

Specification	AXIOM10-23	Rev.: 2	Date: 2014-07-09
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Oscillator type: High Stability SMD OCXO with HCMOS Output

Parameter	min.	typ.	max.	Unit	Condition
Nominal frequency	40.000			MHz	
Frequency stability					
Initial tolerance @ +25°C			±100	ppb	@ V _C = 2.5 V
vs. operating temperature range			±50	ppb	steady state
operating temperature range	-40		+85	°C	
vs. supply voltage variation			±3	ppb	V _S ±5%
vs. load change			±3	ppb	Load ±5%
Long term (aging) per day			±1	ppb	after 30 days operation
Long term (aging) per year			±100	ppb	after 30 days operation
Frequency adjustment range					
Electronic Frequency Control (EFC)	±0.5			ppm	
EFC voltage V _C	0	2.5	5.0	V	
EFC slope (Δf / ΔV _C)	Positive				
EFC input impedance	100			kΩ	
RF output					
Signal waveform	HCMOS				
Load	10 kΩ 15 pF				
Rise & decay time			10	ns	
Symmetry (duty cycle)	40		60	%	@ V _S /2
Phase noise			-100	dBc/Hz	@ 10 Hz
			-125	dBc/Hz	@ 100 Hz
			-135	dBc/Hz	@ 1 kHz
			-140	dBc/Hz	@ 10 kHz
Short-term stability (Allan Deviation)			5·10 ⁻¹¹		τ = 1 sec
Warm-up time			3	min	Δf _{final} /f ₀ < ±0.1 ppm
Reference voltage VREF output		5.0		V	
Supply voltage V_S	11.4	12.0	12.6	V	
Current consumption (steady state)			120	mA	@ +25°C
Current consumption (warm-up)			250	mA	
Operable temperature range	-45		+90	°C	
Storage temperature range	-55		+105	°C	
Enclosure (see drawing) (LxWxH)	25.6x22.2x14 max.			mm	IEC 61837 CO 28
Weight			10	g	
Packing	Tape & Reel				IEC 60286-3
ESD Sensitivity	1500			V	HBM as in IEC 61000-4-2
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

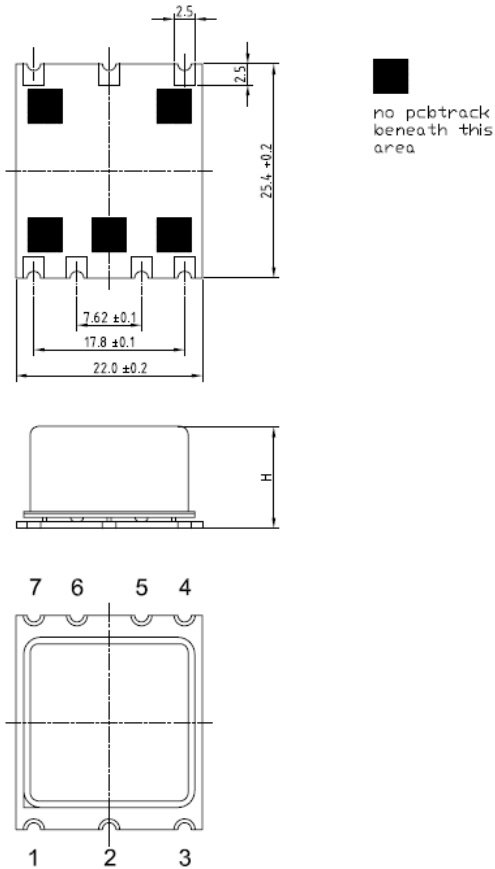
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated

Ordering Code:

Model (Specification)	Revision	Frequency [MHz]
AXIOM10-23	Rev.2	40.000

Enclosure drawing:



Pin connections

Pin #	Symbol	Function
1	V _C	Control Voltage (EFC)
2	V _{REF}	Reference Voltage
3	V _S	Supply Voltage
4	RF OUT	RF Output
5	N.C.	No Connection
6	N.C.	No Connection
7	GND	Ground

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Sealing tests (if applicable)	2-17	4.6.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		4.7.1 4.7.2	30 days @ 85°C, OCXO @ 25°C 1000h, 2000h, 8000h @ 85°C

Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
2	D0	31.10.2012	Current consumption changed, new package drawing	BN	BN
2	D1	23.11.2012	Marking added	BN	BN
2	D2	09.07.2014	Editorial changes, customer marking deleted	HH	HH