



Features and Benefits

- 25MHz Frequency
- 3.3V Supply voltage
- LVDS Output waveform
- ±1.0ppm Stability Vs -40°C to +85 °C

Typical Applications

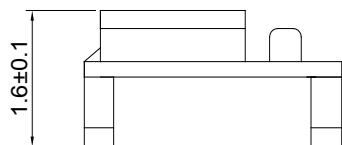
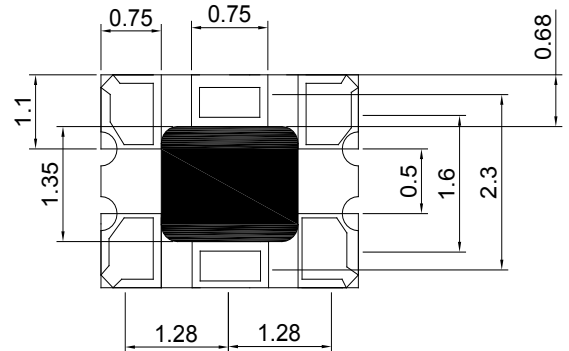
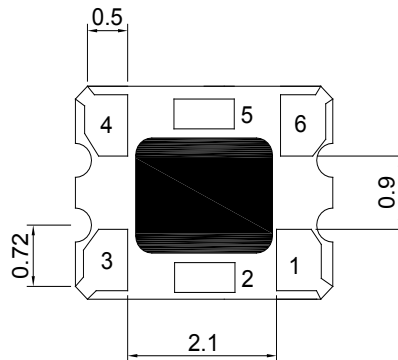
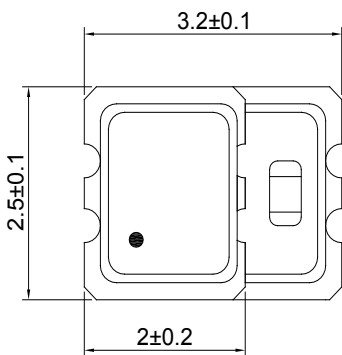
- Frequency reference for real time clocks (RTCs)
- Portable instruments
- Timing synchronization for networks, servers, hubs, routers and switches
- Smart metering, data loggers
- GPS receivers. Telematics

Description

TCXO3225BL-25MHz-A-V is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD160046-1



Pin Connection

Pin	Function
1	Voltage Control
2	Output Enable
3	GND
4	Differential
5	Complimentary
6	Vcc

Unit : mm
1mm=0.0394inch



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			25		MHz	
RF Output							
Signal Waveform			LVDS				
Load	R _L		100			ohm	
H-Level Voltage	V _H		1.4 V Typical, 1.6 V max.				
L- Level Voltage	V _L		1.1 V Typical, 0.9 V min.				
Duty Cycle			45	50	55	%	
Rise and fall time			0.2 nS. (Typical), 0.4 nS. (max)				
Start up time			Tr / Tf : 20% ↔ 80% waveform				
			5 m sec. (max)				
Power Supply							
Supply Voltage	V _{cc}	±5%		3.3		V	
Current consumption				25		mA	
Current with output disabled				18		mA	
Frequency Stability							
Versus Operating Temperature Range		-40°C to +85°C			±1.0	ppm	
Initial Calibration Tolerance			±1.0 ppm. max. at +25°C±2°C (at the shipment)				
Versus supply voltage		±5% change			±0.2	ppm	
Versus load		±10% change			±0.2	ppm	
Versus Reflow		1 reflow and measured 24 hours afterwards			±1.0	ppm	
Aging 1 st Year					±2.0	ppm	25°C
Aging 10 Year					±10	ppm	25°C
Storage Temperature			-55°C to +150°C				
Control Voltage Function on Pad 1							
Control Voltage Center and Range			+1.5V ± 1.0V				
Frequency Pulling Range			± 8 ppm min.				
Linearity			±1% typical, ±10% max.				
Transfer Function			Positive Transfer				
Absolute Voltage			4.0 V max.				
Input Impedance			770 KΩ typical.				
Harmonics			-5.0 dBc max.				
Output Enable Function on pad 2							
OE Control on Pad 2			0.7% of VDD (min.) or no connection to enable output. LVCMOS / LVTTTL level.				
			0.3% of VDD (max) to disable output (high impedance). LVCMOS / LVTTTL level.				
Output Enable Time / Disable Time			200 nS. Max. / 50 nS. Max.				
Integrated Phase Jitter			0.8 pS typical (12 KHz to 20 MHz)				
			< 150 fS (1.875 KHz to 21 MHz)				