

<b>Specification</b>	<b>AXIS1000</b>	Rev.: 1	Date: 2016-10-31
----------------------	-----------------	---------	------------------

**Oscillator type: UHF Low Phase Noise VCXO in connectorized package**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	300		1300	MHz	
<b>Nominal frequencies</b>	1000.000 / 1200.000			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance @ 25°C			±5	ppm	@ V <sub>C</sub> = 5 V
vs. operating temperature range			±50	ppm	(Note 2)
vs. supply voltage variation			±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	@ +25°C, per year
<b>Frequency adjustment range</b>					
Electronic frequency control (EFC)	±15			ppm	(Note 3)
EFC voltage V <sub>C</sub>	0	+5	+10	V	
EFC slope ( $\Delta f / \Delta V_C$ )	Positive				
EFC input impedance	100			kΩ	
<b>RF output</b>					
Signal waveform	Sine wave				
Load	50			Ω	
Output level	+7	+11		dBm	
Harmonics		-50	-40	dBc	
Sub-harmonics (multiples of f <sub>OUT</sub> /10)		-45	-40	dBc	(Note 4)
Spurious			-80	dBc	
Phase noise @ 1000 MHz		-140	-135	dBc/Hz	@ 10 kHz
		-145	-140	dBc/Hz	@ 100 kHz
		-147	-145	dBc/Hz	@ 1 MHz
<b>Supply voltage V<sub>S</sub></b>	11.4	12.0	12.6	V	(Note 5)
<b>Current consumption (steady state)</b>			60	mA	@ +25°C
<b>Operating temperature range</b>	-20		+70	°C	
<b>Enclosure (see drawing) (LxWxH)</b>	54x40x19			mm	h = 2.0 mm
<b>Weight</b>			60	g	
<b>Packing</b>	Palette				

**Notes:**

1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Other stabilities on request
3. Other tuning range and voltage on request
4. Depending on frequency multiplication factor may be lower or higher than 10
5. Other supply voltages on request

**Absolute Maximum Ratings**

Parameter	min.	max.	Unit	Condition
Supply Voltage V <sub>S</sub>	-0.5	V <sub>S</sub> + 10%	V	V <sub>S</sub> to GND
Control Voltage V <sub>C</sub>	-0.5	+15	C	V <sub>C</sub> to GND
Storage Temperature	-55	+125	°C	

### Ordering Code

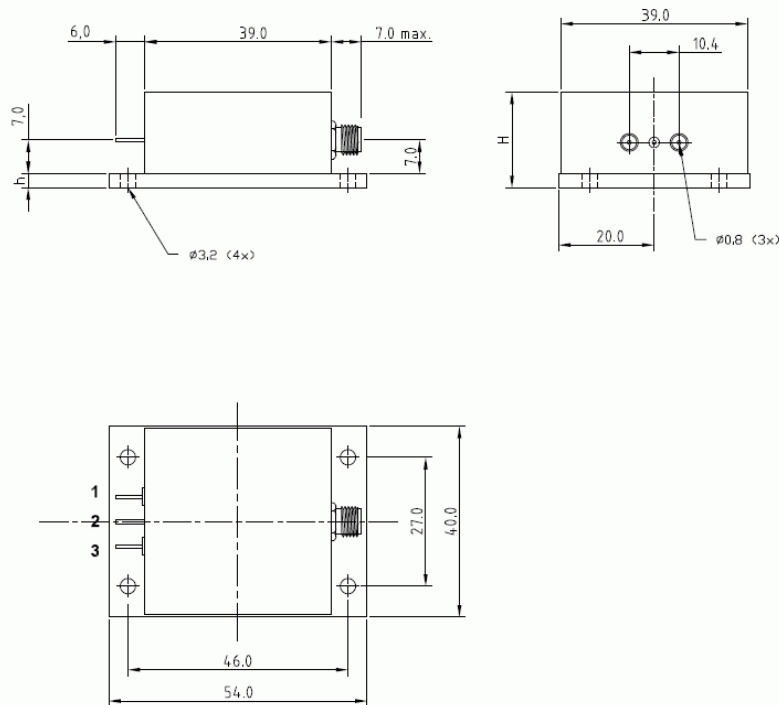
Model	Revision	Frequency [MHz]
AXIS1000	Rev.1	1000.000

Example: AXIS1000\_Rev.1 – 1000.000 MHz

### Handling and Testing

Parameter	Procedure		Source
Handling and Testing	Application Note AXAN-011		www.axtal.com
Processing	Application Note AXAN-012		www.axtal.com
Parameter	Procedure		Condition
Electrostatic discharge (ESD)			
THD devices	IEC60749-26	HBM	2000 V
SMD devices	IEC60749-27	MM	200 V
Washable	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
RoHS compliant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

### Enclosure drawing



### Pin connections

Pin#	Symbol	Function
1	$V_C$	Control Voltage (EFC)
2	GND	Ground
3	$V_S$	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 Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta Method 1 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 - ageing - extended aging		5.7.1 5.7.2	108A		4.8.35	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request

Data sheet is for information purposes only and may be subject to modifications or may be discontinued without notice.

### Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
1	D0	31.10.2016	First issue	HH	HH