Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
TEL: 1-281-870-8822 EMAIL:Sales@DynamicEng.com

XO7500AO-50MHz-A
SMD 7x5mm 50MHz Crystal Oscillator

Features and Benefits

Surface Mount Seam Weld Package
Excellent Reliability Performance
Good Frequency Perturbation

Typical Applications

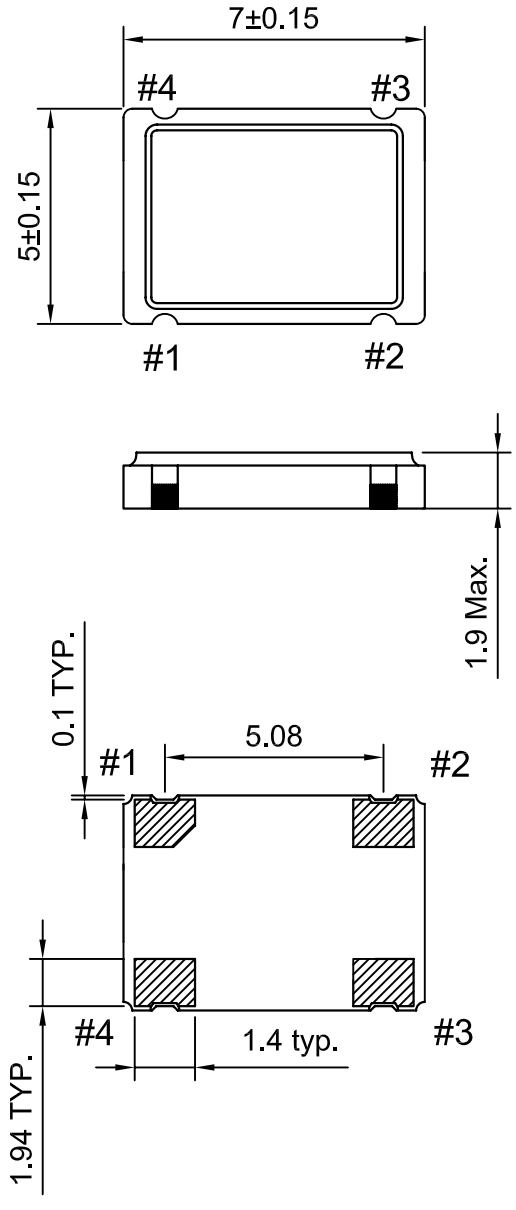
3.3 V Supply Voltage Operation CMOS Output
Option-able stand-by function for output

Description

XO7500AO-50MHz-A offers high reliability and a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: MD150027-4



Pin Connections

Pin	Function
1	OE
2	Ground
3	RF Output
4	Supply Voltage

Unit in mm
1mm = 0.039 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			50		MHz	
RF Output							
Signal Waveform				CMOS			
Load	R_L			15pF			
H-Level Voltage	V_H		90% Vcc			V	
L- Level Voltage	V_L				10%Vcc	V	
Duty Cycle			45		55	%	
Rise/Fall time					8	ns	
Power Supply							
Supply Voltage	V_S	±10%		3.3		V	
Start-up Time					10	ms	
Current					20	mA	
Frequency Adjustment Range							
Enable/Disable Function		PIN 1: High or Open		PIN3:Enable			
		PIN 1: Low		PIN3:Disable			
Frequency Stability							
Accuracy		Frequency accuracy includes 25C tolerance, operating temperature range -40 to 85 deg C, aging and voltage or load change			±50	ppm	
Environmental,Mechanical Conditions							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-55°C to 125°C						
Resistance to soldering heat(IR reflow)	Temp./ Duration : 265°C /10sec × 2 times; Total time : 4min.(IR-reflow) under EIAJED-4701-300(301)M(II)						
Dry heat (Aging test)	Temperature : 125 ± 2 °C; Duration : 168 hours under MIL-STD 202G method 108A						
Thermal Shock	Heat cycle conditions -40 ℃ (30min) ⟷ 85 ℃ (30min) cycle time : 10 times under MIL-STD 883G method 1010.8						
Humidity Test	Temperature : 85 ± 2 °C; Relative humidity : 85%; Duration : 96 hours under MIL-STD 202G method 103						
Mechanical shock	directions : 3 impacts per axis; Acceleration : 3000g's, +20/-0 %; Duration: 0.3 ms (total 18 shocks); Waveform : Half-sine under MIL-STD 202G method 213						
Vibration	Total peak amplitude : 1.5mm; Vibration frequency : 10 to 2000 Hz; Sweep period : 20 minute; Vibration directions : 3 mutually perpendicular; Duration : 2 hr / direc.under MIL-STD 202G method 204						
Solderability	Solder Temperature:265±5°C; Duration time: 5±0.5 seconds under J-STD-002						
Cold resistance (Low Temp Storage)	Temperature : -40 ± 2 °C; Duration : 96 hours under IEC 60068-2-1						