

Specification	AXIOM90	Issue: 02	Date: 2006-03-15
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Oscillator type : OCXO with SMA connector

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		40	MHz	
Standard frequencies	10.000 / 12.800 / 20.000			MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V _C = 2.5V
vs. temperature in operating temperature range (steady state)			± 200	ppb	Option II = "200"
			± 100	ppb	Option II = "100"
			± 50	ppb	Option II = "50"
			± 25	ppb	Option II = "25"
operating temperature range	-20		70	°C	
vs. supply voltage variation			± 10	ppb	
vs. load change			± 10	ppb	
Long term (aging) per day, after 30 days operation			± 10 ± 2	ppb ppb	Option II = "200", "100" Option II = "50", "25"
long term (aging) 1 st year, after 30 days operation			± 200 ± 100	ppb ppb	Option II = "200", "100" Option II = "50", "25"
Frequency adjustment range					
Electronic Frequency Control (EFC) range	± 3			ppm	Option II = "200", "100" Option II = "50", "25"
	± 1			ppm	
EFC voltage V _C	0.15		3.15	V	Option I = "33" Option I = "50" or "12"
	0.25		4.75	V	
EFC slope ($\Delta f / \Delta V_C$)	positive				
EFC input impedance	100			kΩ	
RF output					
Signal waveform	Sinus				
Load	50			Ω	
Output level	+3			dBm	
Harmonics attenuation	30			dBc	
Non-harmonics	50			dBc	
Warm-up time			5	min	$\Delta f_{\text{final}}/f_0 < \pm 0.1 \text{ ppm}$
Supply voltage V_S	3.15	3.3	3.45	V	Option I = "33" Option I = "50" Option I = "12"
	4.75	5.0	5.25	V	
	11.4	12	12.6	V	
Current consumption (steady state) @ +25°C			400	mA	Option I = "33" Option I = "50" Option I = "12"
			300	mA	
			150	mA	
Current consumption (warm-up)			1000	mA	Option I = "33" Option I = "50" Option I = "12"
			800	mA	
			400	mA	
Operable temperature range	-25		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)	54x40.5x20 max.			mm	
Weight			50	gram	
Packing	Palette				

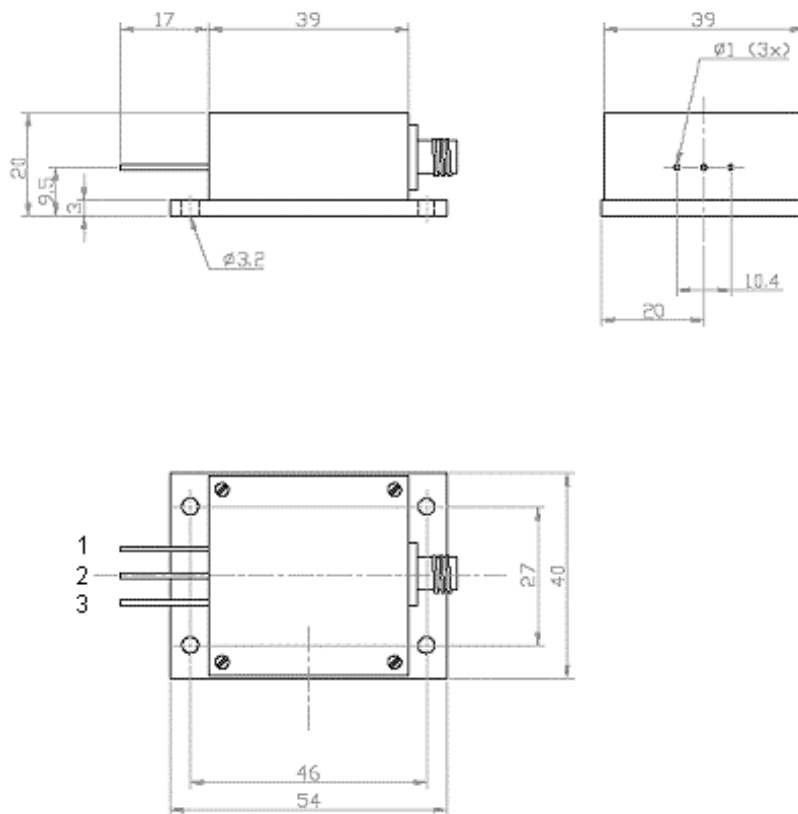
Notes:

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

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM90	50	100	10.000

Enclosure drawing



Pin connections

Pin#	Symbol	Function
1	VC	Control Voltage (EFC)
2	GND	Ground
3	V _S	Supply Voltage
SMA	RF OUT	RF Output

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
Solderability	2-20	4.6.3	Test Ta (235 ± 5)°C Method 1
Resistance to soldering heat	2-58		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		4.7.1	30 days @ 85°C, OCXO @25°C
- extended aging		4.7.2	1000h, 2000h, 8000h @85°C