

<b>Specification</b>	<b>AXE40</b>	Issue: 01	Date: 2009-12-18
<b>Oscillator type : VHF/UHF PXO with LVPECL or Sine Wave Output</b>			
<b>with low phase noise and low jitter (no PLL)</b>			

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	60		400	MHz	
<b>Standard frequencies</b>				MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance			± 5	ppm	
vs. temperature in operating temperature range			± 10	ppm	Note 3
Operating temperature range	-20		+70	°C	
vs. supply voltage variation			± 2	ppm	
vs. load change			± 2	ppm	
long term (aging)			± 2	ppm/year	@ 40°C
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)		N.A.		ppm	N.A.
<b>RF output</b>					
Signal waveform	Sine Wave LVPECL Complementary				Option 1 = "S" Option 1 = "L"
Output Level (Option 1 = "S")	+0			dBm	R <sub>L</sub> = 50 Ω (Note 6)
Output Levels (Option 1 = "L")					
HIGH (V <sub>OH</sub> )	2.215	2.345	2.420	V	R <sub>L</sub> = 50 Ω to V <sub>S</sub> - 2 V Note 4
LOW (V <sub>OL</sub> )	1.470	1.595	1.745	V	
<b>Supply voltage V<sub>S</sub></b>	3.15	3.3	3.45	V	Option 2 = "33"
	4.75	5.0	5.25	V	Option 2 = "50"
<b>Current consumption</b> (steady state)		40		mA	Note 5
<b>Operable temperature range</b>	-40		+85	°C	
<b>Storage temperature range</b>	-45		+95	°C	
<b>Enclosure (see drawing) (LxWxH)</b>	20.5x20.5x12.5 max.			mm	IEC 60679-3 CO 15
<b>Weight</b>			5	gram	
<b>Packing</b>	Palette				IEC 60286-3
<b>ESD Sensitivity</b>	1500			V	HBM, IEC 61000-4-2
<b>Handling and Testing</b>	In accordance with AXAN-011				www.axtal.com
<b>Processing</b>	In accordance with AXAN-012				www.axtal.com

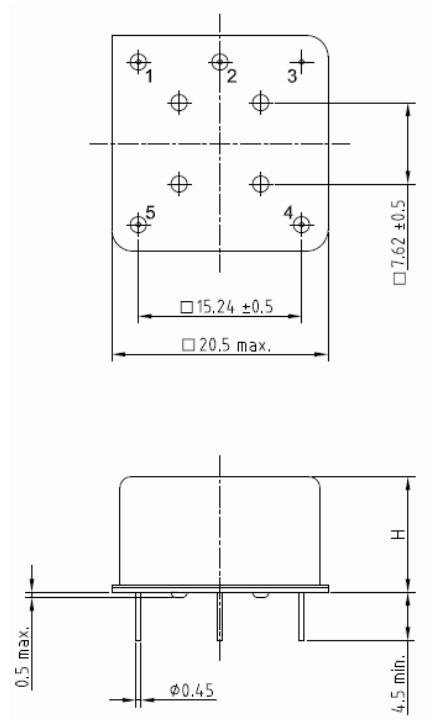
**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Frequency stability = initial tolerance + temp. stability + supply and load variations + aging 1<sup>st</sup> year
3. Other stabilities over temperature on request
4. Output levels vary 1:1 with V<sub>S</sub>
5. Current consumption depends on frequency, supply voltage and output option
6. Higher Output Level on request

**Ordering Code:**

Model (Specification)	Option 1	Option 2	Frequency [MHz]
AXE40	S	50	350.000

## Enclosure drawing



### Pin connections:

Pin #	Symbol	Function
1	N.C. $\bar{Q}$	No Connection (Option S) RF Output ( $\bar{Q}$ ) (Option L)
2	RF OUT	RF Output (Q)
3	GND	Ground
4	N.C.	No connection
5	$V_S$	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

Other environmental conditions on request