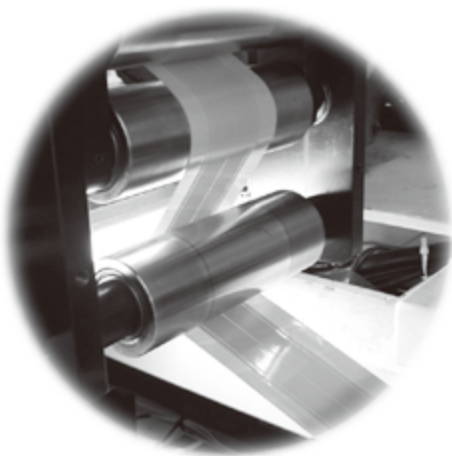
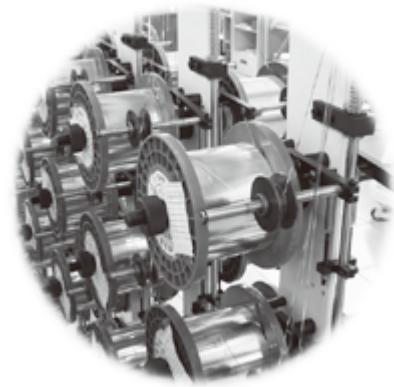
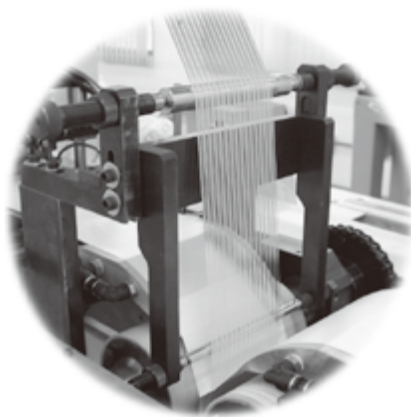
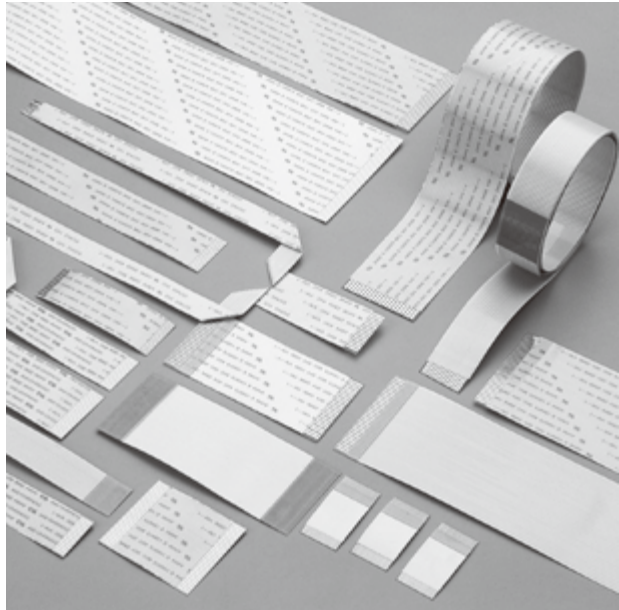


Introduction

To meet the demands of miniaturizing electronic products, to solve critical size requirement problem, CviLux now provides you low cost multiple pitches flat flexible cables in 0.5mm, 1.0mm, 1.25mm, and 2.54mm pitch per your applications requirements.

The insulation of Flat Flexible Cables is made of PET, there are options with variety of terminal types in both cable ends per your requirements. They are small, light weight, thin, flexible and easy to connect with CviLux CF series FFC connectors.

Our Flat Flexible Cable can be used several laminated copper wire, please refer to our product specification for detailed information. Customized FFC available, please consult sales person.



