

<b>Specification</b>	<b>AXE1000</b>	Issue: 02	Date: 2008-01-25
<b>Oscillator type : Crystal Oscillator (PXO) 1000 MHz</b>			

Parameter	min.	typ.	max.	Unit	Condition
<b>Nominal frequency</b>	1000			MHz	Note 2
<b>Frequency stability</b>				ppm	
Initial tolerance			±2	ppm	@25°C
vs. temperature			±50	ppm	Steady state
in operating temperature range					
operating temperature range	-20		+70	°C	
vs. supply voltage variation (pushing)			±1	ppm	V <sub>S</sub> ±5%
vs. load change			±1	ppm	VC ±5%
long term (aging) 1 <sup>st</sup> year			±2	ppm	@ +25°C
long term (aging) following years			±1	ppm/y	per year @ +25°C
<b>Frequency adjustment range</b>					
Mechanical (internal trimmer)				ppm	N.A.
<b>RF output</b>					
Signal waveform	Sine wave				
Load	50			Ω	±10 %
Amplitude	+7			dBm	
Harmonics			-50	dBc	
Subharmonics (multiples of 100 MHz)					
at 500 MHz			-25	dBc	
others			-40	dBc	
Spurious			-80	dBc	
Phase noise		-140	-135	dBc/Hz	@ 10 kHz
		-142	-140	dBc/Hz	@ 100 kHz
			-145	dBc/Hz	@ 1MHz
Start-up time			10	ms	
<b>Supply voltage V<sub>S</sub></b>	11.4	12	12.6	V	
<b>Current consumption</b> (steady state @ +25°C)			60	mA	@25°C
<b>Operable temperature range</b>	-40		+90	°C	
<b>Storage temperature range</b>	-55		+105	°C	
<b>Enclosure (see drawing) (LxWxH)</b>	54 x 40 x 20			mm	
<b>Weight</b>			60	gram	
<b>Packing</b>	bulk				
<b>ESD Sensitivity</b>	1500			V	HBM as in IEC 61000-4-2

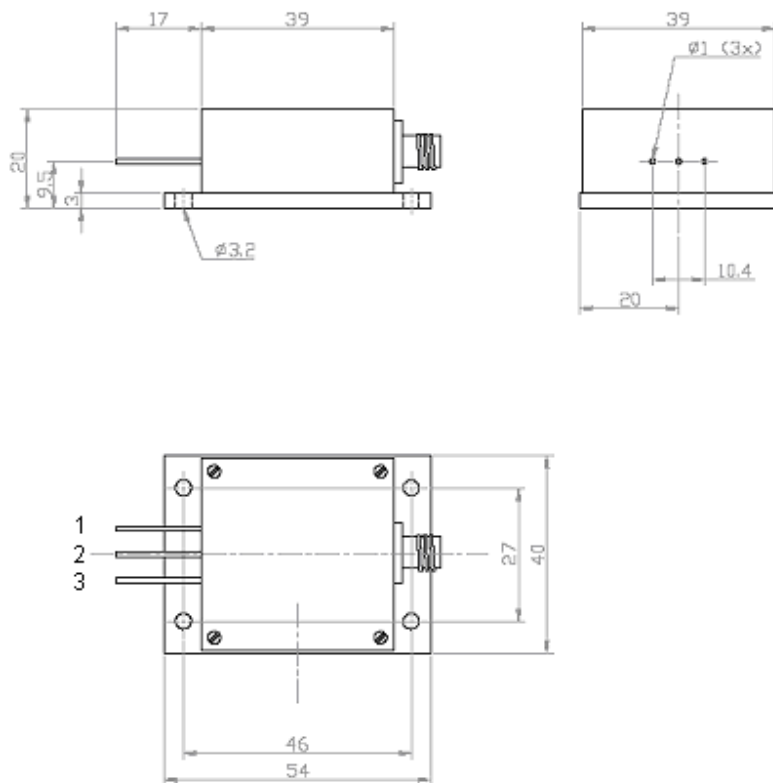
**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other frequencies on request

**Ordering Code:**

Model (Specification)	Frequency [MHz]
AXE1000	1000.000

## Enclosure drawing



Pin#	Symbol	Function
1	N.C.	No Connection
2	GND	Ground
3	$V_s$	Supply Voltage
SMA	RF OUT	RF Output

## 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
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
Bump*	2-29	4.6.6	Test Eb, 4000 bumps per Axes, 40g, 6 ms
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 <sup>st</sup> 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		4.7.1	30 days @ 85°C, OCXO @ 25°C
- extended aging		4.7.2	1000h, 2000h, 8000h @ 85°C