

Specification	AXIOM10	Issue: 04	Date: 2005-07-15
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Oscillator type : OCXO in SMD package

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		120	MHz	Note 2
Standard frequencies	10.0 / 12.8 / 19.44			MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V _C = center
vs. temperature (steady state)			± 200 ± 100 ± 50	ppb ppb ppb	Option II = "200" Option II = "100" Option II = "50"
operating temperature range	-40 -20 -10		+80 +70 +60	°C °C °C	Option II = "200" Option II = "100" Option II = "50"
vs. supply voltage variation			± 10	ppb	
vs. load change		± 10		ppb	
long term (aging) 1 st year @ +40°C, after 30 days			± 200	ppb	
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 2			ppm	
EFC voltage V _C	0.15 0.25	1.65 2.5	3.15 4.5	V V	Option I = "33" Option I = "50"
EFC slope ($\Delta f / \Delta V_C$)	positive				
EFC input impedance	100			kΩ	
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			5	ns	
Symmetry (duty cycle)	40		60	%	@ V _S /2
Warm-up time			5	min	$\Delta f_{final}/f_0 < \pm 0.1$ ppm
Phase noise @12.8 MHz		-95 -120 -140 -145		dBc dBc dBc dBc	10 Hz 100 Hz 1000 Hz 10000 Hz
Supply voltage V_S	3.15 4.75	3.3 5.0	3.45 5.25	V V	Option I = "33" Option I = "50"
Current consumption (steady state, @ +25°C)			300 250	mA mA	Option I = "33" Option I = "50"
Current consumption (warm-up)			800 500	mA mA	Option I = "33" Option I = "50"
Storage temperature range	-45		+85	°C	
Enclosure (see drawing)	25.6x22.2x11.5 max.			mm	IEC 61837 CO 28
Weight			9	gram	
Packing	Bulk, Tape & reel				IEC 60286-3
ESD Sensitivity	1500			V	HBM as in IEC 61000-4-2

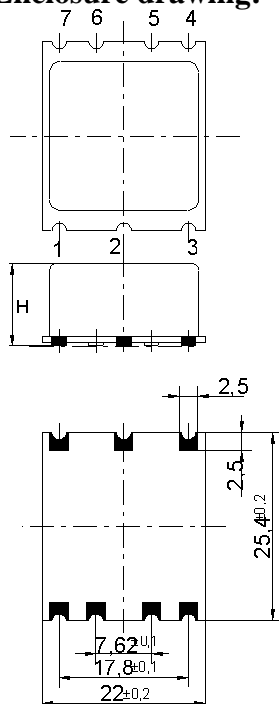
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Not all combinations of options available in the whole frequency range

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM10	50	100	10.0

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
Visual inspection, dimensions		4.3	Enclosure styles as in IEC 60679-3 or 61837, if applicable
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
Bump*	2-29	4.6.6	Test Eb, 4000 bumps per Axes, 40g, 6 ms
Free fall*	2-32	4.6.9	Test Ed procedure 1, 2 drops from 1m height
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Rapid change of temperature	2-14	4.6.5	Test Na, 10 cycles at extremes of operating temperature range
Dry heat	2-2	4.6.14	Test Ba, 16 h at upper temperature indicated by climatic category
Damp heat, cyclic*	2-30	4.6.15	Test Db variant 1 severity b), 55°C/95% r.H., 6 cycles
Cold	2-1	4.6.16	Test Aa, 2 h at lower temperature indicated by climatic category
Climatic sequence*	1-7	4.6.17	Sequence of 4.6.14, 4.6.15 (1 st cycle), 4.6.16, 4.6.15 (5 cycles)
Damp heat, steady state*	2-3	4.6.18	Test Ca, 56 days
Endurance tests - ageing - extended aging		4.7.1 4.7.2	30 days @ 85°C, OCXO @ 25°C 1000h, 2000h, 8000h @ 85°C