

MV-XC295-1487X is a Crystal Oscillator (XO) . This XO provides low jitter performance, CMOS 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		200	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Frequency Stability				
Stability Over Temperature		±50 to ±10		ppm
Aging / year			±3	ppm
Start Up Time			5	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
200 MHz		60		mA
Output				
Output Signal		CMOS		
Output Logic Level				
Output Level - Logic High	Vdd x 0.9			V
Output Level - Logic Low			Vdd x 0.1	V
Output Load		15 pF		
Output Rise and Fall Time			10	ns
Duty Cycle	40		60	%
Enable / Disable				
Output Enable / Disable				
Output Enabled	Vdd x 0.7			V
Output Disabled			Vdd x 0.3	V
Phase Noise & Jitter				
Phase Noise: (50 MHz)				
10 Hz offset		-96		dBc/Hz
100 Hz offset		-132		dBc/Hz
1kHz offset		-152		dBc/Hz
10kHz offset		-165		dBc/Hz
100kHz offset		-168		dBc/Hz
1MHz offset		-170		dBc/Hz
Jitter				
RMS Jitter: (12kHz - 20MHz) - 50 MHz		0.045		ps

Maximum Ratings

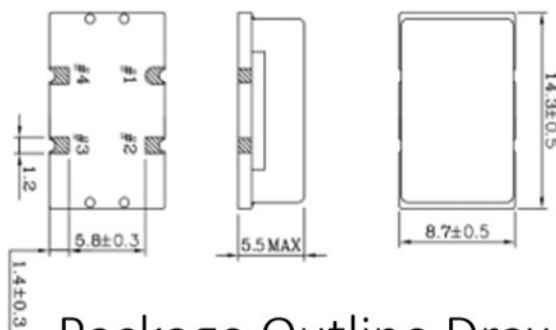
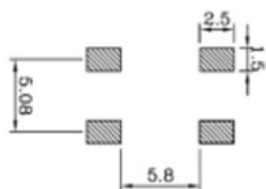
Storage Temp	-55°C to 125°C
Supply Voltage	0V to +5.5V
Enable/Disable Voltage	-0.5 to Vdd +0.5
Junction Temperature	+125 °C

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	E/D = Enable / Disable or NC (Tri-State)
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-XC295-1487X -

XO, CMOS

14.3 x 8.7 x 5.5mm, 4 Pins

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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

T: Tri-State