

Specification	AXIOM20-23	Rev.: 1	Date: 2011-10-05
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Oscillator type: OCXO in DIL14 Package with HCMOS Output

Parameter	min.	typ.	max.	Unit	Condition
Nominal frequency	40.000			MHz	
Frequency stability					
Initial tolerance @ +25°C		±500		ppb	@ V _C = 2.5V
vs. operating temperature range (steady state)			±500	ppb	ref. to f(25°C)
operating temperature range	0		+70	°C	(Note 2)
vs. supply voltage variation			±50	ppb	V _S ±5%
vs. load change			±50	ppb	Load ±5%
Long term (aging) per year			±0.3	ppm	@ +40°C, after 30 days
Frequency adjustment range					
Electronic Frequency Control (EFC)	±3			ppm	
EFC voltage V _C	0.5	2.5	4.5	V	
EFC slope (Δf / ΔV _C)	positive				
EFC input impedance	100			kΩ	
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			10	ns	
Symmetry	40		60	%	
Phase noise			-120 -135 -140	dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1 kHz @ 10 kHz
Warm-up time			3	min	Δf _{final} /f ₀ < ±0.1 ppm
Supply voltage V_S	4.75	5.0	5.25	V	
Current consumption (steady state)			140	mA	@ +25°C
Current consumption (warm-up)			400	mA	
Operable temperature range	-10		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)	20.7x13.1x10 max.			mm	IEC 60679-3 CO 02
Weight			5	g	
Packing	Palette or tube				
ESD Sensitivity	1500			V	HBM, IEC 61000-4-2
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

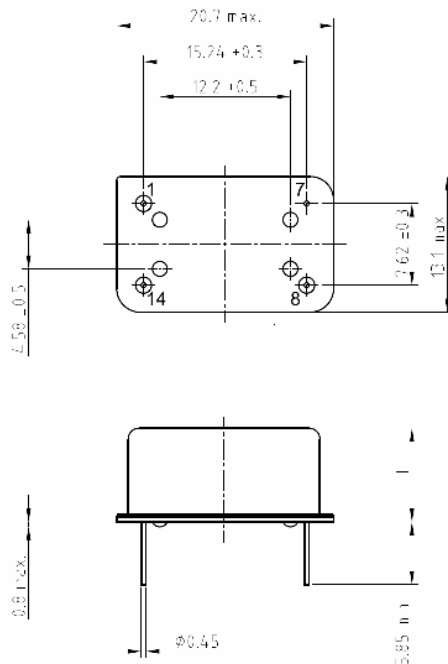
Notes:

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

Ordering Code:

Model (Specification)	Revision	Frequency [MHz]
AXIOM20-23	Rev.1	40.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	V_C	Control Voltage (EFC)
7	GND	Ground
8	RF OUT	RF Output
14	V_S	Supply Voltage

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	05.10.2011	First issue	BN	BN
1	D1	08.07.2014	Editorial changes, customer marking deleted	HH	HH