

<b>Specification</b>	<b>AXIOM15</b>	Issue: 03	Date: 2009-12-18
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**Oscillator type : OCXO in SMD package with Sine wave output**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		120	MHz	
<b>Standard frequencies</b>	10.0000			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance @+25°C			± 500	ppb	V <sub>C</sub> @ centre value
vs. temperature (steady state)			± 100	ppb	Option II = "100"
			± 50	ppb	Option II = "50"
			± 25	ppb	Option II = "25"
			± 10	ppb	Option II = "10"
			± 5	ppb	Option II = "5"
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 10	ppb	
vs. load change			± 10	ppb	
Long term (aging) per day, after 30 days operation		± 1	± 10	ppb	Option II = "100"
			± 2	ppb	All other Options II
long term (aging) 1 <sup>st</sup> year @ +40°C, after 30 days			± 200	ppb	Option II = "100"
			± 100	ppb	All other Options II
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)	± 2		± 5	ppm	Option II = "100"
	± 0.8	± 1		ppm	All other Options II
EFC voltage V <sub>C</sub>	0	2	VREF	V	Option I = "50"
	0	2.5	VREF	V	Option I = "12"
EFC slope (Δf / ΔV <sub>C</sub> )	positive				
EFC input impedance	100			kΩ	
<b>RF output</b>					
Signal waveform	Sine wave				
Load	50			Ω	± 10 %
Output level	+3			dBm	Note 5
Harmonics			-20	dBc	
Warm-up time			5	min	Δf <sub>final</sub> /f <sub>0</sub> < ±0.1 ppm
<b>Reference voltage VREF output</b>		4.0		V	Option I = "50"
Note 3		5.0		V	Option I = "12"
<b>Supply voltage V<sub>S</sub></b>	4.75	5.0	5.25	V	Option I = "50"
	11.6	12.0	12.6	V	Option I = "12"
<b>Current consumption</b>			200	mA	Option I = "50"
(steady state, @ +25°C)			100	mA	Option I = "12"
<b>Current consumption (warm-up)</b>			600	mA	Option I = "50"
			250	mA	Option I = "12"
<b>Operable temperature range</b>	-20		+70	°C	
<b>Storage temperature range</b>	-40		+85	°C	
<b>Enclosure (see drawing) (LxWxH) Note4</b>	25.6x22.2x13 max.			mm	IEC 61837 CO 28
<b>Weight</b>			10	gram	
<b>Packing</b>	Tape & reel				IEC 60286-3
<b>Handling and Testing</b>	In accordance with AXAN-011				www.axtal.com
<b>Processing</b>	In accordance with AXAN-012				www.axtal.com

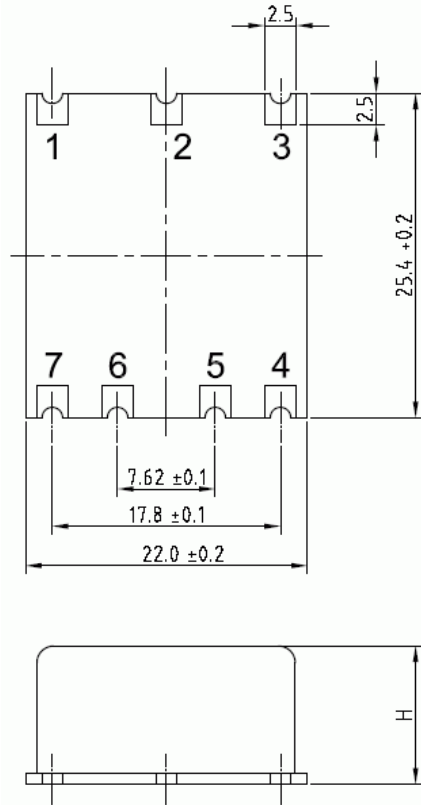
**Notes:**

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

## Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM15	50	100	10.000

## Enclosure drawing:



## Pin connections

Pin #	Symbol	Function
1	V <sub>C</sub>	Control Voltage (EFC)
2	V <sub>REF</sub>	Reference Voltage
3	V <sub>S</sub>	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 ± 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