



Features and Benefits

Frequency range: 10.23MHz
Supply voltage: 3.3V
Current: 3mA Max.
Output waveform: CMOS
Frequency stability vs. temperature: ±0.5PPM
Aging: ±1PPM per year
Phase noise: -155dBc/Hz@100KHz:
Operating temperature: -40°C to +85°C
Size: 5x3.2x1.7 mm

Typical Applications

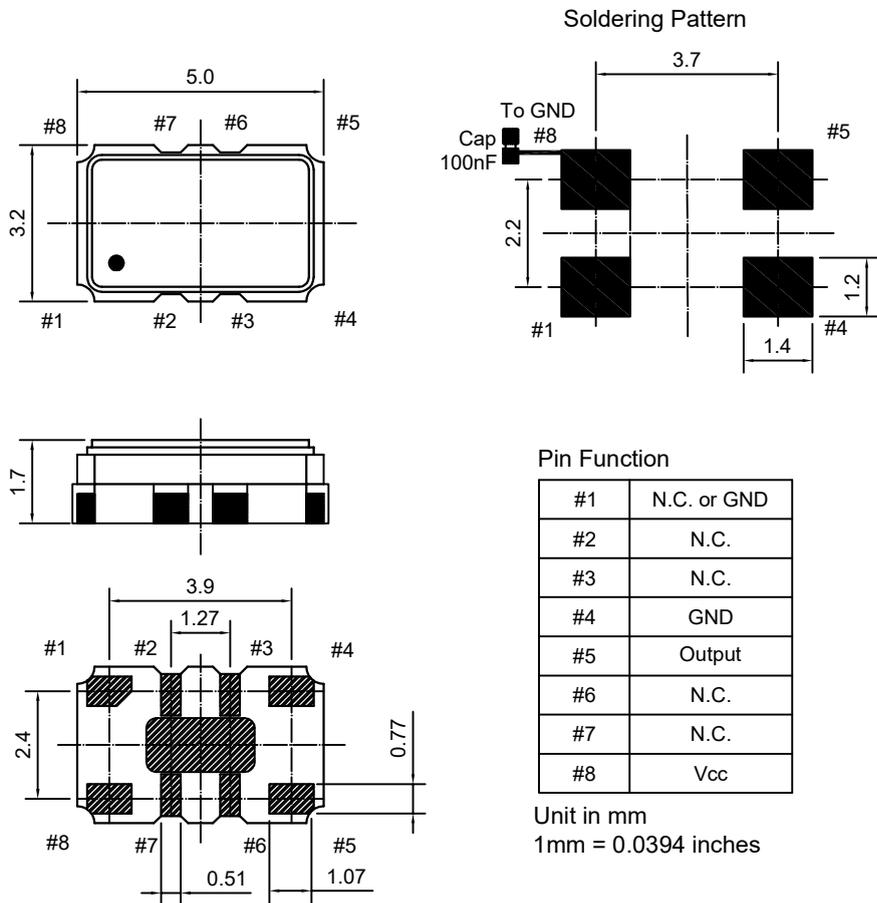
Portable Wireless Communications
Mobile Test Equipment
Radio
SATCOM System

Description

TCXO5300Z-10.23MHz-A is the high stability and low phase noise small size TCXO. It can be widely used in the portable communication devise.

Mechanical Drawing & Pin Connections

Drawing No: MD150017-11





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f ₀			10.23		MHz	
RF Output							
Output Waveform			CMOS				
Output High Level	V _{OH}		0.9V _{cc}			V	
Output Low Level	V _{OL}				0.1V _{cc}	V	
Output Load					15	pF	
Power Supply							
Voltage	V _{cc}			3.3		V	
Current					3	mA	
Starup Time					2	mS	
Frequency Stability							
Frequency tolerance ex. factory		@+25°C			1.0	ppm	
Versus Temperature Reference to (FMAX+FMIN)/2		-40°C to +85 °C			±0.5	ppm	
Versus Supply voltage changes ±5%		referenced to frequency at nominal supply			±0.1	ppm	
Versus Load voltage changes ±5%		referenced to frequency at nominal load			±0.1	ppm	
Versus Aging @+40°C		1 st year			±1.0	ppm	
G-sensitivity		Per axis			1.8	ppb/g	
Phase noise (typ.)		10 Hz		-85		dBc/Hz	For 10.23MHz
		100 Hz		-115			
		1 KHz		-135			
		10 KHz		-150			
		100 KHz		-155			
		1000 KHz		-157			
Environmental Conditions							
Operating temperature range		-40°C to +85 °C					
Storage temperature range		-55°C to +105 °C					
Reflow Profiles as per IPC/JEDEC J-STD-020C		≤260°C over 10 sec. Max.					
Moisture sensitivity		Level 1 (unlimited)					

Note: Unless otherwise specified conditions are @+25 °C