

Quartz

Thru Hole

ADX Series



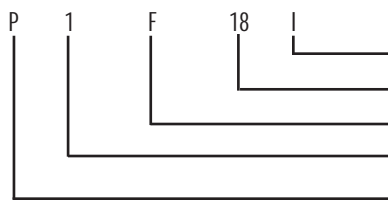
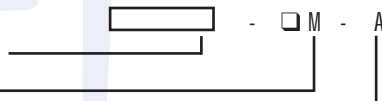
Package Type	ADXUM1 (UM-1) ADX49 (HC49/U)	pg19 pg19	ADXUM5 (UM-5) ADX49S (HC49/S)	pg19 pg20				
Frequency	MHz	M	KHz	K				
Frequency Tolerance @ 25°C	±100ppm ±50ppm ±45ppm	A B C	±40ppm ±35ppm ±30ppm	D E F	±25ppm ±20ppm ±15ppm	G H I	±10ppm ±5ppm	J K
Frequency Stability Over Temperature	±100 ppm ±50 ppm ±45 ppm	P Q R	±40 ppm ±35 ppm ±30 ppm	S T U	±25 ppm ±20 ppm ±15 ppm	V W X	±10 ppm ±5 ppm	Y Z
Operating Temperature Range	0°C to +70°C -10°C to +60°C	1 2	-20°C to +70°C -40°C to +75°C	3 4	-40°C to +85°C -40°C to +90°C	5 6	0°C to +55°C -40°C to +125°C	7 8
Operating Mode	Fundamental 3rd Overtone	F 3	5th Overtone 7th Overtone	5 7	9th Overtone	9		
Load Capacitance	6 pF 6 10 pF 10 12 pF 12	18 pF 18 20 pF 20 22 pF 22		30 pF 30 32 pF 32 50 pF 50		Series S		
Options	Third Lead	L	Insulator Tab	I	Tape & Reel	T	Vinyl Sleeving	V

EXAMPLE

PACKAGE TYPE

FREQUENCY

FREQUENCY TOLERANCE @ 25°C



OPTIONS

LOAD CAPACITANCE

OPERATING MODE

OPERATING TEMPERATURE RANGE

FREQUENCY STABILITY OVER TEMPERATURE

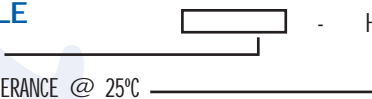
Cylindrical

Package Type	ADX26T	pg21	ADX38T	pg22	ADX310	pg23
Frequency	MHz	M	KHz	K		
Frequency Tolerance @ 25°C	±100ppm ±50ppm ±45ppm ±40ppm	A B C D	±35ppm ±30ppm ±25ppm ±20ppm	E F G H	±15ppm ±10ppm ±5ppm	I J K
Load Capacitance	6 pF	6	7 pF	7	12.5 pF	12.5
Options	Bulk	Blank	Insulator Tab	I	Tape & Reel	T

EXAMPLE

PACKAGE TYPE

FREQUENCY TOLERANCE @ 25°C



FREQUENCY

OPTIONS

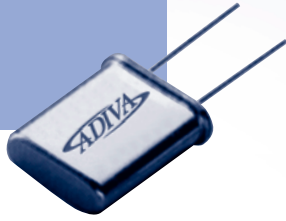
LOAD CAPACITANCE

Quartz Part Numbering Guide

Thru Hole

ADXUM1, ADXUM5, ADX49 Series

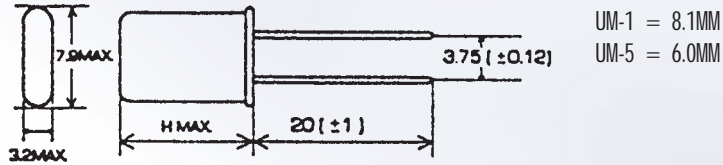
ADXUM1, ADXUM5, ADX49



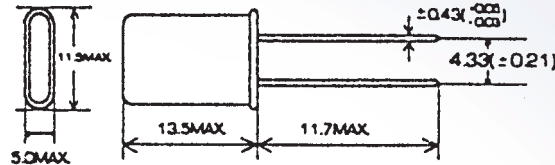
FEATURES

- These units are miniature crystal units featuring high reliability, due to their excellent shock resistance and environmental characteristics.
- They cover a wide frequency range, and permit free choice of type to best suit the specific application.
- Applications: communication equipment, AV equipment, OA equipment and measuring instruments.

