

<b>Specification</b>	<b>AXIOM10S</b>	Issue: 04	Date: 2009-09-22
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**Oscillator type : OCXO in SMD package**

**for Stratum III and Stratum IIIe**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		20.0	MHz	
<b>Standard frequencies</b>	10.0 / 12.8			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance		± 500		ppb	@+25°C
vs. temperature (steady state)			± 280 ± 10	ppb ppb	Option II = "S3" Option II = "S3E"
operating temperature range	-40 -40		+80 +85	°C °C	Option II = "S3" Option II = "S3E"
vs. supply voltage variation			± 10	ppb	
vs. load change		± 10		ppb	
long term (aging) 1 <sup>st</sup> year @ +40°C, after 30 days			± 200	ppb	
Long term stability, overall 15 years			± 4.6	ppm	Note 2
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)		N.A.		ppm	N.A.
<b>RF output</b>					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			5	ns	
Symmetry (duty cycle)	40		60	%	@ V <sub>s</sub> /2
Warm-up time			5	min	$\Delta f_{\text{final}}/f_0 < \pm 0.1 \text{ ppm}$
Phase noise @ 12.8 MHz		-95 -120 -140 -145		dBc dBc dBc dBc	10 Hz 100 Hz 1000 Hz 10000 Hz
<b>Supply voltage V<sub>s</sub></b>	3.15 4.75	3.3 5.0	3.45 5.25	V V	Option I = "33" Option I = "50"
<b>Current consumption</b> (steady state, @ +25°C)			300 250	mA mA	Option I = "33" Option I = "50"
<b>Current consumption</b> (warm-up)			800 500	mA mA	Option I = "33" Option I = "50"
<b>Storage temperature range</b>	-45		+85	°C	
<b>Enclosure (see drawing)</b>	25.6x22.2x12.5 max.			mm	IEC 61837 CO 28
<b>Weight</b>			9	gram	
<b>Packing</b>	Tape & reel				IEC 60286-3
<b>ESD Sensitivity</b>	1500			V	HBM, IEC 61000-4-2
<b>Handling and Testing</b>	In accordance with AXAN-011				www.axtal.com
<b>Processing</b>	In accordance with AXAN-012				www.axtal.com

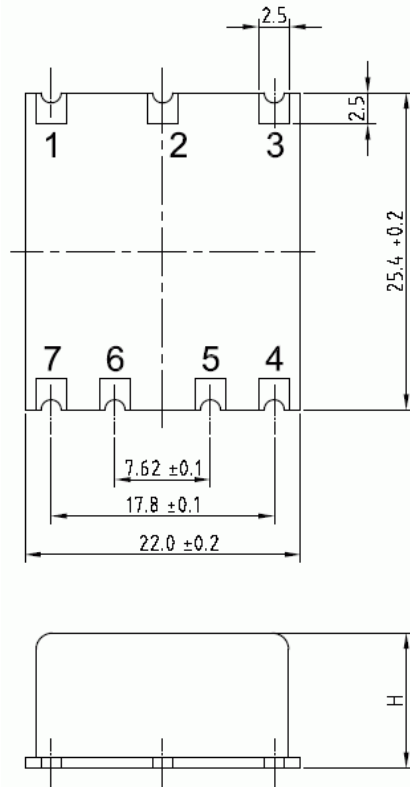
**Notes:**

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

**Ordering Code:**

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM10S	50	S3E	12.800

## Enclosure drawing:



## 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	N.C.	No Connection
6	N.C.	No Connection
7	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 Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta ( $235 \pm 5$ )°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
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		4.7.1 4.7.2	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request