

Specification	AXIOM60	Issue: 06	Date: 2005-07-15
Oscillator type : Miniature OCXO with Stratum III stability option			

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		40	MHz	
Standard frequencies	10.0 / 12.8 / 19.440			MHz	
Frequency stability				ppm	
Initial tolerance			± 500	ppb	@+25°C, V _C = center
vs. temperature			± 280 ± 200 ± 100	ppb ppb ppb	Option II = “S3” Option II = “200” Option II = “100”
operating temperature range	-20 -10		+70 +60	°C °C	Option II “S3” & “200” Option II = “100”
vs. supply voltage variation		± 10		ppb	
vs. load change		± 10		ppb	
24 hour drift ³			± 40	ppb	Option II = “S3”
Long term stability per year (overall) ² 15 years			± 0.5 ± 4.6	ppm/y ppm	Option II “100” & “200” Option II = “S3”
Frequency adjustment range					
Electronic Frequency Control (EFC) ⁴	± 2			ppm	N.A. for Option II= “S3”
EFC voltage ⁴ V _C	0.15 0.25	1.65 2.5	3.15 4.75	V V	Option I = “33” Option I = “50”
EFC slope (Δf / ΔV _C)	Positive				
EFC linearity		10		%	
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			2	min	Δf _{final} /f ₀ < ±0.1 ppm
Supply voltage V _S	3.13 4.75	3.3 5.0	3.47 5.25	V	Option I = “33” Option I = “50”
Current consumption (steady state @ +25°C)		150 100	200 150	mA mA	Option I = “33” Option I = “50”
Current consumption (warm-up)			500 350	mA mA	Option I = “33” Option I = “50”
Operable temperature range	-30		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) (LxWxH)	14.4 x 9.5 x 8.5 max.			mm	CO 27 (IEC 61837)
Weight			5	gram	
Packing	Tape & Reel				
ESD Sensitivity	1500			V	HBM as in IEC 61000-4-2

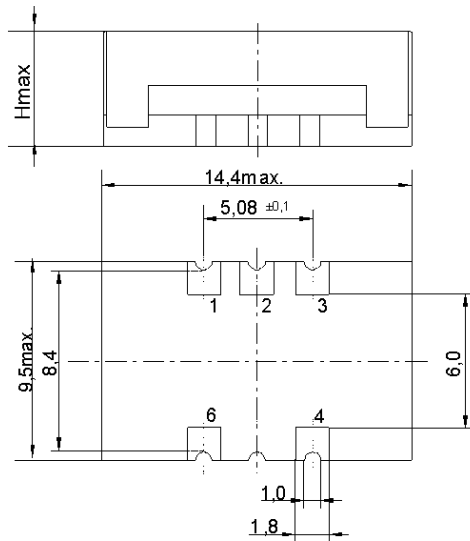
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Overall frequency stability = temp.stability + supply & load change + aging
3. 24 hours drift including V_S ± 5%, ±2.78°C and daily aging
4. No voltage control function (EFC) provided in Stratum III version (Option II = "S3")

Ordering Code:

Model (Specification)	Option I: Supply Voltage	Option II: Stability	Frequency [MHz]
AXIOM60	33	100	12.800

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	V _C or N.C.*	Voltage Control (EFC) or No Connection*
2	I.C.	Internal Connection
3	GND	Ground
4	RF OUT	RF Output
6	V _S	Supply Voltage

Note:

For Option II = "S3":

Pin 1 = N.C. (No Connection)

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