADAPTOR

SMP-PF, SMP-PL, SMP-PS, SMP-PC
Mate with:
SMP-B Bullet Adaptor

Cable Mates:
RF405, BE25S, RF25S

SPECIFICATIONS

For complete specifications see www.samtec.com?SMP-TH, www.samtec.com?SMP-EM, www.samtec.com?SMP-MT1, www.samtec.com?SMP-B or www.samtec.com?SMP-CA

Shell Material:
Au plated Brass (-TH2, -EM3, -MT1)
Au plated BeCu (-J-B, -J-C)

Contact Material:
Brass (-TH2, -EM3, -MT1)
BeCu (-CA)

Insulator Material:
PTFE

Impedance:
50Ω

Frequency Range:
DC to 40 GHz,
DC to 20 GHz (25 AWG)

V.S.W.R. (Interface):
1.15: 1 max to 26.5 GHz,
1.5: 1 max to 40 GHz

Working Voltage:
335 Vrms min

Dielectric Withstanding:
500 Vrms min

Contact Resistance:
Center Contact: 6mΩ max
Outer Contact: 2mΩ max

Insulator Resistance:
5000 MΩ min

Engagement Force:
-PF: 15 lbs. max
-PL: 10 lbs. max
-PS & -PC: 2 lbs. max

Disengagement Force:
-PF: 2 lbs. min
-PL: 2 lbs. min
-PS & -PC: 0.5 lbs. min

Operating Temperature:
-65°C to +165°C

RoHS Compliant: Yes

Processing:
Lead-Free Solderable:
Yes

ALTERNATIVE SOLUTIONS

• The SMP Series is an alternative to the Corning Gilbert GPO Series. A mini SMP Series, available as an ASO, is an alternative to the Corning Gilbert GPPO Series.

Note: While optimized for 50Ω applications, this connector can also perform well in certain 75Ω applications. Contact RFGroup@samtec.com for further information.

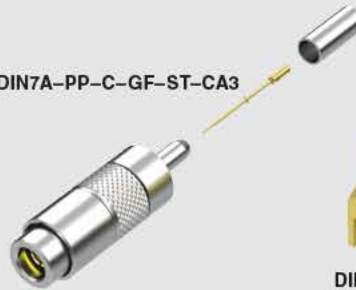
SMP	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION										
	<p>-PF = Plug, Full Detent</p> <p>-PL = Plug, Limited Detent</p> <p>-PS = Plug, Smooth Bore</p> <p>-PC = Plug, Catcher's Mitt</p>	<p>-P = PCB Mount</p>	<p>-GF = 10μ" (0.25 μm) Gold center contact, Gold Flash outer contact (-TH2 only)</p> <p>-HH = 30μ" (0.76 μm) Gold center and outer contact (-EM3 & MT1 only)</p> <p>-HG = 30μ" (0.76 μm) Gold center contact, 10μ" (0.25 μm) Gold outer contact (-MT1 only)</p>	<p>-ST = Straight</p> <table border="1"> <thead> <tr> <th>GENDER</th> <th>A DIA</th> </tr> </thead> <tbody> <tr> <td>-PF</td> <td>(4.19) .165</td> </tr> <tr> <td>-PL</td> <td>(4.19) .165</td> </tr> <tr> <td>-PS</td> <td>(5.99) .236</td> </tr> <tr> <td>-PC</td> <td>(5.99) .236</td> </tr> </tbody> </table>	GENDER	A DIA	-PF	(4.19) .165	-PL	(4.19) .165	-PS	(5.99) .236	-PC	(5.99) .236	<p>-TH2 = Through-hole</p> <p>-EM3 = Drop-in Edge Mount (N/A with -PC)</p> <p>-MT1 = Mixed Technology</p>
GENDER	A DIA														
-PF	(4.19) .165														
-PL	(4.19) .165														
-PS	(5.99) .236														
-PC	(5.99) .236														
		<p>-PF/-PL/-PS-MT1</p>		<p>-EM3</p>											
		<p>-PC-TH2</p>			<p>APPLICATION</p> <table border="1"> <thead> <tr> <th>LENGTH</th> <th>BOARD SPACE</th> </tr> </thead> <tbody> <tr> <td>-0645</td> <td>(9.05) .356</td> </tr> <tr> <td>-1450</td> <td>(17.10) .673</td> </tr> </tbody> </table>	LENGTH	BOARD SPACE	-0645	(9.05) .356	-1450	(17.10) .673				
LENGTH	BOARD SPACE														
-0645	(9.05) .356														
-1450	(17.10) .673														

EXTRACTION TOOL
• CAT-EX-SMP-01
Contact Samtec

SMP	J	TYPE	PLATING	ORIENTATION	BULLET LENGTH	CABLE END
		<p>-B = Bullet Adaptor</p> <p>-C = Cable End</p>	<p>-GF = 10μ" (0.25 μm) Gold center contact, Gold Flash outer contact</p>	<p>-ST = Straight</p> <p>-RA = Right Angle (N/A with -B)</p>	<p>Leave blank for cable end</p> <p>-0645 = 6.45 mm (.254")</p> <p>-1450 = 14.50 mm (.571")</p>	<p>Leave blank for bullet type</p> <p>-CA7 = RG 405 (.086" DIA) Semi-flexible Cable</p> <p>-CA5 = CCA-25M Cable</p> <p>-CS5 = MWC-2550-01 25 AWG Microwave Cable</p>
		<p>-0645</p>				
		<p>-1450</p>		<p>-ST-CXX</p>		<p>-RA-CXX</p>



DIN7A-PP-C-GF-ST-CA3



DIN7A-J-P-GF-RA-BH1

DIN7A-J-P-GF-ST-TH1



DIN7A SERIES

75Ω DIN 1.0/2.3 JACKS & PLUGS

Mates with:

RFB8T, RFA6T, RFB6T,
RF179, GRF7H-C

SPECIFICATIONS

For complete specifications see
www.samtec.com?DIN7A-TH,
www.samtec.com?DIN7A-BH or
www.samtec.com?DIN7A-CA

Shell Material:

Brass

Contact:

Copper Alloy

Insulator Material:

PTFE

Operating Temp Range:

-65°C to +125°C

Impedance:

75Ω

Frequency Range:

Testing Now! *

V.S.W.R.:

Testing Now!

Working Voltage:

250 Vrms

Dielectric Withstanding:

750 Vrms

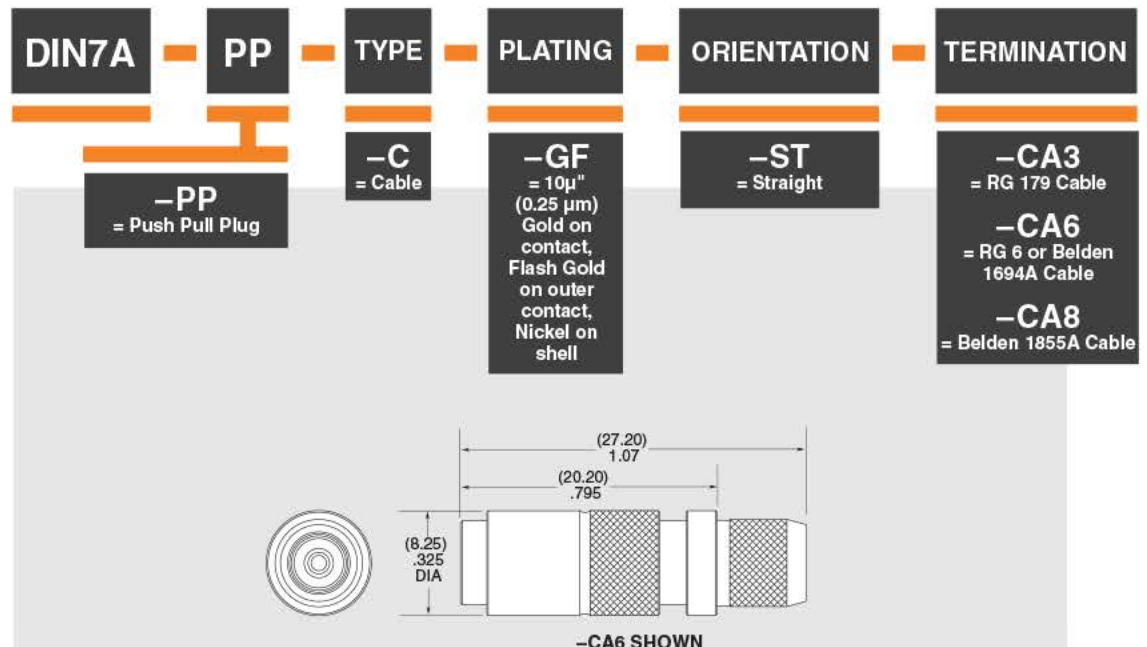
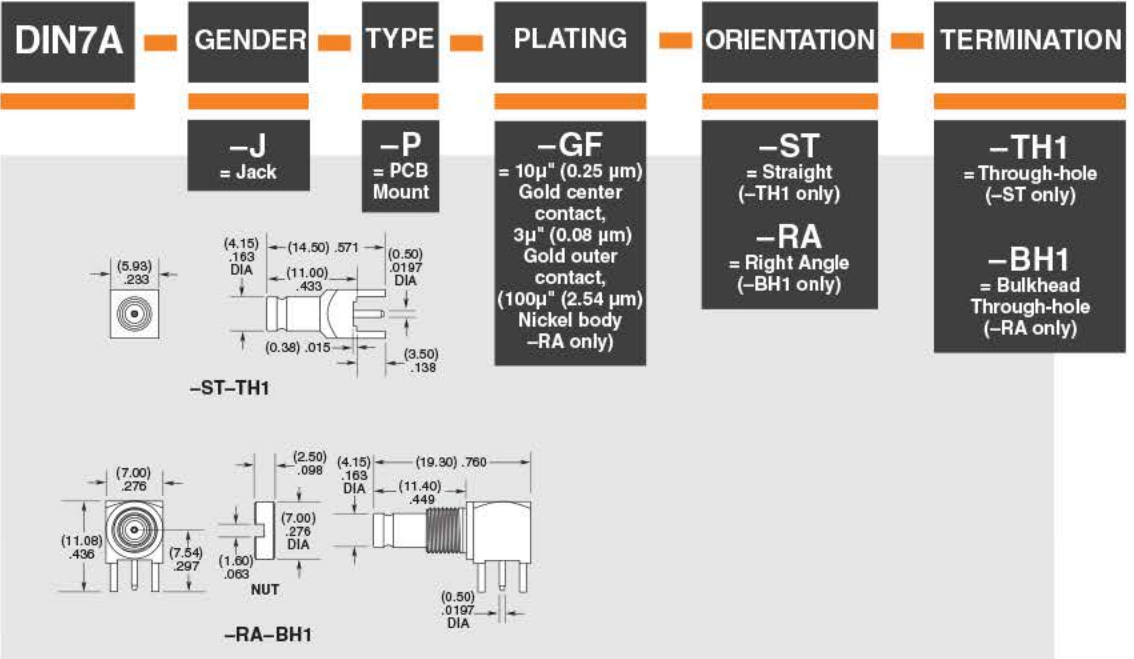
Contact Resistance:

Center Contact: Testing Now!

Outer Contact: Testing Now!

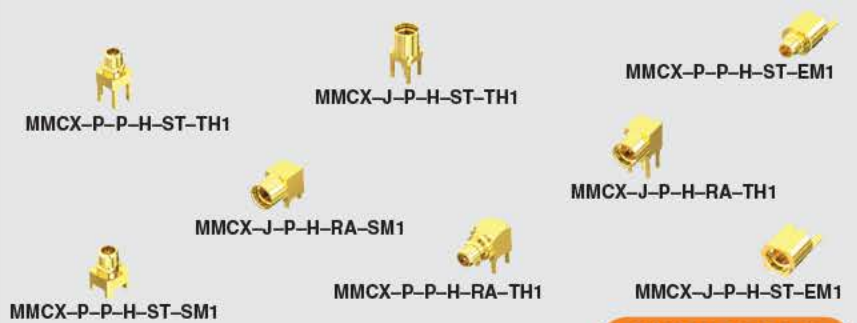
Insulator Resistance:

Testing Now!



Note:
Designed to meet SMPTE
424M 3G-SDI specifications.

Supplied with pins and ferrules. See website for dimensions.



MMCX SERIES

50Ω MMCX MICRO-MINI JACKS & PLUGS

Mates with:
RF174, RF316, RF178,
RS316, GRF1H-C

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?MMCX-EM, www.samtec.com?MMCX-MT, www.samtec.com?MMCX-SM or www.samtec.com?MMCX-TH

- Contact Material:** BeCu
Insulator Material: PTFE
Pin and Shell Material: Brass
Operating Temp Range: -65°C to +125°C
Insulation Resistance: 1000MΩ min
Contact Resistance: Center: 5mΩ
Outer: 2.5mΩ
Impedance: 50Ω
Dielectric Withstanding Voltage: 500 Vrms, 50Hz
Dielectric Working Voltage: 170 Vrms, 50Hz
V.S.W.R.: 1.3 max (-EM, -ST-SM1)
1.5 max (-RA-SM1)
Frequency Range: 0-6 GHz
RoHS Compliant: Yes
Processing: Lead-Free Solderable
Yes

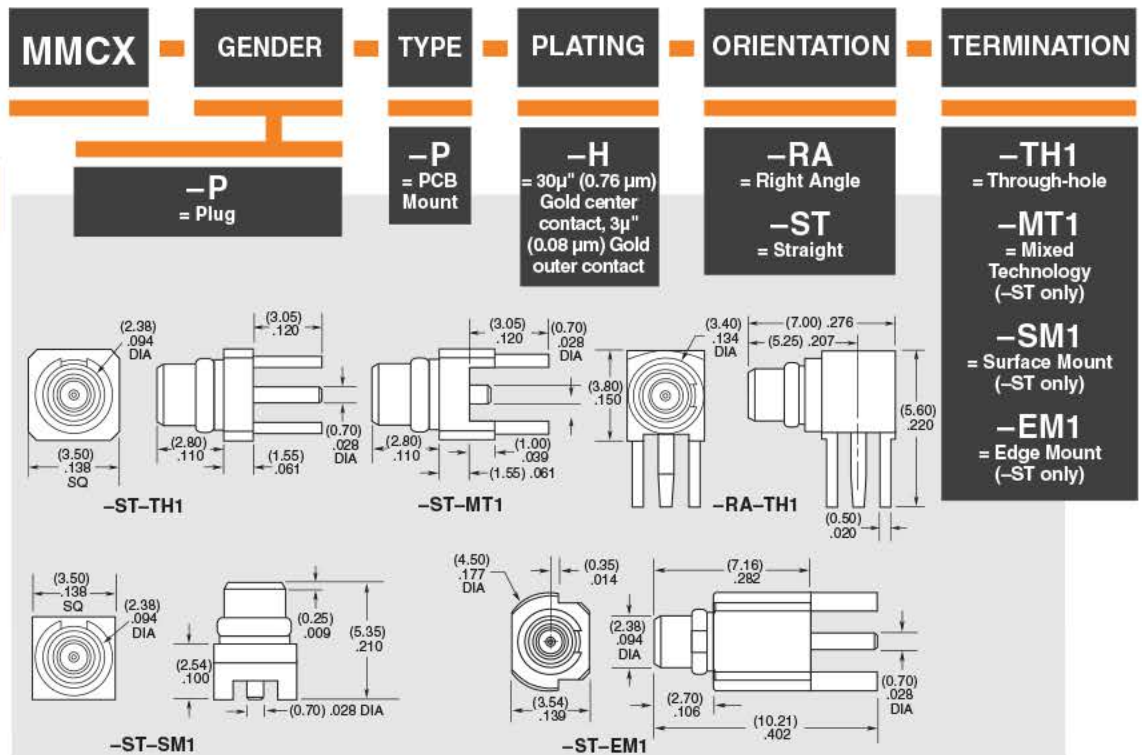
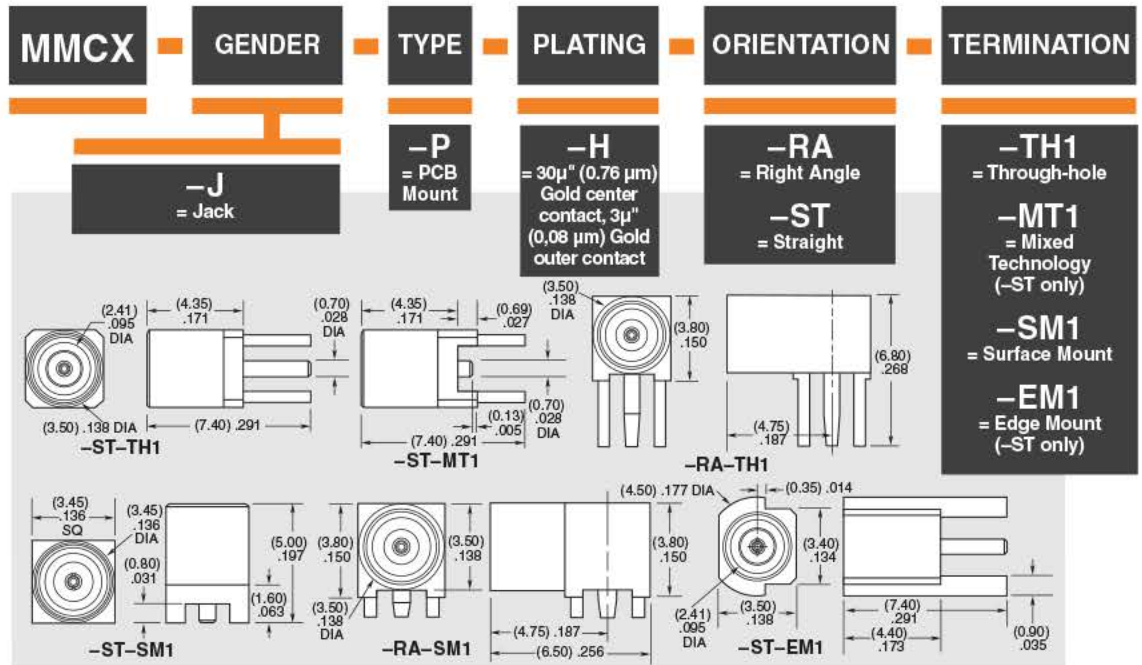
OTHER SOLUTIONS

- High Vibration jacks and plugs. These connectors are not changeable with the MMCX.