Features/Advantages/Materials/Rating

RoHS Compliant 

Features & Advantages

- ⊙ Light weight and flexible
- ⊙ Compactness of electronic products
- ⊙ Easy assembling and low production cost
- ⊙ Simple and clean internal design

Materials

- ⊙ Conductor : See ordering code
- ⊙ Insulation : Polyester (PET)
- ⊙ Adhesive layer : Flame retardant Polyvinyl chloride (PVC) or Polyester adhesive layer
- ⊙ Color : White or Black
- ⊙ Support Tape : Polyester (PET)
- ⊙ Adhesive layer : Polyester adhesive layer
- ⊙ Color : Blue

Rating

⊙ UL File No. : E208903

UL Style	Temp.	Volt.
2896	80°C	30V
20624	80°C	60V
20696	80°C	30V
20706	105°C	60V
20798	80°C	60V
20861	105°C	60V
20941	105°C	90V
20960	105°C	300V

*Standard Products: UL20706

*Other UL type required, please consult sale person.

Applications

- ⊙ Audio, Video, Scanner, Cordless Phone, Fax, Notebook, P.C., Monitor, Pad, Car audio, TV, Security equipment, Micro-motors, Home Appliance...etc.
- ⊙ Shield Type : EMI Application



Notebook P.C



PAD



Smart Phone



Digital Camera



Mobile



MFP



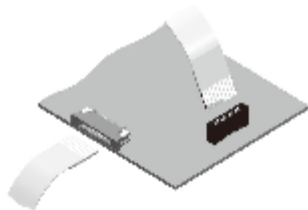
Monitor



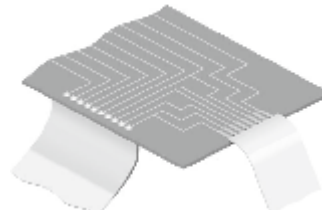
TV

Connectors

⊙ PLUG IN



⊙ SOLDERING



Ordering Code

1 2 3 4 5 6 7 8 9 10 11
FFC C 1 2 0 4 T 1 0 6 0 0 0 - 3 0 0

1 Series No.

2 Conductor Pitch:

Code	Pitch(mm)
A	2.54
B	1.25
C	1.00
E	0.50

3 Number of Conductors

4 Material : Copper Conductor Size

Code	Size		Applying Pitch(mm)
	Thickness	Width	
01	0.10	1.27	2.54
02	0.10	0.80	1.25
03	0.05	0.80	
10	0.035	0.80	
04	0.10	0.70	1.00
05	0.05	0.70	
06	0.035	0.70	
14	0.05	0.65	
15	0.10	0.65	0.50
08	0.05	0.30	
09	0.035	0.30	

5 Plating code: T= Sn, G= Gold Flash over Nickel
B= Gold plated over bare copper

6 Terminal Types: See below Terminal Types table
Sn plated conductor use T1, T2, T7, T9. Gold conductor use G1/B1 and G2/B2

7 Overall Length

8 Strip Length: 0 = Standard

a When the conductor pitch is 0.5mm;
Standard strip length = 4.0mm

b When the conductor pitch is 1.0, 1.25 and 2.54mm;
Standard strip length = 5.0mm

c Other length options available

9 Support Tape Length: 0 = Standard

a When the conductor pitch is 0.5mm;
Standard length = 8.0mm

b When the conductor pitch is 1.0, 1.25 and 2.54mm;
Standard length = 10.0mm

c Other length options available

d Max. Support Tape length: 20.0mm

10 UL Style No.

-N = Non printing(Standard)

-3 = UL 20706(Standard)

11 Other Option:

00 = Standard

Terminal Type Table

Sn Plated:

