



Dynamic Engineers Inc.

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OCXO2020D11-10.000MHz
10 mm Low Profile Case Height OCXO

Features and Benefits

Stability: ± 20 ppb over - 40°C to +70°C
Phase Noise Floor: -150 dBc/Hz or better at 10 kHz

Typical Applications

Test Instrumentation Reference
GPS Timing Modules
Microwave Communications

Picture of Part

Packaging type R: 20.0 x 20.0 x 10.0 mm



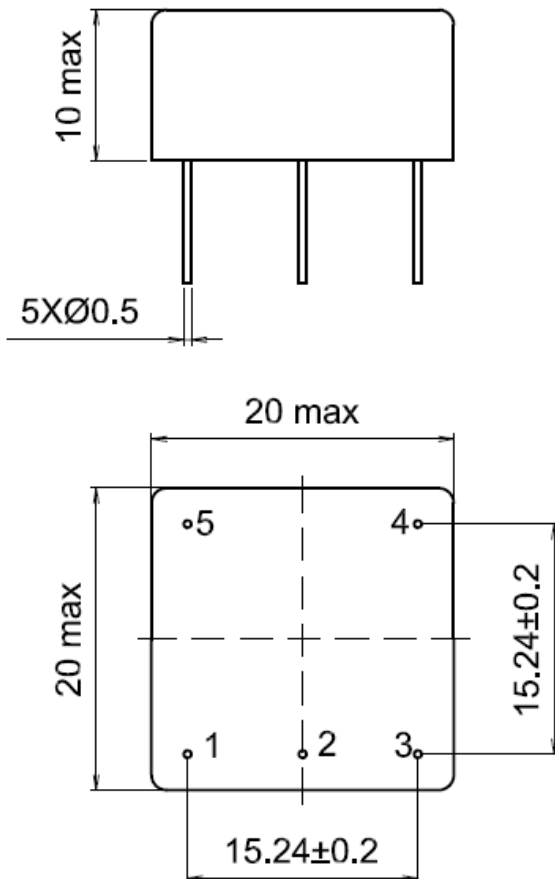
RoHS compliant

Description

The OCXO2020D11-10.000MHz series offers good phase noise and frequency stability in a compact 20.0 mm x 20.0 mm x 10.00 mm solder-sealed enclosure.

Mechanical Drawing & Pin Connections

Drawing No: n/a



Pin	Function
1	GND
2	RF Out
3	Vsupply
4	Vreference
5	Vcontrol



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	f_0		10.000000			MHz	
Initial tolerance		at +25°C after 30 min	-20.0		+20.0	ppb	Mid range control
HCMOS	Logic Level 1		4.5			V	
	Logic Level 0				0.5	V	
	Load			15		pF	
Power Supply							
Voltage	V_{cc}		4.75	5.00	5.25	V	
Warm-up Current		$V_{cc}=5V$			450	mA	
Steady-state Current		at +25°C, $V_{cc}=5V$, still air			150	mA	
Warm-up Time:	t_{up}	Warm-up time to within ±100 ppb			180	sec	
Frequency Control*							
Control voltage range	V_c		0.0		4.5	V	
Slope			Positive				
Pull range			±0.500			ppm	
Reference voltage	V_{ref}			4.5		V	
Frequency Stability							
Versus temperature		from -40°C to +70°C	-20.0		+20.0	ppb	
Aging Per Day		Turn-on and test after 30 days			±1.0	ppb	
Aging Per Year						±100	ppb
SSB Phase noise		1 Hz			-90	dBc/Hz	
		10 Hz			-120		
		100 Hz			-140		
		1 kHz			-145		
		10 kHz			-150		
Root Allan Variance		Tau = 1 second gate (100 samples)			1.0e-11		
Environmental Conditions							
Operating temperature range	-40°C to +70°C						
Storage temperature range	-55°C to +85°C						
Vibration Profile	10-500 Hz ; 10G						
Shock Profile	75G's for 0.003 seconds						