Datasheet

AXE40

VHF/UHF PXO with LVPECL or SINEWAVE OUTPUT

FEATURES

- Low Phase Noise
- Low Jitter
- NO PLL
- High stability through hermetically sealed resonators

20.5x20.5x12.5 mm max. (IEC 60679-3 CO 15)

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	60		400	MHz	
Standard frequencies				MHz	
Frequency stability				ppm	
Initial tolerance			± 5	ppm	
vs. 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
Frequency adjustment range					
Electronic Frequency Control (EFC)		N.A.		ppm	N.A.
RF output					
Signal waveform		Sine Wave			Option 1 = "S"
		LVPECL Complementary			Option 1 = "L"
Output Level (Option 1 = "S")	+0			dBm	R_L = 50 Ω (Note 6)
Output Levels (Option 1 = "L")					
HIGH (VOH)	2.215	2.345	2.420	V	RL = 50 Ω to VS - 2 V
LOW (VOL)	1.470	1.595	1.745	V	Note 4
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 5
Operable temperature range	-40		+85	°C	
Storage temperature range	-45		+95	°C	
Enclosure (see drawing) (LxWxH)		20.5x20.5x12.5 max.		mm	IEC 60679-3 CO 15
Weight			5	gram	
Packing		Palette			IEC 60286-3
ESD Sensitivity	1500			V	HBM, IEC 61000-4-2

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 1st year
3. Other stabilities over temperature on request
4. Output levels vary 1:1 with V_S
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

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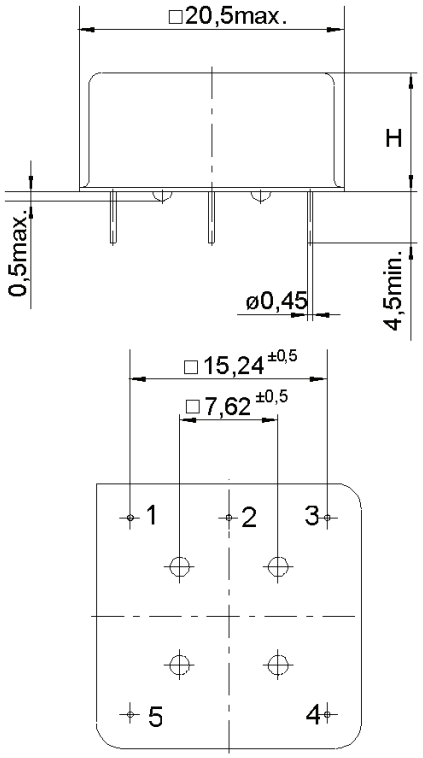
Enclosure drawing



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

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