Contact Samtec.

Notes:
Random vibration and Resonant Search test reports available online.

75Ω version available. See MMCX7 Series.





MMCX-J-P-HF-SW-EM1



MMCX-J-P-HF-SW-EM1

MMCX-SW SERIES

50Ω MMCX SWITCHABLE JACK

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?MMCX-SW

- Contact Material:** BeCu
- Insulator Material:** PTFE
- Pin and Shell Material:** Brass
- Operating Temp Range:** -65°C to +125°C
- Insulation Resistance:** 500MΩ min
- Contact Resistance:** Center: 5mΩ max
Outer: 3mΩ max
- Impedance:** 50Ω
- Dielectric Withstanding Voltage:** 250 Vrms min
- Dielectric Working Voltage:** 100 Vrms max
- V.S.W.R.:** 1.5 max
- Frequency Range:** Internal: 0~3 GHz
External: 0~6 GHz
- Max Cycles:** 500
- RoHS Compliant:** Yes
- Processing:** Lead-Free Solderable: Yes

Mates with:
RF316, RF178,
RF174, GRF1H-C
(-03SP1 or -03RP1)

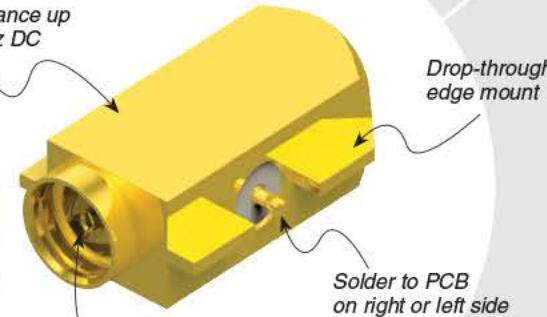
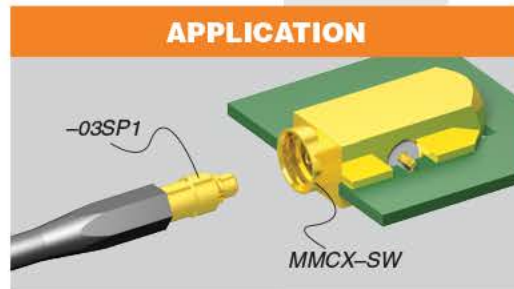
Performance up to 6 GHz DC

Drop-through edge mount

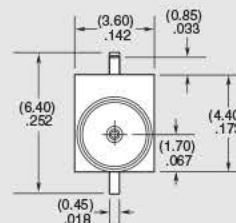
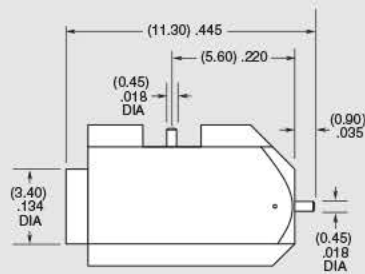
Solder to PCB on right or left side

Switches from internal antenna to external antenna when cable is mated

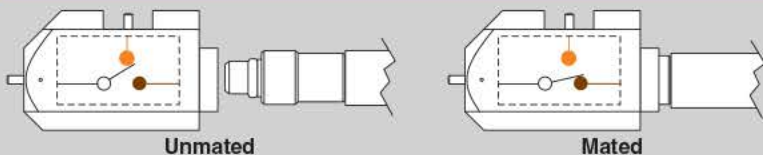
APPLICATION



MMCX	J	P	PLATING	ORIENTATION	TERMINATION	OPTION
				-SW = Switchable	-EM1 = Edge Mount	Leave blank for no Tape & Reel
			-HF = 30μ" (0.76 μm) Gold center contact, 5μ" (0.13 μm) Gold outer contact			-TR = Tape & Reel



APPLICATION





MCX SERIES

50Ω MCX MINI JACKS & PLUGS

Mates with:

RF174, RF316, RF178, RS316, GRF1H-C

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?MCX-TH, www.samtec.com?MCX-SM, www.samtec.com?MCX-EM or www.samtec.com?MCX-MT

Insulator Material:

PTFE

Contact Material:

BeCu, Brass (-P-TH)

Shell Material:

Brass

Operating Temp Range:

-65°C to +125°C

Insulation Resistance:

1000MΩ min

Contact Resistance:

Center: 5mΩ max

Outer: 2.5mΩ max

Impedance:

50Ω

V.S.W.R.:

1.3 max (-ST)

1.5 max (-RA)

Dielectric Withstanding Voltage:

1000 Vrms min, 50Hz

Dielectric Working Voltage:

335 Vrms max

Frequency Range:

0-6 GHz

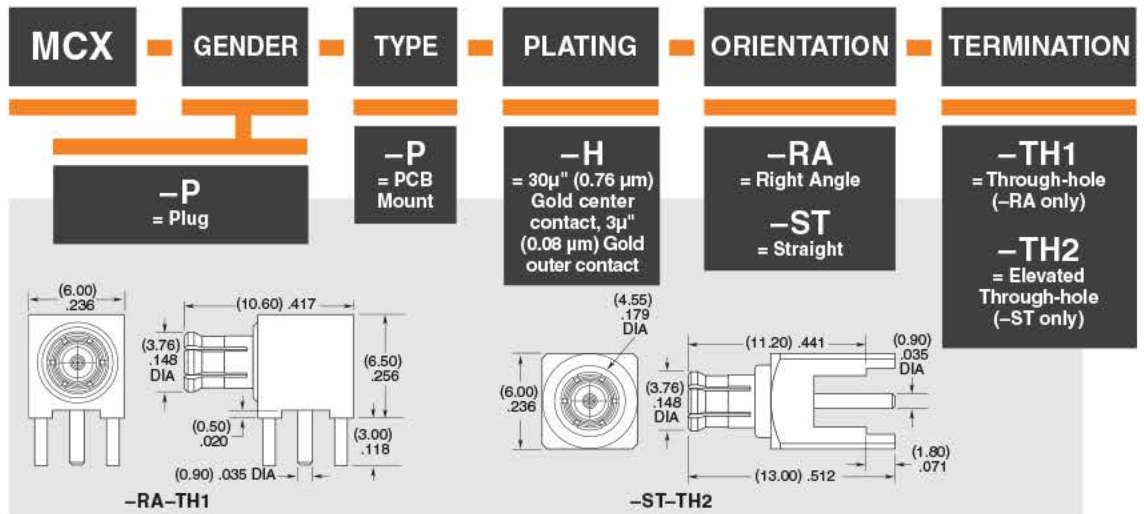
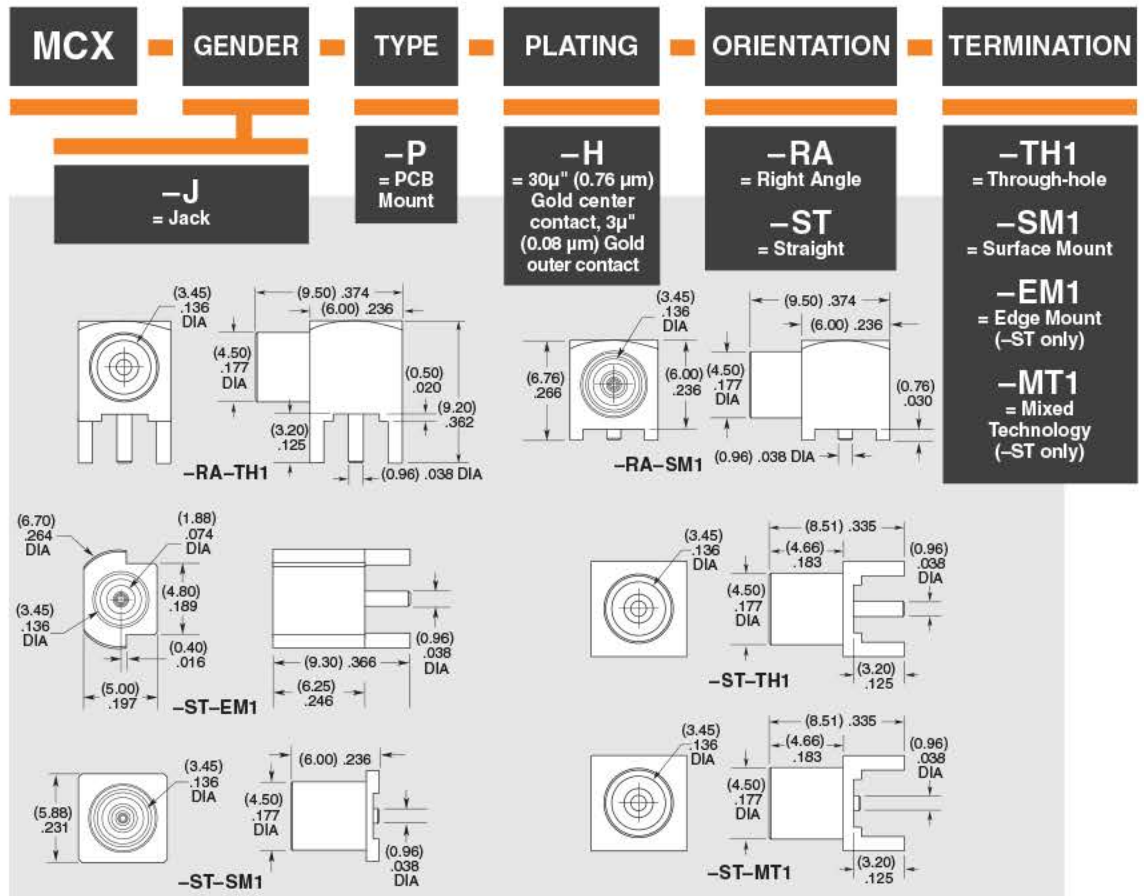
RoHS Compliant:

Yes

Processing:

Lead-Free Solderable:

Yes



Note: 75Ω version available. See MCX7 Series.



MMCX-P-C-H-RA-CA2



MCX-J-C-H-ST-CA1



MCX-P-C-H-RA-CA1



MMCX-CA, MCX-CA SERIES

50Ω MMCX & MCX COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?MMCX-CA

Shell Material:

Brass

Insulator Material:

PTFE

Lead, Contact Socket and Outer Conductor Material:

BeCu with Au plating

Center Contact:

Soldered

Outer Ferrule:

Crimped

Operating Temp Range:

-65°C to +125°C

Insulation Resistance:

1,000MΩ min

Contact Resistance:

Center: 5mΩ

Outer: 2.5mΩ

Impedance:

50Ω

Dielectric Withstanding Voltage:

500 Vrms, 50Hz

Dielectric Working Voltage:

170 Vrms, 50Hz

Frequency Range:

0-6 GHz

(Cable dependent)

MMCX

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

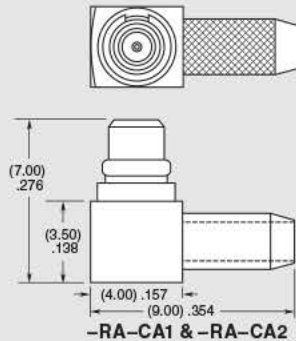
-P
= Plug-C
= Cable

-H
= 30μ" (0.76 μm)
Gold center contact, 3μ"
(0.08 μm) Gold outer contact
(-CA1 & -CA2 only)

-HF
= 30μ" (0.76 μm)
Gold center contact, 3μ"
(0.08 μm) Gold outer contact
(-CA1S only)

-RA
= Right Angle-ST
= Straight-CA1
= RG 174/316 Cable-CA2
= RG 178 Cable

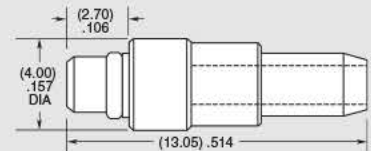
-CA1S
= RG 316 Cable,
Double Shield
(-ST only)



-RA-CA1 & -RA-CA2



-ST-CA1, -ST-CA2 & -ST-CA1S



Supplied with pins and ferrules. See website for dimensions.

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?MCX-CA

Insulator Material:

PTFE

Contact Material:

BeCu

Shell and Pin Material:

Brass

Center Contact:

Soldered

Outer Ferrule:

Crimped

Operating Temp Range:

-65°C to +125°C

Insulation Resistance:

1,000MΩ

Contact Resistance:

Center: 5mΩ

Outer: 2.5mΩ

Impedance:

50Ω

Frequency Range:

0-6 GHz

(Cable dependent)

V.S.W.R.:

1.5 max (-RA)

1.3 max (-ST)

Dielectric Withstanding Voltage:

1,000 Vrms min, 50Hz

Dielectric Working Voltage:

335 Vrms max

MCX

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

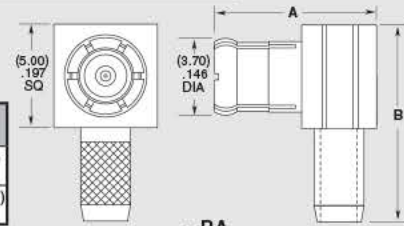
-J
= Jack-P
= Plug-C
= Cable

-H
= 30μ" (0.76 μm)
Gold center contact,
3μ" (0.08 μm)
Gold outer contact
(-CA1 & -CA2 only)

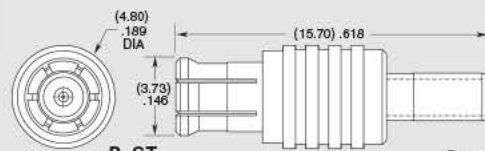
-HF
= 30μ" (0.76 μm)
Gold center contact,
3μ" (0.08 μm)
Gold outer contact
(-CA1S only)

-RA
= Right Angle
(-P only)-ST
= Straight-CA1
= RG 174/316 Cable-CA2
= RG 178 Cable

-CA1S
= RG 316 Cable,
Double Shield
(-ST only)



-RA



-P-ST



J-ST

TYPE (-ST)	E	F
-J-CA1	(4.50) .177	(15.50) .610
-J-CA2	(4.78) .188	(15.00) .591
-J-CA1S	(4.50) .177	(15.50) .610

Supplied with pins and ferrules. See website for dimensions.



