

MV-XP296-1487V is a Crystal Oscillator (XO) . This XO provides low jitter performance, PECL output and comes in a FR4 base with metal cover 14.3x8.7mm package. This device contains an internal voltage regulator resulting in excellent power supply rejection ratio.

The device is qualified to meet the JEDEC standard for Pb-Free assembly and compliant to the RoHS directive.

Electrical Performance

Parameter	Min	Typ	Max	Units
General				
Output Frequency	1		1500	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Frequency Stability				
Stability Over Temperature		±50 to ±10		ppm
Start Up Time			10	ms
Package Size		14.3 x 8.7 x 5.5		mm
Supply				
Supply Voltage (Vdd)		+3.3 to +5.0		V
Supply Current				
1 KHz		15		mA
1500 MHz		100		mA
Output				
Output Signal		PECL		
Output Logic Level				
Output Level - Logic High	Vdd-1.03		Vdd-0.6	V
Output Level - Logic Low	Vdd-1.85		Vdd-1.6	V
Output Load		50 Ω into Vdd-2V		
Output Rise and Fall Time		1		ns
Duty Cycle	45		55	%
Enable / Disable				
Output Enable / Disable				
Output Enabled	Vdd x 0.7			V
Output Disabled			Vdd x 0.3	V
Phase Noise & Jitter				
Phase Noise: (125 MHz)				
Jitter				
RMS Jitter: (12kHz - 20MHz) - 125 MHz		1.0		ps

Maximum Ratings

Storage Temp	-55°C to 125°C
Supply Voltage	0V to +5.5V
Enable/Disable Voltage	-0.5 to Vdd +0.5
Junction Temperature	+125 °C

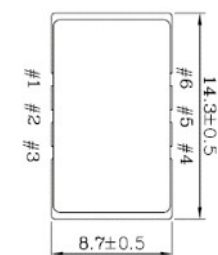
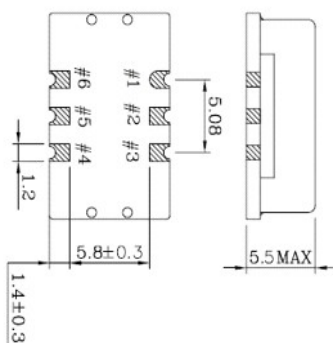
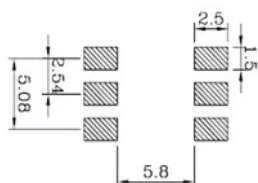
Maximum Ratings Notes:

- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	NC = Make No Connection
Pin 2	E/D = Enable / Disable or NC
Pin 3	GND = Ground
Pin 4	OUT = Output
Pin 5	C-OUT = Complimentary Output
Pin 6	Vdd = Supply Voltage

Pad Layout



Package Outline Drawing

Handling and Construction

Package Construction	FR4 base with metal cover
Contact Pads	Gold over Nickel
Pad Metal Thickness	Gold (0.3µm min - 1.0µm max) over Nickel
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	1500V
ESD, Charge Device Model	1500V

Ordering Information
MV-XP296-1487V -

XO, PECL

14.3 x 8.7 x 5.5mm, 6 Pins

x x x 2

① ② ③ ④

- xxxMxxxx

Frequency

① Voltage

A: 5.0 V

B: 3.3 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

C: ±50 ppm

E: ±25 ppm

F: ±20 ppm

G: ±15 ppm

J: ±10 ppm

④ Enable

2: Enable on Pin 2