ADXUM1 & ADXUM5 (unit: mm)



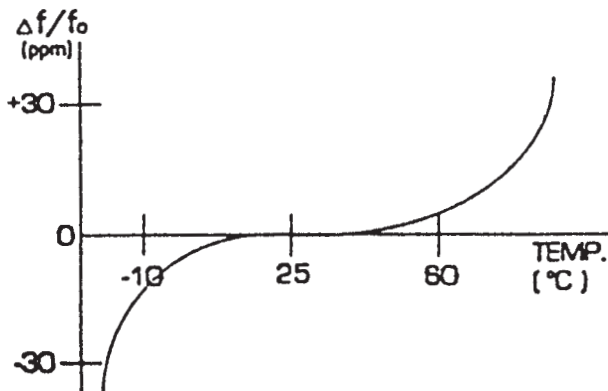
ADX49 (UNIT: mm)



STANDARD SPECIFICATIONS

Package Type		ADXUM1	ADXUM5	ADX49	Conditions
Frequency Range	F	7.000 MHz ~ 200 MHz	20 MHz ~ 150 MHz	1.800 MHz ~ 70 MHz	
Frequency Tolerance	$\Delta f/F$	± 30 ppm	± 15 ppm	± 30 ppm	$T = 25^\circ\text{C} \pm 3^\circ\text{C}$
Temperature Characteristics		± 30 ppm	± 10 ppm	± 30 ppm	$-10^\circ\text{C} \sim +60^\circ\text{C}$
Operating Temperature Range		$-10^\circ\text{C} \sim +80^\circ\text{C}$	$-10^\circ\text{C} \sim +80^\circ\text{C}$	$-10^\circ\text{C} \sim +80^\circ\text{C}$	
Storage Temperature Range		$-30^\circ\text{C} \sim +80^\circ\text{C}$	$-30^\circ\text{C} \sim +80^\circ\text{C}$	$-30^\circ\text{C} \sim +80^\circ\text{C}$	
Equivalent Series Resistance	R_s	See Drawing	See Drawing	See Drawing	
Load Capacitance	C_L	Please Specify	Please Specify	Please Specify	
Shunt Capacitance	C_0	7 pF max.	7 pF max.	7 pF max.	
Drive Level	P	50 μW	50 μW	100 μW	
Insulation Resistance		500 M Ω	500 M Ω	500 M Ω	DC 100V $\pm 15\text{V}$
Aging (for first year)	$\Delta f/F$	± 5 ppm max.	± 3 ppm max.	± 5 ppm max.	$T = 25^\circ\text{C} \pm 3^\circ\text{C}$
Sealing		1×10^{-7} mber-l/sec. max.	1×10^{-7} mber-l/sec. max.	1×10^{-7} mber-l/sec. max.	
Shock Resistance		± 3 ppm	± 3 ppm	± 5 ppm	
Drop Test of 3 times on a Hard Board from 75 cm Height.					

FREQUENCY vs. TEMPERATURE CHARACTERISTICS



EQUIVALENT SERIES RESISTANCE (E.S.R.)

Item	Frequency (MHz)	Vibration Code	E.S.R. max.
ADXUM1	7.0 ~ 8.0	Fundamental	80 ~ 120 Ω
	10.0 ~ 12.0	Fundamental	40 ~ 60 Ω
	14.31818 ~ 25.0	Fundamental	30 Ω
ADXUM5	20.0 ~ 30.0	Fundamental	30 Ω
	44.9 ~ 90.0	3rd Overtone	60 Ω
	80.0 ~ 150.0	3rd Overtone	120 Ω
ADX49	1.8432 ~ 4.0	Fundamental	80 ~ 600 Ω
	8.0 ~ 10.0	Fundamental	25 ~ 35 Ω
	20.0 ~ 490.0	Fundamental	25 ~ 40 Ω

SEE PAGE 18 FOR PART NUMBERING GUIDE