MMCX7-J-P-GF-RA-TH1



MMCX7-J-P-GF-ST-TH1



MMCX7-P-P-GF-ST-TH1

MMCX7 SERIES

75Ω MICRO-MINI SYSTEMS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?MMCX7-TH

- Shell Material: Brass
- Insulator Material: PTFE
- Contact Material: BeCu
- Pin Material: Brass
- Operating Temp Range: -65°C to +125°C
- Insulation Resistance: 600 MΩ min
- Contact Resistance: Center: Testing Now! Outer: 25 mΩ
- Impedance: 75Ω
- Dielectric Withstanding Voltage: 500 Vrms, 50 Hz
- Dielectric Working Voltage: 170 Vrms, 50 Hz
- Frequency Range: 0-6 GHz
- RoHS Compliant: Yes
- Processing: Lead-Free Solderable: Yes

MMCX7

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

Mates with:
MMCX7-P, RF179,
GRF7H-C

-J
= Jack

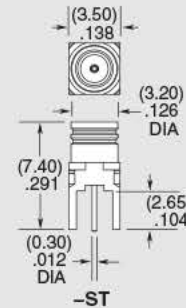
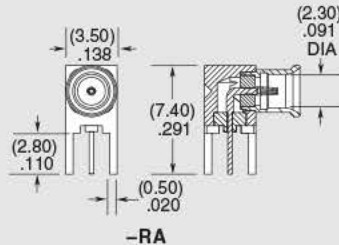
-P
= PCB Mount

-GF
= 10μ" (0.25 μm) Gold center contact,
3μ" (0.08 μm) Gold outer contact

-RA
= Right Angle

-ST
= Straight

-TH1
= Through-hole



OTHER SOLUTIONS

- 75Ω Cable Components available
- Contact Samtec.

MMCX7

GENDER

TYPE

PLATING

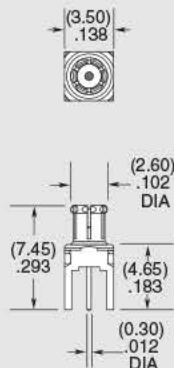
ST

TH1

Mates with:
MMCX7-J, RF179,
GRF7H-C

-P
= Plug

-GF
= 10μ" (0.25 μm) Gold center contact,
3μ" (0.08 μm) Gold outer contact



Note:
Designed to meet SMPTE 424M 3G-SDI specifications.


MCX7 SERIES

75Ω OPTIMIZED MCX JACKS & PLUGS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?MCX7-SM or www.samtec.com?MCX7-TH

Shell Material: Brass
Contact Material: BeCu
Insulator Material: PTFE
Impedance: ST = 75Ω ±3Ω
 RA = 75Ω ±4Ω
Frequency Range: 0-6 GHz
V.S.W.R.: 1.3 max (With optimized launch design)
Working Voltage: 170 Vrms max
Dielectric Withstanding: 500 Vrms min
Contact Resistance: Center Contact: 5mΩ max
 Outer Contact: 2.5mΩ max
Insulator Resistance: 1000 MΩ min
Engagement Force: 4.5 lbs max (-ST only)
Disengagement Force: 2.3 lbs max (-ST only)
Operating Temperature: -65°C to +125°C
 RoHS Compliant: Yes

Processing:
 Lead-Free Solderable: Yes

MCX7
GENDER
TYPE
PLATING
ORIENTATION
TERMINATION

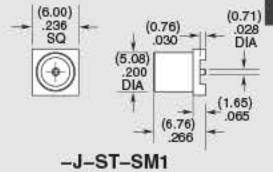
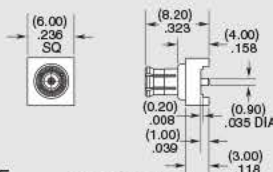
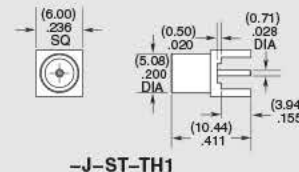
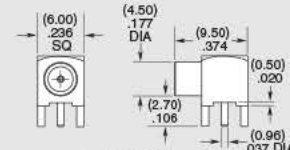
Mates with:
 RF179,
 GRF7H-C

-P
= Plug
-J
= Jack

-P
= PCB Mount
-H
= 30μ" (0.76 μm)
Gold center contact,
3μ" (0.08 μm)
Gold outer contact

-ST
= Straight
-RA
= Right Angle
(-J-TH1 only)

-SM1
= Surface Mount
(-ST only)
-TH1
= Through-hole
(-J only)


-J-ST-SM1

-P-ST-SM1

-J-ST-TH1

-J-RA-TH1

Note:
 Designed to meet SMPTE
 424M 3G-SDI specifications.

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?MCX7-CA

Contact Material: Brass
Finger Shell Material: BeCu
Body Material: Brass
Insulator Material: PTFE
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75Ω
Frequency Range: 0-6 GHz (-ST)
 0-4.5 GHz (-RA)
V.S.W.R.: 1.3 max
Working Voltage: 170 Vrms max
Dielectric Withstanding: 500 Vrms min
Contact Resistance: Center Contact: 5mΩ max
 Outer Contact: 2.5mΩ max
Insulator Resistance: 1,000 MΩ min
Operating Temperature: -65°C to +125°C

MCX7
GENDER
TYPE
PLATING
ORIENTATION
TERMINATION

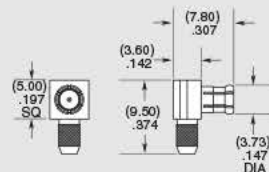
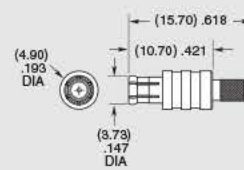
-P
= Plug

-C
= Cable

-H
= 30μ" (0.76 μm)
Gold center contact,
3μ" (0.08 μm)
Gold outer contact

-ST
= Straight
-RA
= Right Angle

-CA3
= RG 179 Cable


-P-RA

-P-ST

Note:
 Designed to meet SMPTE
 424M 3G-SDI specifications.

Supplied with pins and ferrules. See website for dimensions.



-EM & -TH only



HDBNC-J-P-GN-ST-EM1



HDBNC-J-P-GN-ST-BH1



HDBNC-J-P-GN-RA-BH1



HDBNC-J-P-GN-ST-TH1

HDBNC SERIES

75Ω HIGH DENSITY BNC JACKS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?HDBNC-TH, www.samtec.com?HDBNC-BH1 or www.samtec.com?HDBNC-EM

- Shell Material:** Au plated Brass
- Contact Material:** Copper Alloy
- Insulator Material:** PTFE
- Impedance:** 75Ω ±2Ω
- Frequency Range:** -EM & -TH: 0-12 GHz
-RA: 0-6 GHz
- V.S.W.R:** 1.45 max (with optimized launch design)
- Working Voltage:** 330 Vrms max
- Dielectric Withstanding:** 1500 Vrms min
- Contact Resistance:** Center Contact: 1.5mΩ max
Outer Contact: 0.4mΩ max
- Operating Temperature:** -65°C to +125°C
- RoHS Compliant:** Yes
- Lead-Free Solderable:** Yes

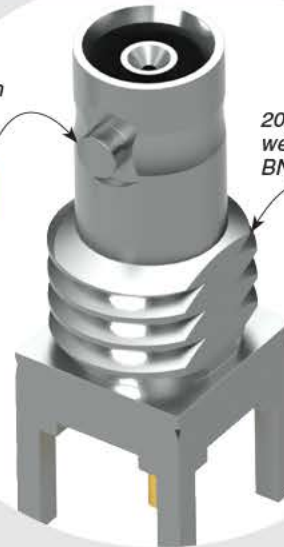
Mates with: RFB6T, RFB8T, RFA6T

4X THE PANEL DENSITY



Patented design and bayonet latch

20% reduction in weight of traditional BNCs

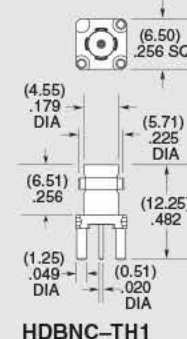
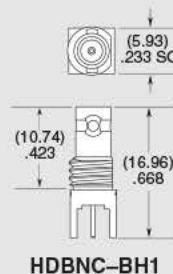
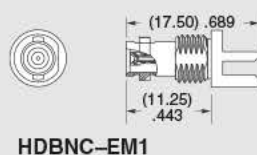
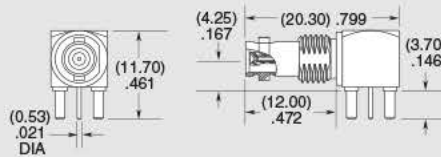


Extended performance of 12G for high density -EM & -TH terminations

EXTRACTION TOOL

- Hand tool for quickly installing/uninstalling Contact Samtec.

HDBNC	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION
-J	-J = Jack	-P = PCB Mount	-GN = 10μ" (0.25 μm) Gold contact, 100μ" (2.54 μm) Nickel shell	-ST = Straight -RA = Right Angle	-BH1 = Through-hole (1.60 mm) .062 Board -BH2 = Through-hole (2.36 mm) .093 Board (-RA only) -EM1 = Edge Mount (-ST only) -TH1 = Through-hole (-ST only)



Notes: Compatible with Amphenol's HD-BNC™

Designed to meet SMPTE 424M 12G-SDI specifications.



HDBNC-P-C-GN-ST-CA8



HDBNC-P-C-GN-ST-CA6



HDBNC-CA SERIES

75Ω HIGH DENSITY BNC COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?HDBNC-CA

Shell Material:

Brass

Contact Material:

Brass

Center Contact:

Soldered

Outer Ferrule:

Crimped

Impedance:

75Ω

Working Voltage:

330 Vrms max

Dielectric Withstanding:

1000 Vrms

Operating Temperature:

-65°C to +125°C

EXTRACTION TOOL

- Hand tool for quickly installing/uninstalling Contact Samtec.

Crimp style plugs use industry standard termination tools

True75™ 3G-SDI performance

Choice of RG 6, Belden 1694A or Belden 1855A cable terminations

HDBNC

GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

-P
= Plug

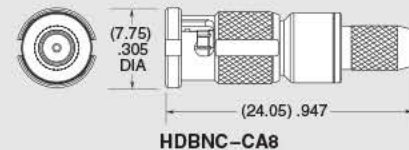
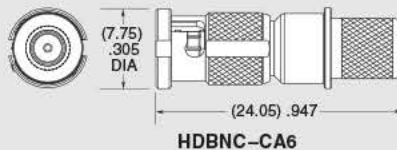
-C
= Cable

-GN
= 10μ"
(0.25 μm)
Gold on contact,
Nickel on
outer
contact
and shell

-ST
= Straight

-CA6
= RG 6
or Belden 1694A Cable

-CA8
= Belden 1855A Cable



Notes:
Compatible with Amphenol's HD-BNC™

Designed to meet SMPTE 424M 3G-SDI specifications.

Supplied with pins and ferrules. See website for dimensions.



-EM & -TH only

BNC7T-J-P-GN-ST-EM1

BNC7T-J-P-GN-RA-BH2D

BNC7T-J-C-GN-ST-BH3

BNC7T SERIES

75Ω OPTIMIZED BNC JACKS & PLUGS

Mates with:
RF179, RFA6T,
RFB6T, GRF7H-C

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?BNC7T-TH, www.samtec.com?BNC7T-BH or www.samtec.com?BNC7T-EM

Shell Material:
Ni plated Brass
(-TH1, -BH1, -EM1, -EM2)
Zinc (-TH2D, -BH2D,
-EM1D, -EM2D)

Contact Material: Copper Alloy
Insulator Material: PTFE

Impedance:
ST = 75Ω ±2Ω
RA = 75Ω ±4Ω

Frequency Range: 0-12 GHz
V.S.W.R.: 1.45 max

Working Voltage: 500 Vrms
Dielectric Withstanding:
1500 Vrms min

Contact Resistance:
Center Contact: 1.5mΩ max
Outer Contact: 0.4mΩ max

Operating Temperature:
-65°C to +125°C

RoHS Compliant: Yes

Lead-Free Solderable: Yes

TOOL

Tool for quickly installing/uninstalling knurl nut for BNC7T Series
Part Number:
TOOL-BNC7T-01

BNC7T	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION	
	-J = Jack	-P = PCB Mount	-GN = 10μ" (0.25 μm) Gold contact, 100μ" (2.54 μm) Nickel shell	-ST = Straight -RA = Right Angle Bulkhead/Panel Mount	-TH1 = Standard Through-hole -TH2D = Tall Through-hole -BH1 = Standard Bulkhead Through-hole (-RA only) -BH2D = Low Profile Die Cast Bulkhead Through-hole (-RA only) -EM1* = Edge Mount Bulkhead/Panel Mount for (1.60 mm) .062" PCB (-ST only)	-EM1D* = Edge Mount Die Cast Bulkhead/Panel Mount for (1.60 mm) .062" PCB (-ST only) -EM2* = Edge Mount Bulkhead/Panel Mount for (2.40 mm) .093" PCB (-ST only) -EM2D* = Edge Mount Die Cast Bulkhead/Panel Mount for (2.40 mm) .093" PCB (-ST only)

* Lock washers & knurled nuts supplied with Bulkhead/Panel Mount options

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?BNC7T-CA

Shell Material:
Brass
Contact Material:
Brass (-P), Copper Alloy (-J)
Center Contact:
Soldered
Outer Ferrule:
Crimped
Impedance:
75Ω

Frequency Range:
0-4 GHz (-P), 0-3.5 GHz (-J)
V.S.W.R.:
1.3 max

Working Voltage: 500 Vrms
Dielectric Withstanding:
1500 Vrms min

Contact Resistance:
Center Contact: 3mΩ max
Outer Contact: 2mΩ max

Insulator Resistance:
5,000 MΩ min
Operating Temperature:
-65°C to +125°C

BNC7T	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION	
	-P = Plug -J = Jack	-C = Cable	-GN = 10μ" (0.25 μm) Gold on contact, Nickel on outer contact and shell	-ST = Straight -RA = Right Angle (-P only)	-CA3 = RG 179 Cable (-P only) -CA3D = RG 179 Cable Die Cast (-P-ST only) -BH3 = Bulkhead, RG 179 Cable (-J only)	-CA6 = RG 6 or Belden 1694A Cable (-P only) -CA6D = RG 6 or Belden 1694A Cable Die Cast (-P-ST only)

Supplied with pins, ferrules, washers, nuts and gaskets. See website for dimensions.

INDEX

WEB

BNC5-P-C-GN-ST-CA1



BNC5-J-P-GN-RA-BH2D

BNC5 SERIES

50Ω BNC CABLE COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?BNC5-CA

Shell Material:

Brass

Contact Material:

Brass (-P)

Copper Alloy (-J)

Center Contact:

Soldered

Outer Contact:

Crimped

Impedance:

50Ω

Frequency Range:

0-4 GHz

(Cable dependent)

V.S.W.R.:

1.3 max

Working Voltage:

500 Vrms max

Dielectric Withstanding:

1500 Vrms min

Contact Resistance:

Center Contact: 3mΩ max

Outer Contact: 2mΩ max

Insulator Resistance:

5,000 MΩ min

Operating Temp Range:

-65°C to +125°C



OTHER SOLUTIONS

- 50Ω BNC Board Jacks
- 50Ω TNC Board Jacks
- 50Ω TNC Cable Components
- Contact Samtec.

BNC5

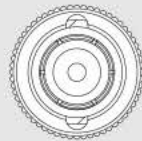
GENDER

TYPE

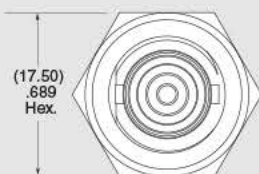
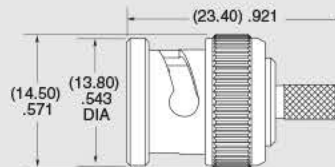
PLATING

ORIENTATION

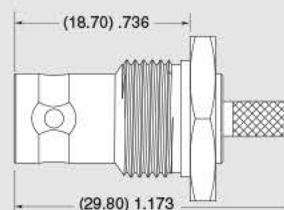
TERMINATION

-P
= Plug-J
= Jack-C
= Cable-GN
= 10μ"
(0.25 μm)
Gold on contact,
Nickel on body-ST
= Straight-CA1
= RG 174 / 316 Cable
(-P only)-CA2
= RG 178 Cable
(-P only)-BH1
= Bulkhead,
RG 174 / 316 Cable
(-J only)-BH2
= Bulkhead,
RG 178 Cable
(-J only)-BH1S
= Bulkhead,
RG 316 Cable,
Double Shield
(-J only)

-P



-J



Supplied with pins, washers, nuts, gaskets and ferrules. See website for dimensions.

