

Datasheet

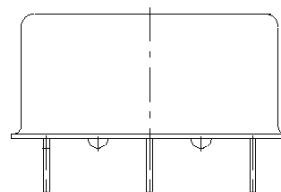
AXIS50-11

UHF VCXO WITH LVPECL OR SINE WAVE OUTPUT
Low Phase Noise and low Jitter (no PLL)

FEATURES

- Thru hole Package, size 20.5 x 20.5 x 12 mm.
- Frequency range : 60.000 to 400.000 MHz
- Low Phase Noise and low jitter (no PLL)
- Output logic: LVPECL or Sine Wave

20.5 x 20.5 x 12 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency range	60		400	MHz	
Standard frequencies	60/93.333/182/ 186.667/ 213.3/311.040/400.000			MHz	
Frequency stability				ppm	
Initial tolerance				ppm	
vs. operating temperature range			± 10	ppm	
Operating temperature range	-20		+50	°C	Note 4
vs. supply voltage variation			± 0.1	ppm	
vs. load change			± 0.1	ppm	
long term (aging)			± 2	ppm/year	@ 40°C
Long term aging over 10 years			± 10	ppm	
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 15			ppm	Note 3
EFC voltage V_C	0.15		3.15	V	
EFC slope (Df / DV _C)		positive			
EFC input impedance	100			kΩ	
RF output					
Signal waveform	Sine Wave LVPECL Complementary				Option 1 = "S" Option 1 = "L"
Output level (Option 1 = "S")	0			dBm	R _L = 50 W (Note 5)
Anharmonics		-40		dB	Option 1 = "S"
Output Levels (Option 1 = "L")					
HIGH (V _{OH})	2.215	2.345	2.420	V	R _L = 50 W to V _S - 2 V
LOW (V _{OL})	1.470	1.595	1.745	V	Note 2
Supply voltage V_S	3.15	3.3	3.45	V	Option 2 = "33"
	4.75	5.0	5.25	V	Option 2 = "50"
Current consumption (steady state)		40		mA	Note 6
Operable temperature range	-30		+60	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)	20.5x20.5x12 max.			mm	IEC 60679-3 CO 15
Weight			5	gram	
Packing	Palette				IEC 60286-3
ESD Sensitivity	1500			V	HBM, IEC 61000-4-2

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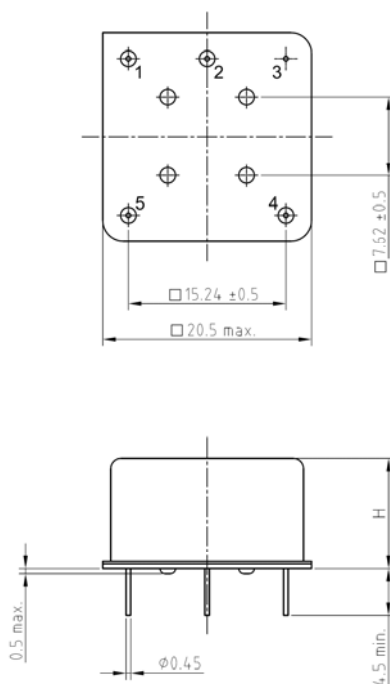
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Output parameters vary 1:1 with V_S
3. Wider pulling range on request
4. Wider temperature range on request
5. Higher output level on request
6. current consumption depends on frequency and output option

Ordering Code

Model (Specification)	Option 1	Option 2	Frequency [MHz]
AXIS50-11	S	50	311.040

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	V_C	Control Voltage (EFC)
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	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
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		4.7.1	30 days @ 85°C, OCXO @25°C
- extended aging		4.7.2	1000h, 2000h, 8000h @85°C

Other environmental conditions on request

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