Code	Type	Code	Type
T1		T7	
T2		T9	

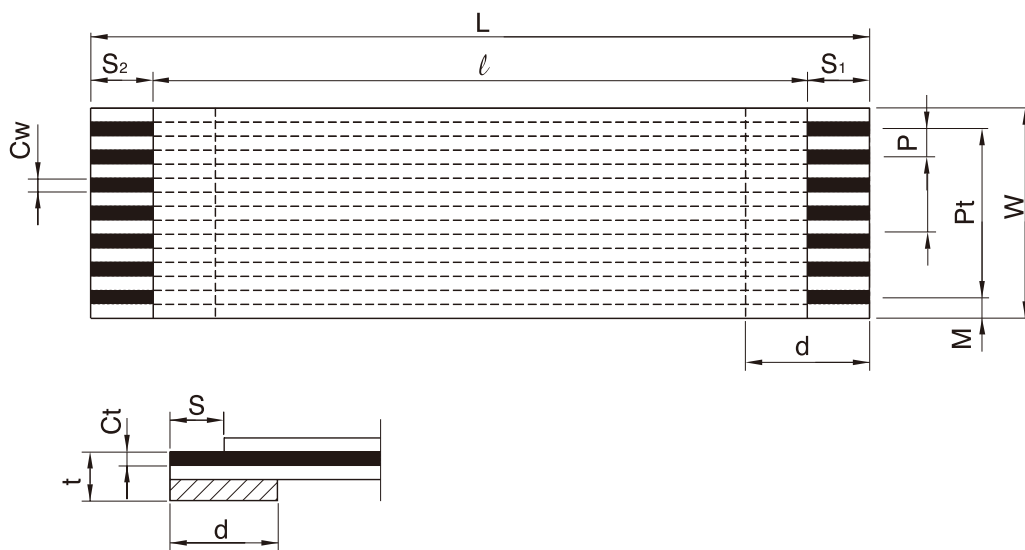
Gold Plated:

Code	Type	Code	Type
G1/B1		G2/B2	

Shape, Construction and Dimensions

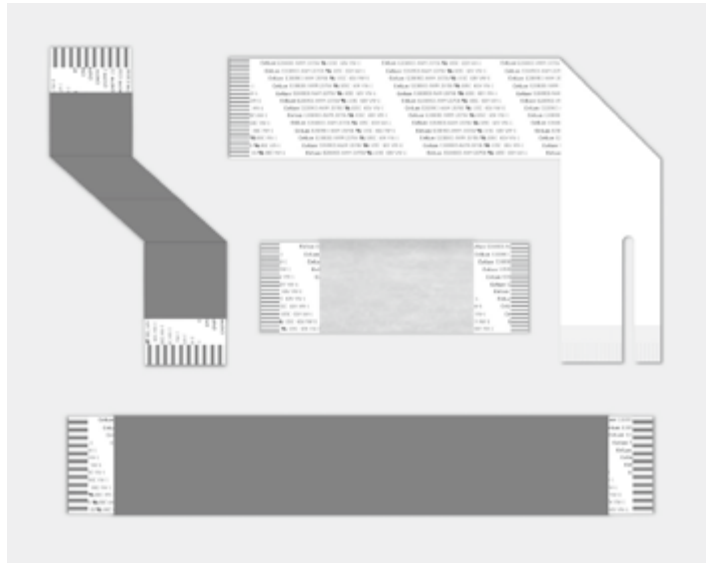
Unit:mm

No.	ITEM	Abbr.	FORMULATION	TOLERANCE			
				P=0.50	P=1.00	P=1.25	P=2.54
1.	Pitch	P	Typical	±0.05	±0.08	±0.10	±0.15
2.	Total pitch	Pt	$Pt=(n-1) \times P$	±0.08	±0.10	±0.15	±0.20
3.	Width	W	$W=(n+1) \times P$	±0.08	±0.10	±0.20	±0.20
4.	Margin	M	$M=(W-Pt)/2$	±0.08	±0.12	±0.15	±0.20
5.	Insulation length	ℓ	$\ell=L-(S_1+S_2)$	(30-100)±3, (101-300)±5, (301-600)±10, (Length more than 601mm)±15mm			
6.	Total (Cable) length	L	$L=\ell+(S_1+S_2)$				
7.	Strip length	S	When the terminal type is T1, T2 ; $S_1 = S_2$	4±1	5±1		
8.	Support tape length	d	$d=S \times 2$	8±2	10±2		
9.	Conductor width	Cw	Various	0.3±0.02	0.7±0.03	0.8±0.03	1.27±0.04
10.	Conductor thickness	Ct	Various	N/A	0.10±0.01		
				0.05±0.01			
				0.035±0.01			
11.	Terminal thickness	t	Typical	0.29~0.34			



