

## Data sheet

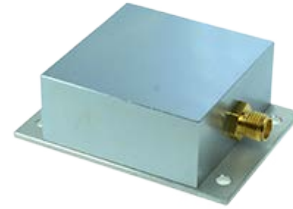
### AXE1000

### Low Phase Noise Crystal Oscillator (PXO) 1000MHz

54 x 40 x 19 mm max. h=2.0mm

## FEATURES

- Low Phase Noise Oscillator
- SMA connector Output
- Sine wave output at nominal frequency
- Frequency range 500 - 1200 MHz



Parameter	min.	typ.	max.	Unit	Condition
Frequency range	500		1200		
Nominal frequencies	1000.00 / 1200.00			MHz	Note 2
Frequency stability				ppm	
Initial tolerance			±5	ppm	@25°C
vs. operating temperature range			±50	ppm	Note 3
operating temperature range	-20		+70	°C	
vs. supply voltage variation (pushing)			±1	ppm	V <sub>s</sub> ±5%
vs. load change			±1	ppm	R <sub>L</sub> ±5%
long term (aging) 1 <sup>st</sup> year			±2	ppm	@ +25°C
long term (aging) following years			±1	ppm	per year @ +25°C
Frequency adjustment range					
Electronic frequency control (EFC)		n.a.			
RF output					
Signal waveform	Sine wave				R <sub>L</sub> = 50Ω
Output level	+7	+11		dBm	
Harmonics		-50	-40	dBc	
Sub-harmonics (multiples of 100 MHz)		-45	-40	dBc	
Spurious			-80	dBc	
Phase noise @ 1000 MHz		-140	-135	dBc/Hz	@ 10 kHz
		-145	-140	dBc/Hz	@ 100 kHz
		-147	-145	dBc/Hz	@ 1MHz
Start-up time		10	20	ms	
Supply voltage V <sub>s</sub>	11.4	12	12.6	V	Note 4
Current consumption (steady state @ +25°C)			60	mA	
Operable temperature range	-40		+90	°C	
Storage temperature range	-55		+105	°C	
Enclosure (see drawing) (LxWxH)	54 x 40 x 19			mm	h = 2.0 mm
Weight			60	gram	
Packing	Palette				

### Notes:

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

### Ordering Code:

Model (Specification)	Frequency [MHz]
AXE1000	1000.000

### FCD-Tech B.V.

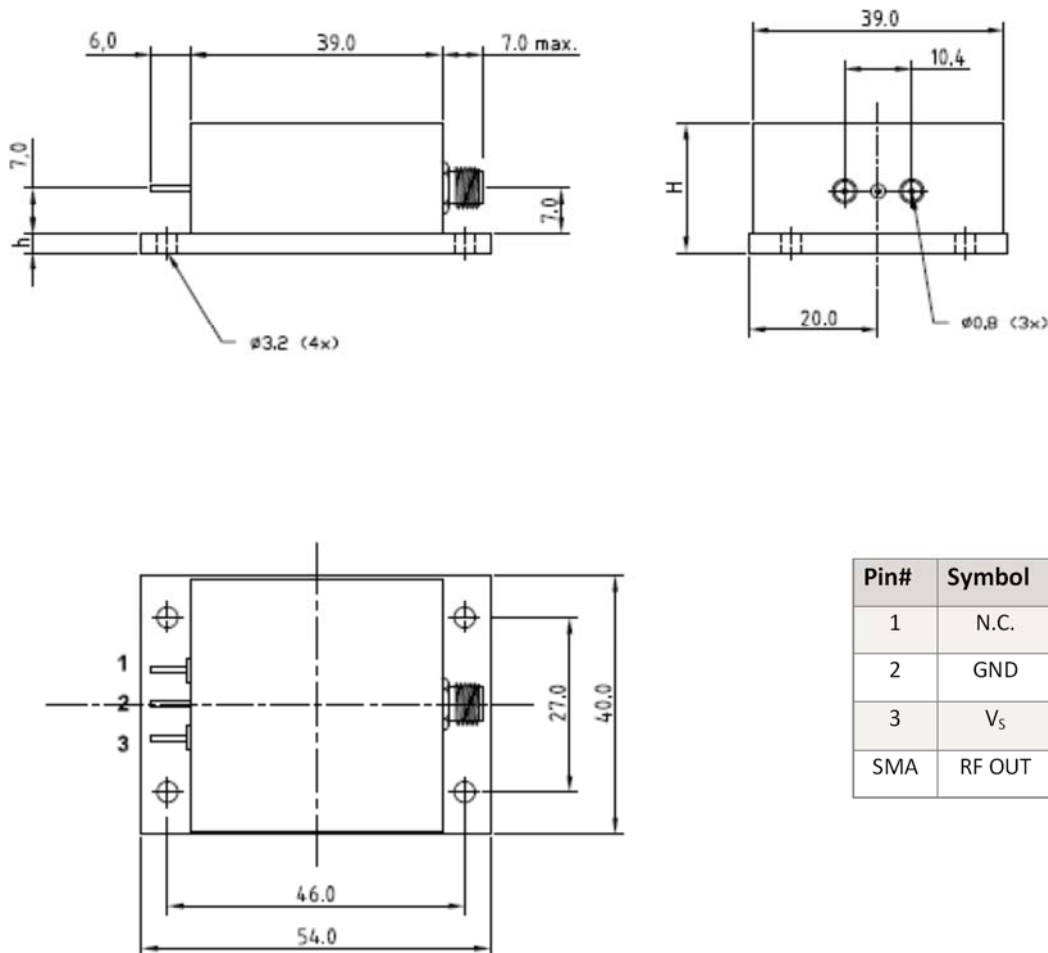
Stationsplein 99/259  
1703 WE Heerhugowaard  
Netherlands

## Data sheet

### AXE1000

### Low Phase Noise Crystal Oscillator (PXO) 1000 MHz

#### Enclosure drawing



Pin#	Symbol	Function
1	N.C.	No Connection
2	GND	Ground
3	V <sub>S</sub>	Supply Voltage
SMA	RF OUT	RF Output

#### Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability	2-20	5.6.3	208H		3.6.52	Test Ta Method 1
Resistance to soldering heat	2-58		210F		3.6.48	Test Td <sub>1</sub> Method 2 Test Td <sub>2</sub> Method 2
Shock*	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Vibration, random*	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests			108A			
- ageing		5.7.1			4.8.35	30 days @ 85°C, OCXO @25°C
- extended aging		5.7.2				1000h, 2000h, 8000h @85°C

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