

Specification	AXIOM40S	Issue: 01	Date: 2005-07-15
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Oscillator type : OCXO with Stratum 3E stability

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	5		20	MHz	
Standard frequencies	10 / 12.8 / 20			MHz	
Frequency stability overall			± 4.6	ppm	Note 2
Initial tolerance			± 500	ppb	at time of shipment
vs. temperature in operating temperature range			± 10	ppb	steady state
operating temperature range	0 -20		+70 +70	°C °C	Option II = "070" Option II = "2070"
vs. supply voltage variation			± 1	ppb	$V_S \pm 5\%$
vs. load change			± 1	ppb	± 5%
Holdover 24 hours, full temp. range			± 12	ppb	Telcordia GR-1244 CORE or ITU-T G.813 Option 1
24 hours drift (after 30 days)			± 1	ppb	
long term stability over 15 years			± 3.5	ppm	15 years
Frequency adjustment range					
Electronic Frequency Control (EFC)		N.A.			N.A.
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			10	ns	
Symmetry (duty cycle)	40		60	%	@ $V_S/2$
Warm-up time @25°C			5	min	$\Delta f_{\text{final}}/f_0 < \pm 0.1 \text{ ppm}$
Phase noise @ 12.8 MHz		-90 -120 -140 -145		dBc dBc dBc dBc	1 Hz 10 Hz 100 Hz 1000 Hz
Supply voltage V_S	3.15 4.75	3.3 5.0	3.65 5.25	V V	Option I = "33" Option I = "50"
Current consumption (steady state) @25°C			350 250	mA mA	Option I = "33" Option I = "50"
Current consumption (warm-up)			800 500	mA mA	Option I = "33" Option I = "50"
Operable temperature range	-30		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) LxWxH (Note 3)	36.1x27.2x19.4 max.			mm	IEC 60679-3 CO 08
Weight			30	gram	
Packing	Bulk				
ESD Sensitivity	1500			V	HBM IEC 61000-4-2

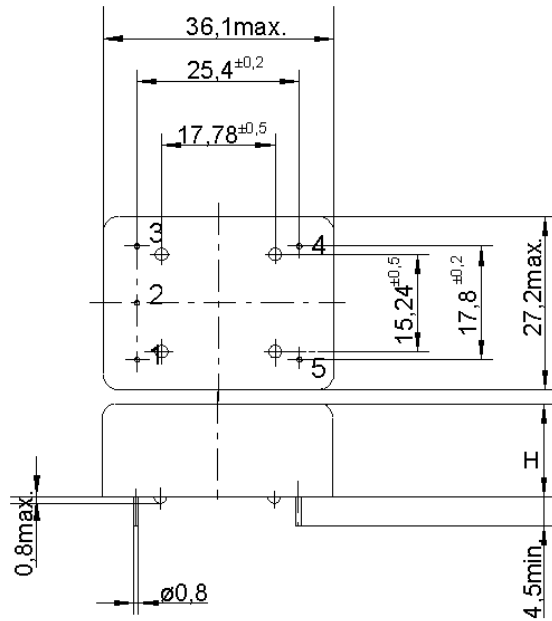
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Overall frequency stability = initial tolerance + temp.stability + supply & load change + 15 years aging
3. Lower package height (15 mm, 13 mm) on request

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM40S	50	070	12.800

Enclosure:



Pin connections

Pin #	Symbol	Function
1	N.C.	No Connection
2	N.C.	No Connection
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
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