

<b>Specification</b>	<b>AXE10-14</b>	Issue: 02	Date: 2009-10-19
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**Oscillator type : PXO with Low Phase Noise**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		100	MHz	
<b>Standard frequencies</b>	22.000 / 40.000			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance			±2	ppm	
vs. temperature in operating temperature range			±5	ppm	
<b>Operating temperature range</b>	0		+50	°C	Note 2
vs. supply voltage variation			±0.2	ppm	
vs. load change			±0.1	ppm	
long term (aging) 1 <sup>st</sup> year			±1	ppm	@ 40°C
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)				ppm	N.A.
EFC voltage $V_C$				V	N.A.
EFC slope ( $\Delta f / \Delta V_C$ )					
EFC linearity				%	
EFC input impedance				k $\Omega$	
<b>RF output</b>					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			5	ns	
Symmetry (duty cycle)	40		60	%	@ $V_S/2$
Start-up time			4	ms	
Phase noise @ 22 MHz		-95		dBc	10 Hz
		-125		dBc	100 Hz
		-135		dBc	1 kHz
		-140		dBc	10 kHz
		-145		dBc	100 kHz
<b>Supply voltage <math>V_S</math></b>	2.85	3.0	3.15	V	
<b>Current consumption</b> (steady state)			30	mA	@ +25°C
<b>Enable/disable function</b>					
<b>Operable temperature range</b>	-45		+90	°C	Note 2
<b>Storage temperature range</b>	-55		+105	°C	
<b>Enclosure (see drawing)</b>	14.4x9.5x6 max			mm	IEC 60679-3 or 61837
<b>Weight</b>			3	gram	
<b>Packing</b>	Tape & reel				IEC 60286-3
<b>ESD Sensitivity</b>	1500			V	HBM as IEC 61000-4-2
<b>Construction</b>	RoHS/ Lead(Pb) -free				EU directive2002/95/EC
<b>Handling and Testing</b>	In accordance with AXAN-011				www.axtal.com
<b>Processing</b>	In accordance with AXAN-012				www.axtal.com

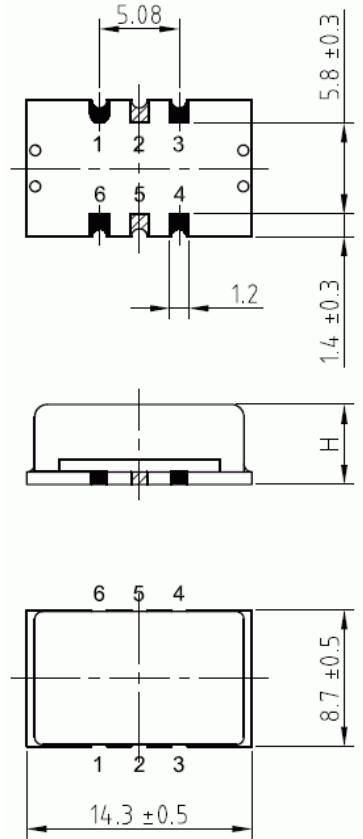
**Notes:**

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

**Ordering Code:**

Model (Specification)	Frequency [MHz]
AXE10-14	22.000

## Enclosure drawing



## Pin connections

Pin #	Symbol	Function
1	N.C.	No Connection
2	N.C.	No Connection
3	GND	Ground
4	RF OUT	RF Output
5	N.C.	No Connection
6	Vs	Supply Voltage

## 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