TCXO2012T-1.544MHz-A-V
TCXO

Features and Benefits

Better than +/- 1.5 ppm from 0℃ to +70℃
3.3V supply; 10mA maximum
Less than -115dBc/Hz @ 100Hz offset
Less than -135dBc/Hz @ 1KHz offset
Less than 148dBc/Hz @ 10KHz offset

Typical Applications

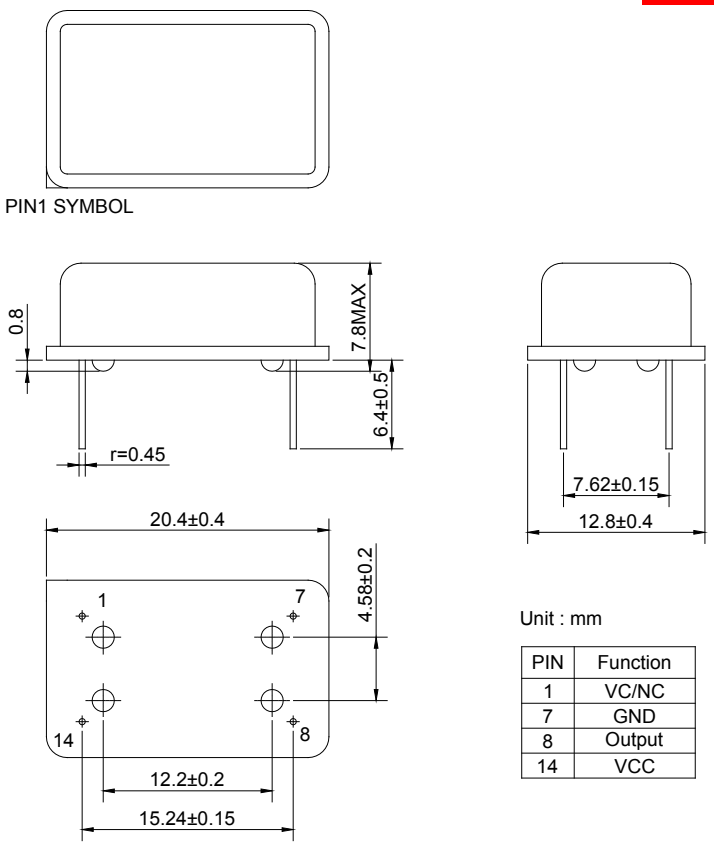
Telecom Network Frequency Reference Source

Description

1.544 MHz VCTCXO ; 3.3V ; CMOS output ; +/- 5 ppm min electronic adjust ; +/- 1.5 ppm stability over 0C to +70C.

Mechanical Drawing & Pin Connections

Drawing No: MD130035-1



Unit : mm

PIN	Function
1	VC/NC
7	GND
8	Output
14	VCC

Specifications

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency Range		F_{nom}			1.544		MHz	
LVCMOS	Logic Level 1			2.97			V	
	Logic Level 0					0.33	V	
	Load capacitance		Operating range			15	pF	
	Rise / Fall Time		CMOS logic output at 10% to 90%			10	ns	
	Duty Cycle		Measured at 50% V_{DD} trigger level	45	50	55	%	
	Start time					2.0	ms	
Power Supply								
Voltage		V_{cc}		3.135	3.30	3.465	V	
Current Consumption			At maximum supply voltage			1.0	mA	
Frequency Control*								
Control voltage range		V_c		0.5	1.5	2.5	V	Tuning Slope Positive
Pulling range			Referenced to VCON at 1.5V	+/- 5		+/-5	ppm	
Vcon input impedance			Measured between VCON and GND pin	100			kOhm	
Linearity						10.0	%	
Frequency Stability								
Versus temperature			0°C to 70°C ,Ref to 25°C	-1.5		+1.5	ppm	
Tolerance at 25°C			Frequency at 25°C	-1		+1	ppm	
Versus 5% change in supply voltage			Supply voltage varied ±5% at 25°C	-0.2		+0.2	ppm	
Aging			Per year at 25°C	-1		+1	ppm	
SSB Phase noise(typ.)			100 Hz			-115.0	dBc/Hz	
			1K Hz			-135.0		
			10 KHz			-148.0		
Environmental Conditions								
Vibration Test		10~2000Hz, 1.52mm, 20G, each axis for 4 hrs						
Thermal Shock		-55°C, 125°C; soak time is 10 mins, with total 200 cycles						
Mechanical Shock		1500G, half-sine, 0.5ms, each axis for 3 times.						
Storage temperature		-40°C to +85°C						