Feature & Caution

This product is economic interconnect configurations including jumpers, formed, shielded, terminated and assembled cables, characterized by its excellent flexibility, space saving, light weight and easy assembly. It can be easily inserted or pulled out from the connector or directly soldered onto the PCB. We offer flexibility in design, where the number of conductors, pitch and length can be freely selected to meet any assembly requirements. This design partnership enables our customers to produce quality products at competitive costs.

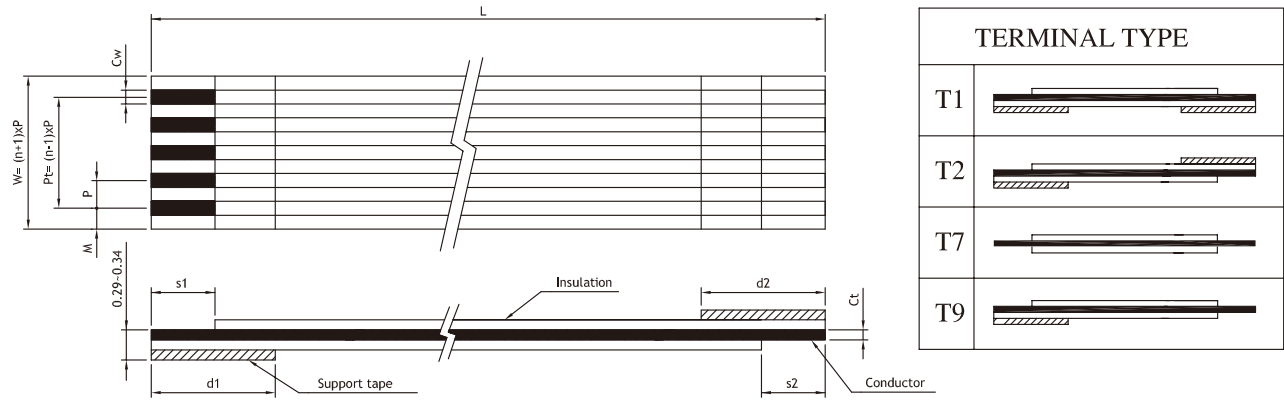


CAUTION

- ⊙ Please aware minimum order US\$1300 per item in requiring for FFC
- ⊙ Please fill up below form for standard configuration and indicate the quantities you will need for your order.
- ⊙ Formed, shielded, terminated and assembled cables, please submit drawing or sketch for quotation.

TYPE -

- ⊙ Please make a copy, fill up this form and send by fax or e-mail to us for sample request



UL Style		Terminal Type		Dimension										Support Tape Color
No.	No. of Conductor	P	Pt	L	W	M	Cw	Ct	S1	S2	d1	d2		

Performance
Electrical Performance

ITEM	TEST CONDITION	REQUIREMENT				
		Conductor size	Resistance	Remarks		
1.1	Conductor resistance	JIS C-3102 (at 20°C)	Ct	Cw	Tinned copper	
						0.1
			0.80	less than 0.26 Ω/m		
			0.70	less than 0.30 Ω/m		
			0.65	less than 0.30 Ω/m		
			0.05	0.80		less than 0.52 Ω/m
				0.70		less than 0.65 Ω/m
				0.65		less than 0.57 Ω/m
				0.30		less than 1.40 Ω/m
			0.035	0.80		less than 0.82 Ω/m
				0.70		less than 1.09 Ω/m
				0.30		less than 2.20 Ω/m
1.2	Dielectric strength	AC 500V 1 min	No breakdown			
1.3	Insulation resistance	DC 500V	More than 1000MΩ/m			

