

MV-VS771-1487X 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	250		1600	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Frequency Stability				
Stability Over Temperature		±100		ppm
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			35	mA
Tuning				
Absolute Pull Range		±50		ppm
Control Voltage to reach Pull Range	0		Vdd	V
Linearity			20	%
Modulation BW @-3dB	20			kHz
Output				
Output Signal		SINE		
Output Level	+10			dBm
Output Charecteristic		True Sinewave		
Output Load		50 Ω ± 10%		
Subharmonics		None		
2nd Subharmonics			-15	dBc
Phase Noise & Jitter				
Phase Noise: (1000 MHz)				
1kHz offset		-105		dBc/Hz
10kHz offset		-138		dBc/Hz
100kHz offset		-150		dBc/Hz
1MHz offset		-160		dBc/Hz
10MHz offset		-170		dBc/Hz
Jitter				
RMS Jitter: (12kHz - 20MHz) - 1000 MHz		0.01		ps

Notes:

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

Maximum Ratings

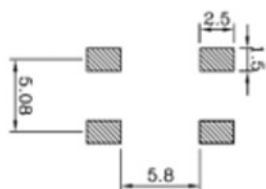
Storage Temp	-45°C to 90°C
Supply Voltage	5V ± 10%
Control Voltage	0V to Vdd

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	GND = Ground
Pin 3	OUT = Output
Pin 4	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-VS771-1487X -

VCXO, SINE

14.3 x 8.7 x 5.5mm, 4 Pins

A x A C

① ② ③ ④

- xxxMxxxx

Frequency

① Voltage

A: 5.0 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

A: ±100 ppm

④ Freq Pull Range

C: ±50 ppm

Part Number Configuration Notes:

- 1 Other APR (Absolute Pull Ranges) available. Please contact MV-Electronics for ordering codes.