

Specification	AXIOM20	Issue: 03	Date: 2005-07-15
Oscillator type : OCXO in DIL14 package, HCMOS Output			

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		80	MHz	
Standard frequencies	10 / 12.8 / 16.384			MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V _C = 2.5V
vs. temperature (steady state)			± 100 ± 200 ± 300 ± 500	ppb ppb ppb ppb	Option II ="100" Option II ="200" Option II ="300" Option II ="500"
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 10	ppb	
vs. load change			± 20	ppb	
long term (aging) 1 st year (Note 3)			± 0.5	ppm	@ +40°C, after 30 days
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 2		± 5	ppm	
EFC voltage 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				%	
EFC input impedance	100			kΩ	
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			10	ns	
Symmetry	40		60	%	
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			300 200	mA mA	Option I = "33" Option I =50"
Current consumption (warm-up)			800 500	mA mA	Option I = "33" Option I =50"
Enable/disable function					
Operable temperature range	-30		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)	20.7x13.1x8.5 max.			mm	IEC 60679-3 CO 02
Weight			5	gram	
Packing	Palette or stick				
ESD Sensitivity	1500			V	HBM as in IEC 61000-4-2

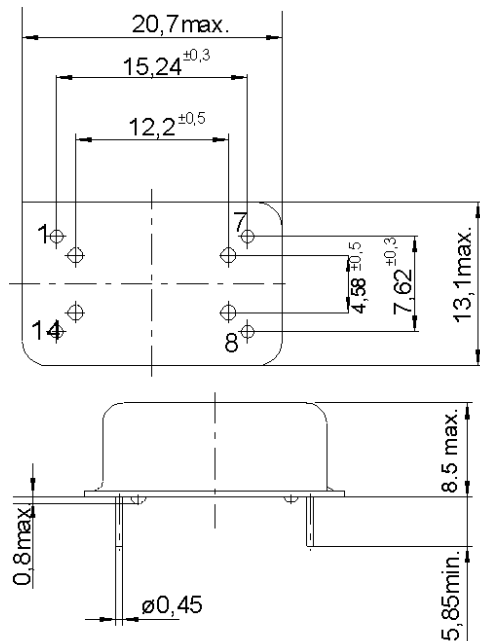
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Operating temperature range -20°C to +70°C on request
3. Aging of ± 0.2 ppm / 1st year on request

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM20	50	100	10.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	V _C	Voltage Control (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
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	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