Mechanical Performance

ITEM	TEST CONDITION	REQUIREMENT	
2.1	Elongation of insulator	JIS K-6732	More than 60%
2.2	Tensile strength of insulation	JIS K-6732	More than 3.5kg/mm ²
2.3	Abrasion test	φ 0.5mm, 600g, 60 cycles/min.	More than 10,000 times
2.4	Pull-out test	–	More than 20 times

Environmental Performance

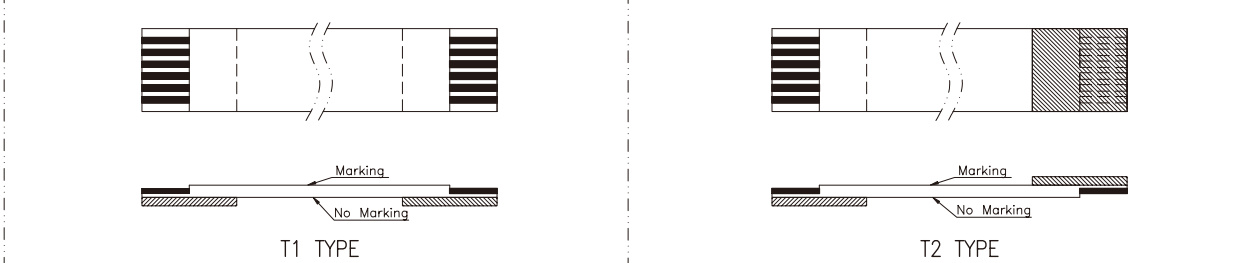
ITEM	TEST CONDITION	REQUIREMENT	
3.1	Operation temperature	–	-30°C~+105°C
3.2	Heat resistance	110°C x 96 Hrs	Electrical Performance item 1.2 and 1.3 Pass
3.3	Heat cycle test	-40°C→+25°C→+85°C→+25°C x 5 cycle	
3.4	Moisture resistance	40°C, 95% RH x 96Hrs	
3.5	Flame test	UL Sub.758	
3.6	Flexing test	180° folding test	More than 20 times

Standard Flat Flexible Cable Type for Small Order

⊙ For small order, MOQ: 1000PCS / Lot / Each item

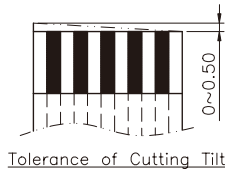
0.50mm(.020") Pitch

1	Pitch (P)	0.5	5	Strip Length (S)	4.0 Ref.	9	Conductor Width (Cw)	0.3±0.02
2	Margin Width (M)	0.5	6	Support tape Length (d)	8.0 Ref.	10	Conductor Thickness (Ct)	0.05±0.01
3	Total Pitch (Pt)	0.5x(Pin-1)	7	Terminal thickness (t)	0.29~0.34	11	UL Style 20706	
4	Total Width (W)	0.5x(Pin+1)	8	Total Length (L)	See the table	12	All the BOM of FFC are RoHs compliant	



TOLERANCE

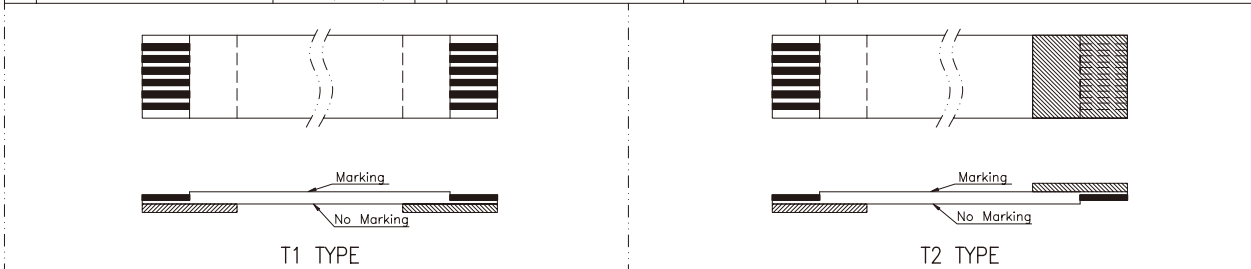
P	±0.05
Pt	±0.08
W	±0.08
M	±0.08



- ⊙ Please see P60 = 0.50mm(.020") Pitch Standard Flat Flexible Cable Table
- ⊙ Please refer P60 FFC P/N list according to the pitch, length pin no. and terminal type requests for FFC standard P/N. For example, your requirement for 0.5mm, 12pin, 150mm, T2 type, please contact sales person with **FFCE1210** from the P/N table.

