

Features

9.600 MHz Operating Frequency
Better than +/- 0.150 ppm at 20C +/- 3C
Better than +/- 0.250 ppm from -40C to 70C
Smooth sine wave output
25.2 mm x 15.2 mm x 5.6 mm SMD Package
Electrical and Mechanical Frequency Adjust
Very Good Phase Noise

Picture of Part



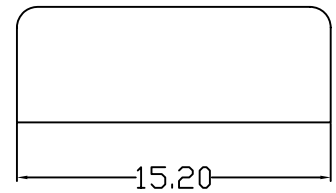
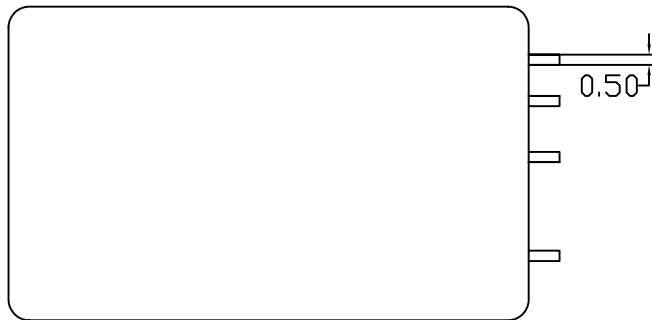
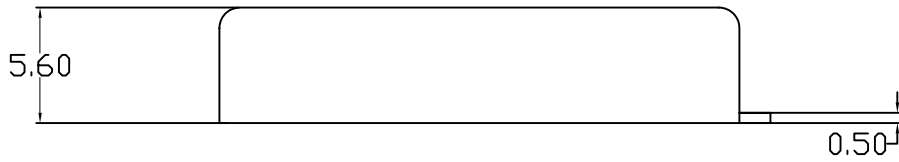
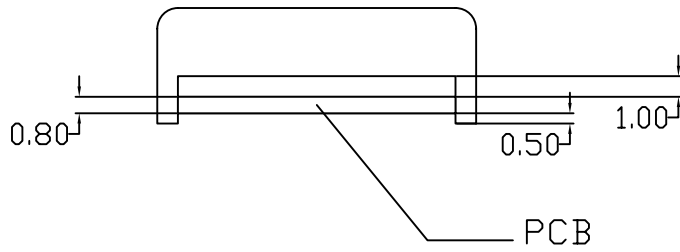
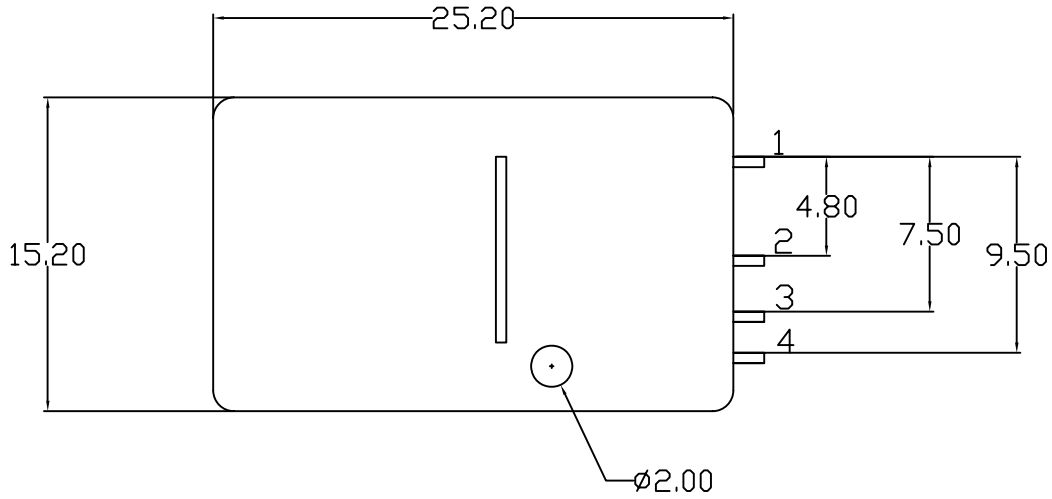
Typical Applications

Test Instrumentation
Microwave Communications
Mobile Radio

Description

The TCXO2515KP platform is an integrated module design incorporating the latest low noise analog compensation technology onto a custom SMD package including both electronic and mechanical frequency adjustment for ease of processing.

Mechanical Drawing and PIN Function



Specifications

TCXO2515KP-9.6MHz		Sym.	Condition	Value			Unit	Note	
				Min.	Typ.	Max.			
Operational Frequency Range		f ₀		9.600000			MHz		
Sine Wave 300 ohm Load	Load			300			Ohms		
	Output Level			2.0			V pk-pk		
	Harmonics		2 nd harmonic			-22		dBc	
			3 rd and 4 th harmonic			-48		dBc	
		5 th and 6 th harmonic			-58		dBc		
Power Supply				4.75	5.00	5.25	Volts		
			DC Current Consumption			8	mA		
Frequency Tolerance (@ 20C +/- 3C with Vcontrol = 2.25 volts AFTER Mechanical Frequency Adjustment in customer board)									
				-0.150		+0.150	PPM		
Electronic Frequency Mechanical Trimmer		Vcontrol from 0.25 to 4.50 volts		+/- 3.0 +/- 1.5			PPM	With Vcontrol = 2.25V center	
Frequency vs. Voltage and Load		5% supply + Load Variation		+/- 0.100			PPM	Load from 50 ohm to 1M ohm	
Frequency stability									
vs. temperature		From -40C to 70C with REF. to Freq. at 20C +/- 3C		-0.250		+0.250	PPM	With Vcontrol = 2.25 volts	
vs. temperature		From 10C to 50C with REF. to Freq. at 20C +/- 3C		-0.200		+0.200	PPM	With Vcontrol = 2.25 volts	
vs. temperature		From 70C to 75C with REF. to Freq. at 20C +/- 3C		-0.350		+0.350	PPM	With Vcontrol = 2.25 volts	
First year Aging		As calculated by curve fit based		-0.300		+0.300	PPM		
Five Year Aging		On 30 days of continuous power		-0.800		+0.800	PPM		
SSB Phase noise At 9.6 MHz sine wave				Low	Typical	Best	dBc/Hz		
		100 Hz		-120	-122	-125			
		1000 Hz		-135	-138	-141			
		10000 Hz		-145	-148	-151			
		100000 Hz		-148	-150	-155			
Environmental									
Parameter	Reference Std.			Test Condition					
Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1			10~2000Hz, 1.52mm, 20G, each axis for 4 hrs					
Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B			-55°C, 125°C; soak time is 10 mins, with total 200 cycles					
Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B			1500G, half-sine, 0.5ms, each axis for 3 times.					
Storage temperature				-55°C to +85°C					