

Specification	AXIOM45	Issue: 02	Date: 2009-04-02
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Oscillator type : OCXO High stability, Sinewave Output

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	5		120	MHz	
Standard frequencies	10 / 16.384 / 20.000			MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V _C = 2.5V
vs. temperature in operating temperature range (steady state)			± 100 ± 50 ± 25 ± 10 ± 5	ppb ppb ppb ppb ppb	Option II = “100” Option II = “50” Option II = “25” Option II = “10” Option II = “5”
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 2	ppb	V _S ± 5%
vs. load change			± 2	ppb	
long term stability (aging) per year after 30 days operation			± 200 ± 100	ppb/year ppb/year	Option II = “100” All other Options II
Frequency adjustment range					
Electronic Frequency Control (EFC) range	± 5 ± 0.8	± 1		ppm ppm	Option II =“100” All other Options II
EFC voltage V _C	0.25		4.75	V	
EFC slope (Δf / ΔV _C)	positive				
EFC input impedance	100			kΩ	
RF output					
Signal waveform	Sinus				
Load	50			Ohm	
Output amplitude	+3			dBm	
Harmonics attenuation	20			dBc	
Warm-up time @25°C			5	min	Δf _{final} /f ₀ < ±0.1 ppm
Phase noise @10.0 MHz Option II = „50“		-120 -140 -145 -155		dBc dBc dBc dBc	10 Hz 100 Hz 1000 Hz 10000 Hz
Reference voltage VREF output		3.0		V	Note 3
Supply voltage V _S	4.75 11.4	5.0 12	5.25 12.6	V V	Option I =“50” Option I=“12”
Current consumption (steady state) @ +25°C			200 80	mA mA	Option I =“50” Option I=“12”
Current consumption (warm-up)			500 200	mA mA	
Operable temperature range	-30		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) LxWxH (Note4)	36.1x27.2x19.4 max.			mm	IEC 60679-3 CO 08
Weight			30	gram	
Packing	Palette				

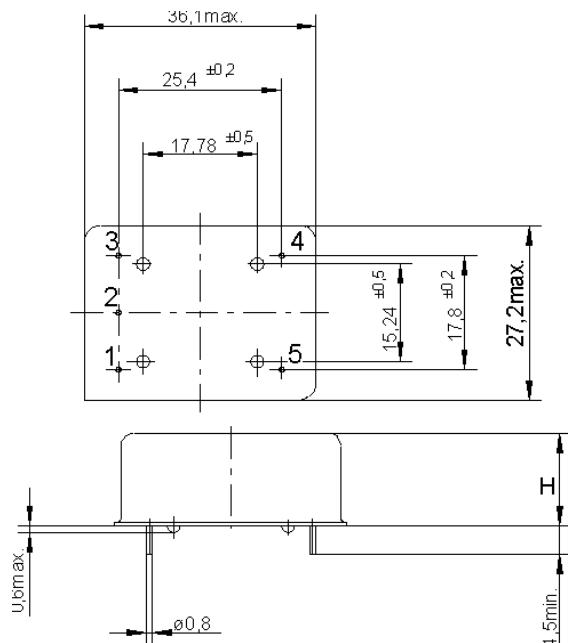
Notes:

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

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM45	50	100	10.000

Enclosure:



Pin connections

Pin #	Symbol	Function
1	V _C	Control Voltage (EFC)
2	VREF	Reference Voltage
3	V _S	Supply Voltage
4	RF OUT	RF Output
5	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	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
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
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

Other environmental conditions on request