INDEX

WEB



NTPE-J-C-GN-ST-BH1



NTPE-J-C-GN-ST-BH1

NTPE SERIES

50Ω N TYPE RF COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com?NTPE-CA

Shell Material:

Brass

Contact Material:

Phosphor Bronze

Insulator Material:

PTFE

Center Contact:

Soldered

Outer Contact:

Crimped

Impedance:

50Ω

Frequency Range:

0-3 GHz

(Cable dependent)

V.S.W.R.:

1.3 max

Working Voltage:

1000 Vrms max

Dielectric Withstanding:

2500 Vrms min

Contact Resistance:

Center Contact: 3mΩ max

Outer Contact: 2mΩ max

Insulator Resistance:

5,000 MΩ min

Operating Temp Range:

-65°C to +125°C



NTPE

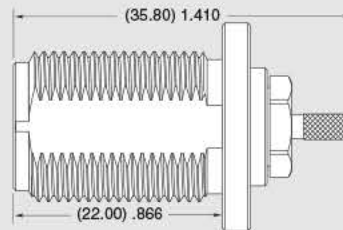
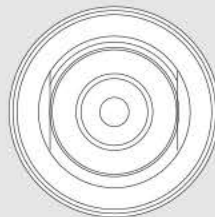
GENDER

TYPE

PLATING

ORIENTATION

TERMINATION

-J
= Jack-C
= Cable-GN
= 10μ"
(0.25 μm)
Gold on
contact,
Nickel on
body-ST
= Straight-BH1
= Bulkhead,
RG 174 &
RG 316 Cable

Supplied with pins, washers, nuts, gaskets and ferrules. See website for dimensions.



ADP5-06SJ2-V3SJ1



ADP5-06SP2-V3SP1

ADP5 SERIES

50Ω OPTIMIZED ADAPTORS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?ADP5

Shell Material:

Brass

Contact Material:

BeCu, Copper Alloy, Phosphor Bronze, or Brass

Impedance:

50Ω

Frequency Range:

0-6 GHz

Contact Resistance:

Center:

5mΩ max (MMCXV),

3mΩ max (N Type)

Outer:

2mΩ max (N Type),

2.5mΩ max (MMCXV)

Insulator Resistance:

5,000 mΩ min.

Operating Temp Range:

-50°C to +165°C

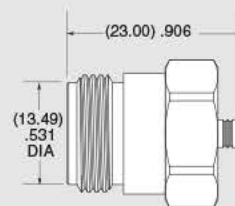
Mates with:

RF174, RF316, RF178, RF058, GRF1H-C

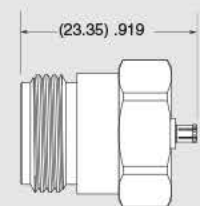


N TYPE TO MMCXV

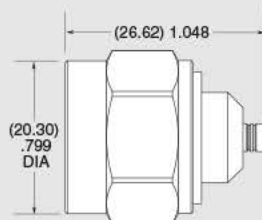
ADP5 ADAPTOR	PART NUMBER
N Type Jack to MMCXV Jack	ADP5-06SJ2-V3SJ1
N Type Jack to MMCXV Plug	ADP5-06SJ2-V3SP1
N Type Plug to MMCXV Jack	ADP5-06SP2-V3SJ1
N Type Plug to MMCXV Plug	ADP5-06SP2-V3SP1
Plating: N Type jack/plug = 30μ" (0.76 μm) Gold center contact, 100μ" (2.54 μm) Nickel outer contact MMCXV jack/plug = 30μ" (0.76 μm) Gold center contact, Gold flash outer contact	



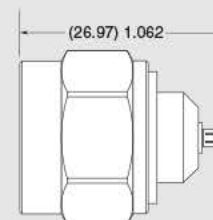
ADP5-06SJ2-V3SJ1



ADP5-06SJ2-V3SP1



ADP5-06SP2-V3SJ1



ADP5-06SP2-V3SP1



ADP7-04SP2-H4SJ2



ADP7-04SJ2-H4SP2

ADP7-04SJ2-H4SJ2



ADP7-04SP2-H4SP2

ADP7 SERIES

75Ω OPTIMIZED ADAPTORS

Mates with:

RFA6T, RFB6T,
RFB8T, RF179, HDBNC,
BNC7T, MMCX7, GRF7H-C

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?ADP7

Shell Material:

Brass

Contact Material:

BeCu (Jack)

Brass (Plug to Plug)

Impedance:

75Ω

Frequency Range:

3 GHz +

V.S.W.R.:

1.2 max (0-3 GHz)

Working Voltage:

170 Vrms

Dielectric Withstanding:

500 Vrms

Contact Resistance:

Center: 1.5mΩ max

(BNC, HDBNC),

3mΩ max (N Type),

Outer: 0.4mΩ max

(BNC, HDBNC),

2mΩ max (N Type),

Insulator Resistance:

5,000 mΩ min.

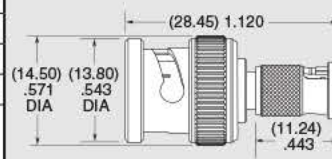
Operating Temp Range:

-65°C to +165°C

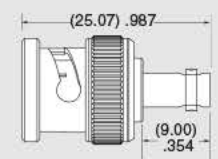
BNC TO HDBNC

ADP7 ADAPTOR	PART NUMBER
BNC Jack to HDBNC Jack	ADP7-04SJ2-H4SJ2
BNC Jack to HDBNC Plug	ADP7-04SJ2-H4SP2
BNC Plug to HDBNC Jack	ADP7-04SP2-H4SJ2
BNC Plug to HDBNC Plug	ADP7-04SP2-H4SP2

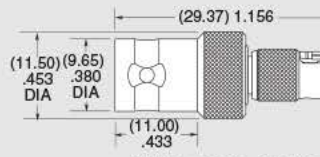
Plating:
BNC jack/plug =
30μ" (0.76 μm) Gold center contact,
100μ" (2.54 μm) Nickel outer contact
HDBNC jack/plug =
30μ" (0.76 μm) Gold center contact,
100μ" (2.54 μm) Nickel outer contact



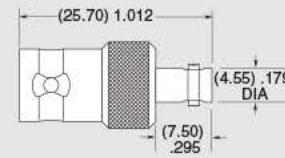
ADP7-04SP2-H4SP2



ADP7-04SP2-H4SJ2



ADP7-04SJ2-H4SP2

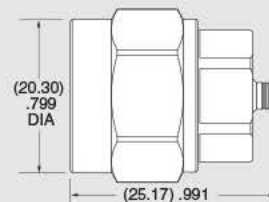


ADP7-04SJ2-H4SJ2

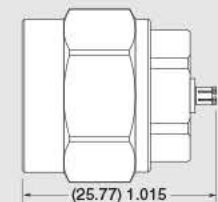
N TYPE TO MMCX7

ADP7 ADAPTOR	PART NUMBER
N Type Jack to MMCX7 Jack	ADP7-76SJ2-7VSJ1
N Type Jack to MMCX7 Plug	ADP7-76SJ2-7VSP1
N Type Plug to MMCX7 Jack	ADP7-76SP2-7VSJ1
N Type Plug to MMCX7 Plug	ADP7-76SP2-7VSP1

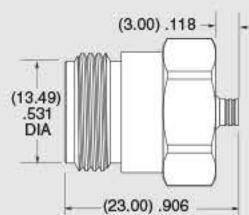
Plating:
N Type jack/plug =
30μ" (0.76 μm) Gold center contact,
100μ" (2.54 μm) Nickel outer contact
MMCX7 jack/plug =
30μ" (0.76 μm) Gold center contact,
Gold flash outer contact



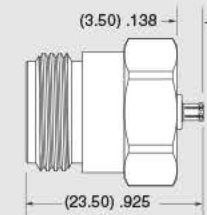
ADP7-76SP2-7VSJ1



ADP7-76SP2-7VSP1



ADP7-76SJ2-7VSJ1



ADP7-76SJ2-7VSP1

Note:
Designed to meet SMPTE
424M 3G-SDI specifications.

ORIGINAL RF SOLUTIONS

100Ω SYSTEMS

Shielded Twisted Pair Twinax Cable (C285).....	68
Twinax Jack (CJT).....	68

5.00 mm PITCH

50Ω Micro-Mini Ganged Cable (GRF1-C, GRF1H-C)	69-71
75Ω True75™ Micro-Mini Ganged Cable (GRF7H-C).....	72-73
50Ω Micro-Mini Ganged Connectors (GRF1-J, GRF1-P).....	74
75Ω Micro-Mini Ganged Connectors (GRF7-J, GRF7-P)	75

4.00 mm PITCH

50Ω IsoRate® Cable (IJ5C, IJ5H).....	76-77
50Ω IsoRate® Connectors (IJ5, IP5)	78-79
75Ω True75™ IsoRate® Connectors (IJ7, IP7)	80

0.635 mm PITCH

Q2™ High Speed Combo Connectors (QFS-RF, QMS-RF)	81
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APPLICATIONS

Original RF Solutions.....	12
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C28S, CJT SERIES

100Ω SHIELDED TWISTED PAIR SYSTEM

SPECIFICATIONS

For complete specifications see www.samtec.com?C28S

RF Connector:

Outer Contact Material: Phosphor Bronze (Plug), Brass (Jack)
Center Contact Material: Phosphor Bronze (Terminals), BeCu (Sockets)
Insulator Material: PTFE

Operating Temperature:

-40°C to +85°C

Voltage Rating:

200 VAC

Frequency Range:

0 - 4 GHz

Impedance:

100Ω

RoHS Compliant:

Yes

Cable:

28 AWG shielded twisted pair

Signal Routing:

100Ω Differential

Jacket Material:

PVC

Insulator Material:

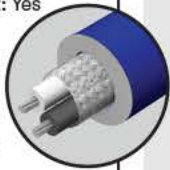
PTFE

RoHS Compliant:

Yes

Note:

Cable lengths longer than 36.00" (0.92 meter) are not supported with S.I. test data.



TYPE	OVERALL LENGTH	END 1 CONNECTOR	END 2 CONNECTOR																								
Mates with: CJT, C28S	- "XX.XX" = Overall Length in Inches (101.6 mm) 04.00" minimum	Specify END OPTIONS from chart																									
C28S = 28 AWG shielded twisted pair	<table border="1"> <thead> <tr> <th colspan="2">END OPTIONS</th> </tr> </thead> <tbody> <tr> <td>-SPS8 = Straight Plug with Sockets (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)</td> <td></td> </tr> <tr> <td>-RPS8 = Right Angle Plug with Sockets (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)</td> <td></td> </tr> <tr> <td>-BJT8 = Bulkhead Jack with Terminals (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)</td> <td></td> </tr> <tr> <td>-SING = Single Ended (End 2 callout)</td> <td></td> </tr> <tr> <td>-XXXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)</td> <td></td> </tr> </tbody> </table>			END OPTIONS		-SPS8 = Straight Plug with Sockets (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)		-RPS8 = Right Angle Plug with Sockets (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)		-BJT8 = Bulkhead Jack with Terminals (30μ" (0.76 μm) Gold on Center and Outer Contact, Gold Flash on Shell)		-SING = Single Ended (End 2 callout)		-XXXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)													
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-XXXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)																											
<p>XX.XX = OAL (inches)</p> <p>-RPS8-BJT8 SHOWN</p>																											
<p>ALSO AVAILABLE (MOQ Required)</p> <ul style="list-style-type: none"> Additional stripping and tinning options Contact Samtec. 																											
<table border="1"> <thead> <tr> <th colspan="4">STRIPPED & TINNED (Dimensions in inches)</th> </tr> <tr> <th>CALLOUT</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>-303030</td> <td>.30</td> <td>.30</td> <td>.30</td> </tr> <tr> <td>-303040</td> <td>.30</td> <td>.30</td> <td>.40</td> </tr> <tr> <td>-403030</td> <td>.40</td> <td>.30</td> <td>.30</td> </tr> <tr> <td>-403040</td> <td>.40</td> <td>.30</td> <td>.40</td> </tr> </tbody> </table> <p>Both center conductors and braid shield are stripped, only the center conductors are tinned.</p>				STRIPPED & TINNED (Dimensions in inches)				CALLOUT	A	B	C	-303030	.30	.30	.30	-303040	.30	.30	.40	-403030	.40	.30	.30	-403040	.40	.30	.40
STRIPPED & TINNED (Dimensions in inches)																											
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-303030	.30	.30	.30																								
-303040	.30	.30	.40																								
-403030	.40	.30	.30																								
-403040	.40	.30	.40																								

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?CJT-TH or www.samtec.com?CJT-BH

Shell Material:

Brass

Insulator Material:

PTFE

Contact Material:

Phosphor Bronze

Frequency Range:

0 - 4 GHz

Working Voltage:

200 VAC

Impedance:

100Ω

RoHS Compliant:

Yes

Lead-Free Solderable:

Yes

CJT	GENDER	TYPE	PLATING	ORIENTATION	TERMINATION
Mates with: C28S	-T = Jack	-P = PCB Mount	-HH = 30μ" (0.76 μm) Gold on pins and outer contact	-ST = Straight -RA = Right Angle	-TH1 = Standard Through-hole -BH1* = Standard Bulkhead Through-hole (-RA only)
<p>* Lock washer, nut and gasket supplied unassembled with Bulkhead option.</p>					



(5.00 mm) .197"



GRF1-P-C-08-1000-C1-S-S

GRF1-P-C-04-0600-C1-S-S

GRF1-C SERIES

50Ω GANGED MICRO-MINI RF CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?GRF1-C

Shell Material:

Brass

Insulator Material:

PTFE

Contact Material:

BeCu

Pin Material:

Brass

Plating:

30μ" (0.76 μm) Au over

50μ" (1.27 μm) Ni

Operating Temp Range:

-40°C to +90°C

Impedance:

50Ω

RoHS Compliant:

Yes

RG 316 Cable:

Impedance:

50Ω

Capacitance:

96.432 pF/meter

Propagation Delay:

4.83 nsec/meter

Max Attenuation

(cable only):

1.25dB @ 1 GHz for 1 meter

Conductor Size:

26 AWG, (0.51 mm) .020" dia.

Conductor Material:

Silver Plated Copper

Insulator Diameter:

(1.52 mm) .060"

Insulator Material:

PTFE

Shield Material:

Silver Plated Copper Clad Steel

Jacket Material:

FEP

Jacket Diameter:

(2.54 mm) .100"

Jacket Color:

Amber

Bend Radius:

12.7 mm

RoHS Compliant:

Yes

Mates with:

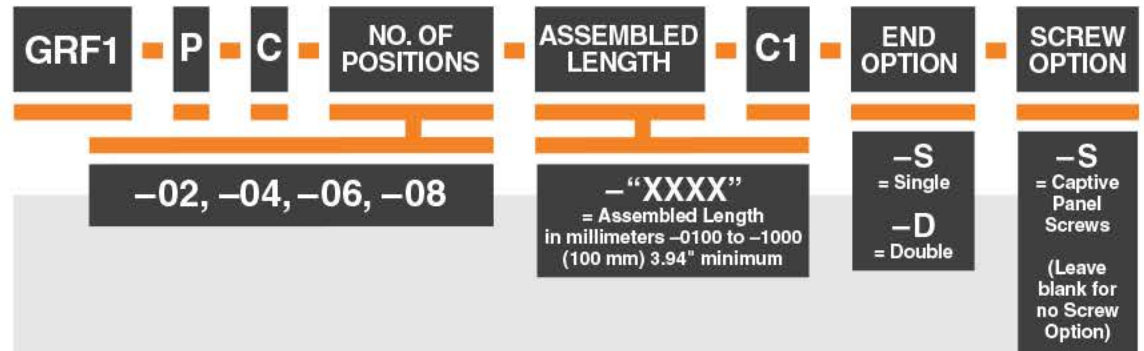
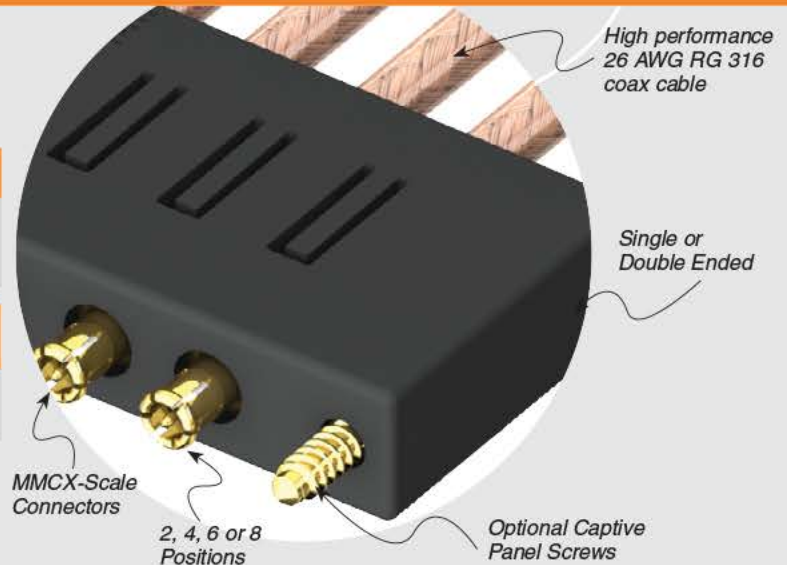
GRF1-J

TOOLING

Application Tooling.
Contact atg@samtec.com
for more information.

