

Specification	AXIOM5151	Issue: 01	Date: 2010-02-05
Oscillator type : OCXO with Ultra-Low Phase Noise Floor of -180 dBc/Hz			

Parameter	min.	typ.	max.	Unit	Condition
Standard frequencies	100.000 / 120.000			MHz	
Frequency stability					
Initial tolerance at delivery			± 500	ppb	@+25°C @V _C = 5.0 V
vs. temperature in operating temperature range			± 200	ppb	
operating temperature range	-10		+60	°C	
vs. supply voltage variation		± 20		ppb	V _S ± 5%
Long term (aging) per day			± 10	ppb/day	after 30 days operation
long term (aging) per year			± 500	ppb/year	after 30 days operation
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 1	± 2		ppm	
EFC voltage V _C	0		10.0	V	
EFC slope (Δf / ΔV _C)	positive				
Nonlinearity				%	
EFC input impedance	100			kΩ	
RF output					
Signal waveform	Sine wave				R _L = 50 Ω
Output level	+ 14	+ 15		dBm	@V _C = 5.0 V
Harmonics			-40	dBc	
Spurious at rest			-110	dBc	
Phase noise (see chart page 3)			-130 -158 -174 -180	dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1 kHz @ 10 kHz @ ≥ 100 kHz
Warm-up time @ 25°C			5	min	Δf _{final} /f ₀ < ±0.2 ppm
Supply voltage V_S	11.4	12	12.6	V	
Current consumption (steady state)			275	mA	@ +25°C
Current consumption (warm-up)			475	mA	@ +25°C
Operable temperature range	-20		+70	°C	
Storage temperature range	-45		+95	°C	
Enclosure (see drawing) (LxWxH)	51x51x19 max.			mm	See drawing
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

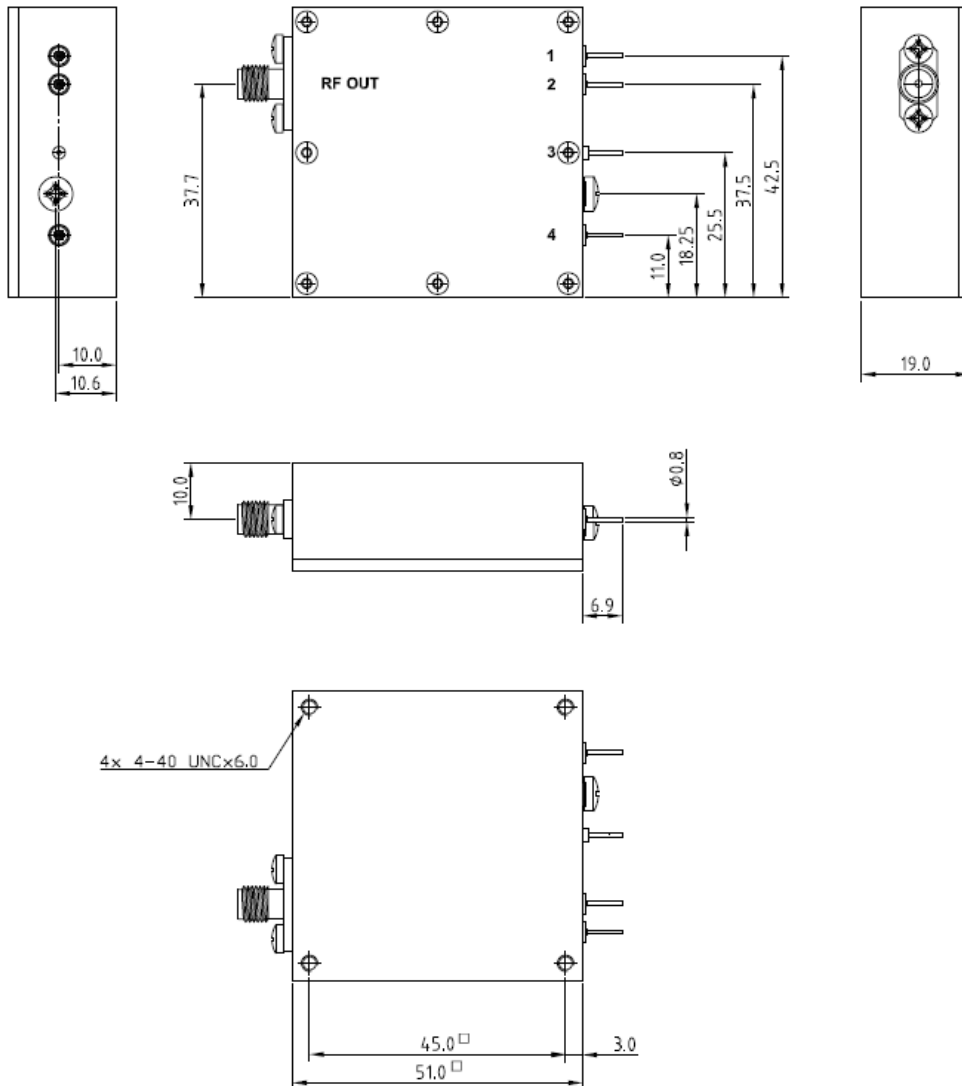
Notes:

- Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated

Ordering Code:

Model (Specification)	Frequency [MHz]
AXIOM5151	100.000

Enclosure drawing



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 6 axes 50G, 11 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

*Endurance test

Other environmental conditions on request

Typical phase noise response @ 120 MHz