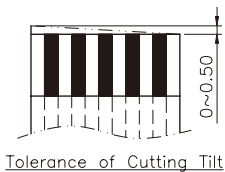
1.00mm(.039") Pitch

1	Pitch (P)	1.0	5	Strip Length (S)	5.0 Ref.	9	Conductor Width (Cw)	0.7±0.03
2	Margin Width (M)	1.0	6	Support tape Length (d)	10.0 Ref.	10	Conductor Thickness (Ct)	0.05±0.01
3	Total Pitch (Pt)	1.0x(Pin-1)	7	Terminal thickness (t)	0.29~0.34	11	UL Style 20706	
4	Total Width (W)	1.0x(Pin+1)	8	Total Length (L)	See the table	12	All the BOM of FFC are RoHs compliant	



TOLERANCE

P	±0.08
Pt	±0.10
W	±0.10
M	±0.12

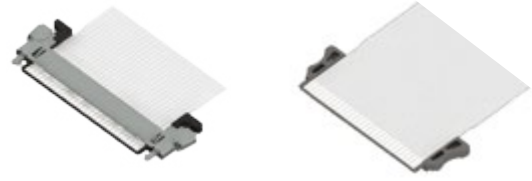


- ⊙ Please see P61 = 1.00mm(.039") Pitch Standard Flat Flexible Cable Table
- ⊙ Please refer P61 FFC P/N list according to the pitch, length pin no. and terminal type requests for FFC standard P/N. For example, your requirement for 1.0mm, 30pin, 240mm, T1 type, please contact sales person with **FFCE3015** from the P/N table.

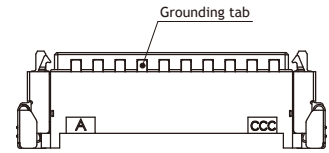
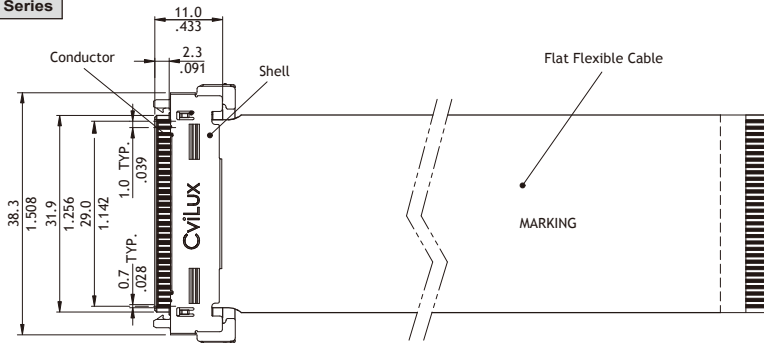
Flat Flexible Cable Assemblies - LVDS FFC Cable

⊙ LVDS interface for TFT-LCD monitor & LCD TV application

RoHS Compliant

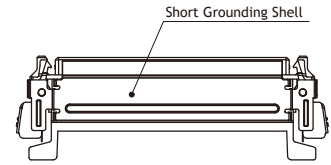
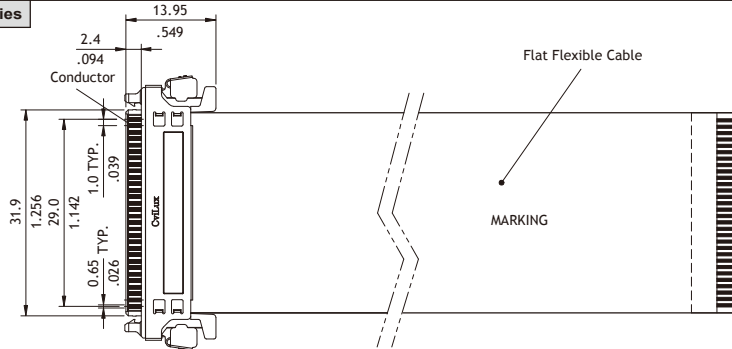


