

MV-VP742-1487V is a Voltage Controlled Crystal Oscillator (VCXO) . This VCXO provide low phase noise and jitter performance over a wide operating temperature range, PECL output and comes in a FR4 base with metal cover 14.3x8.7mm package.

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	8		1500	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Frequency Stability				
Stability Over Temperature		±50 to ±10		ppm
Aging /year (@ 25°C)			±2.0	ppb
Start Up Time			10	ms
Package Size		14.3 x 8.7 x 5.5		mm
Supply				
Supply Voltage (Vdd)		+2.5 to +3.3		V
Supply Current				
8 MHz			60	mA
120 MHz			120	mA
Tuning				
Frequency Pull Range		±20 to ±100		ppm
Control Voltage to reach Pull Range	0		Vdd	V
Output				
Output Signal		PECL		
Output Logic Level				
Output Level - Logic High	Vdd-1.025			dBm
Output Load		50 Ω into Vdd-2V		
Output Rise and Fall Time			1.0	ns
Duty Cycle	45		55	%
Enable / Disable				
Output Enable / Disable				
Output Enabled				V
Output Disabled				V
Phase Noise & Jitter				
Phase Noise: (155.52 MHz)				
Jitter				
RMS Jitter: (12kHz - 20MHz) - 155.52 MHz		0.6		ps

Notes:

- For temperatures higher than -40/+85C tightest stabilities may not be available at certain frequencies.

Maximum Ratings

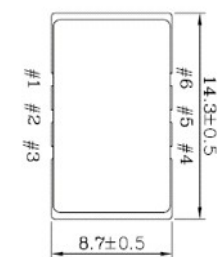
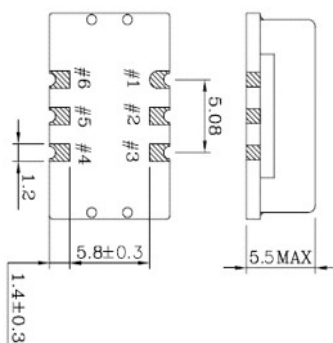
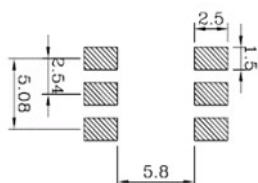
Storage Temp	-55°C to 105°C
Supply Voltage	3.3V $\pm$ 10%
Control Voltage	0V to Vdd

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	Vc = Control Voltage or NC
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
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information
MV-VP742-1487V -

VCXO, PECL

14.3 x 8.7 x 5.5mm, 6 Pins

x x x x

① ② ③ ④

- xxxMxxxx

Frequency

① Voltage

B: 3.3 V

D: 2.5 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

C: ±50 ppm

D: ±30 ppm

E: ±25 ppm

F: ±20 ppm

G: ±15 ppm

J: ±10 ppm

④ Freq Pull Range

F: ±20 ppm

E: ±25 ppm

C: ±50 ppm

B: ±80 ppm

A: ±100 ppm

Part Number Configuration Notes:

- 1 Wider Pull Ranges ±150ppm or wider available. Please contact MV-Electronics for ordering codes.