

Specification	AXIOM15-23	Rev.: 1	Date: 2014-07-09
----------------------	-------------------	---------	------------------

Oscillator type: Low Phase Noise SMD OCXO with Sine Wave Output

Parameter	min.	typ.	max.	Unit	Condition
Nominal frequency	40.0000			MHz	
Frequency stability				ppm	
Initial tolerance @+25°C		±100		ppb	
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	C _L ±5 %
Long term (aging) per day			±1	ppb	after 30 days operation
Long term (aging) 1 st year			±100	ppb	after 30 days operation
Frequency adjustment range					
Electronic Frequency Control (EFC)	N.A.				
RF output					
Signal waveform	Clipped Sine wave				
Load	15			pF	±5 %
Output levels	0 V < L < 0.3 V 0.9 V < H < 1.3 V				
Phase noise			-100 -125 -135 -140	dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz
Short-term stability (ADEV)			5·10 ⁻¹¹		τ = 1 sec
Warm-up time @ +25°C			3	min	Δf _{final} /f ₀ < ±0.1 ppm
Supply voltage V_S	3.15	3.3	3.45	V	
Current consumption (steady state)			450	mA	@ +25°C
Current consumption (warm-up)			900	mA	
Operable temperature range	-45		+90	°C	
Storage temperature range	-55		+95	°C	
Enclosure (see drawing) (LxWxH)	25.6x22.2x14 max.			mm	IEC 61837 CO 28
Weight			10	g	
Packing	Tape & Reel				IEC 60286-3
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

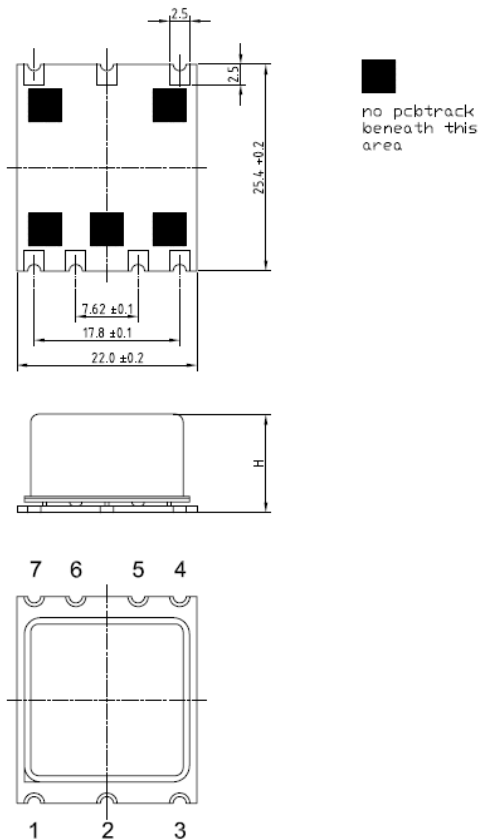
Notes:

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

Ordering Code:

Model (Specification)	Revision	Frequency [MHz]
AXIOM15-23	Rev1	40.000

Enclosure drawing:



Pin connections

Pin #	Symbol	Function
1	N.C.	No Connection
2	N.C.	No Connection
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
1	D0	24.08.2012	First issue	BN	BN
1	D1	31.08.2012	Supply voltage changed, output signal and load changed	BN	BN
1	D2	11.09.2012	Change of Supply voltage, output impedance, (no) EFC and output signal levels	BN	BN
1	D3	12.10.2012	Current consumption (steady state) increased	HH	HH
1	D4	09.07.2014	Editorial changes, customer marking deleted	HH	HH