CFE2 Series



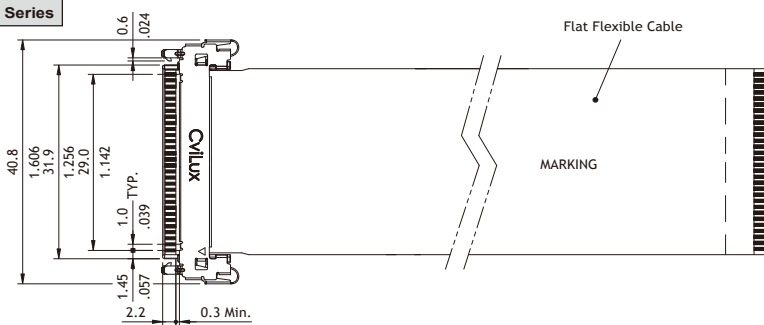
Back View
With Latch
Mate with CVSC Socket

CFE5 Series



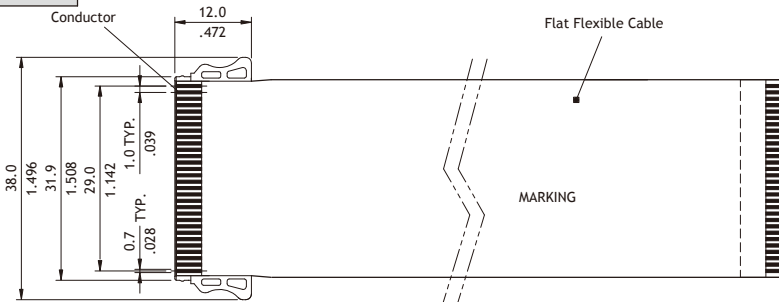
Back View
With Short Latch
Mate with CVSC Socket

