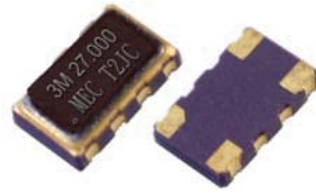


SMD CMOS output
5.0 x 3.2 x 1.5 mm



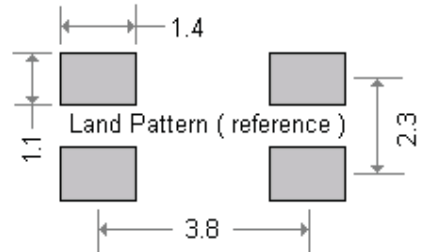
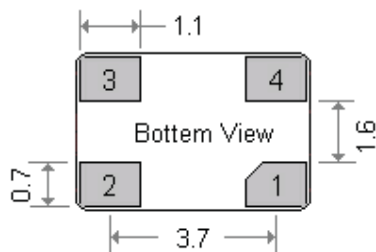
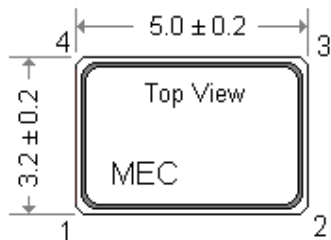
Features

- Ultra Small SMD seam sealed Temperature Compensated Crystal Oscillator units.

General Specifications

Parameters		Electrical Spec.							
Input Voltage (V _{DD})		3.3 V ± 5 %							
Frequency Range		6.4 MHz ~ 38.4 MHz							
Output Wave Form		TTL / CMOS output							
Initial Calibration Tolerance		Models without mechanical trimmer : < ± 2.0 ppm at +25°C ±2°C.							
Frequency Stability (ppm)		± 0.5 ppm	± 1.0 ppm	± 1.5 ppm	± 2.0 ppm	± 2.5 ppm	± 3.0 ppm	± 5.0 ppm	
Frequency Stability vs Temperature ○ : available △ : please contact us X : not available	0°C to 50°C	○	○	○	○	○	○	○	
	-10°C to 60°C	△	○	○	○	○	○	○	
	-20°C to 70°C	X	○	○	○	○	○	○	
	-30°C to 75°C	X	○	○	○	○	○	○	
	-40°C to 85°C	X	○	○	○	○	○	○	
Frequency Stability	vs Aging	±1.0 ppm / year max. at 25C							
	vs Voltage Change	± 0.3 ppm max. , for a ±5% input voltage change .							
	vs Load Change	± 0.3 ppm max. , for a ±10% load condition change .							
	vs Reflow (SMD type)	± 1.0 ppm max. , 1 reflow and measured 24 hours afterwards .							
Current Consumption (max.)		10.0 MHz	77.760 MHz	155.520 MHz					
		4.0 mA	18.0 mA	35.0 mA					
Output Logic Levels		Logic High " 1 "	90% of V _{DD} min.						
		Logic Low " 0 "	10% of V _{DD} max.						
Electronical Freq. Tuning (EFC) by external control voltage	Control Voltage Center	Standard: +1.5 V ± 1.0 V for all Input voltages.							
	Frequency Deviation Range	± 5.0 ppm (min.) , V _{control} = +1.5 V±1.0 V							
	Linearity	10 % max.							
	Input Impedance	1.0 MΩ min.							
	Modulation Bandwidth	3 KHz min. Measured at -3 dB , V _{control} = +1.5 VDC							
Output Load		15 pF							
Start - Up Time (Ts)		5.0 m sec. (typ.) , 10.0 m sec. (max.)							
Output Format		DC block , AC coupled							
Rise Time (Tr) / Fall Time (Tf)		10 n sec.(max.)							
Duty Cycle		Standard: 50 % ± 10 % ; Option: 50 % ± 5 % ; Measured at 50% V _{DD} .							
Storage Temperature		- 50°C to 100°C							
Aging		± 3 ppm per year (max.)							
Phase Noise (typical) [10.000 MHz]		Offset	10 Hz	100 Hz	1K Hz	10 KHz	100KHz	1 MHz	10 MHz
		dBc / Hz	-80	-115	-135	-138	-142	-148	-150

General Specifications (Unit : mm)



Pad Connections :
 Pad 1 : Ground for TCXO / Voltage Control VCTCXO
 Pad 2 : Ground
 Pad 3 : Output
 Pad 4 : Supply Voltage