OTHER SOLUTIONS

- 50Ω Board-to-Board system (see GRF1-J & GRF1-P Series)



RECOGNITIONS

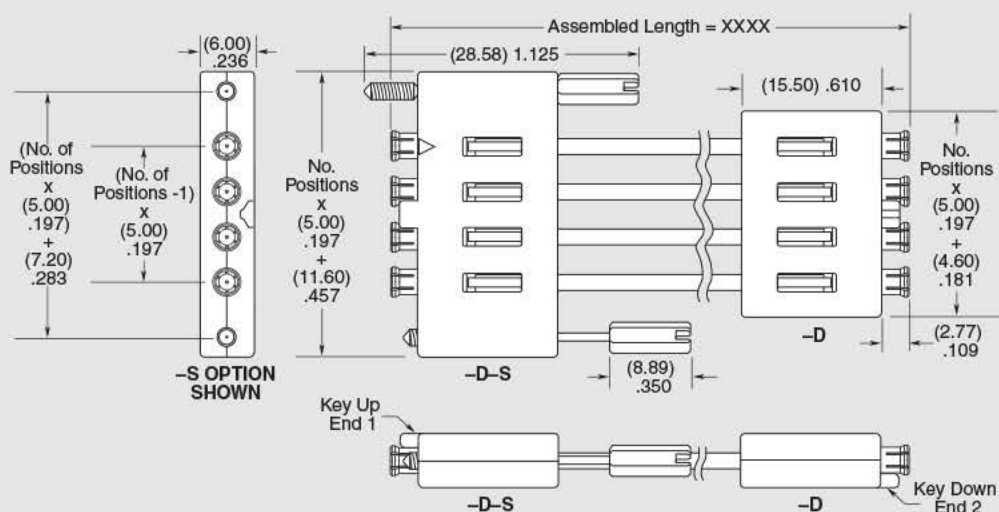
For complete scope of recognitions see www.samtec.com/quality



Notes:

Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

This Series is non-standard, non-returnable.





(5.00 mm) .197"

GRF1H-4-0300-1-CA1-S-02SP1



50Ω HYBRID MICRO-MINI RF CABLE

SPECIFICATIONS

For complete specifications see
www.samtec.com?GRF1H-C

RF Connector:

Shell Material:

Brass
(GRF, SMA, MCX, MMCX,
SMB, BNC)

Insulator Material:

PTFE

Contact Material:

Brass
(GRF, SMA, MCX, MMCX,
SMB-J, BNC-P, TNC-P)
Phosphor Bronze
(SMB-P-ST, TNC-J, N Type)
BeCu
(SMB-P-RA)
Copper Alloy
(BNC-J)

Operating Temp Range:

-40°C to +90°C

Impedance:

50Ω

RoHS Compliant:

Yes

RG 316 Cable:

Impedance:

50Ω

Capacitance:

96.432 pF/meter

Propagation Delay:

4.83 nsec/meter

Max Attenuation

(cable only):

1.25dB @ 1 GHz for 1 meter

Conductor Size:

26 AWG,

(0.51 mm) .020" dia.

Conductor Material:

Silver Plated Copper

Insulator Material:

PTFE

Shield Material:

Silver Plated

Copper Clad Steel

Jacket Material:

FEP

Jacket Diameter:

(2.54 mm) .100"

Jacket Color:

Amber

Bend Radius:

12.7 mm

RoHS Compliant:

Yes

Mates with:

GRF1-J, SMA,
MCX, SMB5, MMCX,
BNC5, TNC, NTPE

High performance
26 AWG RG 316
coax cable

2, 4, 6 or 8
Positions

MMCX-Scale
Connectors

Optional Captive
Panel Screws

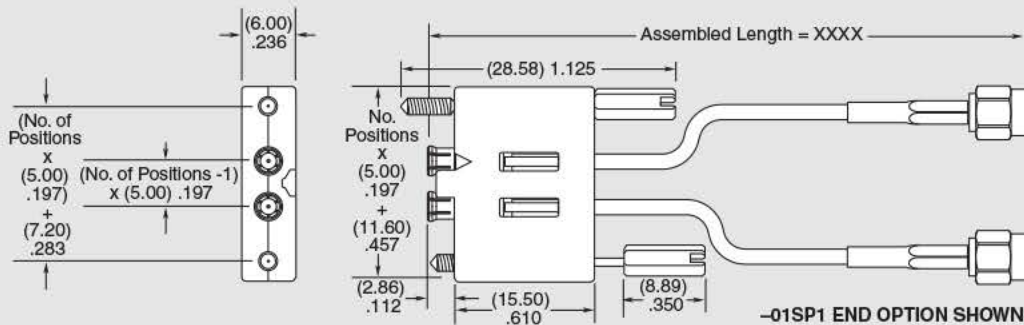
GRF1H

NO. OF
POSITIONSASSEMBLED
LENGTH

-2, -4, -6, -8

- "XXXX"

= Assembled Length in millimeters
-0100 (0100 mm) 3.94" minimum



END OPTIONS		END OPTIONS	
-01SP1 = SMA Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-07SP1 = SMB Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-01RP1 = SMA Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-07RP1 = SMB Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-01PN1 = SMA Straight Panel Mount Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-02SJ1 = MCX Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	

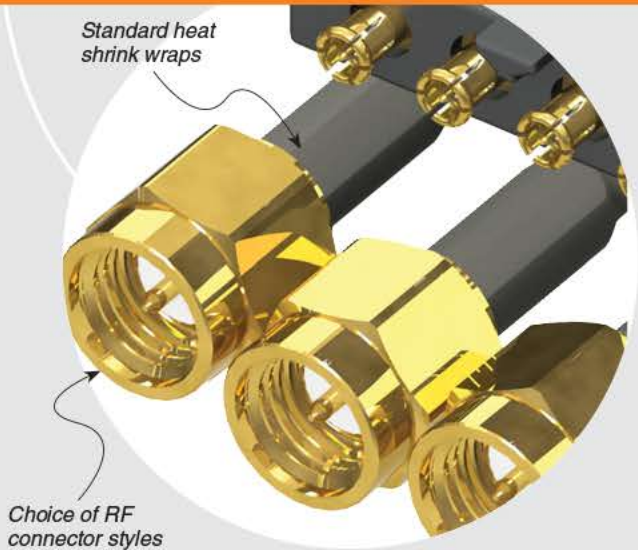
Notes:

Cable lengths longer than
40.00" (1 meter) are not
supported with S.I. test data.

This Series is non-standard,
non-returnable.



GRF1H-C SERIES



END 1 PLATING

CABLE TYPE

SCREW OPTION

END 2 OPTION

-1

= All Gold components

-CA1

= RG 316 cable

-S

= Captive Panel Screws
(Leave blank for no Screw Option)

Specify END OPTIONS from chart

END OPTIONS	
-02SP1 = MCX Straight Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-02RP1 = MCX Right Angle Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-03SP1 = MMCX Straight Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-03RP1 = MMCX Right Angle Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-04SP3 = BNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	

END OPTIONS	
-05SP3 = TNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	
-01BJ1 = SMA Straight Bulkhead Jack	
-01BR1 = SMA Straight Bulkhead Jack, Reversed Polarity	
-01SB1 = SMA Straight Bulkhead Jack, Sealed	
-01SR1 = SMA Straight Bulkhead Jack, Sealed, Reversed Polarity (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	

END OPTIONS	
-07BJ1 = SMB Straight Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-04BJ2 = BNC Straight Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)	
-05BJ3 = TNC Straight Bulkhead Jack (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	
-06BJ2 = N Type Straight Bulkhead Jack (30µ" (0.76 µm) Gold on Center Contact, Nickel on Shell)	



(5.00 mm) .197"



GRF7H-4-0500-1-CA3-S-73SP1

75Ω HYBRID MICRO-MINI RF CABLE

SPECIFICATIONS

For complete specifications see www.samtec.com?GRF7H-C

RF Connector:

Shell Material:
Brass
(GRF, MCX, SMB,
DIN, BNC, MMCX7-J)
BeCu
(MMCX7-P)

Insulator Material:
PTFE

Contact Material:
BeCu
(GRF, SMB)
Brass
(MCX, BNC-P, MMCX7)
Copper Alloy
(DIN, BNC-J)

Operating Temp Range:
-40°C to +90°C

Impedance:
75Ω

RoHS Compliant:
Yes

RG 179 Cable:

Impedance:
75Ω ±3Ω
Capacitance:
64 pF/meter
**Max Attenuation
(cable only):**
0.8dB @ 1GHz for 1 meter
Conductor Size:
30 AWG, (0.31 mm) .012" dia.

Conductor Material:
Silver Plated Copper
Insulator Material:
PTFE

Shield Material:
Silver Plated Copper
Jacket Material:
FEP

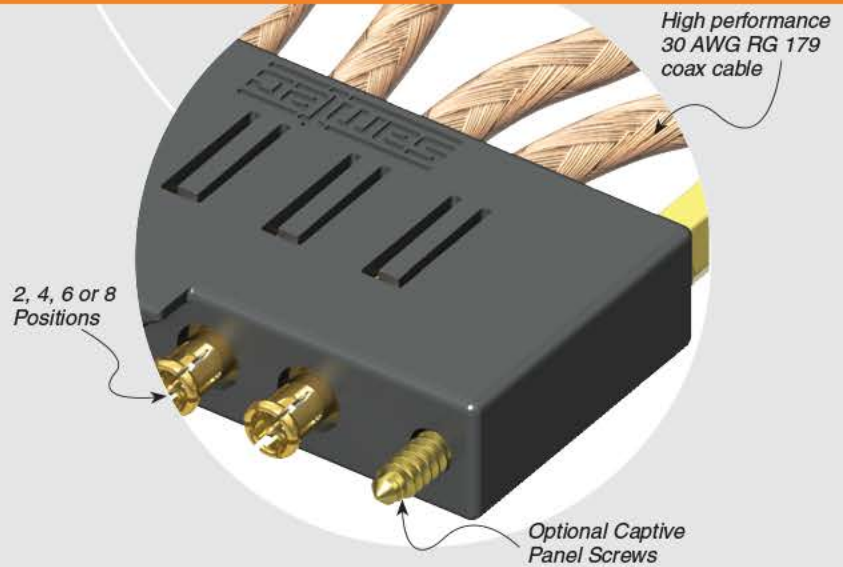
Jacket Diameter:
(2.54 mm) .100"

Jacket Color:
Amber

Bend Radius:
10.2 mm

RoHS Compliant:
Yes

Mates with:
GRF7-J, MCX7, MMCX7,
SMB7H, DIN7A, BNC7T

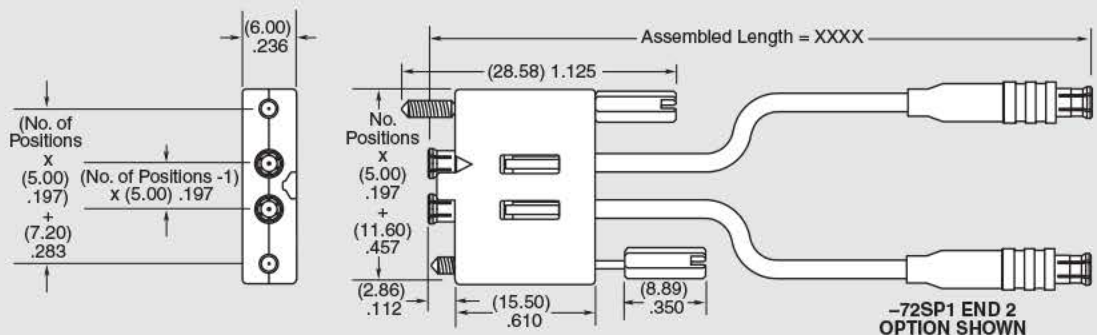


GRF7H

NO. OF
POSITIONSASSEMBLED
LENGTH

-2, -4, -6, -8

- "XXXX"

= Assembled Length in millimeters
-0100 (100 mm) 3.94" minimum

Notes:

Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

Designed to meet SMPTE 424M 3G-SDI specifications.

This Series is non-standard, non-returnable.

END OPTIONS		END OPTIONS	
-73SP1 = 75Ω MMCX7 Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-72SP1 = 75Ω MCX Straight Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	
-73SJ1 = 75Ω MMCX7 High Vibration Straight Jack (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)		-72RP1 = 75Ω MCX Right Angle Plug (30μ" (0.76 μm) Gold on Center Contact, Gold Flash on Shell)	



GRF7H-2-0300-1-CA3-S-74BJ3

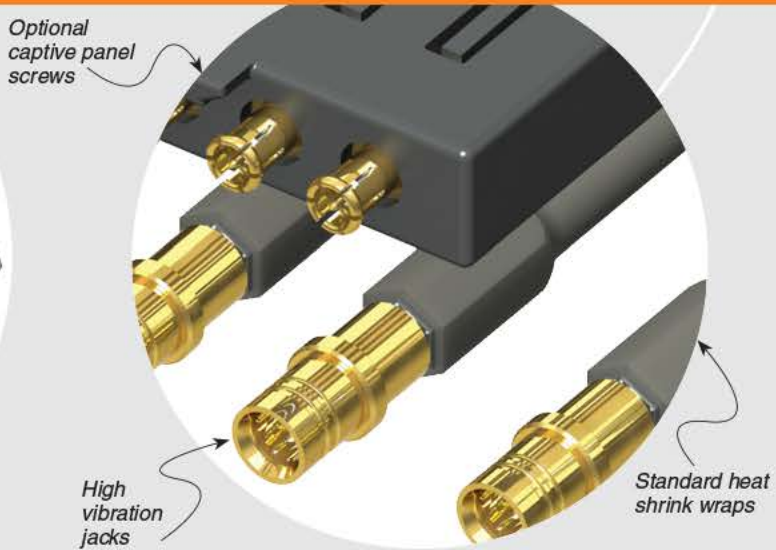


GRF7H-4-0800-1-CA3-73SJ1

GRF7H-C SERIES



Variety of standard straight and right angle plugs and jacks



Optional captive panel screws

High vibration jacks

Standard heat shrink wraps

END 1 PLATING

-1
= All Gold components

CABLE TYPE

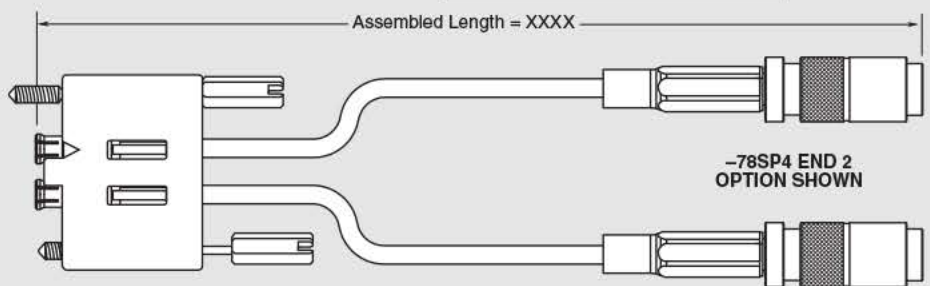
-CA3
= RG 179 cable

SCREW OPTION

-S
= Captive Panel Screws
(Leave blank for no Screw Option)

END 2 OPTION

Specify END OPTIONS from chart



END OPTIONS	
-77RP1 = 75Ω SMB Right Angle Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-77SP1 = 75Ω SMB Straight Plug (30µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)	
-78SP4 = 75Ω DIN Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	

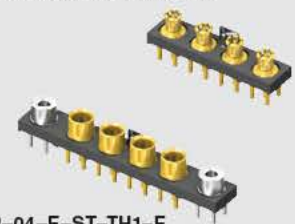
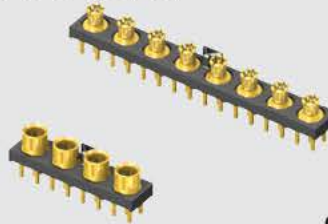
END OPTIONS	
-74BJ3 = 75Ω BNC Straight Bulkhead Jack (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell)	
-74SP3* = 75Ω BNC Straight Plug (10µ" (0.25 µm) Gold on Center Contact, Nickel on Shell) (*Die Cast also available = -D4SP3)	



(5.00 mm) .197"

GRF1-P-P-08-E-ST-TH1

GRF1-P-P-04-E-ST-TH1



GRF1-J-P-04-E-ST-TH1

GRF1-J-P-04-E-ST-TH1-E

GRF1-J, GRF1-P SERIES

50Ω GANGED MICRO-MINI RF SYSTEMS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?GRF1-J or www.samtec.com?GRF1-P

Shell Material:

