

MV-VS765-1487V is a Voltage Controlled Crystal Oscillator (VCXO) . This VCXO provide low phase noise and jitter performance over a wide operating temperature range, SINE 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	1		200	MHz
Operating Temperature		-10/+70 to -55/+125		°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)	4.75	+5.0	5.25	V
Supply Current				
< 25 MHz			15	mA
25 to 80 MHz		30	50	mA
80 to 200 MHz		60	70	mA
Tuning				
Frequency Pull Range		±20 to ±100		ppm
Control Voltage to reach Pull Range	0		Vdd	V
Control Voltage Impedance	10			KΩ
Control Voltage Modulation BW	10			kHz
Output				
Output Signal		SINE		
Output Level	+5			dBm
Output Load		50 Ω ± 10%		
Output Rise and Fall Time			10	ns
Enable / Disable				
Output Enable / Disable				
Output Enabled	Vdd x 0.7			V
Output Disabled			Vdd x 0.3	V
Phase Noise & Jitter				
Phase Noise: (75 MHz)				
100 Hz offset		-120		dBc/Hz
10kHz offset		-155		dBc/Hz
100kHz offset		-160		dBc/Hz
1MHz offset		-165		dBc/Hz
Jitter				
RMS Jitter: (12kHz - 20MHz) - 75 MHz		0.5		ps

Notes:

- For temperatures higher than -40/+85C tightest stabilities may not be available at certain frequencies.
- Power Supply pin should be filtered. e.g. 0.1µF or 0.01 µF Capacitor for optimal performance.

Maximum Ratings

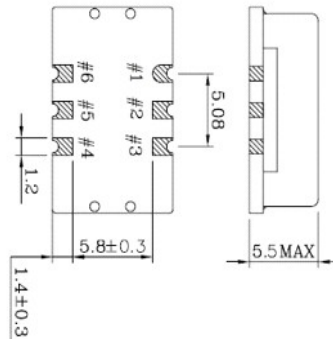
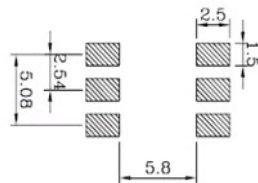
Storage Temp	-55°C to 125°C
Supply Voltage	5V $\pm$ 10%
Control Voltage	0V to Vdd

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	E/D = Enable / Disable or NC
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-VS765-1487V -

VCXO, SINE

14.3 x 8.7 x 5.5mm, 6 Pins

A x x x - xxxMxxxx

① ② ③ ④

Frequency

① Voltage

A: 5.0 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

L: -40/+105 °C

M: -40/+125 °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.