

Specification	AXIOM10	Issue: 06	Date: 2009-09-22
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Oscillator type : OCXO in SMD package with HCMOS output

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		120	MHz	Note 2
Standard frequencies	10.0 / 12.8 / 19.44 / 20.000			MHz	
Frequency stability				ppm	
Initial tolerance @+25°C			± 500	ppb	V _C @ centre value
vs. temperature (steady state)			± 100	ppb	Option II = "100"
			± 50	ppb	Option II = "50"
			± 25	ppb	Option II = "25"
			± 10	ppb	Option II = "10"
			± 5	ppb	Option II = "5"
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 10	ppb	
vs. load change			± 10	ppb	
Long term (aging) per day, after 30 days operation			± 10	ppb	Option II = "100"
			± 2	ppb	All other Options II
long term (aging) 1 st year @ +40°C, after 30 days			± 200	ppb	Option II = "100"
			± 100	ppb	All other Options II
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 3			ppm	Option II = "100"
	± 0.8	± 1		ppm	All other Options II
EFC voltage V _C	0.15	1.65	3.15	V	Option I = "33"
	0.25	2.5	4.5	V	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			10	ns	
Symmetry (duty cycle)	40		60	%	@ V _S /2
Warm-up time			5	min	$\Delta f_{final}/f_0 < \pm 0.1$ ppm
Reference voltage VREF output		3.0		V	Note 3
Supply voltage V_S	3.15	3.3	3.45	V	Option I = "33"
	4.75	5.0	5.25	V	Option I = "50"
Current consumption (steady state, @ +25°C)			300	mA	Option I = "33"
			250	mA	Option I = "50"
Current consumption (warm-up)			800	mA	Option I = "33"
			500	mA	Option I = "50"
Operable temperature range	-20		+70	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) (LxWxH) Note4	25.6x22.2x12 max.			mm	IEC 61837 CO 28
Weight			10	gram	
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

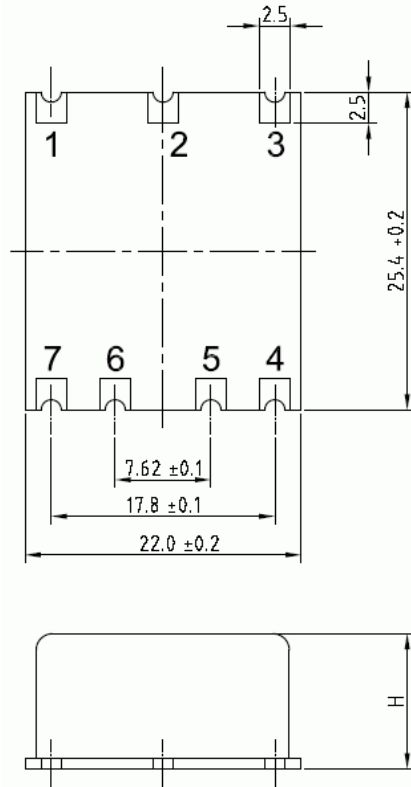
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other operating temperature range on request
3. Other reference voltages on request
4. Lower height H on request

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM10	50	100	10.000

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

Other environmental conditions on request