Brass

Insulator Material:

PTFE

Contact Material:

BeCu

Pin Material:

Brass

Plating:

30μ" (0.76 μm) Au

over 50μ" (1.27 μm) Ni

Current Rating

(GRF1-J/GRF1-P):

Signals: 3.6 A per pin

(8 adjacent pins powered)

Grounds: 6.2 A per pin

(8 adjacent pins powered)

Operating Temp Range:

-40°C to +90°C

Insulation Resistance:

1000MΩ min

Contact Resistance:

Center: 5mΩ

Outer: 2.5mΩ

Impedance: 50Ω

Dielectric Withstanding Voltage:

500 Vrms, 50Hz

Dielectric Working Voltage:

170 Vrms, 50Hz

Frequency Range: 0-6 GHz

RoHS Compliant: Yes

Processing:

Lead-Free Solderable: Yes

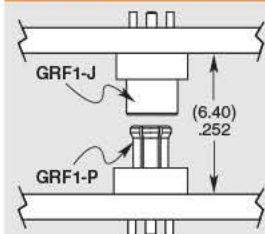
RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



FILE NO. E111594

APPLICATION



OTHER SOLUTIONS

- Cable assembly (see GRF1-C Series)

GRF1

J

P

NO. OF JACKS

PLATING

LEAD STYLE

TH1

INSERT OPTION

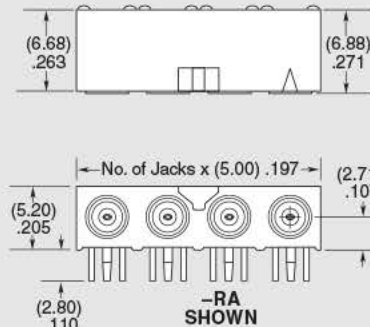
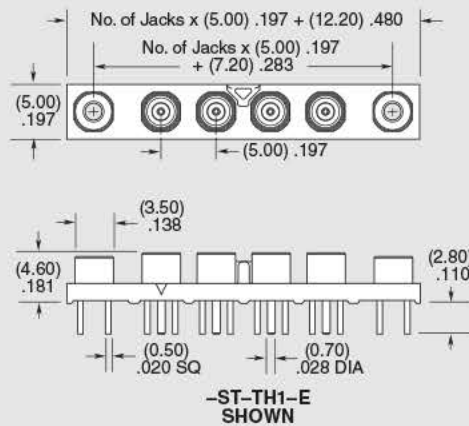
Mates with:
GRF1-P, GRF1-C

-02, -04,
-06, -08

-E
= 30μ" (0.76 μm)
Gold on Center
Conductor & Tail,
Gold Flash on
Shell and Tails

-ST
= Vertical
-RA
= Right
Angle

-E
= #1 - 64 Through-hole
Threaded Insert,
Mates with GRF1-C with
captive screw option



GRF1

P

P

NO. OF PLUGS

PLATING

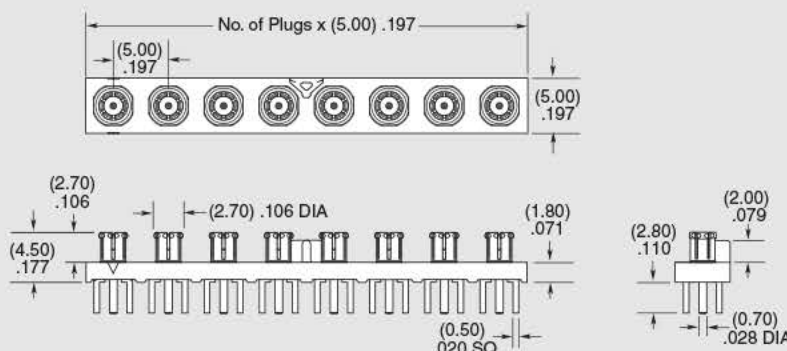
ST

TH1

Mates with:
GRF1-J

-02, -04, -06, -08

-E
= 30μ" (0.76 μm) Gold on Center Conductor & Tail,
Gold Flash on Shell and Tails

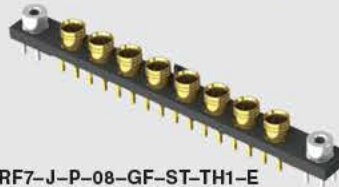




(5.00 mm) .197"

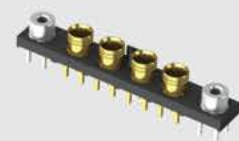


GRF7-P-P-02-GF-ST-TH1



GRF7-J-P-08-GF-ST-TH1-E

GRF7-P-P-04-GF-ST-TH1



GRF7-J-P-04-GF-ST-TH1-E

GRF7-J, GRF7-P SERIES

75Ω GANGED MICRO-MINI RF SYSTEMS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?GRF7-J or www.samtec.com?GRF7-P

Housing Material:

ABS

Shell Material:

Brass

Insulator Material:

PTFE

Contact Material:

BeCu

Pin Material:

Brass

Operating Temp Range:

-55°C to +125°C

Insulation Resistance:

600 MΩ min

Contact Resistance:

Center: Testing Now!

Outer: 25 mΩ

Impedance:

75Ω

Dielectric Withstanding Voltage:

500 Vrms, 50 Hz

Dielectric Working Voltage:

170 Vrms, 50 Hz

Frequency Range:

0-6 GHz

RoHS Compliant:

Yes

Processing:

Lead-Free Solderable:

Yes

GRF7

J

P

NO. OF JACKS

PLATING

LEAD STYLE

TH1

INSERT OPTION

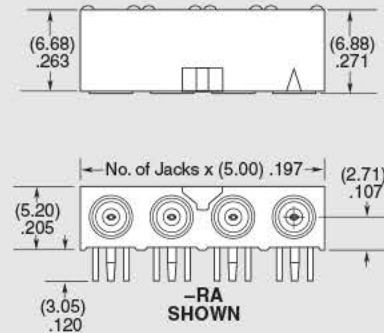
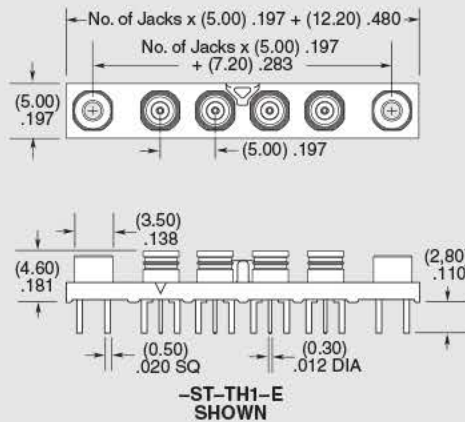
Mates with:
GRF7-P, GRF7-C

-02, -04,
-06, -08

-GF
= 10μ" (0.25 μm)
Gold center contact,
3μ" (0.08 μm)
Gold outer contact

-ST
= Vertical
-RA
= Right Angle

-E
= #1 - 64 Through-hole
Threaded Insert,
Mates with GRF7-C with
captive screw option



RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



FILE NO. E11594

GRF7

P

P

NO. OF PLUGS

PLATING

ST

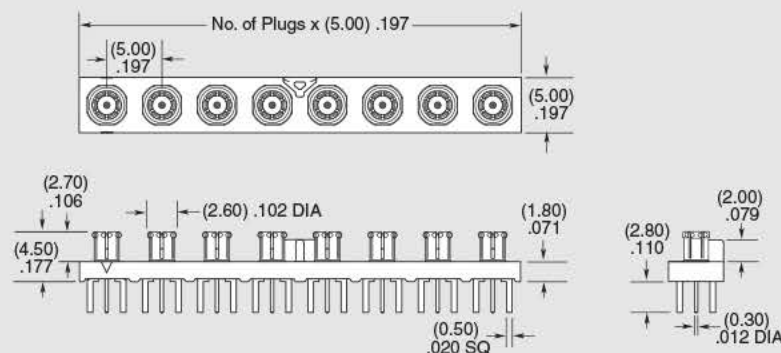
TH1

Mates with:
GRF7-J

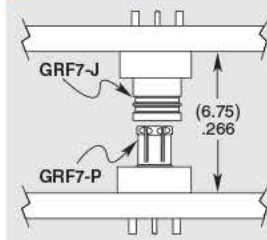
-02, -04, -06, -08

-GF

= 10μ" (0.25 μm) Gold center contact,
3μ" (0.08 μm) Gold outer contact



APPLICATION



OTHER SOLUTIONS

- Cable assembly (see GRF7-C Series)

Note: Designed to meet SMPTE 424M 3G-SDI specifications.



(4.00 mm) .1575"

50Ω HIGH ISOLATION RF CABLE ASSEMBLY

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?IJ5C

- Insulator Material:** Black LCP
- Contact Material:** Copper Alloy
- Pin Material:** Copper Alloy
- Dielectric Material:** Black LCP
- Plating:** Au over 50µ" (1.27 µm) Ni
- Operating Temp Range:** -40°C to +90°C
- RoHS Compliant:** Yes

RECOGNITIONS

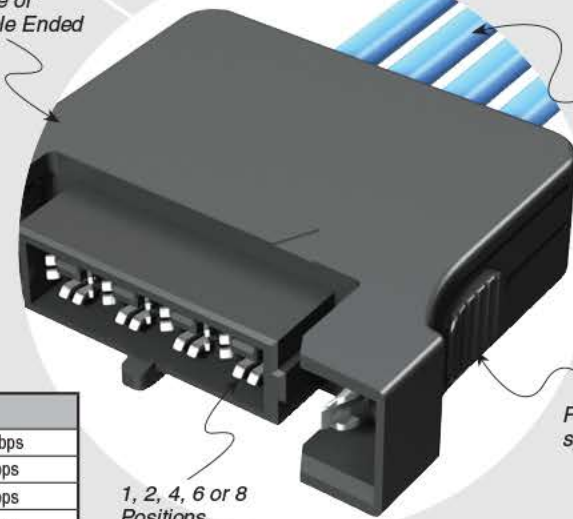
For complete scope of recognitions see www.samtec.com/quality



Mates with: IP5



Single or Double Ended



High performance 26 AWG coax cable

Positive latching system

1, 2, 4, 6 or 8 Positions

1 Meter Cable Assembly	Frequency
Insertion Loss = 3 dB	9.5 GHz / 19.0 Gbps
Return Loss = 15 dB	2.2 GHz / 4.4 Gbps
VSWR = 1.4	2.1 GHz / 4.2 Gbps
Isolation = 60 dB	3.1 GHz / 6.2 Gbps

Performance and complete test data available at www.samtec.com?IJ5C or contact_sig@samtec.com

Cable (-1):

- Conductor Size:** 26 AWG, (0.48 mm) .019" dia.
- Conductor Material:** Silver Plated Copper
- Insulator Diameter:** (1.27 mm) .050"
- Insulator Material:** Foamed FEP
- Shield Material:** Silver Plated Copper
- Jacket Material:** FEP
- Jacket Diameter:** (1.80 mm) .071"
- Bend Radius:** 3.175 mm
- Impedance:** 50Ω
- Current Rating:** 2.5A
- RoHS Compliant:** Yes

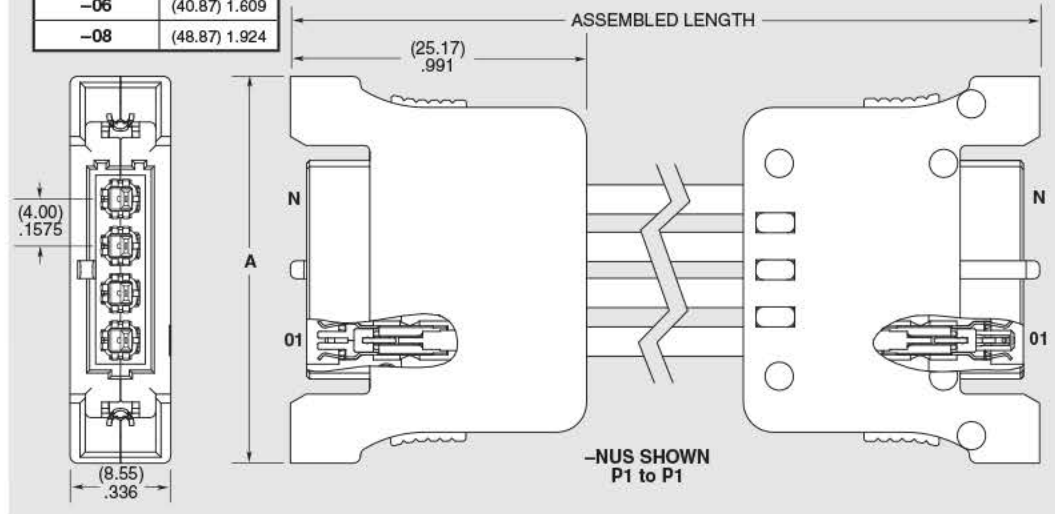
Cable (-2):

- Conductor Size:** 26 AWG, (0.51 mm) .020" dia.
- Conductor Material:** Silver and Copper Plated Steel Wire
- Insulator Diameter:** (1.52 mm) .060"
- Insulator Material:** PTFE
- Shield Material:** Silver Plated Copper Wire
- Jacket Material:** FEP
- Jacket Diameter:** (2.54 mm) .100"
- Bend Radius:** 12.7 mm
- Impedance:** 50Ω
- Current Rating:** 5A DC
- RoHS Compliant:** Yes

Note: This Series is non-standard, non-returnable.

IJ5C	NO. OF POSITIONS	ASSEMBLED LENGTH	PLATING OPTION	END OPTION	END 2 OPTION	CABLE TYPE
	-01, -02, -04, -06, -08	- "XXXX" = Assembled Length in millimeters -0100 to -1000 (100 mm) 3.94" minimum	-S = 30µ" (0.76 µm) Gold on contact	-S = Single Ended -D = Double Ended	-NUS = Notch up, straight P1 to P1 -NDS = Notch down, straight P1 to PN	-1 = CTB-2650F-01 cable -2 = RG 316 cable

NO. OF POSITIONS	A
-01	(20.87) .822
-02	(24.87) .979
-04	(32.87) 1.294
-06	(40.87) 1.609
-08	(48.87) 1.924





50Ω HYBRID RF CABLE ASSEMBLY

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?IJ5H

Insulator Material:

Black LCP

Contact Material:

Copper Alloy

Pin Material:

Copper Alloy

Dielectric Material:

Black LCP

Plating:

Au over 50μ" (1.27 μm) Ni

Operating Temp Range:

-40°C to +90°C

RoHS Compliant:

Yes

Cable (-2):

Conductor Size:

26 AWG,
(0.51 mm) .020" dia.

Conductor Material:

Silver and Copper
Plated Steel Wire

Insulator Diameter:

(1.52 mm) .060"

Insulator Material:

PTFE

Shield Material:

Silver Plated Copper Wire

Jacket Material:

FEP

Jacket Diameter:

(2.54 mm) .100"

Bend Radius:

12.7 mm

Impedance:

50Ω

Current Rating:

5A DC

RoHS Compliant:

Yes

Mates with:
IP5, SMA, MCX, MMCX,
SMB5

Low cost isolated
transmission line
system

RG 316 Cable

1, 2, 4, 6 or 8
Positions

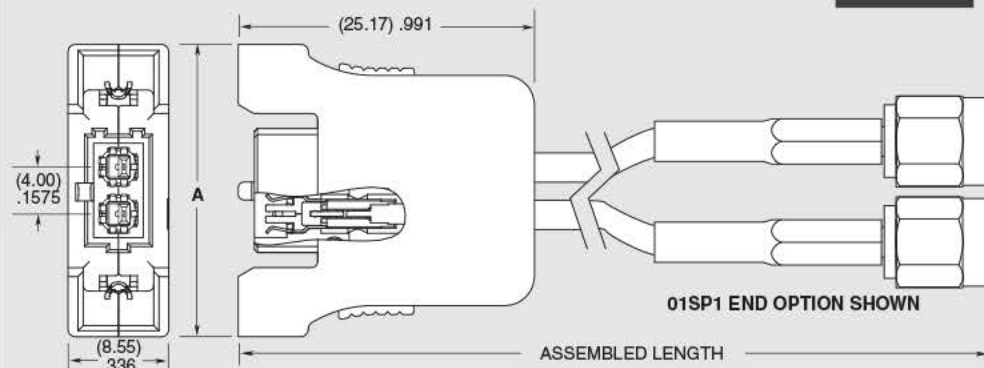
Positive
latching

Choice of traditional
RF end options



IJ5H	NO. OF POSITIONS	ASSEMBLED LENGTH	END 1 PLATING	CABLE TYPE	END 2 OPTION
	-01, -02, -04, -06, -08	- "XXXX" = Assembled Length in millimeters -0300 to -1000 (1000 mm) 39.40" maximum	-S = 30μ" (0.76 μm) Gold on contact	-2 = RG 316 cable	All Gold -01SP1 = SMA Straight Plug -02SP1 = MCX Straight Plug -03SP1 = MMCX Straight Plug -07SP1 = SMB Straight Plug Gold/Nickel combination -02SP2 = MCX Straight Plug -03SP2 = MMCX Straight Plug -07SP2 = SMB Straight Plug

NO. OF POSITIONS	A
-01	(20.87) .822
-02	(24.87) .979
-04	(32.87) 1.294
-06	(40.87) 1.609
-08	(48.87) 1.924



Note:
This Series is non-standard,
non-returnable.