CFE1 Series



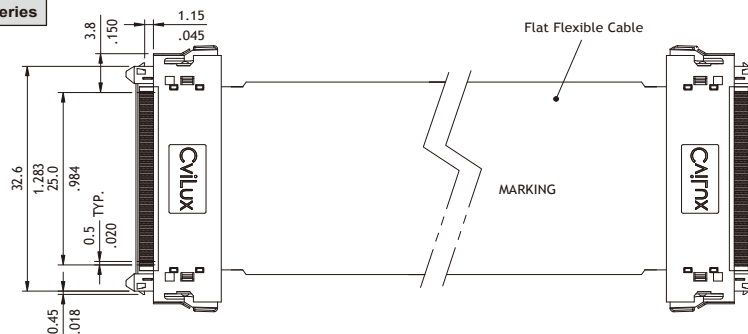
Mate with CVSC Socket

CFE6 Series



Mate with CVSC Socket

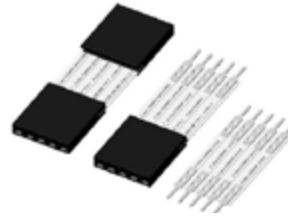
CFE9 Series



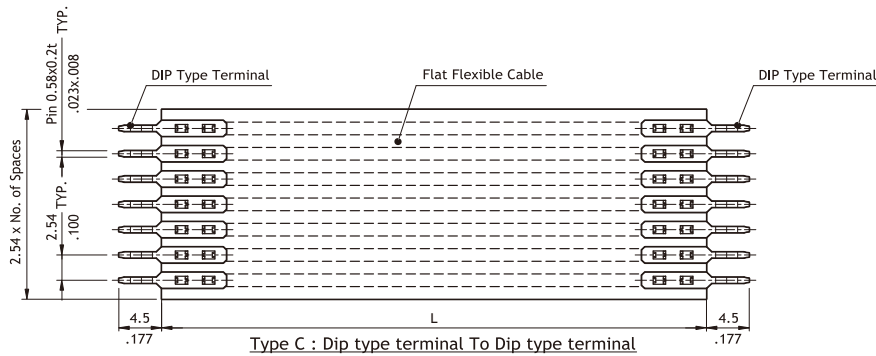
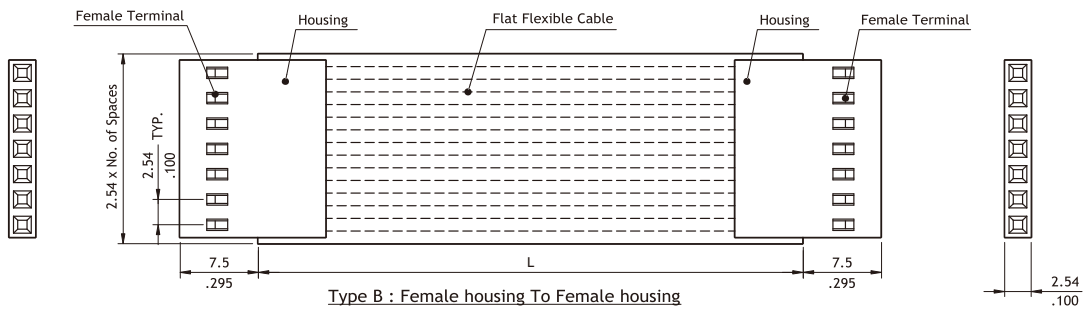
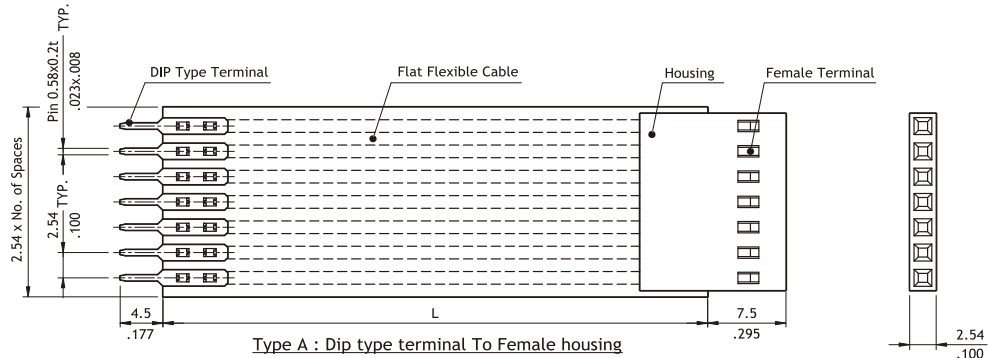
Mate with CVS1 Socket

FFCA Series 2.54mm(.100") Flat Flexible Cable Assemblies

- ⊙ Designed for flat flexible cable assembly
- ⊙ Available receptacle and board in pierce contact
- ⊙ Can be mated standard 2.54mm(.100") Pin header
- ⊙ Stackable end to end / side by side
- ⊙ Piercing termination provide reliable connection
- ⊙ Low cost and high reliability



RoHS Compliant



Ordering Code

①	②	③	④	⑤	⑥	⑦
FFC	AS	A	07	01	063	00

- ① Series No.
- ② AS = Assembly
- ③ Type:
A = DIP type terminal to Female housing
B = Female housing to Female housing
C = DIP type terminal to DIP type terminal
- ④ No. of Circuits: 02 to 13 for A and B Type
- ⑤ FFC Conductor Size(Thicknessx Width):
01 = 0.1x1.27mm
- ⑥ FFC overall length:
063 = 63mm (Custom length option)
- ⑦ Other Option: 00 = Standard
*Special option consult manufacturer
*Minimum Order Quantity:5000pcs / order