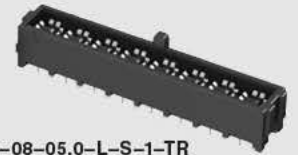
(4.00 mm) .1575"

IJ5-04-05.0-L-S-1-TR

IJ5-01-05.0-L-S-1-TR



IJ5-04-05.0-L-D-1-TR



IJ5-08-05.0-L-S-1-TR

IJ5 SERIES

50Ω HIGH ISOLATION RF JACKS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com/IJ5

Shell Material:

Copper Alloy

Insulator Material:

Black LCP

Contact Material:

Copper Alloy

Dielectric Material:

Black LCP

Plating:

Au or Sn over

50μ" (1.27 μm) Ni

Current Rating (Vertical):

Signals: 2.36 A per pin

(2 adjacent pins powered)

Grounds: 4.4 A per pin

(2 adjacent pins powered)

Operating Temp Range:

-55°C to +125°C

Insulation Resistance:

>35,000 MΩ

Contact Resistance:

Center: <34 mΩ

Outer: <7 mΩ

Dielectric Withstanding Voltage:

600 VAC

Working Voltage:

200 VAC

RoHS Compliant: Yes

Processing:

Lead-Free Solderable:

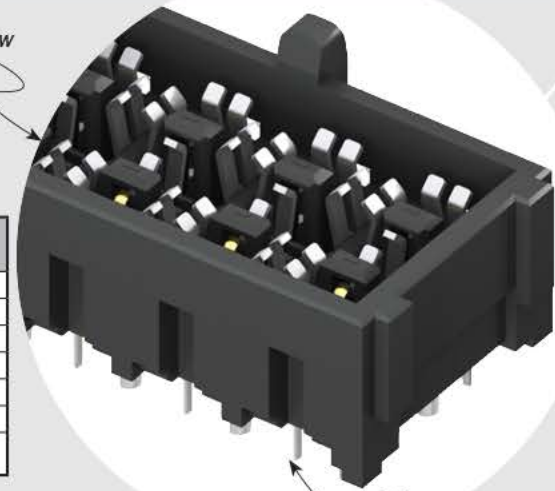
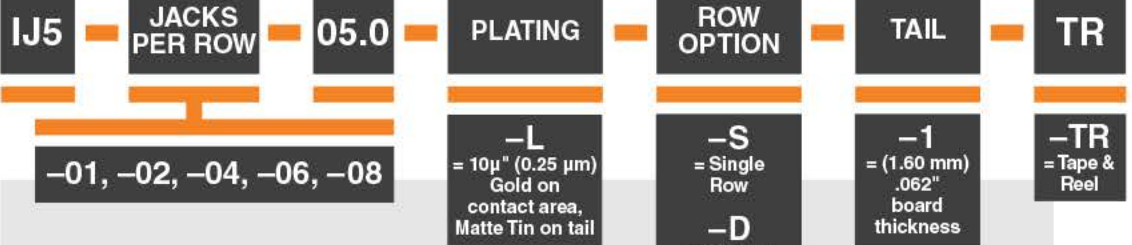
Yes

Mates with:

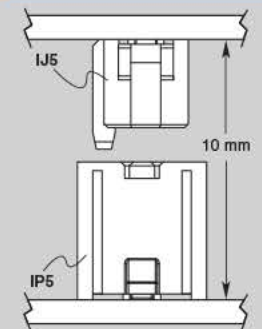
IP5

IP5/IJ5 10 mm Stack Height	Frequency
Insertion Loss = 3 dB	10.5 GHz / 21.0 Gbps
Return Loss = 15 dB	5.5 GHz / 11.0 Gbps
VSWR = 1.4	5.4 GHz / 10.8 Gbps
Isolation = 60 dB	8.8 GHz / 17.6 Gbps
Isolation = 70 dB	7.6 GHz / 15.2 Gbps
Isolation = 80 dB	1.3 GHz / 2.6 Gbps

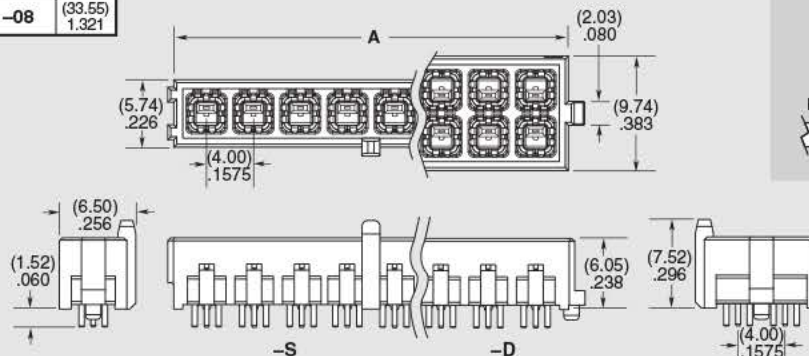
Complete test data available at www.samtec.com/IJ5 or contact sig@samtec.com

Single or
Double Row1, 2, 4, 6 or 8
Positions

APPLICATION



NO. OF JACKS	A
-01	(5.55) .219
-02	(9.55) .376
-04	(17.55) .691
-06	(25.55) 1.006
-08	(33.55) 1.321



RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



FILE NO. E111594

ALSO AVAILABLE (MOQ Required)

- Other stack heights
 - Other PCB thicknesses
- Contact Samtec.

OTHER SOLUTIONS

- 75Ω Board-to-Board system (see IJ7 & IP7 Series)
- Cable assembly (see IJ5C Series)



(4.00 mm) .1575"

IP5, IP5-RA SERIES



50Ω HIGH ISOLATION RF PLUGS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?IP5

Shell Material: Copper Alloy
Insulator Material: Black LCP
Contact Material: Copper Alloy
Dielectric Material: Black LCP
Plating: Au or Sn over 50μ" (1.27 μm) Ni
Current Rating (Vertical): Signals: 2.36 A per pin (2 adjacent pins powered) Grounds: 4.4 A per pin (2 adjacent pins powered)
Operating Temp Range: -55°C to +125°C
Insulation Resistance: IP5 = >35,000 MΩ IP5-RA = 25,000 MΩ
Contact Resistance: IP5 = Center: <34 mΩ IP5 = Outer: <7 mΩ IP5-RA = Center: 20 mΩ IP5-RA = Outer: 5 mΩ
Dielectric Withstanding Voltage: IP5 = 600 VAC IP5-RA = 190 VAC
Working Voltage: IP5 = 200 VAC IP5-RA = 190 VAC
RoHS Compliant: Yes

Processing: Lead-Free Solderable: Yes

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



ALSO AVAILABLE (MOQ Required)

- Other stack heights
 - Other PCB thicknesses
- Contact Samtec.

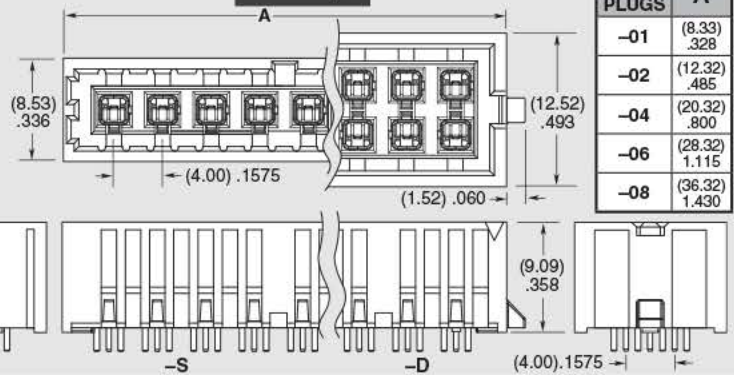
OTHER SOLUTIONS

- 75Ω Board-to-Board system (see IJ7 & IP7 Series)

IP5	PLUGS PER ROW	05.0	PLATING	ROW OPTION	TAIL	OPTION	TR
Mates with: IJ5, IJ5C		-01, -02, -04, -06, -08	-L = 10μ" (0.25 μm) Gold on contact area, Matte Tin on tail	-S = Single Row -D = Double Row (Not available with -01)	-1 = (1.60 mm) .062" board thickness	-L = Cable Latch (Single Row only)	-TR = Tape & Reel

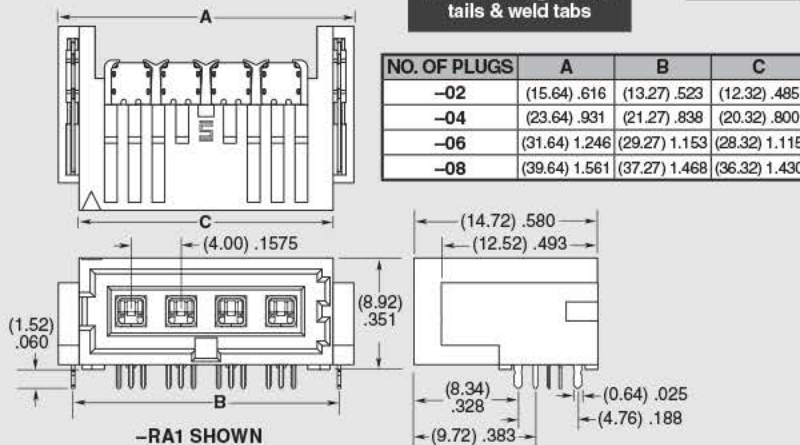
IP5/IJ5 10 mm Stack Height	Frequency
Insertion Loss = 3 dB	10.5 GHz / 21.0 Gbps
Return Loss = 15 dB	5.5 GHz / 11.0 Gbps
VSWR = 1.4	5.4 GHz / 10.8 Gbps
Isolation = 60 dB	8.8 GHz / 17.6 Gbps
Isolation = 70 dB	7.6 GHz / 15.2 Gbps
Isolation = 80 dB	1.3 GHz / 2.6 Gbps

Complete test data available at www.samtec.com?IP5 or contact sig@samtec.com



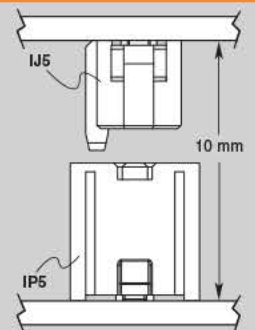
NO. OF PLUGS	A
-01	(8.33) .328
-02	(12.32) .485
-04	(20.32) .800
-06	(28.32) 1.115
-08	(36.32) 1.430

IP5	PLUGS PER ROW	01	PLATING	S	TAIL OPTION	OPTION	TR
Mates with: IJ5, IJ5C		-02, -04, -06, -08	-L = 10μ" (0.25 μm) Gold on contact area, Matte Tin on grounds, tails & weld tabs	-RA1 = (1.60 mm) .062" board thickness	(Leave blank for no Cable Latch)	-L = Cable Latch	-TR = Tape & Reel



NO. OF PLUGS	A	B	C
-02	(15.64) .616	(13.27) .523	(12.32) .485
-04	(23.64) .931	(21.27) .838	(20.32) .800
-06	(31.64) 1.246	(29.27) 1.153	(28.32) 1.115
-08	(39.64) 1.561	(37.27) 1.468	(36.32) 1.430

APPLICATION





Isolated Edge Rate Contact

IP7-02-05.0-L-S-1-TR



IJ7-06-05.0-L-S-1-TR



IP7, IJ7 SERIES

(4.00 mm) .1575"

75Ω HIGH ISOLATION RF PLUGS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?IP7 or www.samtec.com?IJ7

Shell Material:

Copper Alloy

Insulator Material:

Black LCP

Contact Material:

Copper Alloy

Pin Material:

Copper Alloy

Dielectric Material:

Natural LCP

Plating:

Au or Sn over

50μ" (1.27 μm) Ni

Current Rating:

Signals: 2.2 A per pin

(2 adjacent pins powered)

Grounds: 6.3 A per pin

(2 adjacent pins powered)

Operating Temp Range:

-55°C to +125°C

Insulation Resistance:

100,000 MΩ

Contact Resistance:

Signal: 26 mΩ

Grounds: 2.7 mΩ

Impedance: 75Ω

Dielectric Withstanding Voltage:

1950 VAC

Working Voltage:

650 VAC

RoHS Compliant: Yes

Processing:

Lead-Free Solderable: Yes

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



FILE NO. E111594

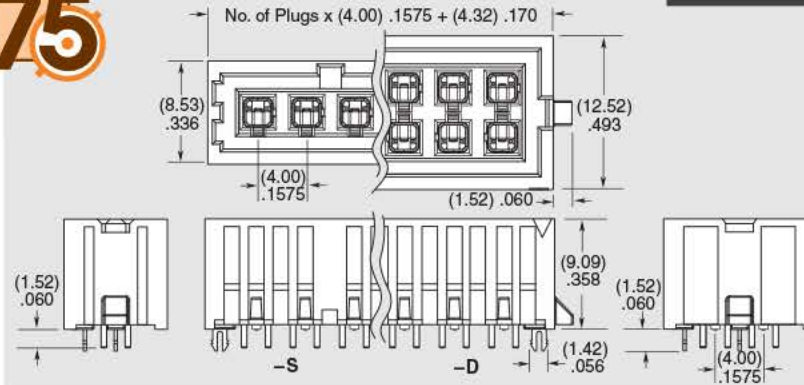
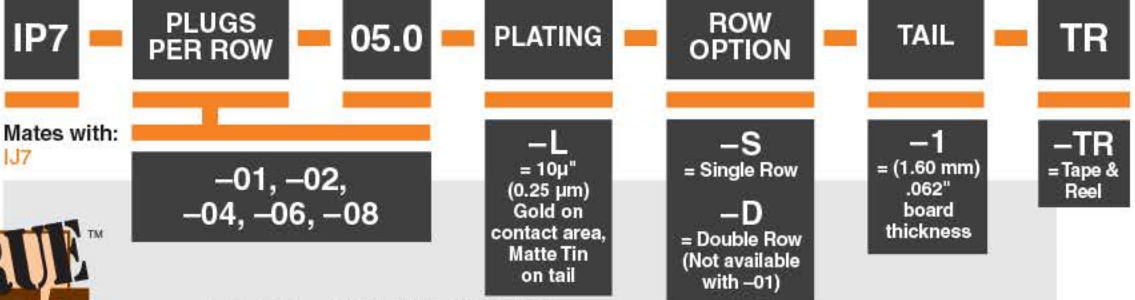
ALSO AVAILABLE (MOQ Required)

- Other stack heights
 - Other PCB thicknesses
- Contact Samtec.

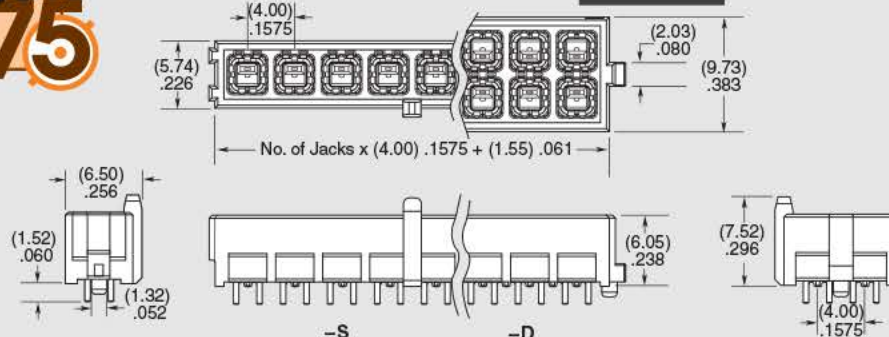
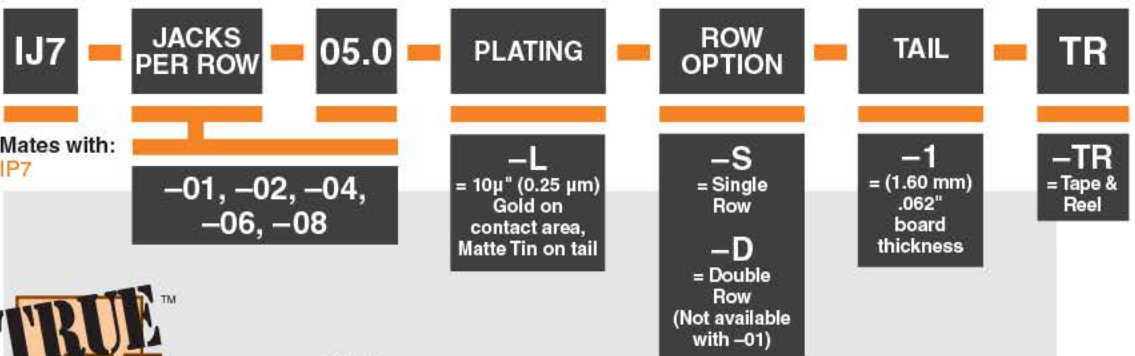
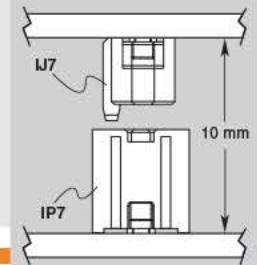
OTHER SOLUTIONS

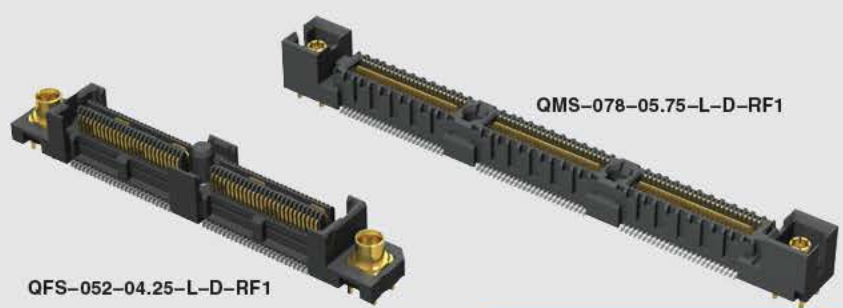
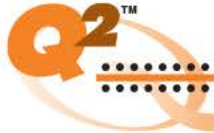
- 50Ω Board-to-Board system: (see IJ5 & IP5 series)
 - 75Ω right angle plugs
- Contact Samtec.

Note: Designed to meet SMPTE 424M 3G-SDI specifications.



APPLICATION





(0.635 mm) .025"

QMS-RF, QFS-RF SERIES

HIGH SPEED COMBO RF

Board Mates:
QMS-RF, QFS-RF

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?QMS or www.samtec.com?QFS

Insulator Material:
Liquid Crystal Polymer
Contact, Terminal & Ground Plane Material:
Phosphor Bronze

Plating:
Au over 50µ" (1.27 µm) Ni
(Tin on Ground Plane Tail)
Voltage Rating:
300 VAC mated with QMS/QFS
Operating Temp:
-55°C to +125°C
RoHS Compliant:
Yes

Processing:

Lead-Free Solderable:
Yes
SMT Lead Coplanarity:
(0.10 mm) .004" max (026-078)
Board Stacking:
For applications requiring more than two connectors per board, contact ipg@samtec.com

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



ALSO AVAILABLE (MOQ Required)

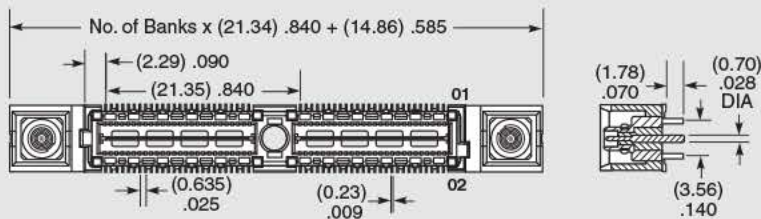
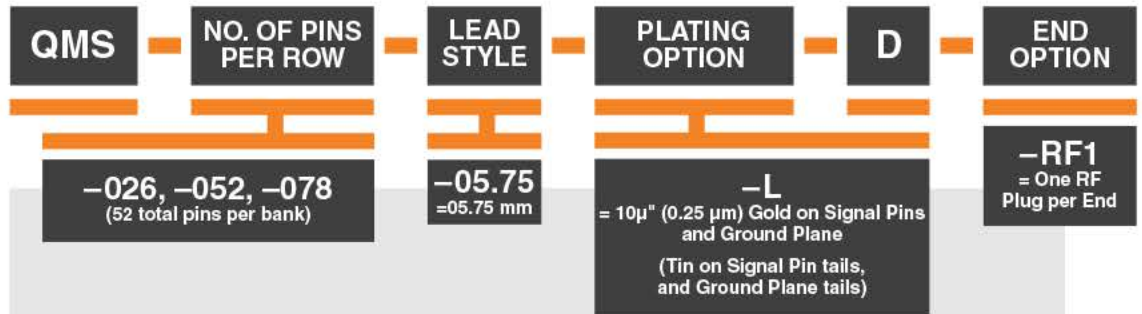
- Differential Pairs
 - Retention Pins
 - 2 RF Connectors/End
 - Hot Pluggable
- Contact Samtec.

APPLICATIONS

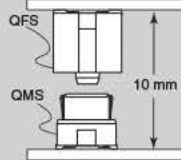


See SO Series for precision machined standoffs.

Note: Some lengths, styles and options are non-standard, non-returnable.



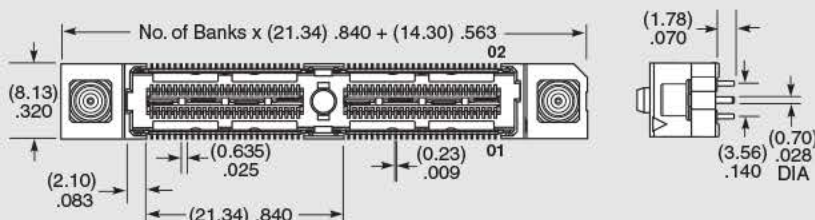
APPLICATION



RUGGEDIZED
BY SAMTEC

- Increased insertion depth
- Integral guide post

FinalInch
CERTIFIED



FinalInch
CERTIFIED

CUSTOM RF SOLUTIONS

EXPRESS MODIFICATIONS

- Quick-turn prototype samples
- Short lead times
- Low or no Nonrecurring Engineering Charges (NREs)
- Low or no tooling charges

RF Board Level Interconnects

- Custom tail lengths
- Through-hole termination to surface mount or mixed technology
- Right angle height adjustment from PCB
- Alternate plating options

RF Cable Assemblies

- Performance testing: VNA, TDR
- Custom labels and heat-shrink tubing
- Non-standard connector termination orientation
- Adding or removing bulkhead mounting
- Alternate plating options

ENGINEERED CUSTOMS

- Full engineering, design and prototype support from Samtec's RF Group
- Design, simulation and processing assistance
- Flexible, quick-turn manufacturing
- Dedicated engineers and technicians for application specific RF products

RF Board Level Interconnects

- Completely customized to your specifications

RF Cable Assemblies

- Completely customized to your specifications
- Customized connector terminated to existing cable
- Customized cable terminated to existing connector

RF GROUP

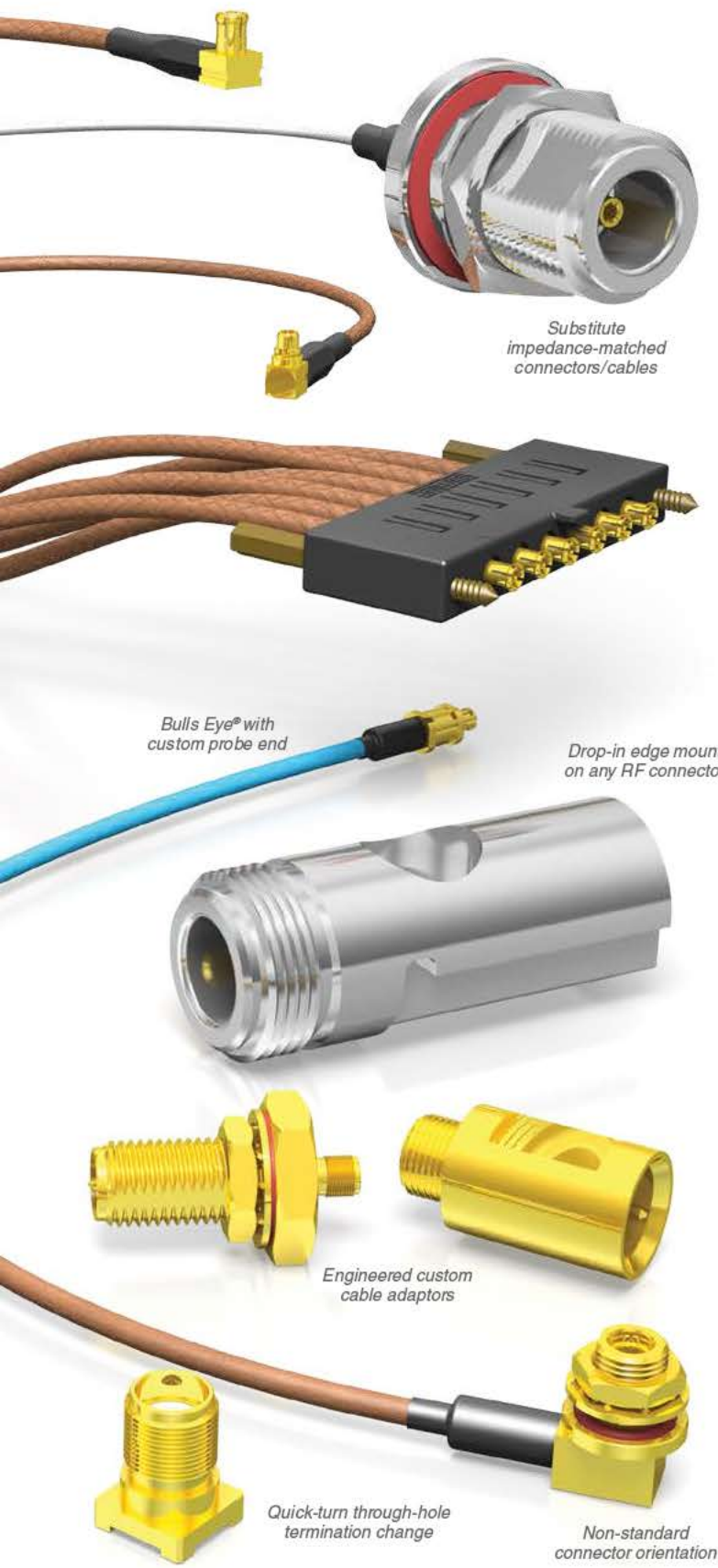
- Personal support from Samtec's highly qualified, in-house staff of RF engineers
- Express modifications to standard products to complete engineering, design and prototype support
- Design, simulation and processing assistance
- Dedicated engineers and technicians for application specific RF products
- Contact RFGroup@samtec.com



INDEX

STANDARD PRODUCTS

New products highlighted in bold.



Series	Description	Page
292PS	50Ω Passivated Stainless Steel 2.92 Jacks	45
292PS-CA	50Ω Passivated Stainless Steel 2.92 Cable Components	46
ADP5	50Ω Optimized Adaptors	65
ADP7	75Ω True75™ Optimized Adaptors	66
BAR	Bulls Eye® High Performance Test Array, 22 positions	20
BARA	Bulls Eye® Cable Assembly, 22 positions	23
BDR	Bulls Eye® Double Row Test Point Array, 24 positions	21
BDRA	Bulls Eye® Double Row Cable Assembly, 24 positions	24
BE23S	50Ω Bulls Eye® 23 AWG Phase Matched Adaptor Pairs	14
BE25S	50Ω Bulls Eye® 25 AWG Phase Matched Adaptor Pairs	16
BNC5	50Ω BNC Bulkhead Jacks & Plugs	63
BNC7T	75Ω True75™ BNC Jacks & Plugs	62
BQR	Bulls Eye® Quad Row Test Point Array, 20 positions	19
BQRA	Bulls Eye® Quad Row Cable Assembly, 20 positions	22
C28S	100Ω Shielded Twisted Pair Twinax Cable Assembly	68
CCH	Bulls Eye® Low Cost High Performance Test Point	18
CJT	100Ω Twinax Jack, Through-hole & Bulkhead Through-hole	68
DIN7A	75Ω True75™ DIN 1.0/2.3 Jacks & Plugs	53
GRF1-C	5.00 mm 50Ω Ganged Micro-Mini RF Plug, Cable	69
GRF1H-C	5.00 mm 50Ω Ganged Hybrid Micro-Mini RF Cable	70
GRF1-J	5.00 mm 50Ω Ganged Micro-Mini RF Jack, PCB Mount	74
GRF1-P	5.00 mm 50Ω Ganged Micro-Mini RF Plug, PCB Mount	74
GRF7H-C	5.00 mm 75Ω True75™ Ganged Hybrid Micro-Mini RF Cable	72
GRF7-J	5.00 mm 75Ω True75™ Ganged Micro-Mini RF Jack, PCB Mount	75
GRF7-P	5.00 mm 75Ω True75™ Ganged Micro-Mini RF Plug, PCB Mount	75
HDBNC	75Ω True75™ High Density BNC Jacks	60
HDBNC-CA	75Ω True75™ High Density BNC Cable Components	61
IJ5	4.00 mm IsoRate® 50Ω High Isolation RF Jack Strip	78
IJ5C	4.00 mm IsoRate® 50Ω High Isolation RF Cable	76
IJ5H	4.00 mm IsoRate® 50Ω High Isolation Hybrid RF Cable	77
IJ7	4.00 mm IsoRate® 75Ω True75™ High Isolation RF Jack Strip	80
IP5	4.00 mm IsoRate® 50Ω High Isolation RF Plug Strip	79
IP7	4.00 mm IsoRate® 75Ω True75™ High Isolation RF Plug Strip	80
MCX	50Ω MCX Jacks & Plugs	56
MCX7	75Ω MCX Jacks & Plugs	59
MCX-CA	50Ω MCX Cable Components	57
MH081	Micro High Frequency RF Cable Assembly, 0.81 mm Diameter	26
MH113	Micro High Frequency RF Cable Assembly, 1.13 mm Diameter	27
MMCX	50Ω MMCX Jacks & Plugs	54
MMCX7	75Ω True75™ Micro-Mini Jacks & Plugs	58
MMCX-CA	50Ω MMCX Cable Components	57
MMCX-SW	50Ω MMCX Switchable Jack	55
NTPE	N Type RF Cable Components	64
QFS-RF	0.635 mm Q2™ High Speed Combo, RF Socket	81
QMS-RF	0.635 mm Q2™ High Speed Combo, RF Header	81
RF047	50Ω Flexible RF Cable Assembly, (.047" DIA) 30 AWG	36
RF058	50Ω RF Cable Assembly, RG 58 Cable	35
RF174	50Ω RF Cable Assembly, RG 174 Cable	28
RF178	50Ω RF Cable Assembly, RG 178 Cable	32
RF179	75Ω True75™ RF Cable Assembly, RG 179 Cable	40
RF23S	50Ω Cable Assembly, 23 AWG Rugged Solid Dielectric	15
RF25S	50Ω Cable Assembly, 25 AWG Rugged Solid Dielectric	17
RF316	50Ω RF Cable Assembly, RG 316 Cable	30
RF402	50Ω Semi-Flexible RF Cable Assembly, (.141" DIA) 19 AWG	38
RF405	50Ω Semi-Flexible RF Cable Assembly, (.086" DIA) 24 AWG	37
RFA6T	75Ω True75™ RF Cable Assembly, RG 6 Cable	39
RFB6T	75Ω True75™ RF Cable Assembly, 1694A Cable	39
RFB8T	75Ω True75™ RF Cable Assembly, 1855A Cable	42
RS316	50Ω RF Cable Assembly, Double-Shielded RG 316 Cable	34
SMA	50Ω SMA Jacks	48
SMA-CA	50Ω SMA Cable Components	47
SMB5	50Ω SMB Jacks & Plugs	50
SMB7H	75Ω True75™ SMB Jacks & Plugs	51
SMP	50Ω SMP Jacks/Plugs & Adaptor	52

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The information contained in this catalog is accurate to the best of our knowledge. Due to technical progress, it is subject to change without notice. Application information is informational in nature and shall not be construed to warrant suitability of products for any particular purpose as performance may vary with the conditions encountered. Any cut strip or custom made items or options are considered "special," non-returnable items. Samtec products are warranted for 30 days and the warranty is limited strictly to replacement of products with defective workmanship.

Federal Supply Code: 55322

samtec

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