

Datasheet

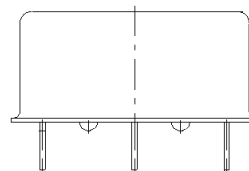
AXIOM35LN

LOW NOISE MINUATURE OCXO WITH SINE WAVE OUTPUT

FEATURES

- High stability till +/-5 ppb over temperature range
- Thru hole package size 20.5 x 20.5 x 12 mm.
- Sine wave output signal
- Low Phase Noise : -150 dBc/Hz

20.5 x 20.5 x 12 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		20	MHz	
Standard frequencies		10.000		MHz	
Frequency stability				ppm	
Initial tolerance @+25°C		± 100	± 200	ppb	V _c @ VREF/2
vs. in operating temperature range (steady state)			± 25	ppb	Option II = "25"
			± 10	ppb	Option II = "10"
			± 5	ppb	Option II = "05"
operating temperature range	-10		60	°C	Note 2
vs. supply voltage variation			± 5	ppb	
vs. load change			± 5	ppb	
Long term (aging) per day		± 0.5	± 1	ppb	after 30 days operation
long term (aging) 1 st year			± 50	ppb	after 30 days operation
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 0.5	± 0.8		ppm	
EFC voltage V _c	0	VREF/2	VREF	V	
EFC slope (Df / DV _c)		positive			
EFC input impedance	100			kΩ	
RF output					
Signal waveform		Sine wave			
Load		50		Ω	± 10 %
Output level	+5	+8		dBm	
Harmonics			-20	dBc	
Phase noise @ 10 MHz		-100		dBc/Hz	@ 1 Hz
			-130	dBc/Hz	@ 10 Hz
			-145	dBc/Hz	@ 100 Hz
			-150	dBc/Hz	@ 1 kHz
			-150	dBc/Hz	@ 10 kHz ~ 100 kHz
Note 4					
Warm-up time			3	min	Df _{final} /f ₀ < ±0.1 ppm
Reference voltage VREF output		4.0		V	Option I = "50"
Note 3		5.0		V	Option I = "12"
Supply voltage V_s	4.75	5.0	5.25	V	Option I = "50"
	11.4	12	12.6	V	Option I = "12"
Current consumption (steady state)			250	mA	Option I = "50"
@ +25°C			150	mA	Option I = "12"
Current consumption (warm-up)			600	mA	Option I = "50"
			300	mA	Option I = "12"
Operable temperature range	-20		+70	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) L x W x H	20.5x20.5x12 max.			mm	IEC 60679-3 CO 15
Weight				10	gram
Packing	Palette				

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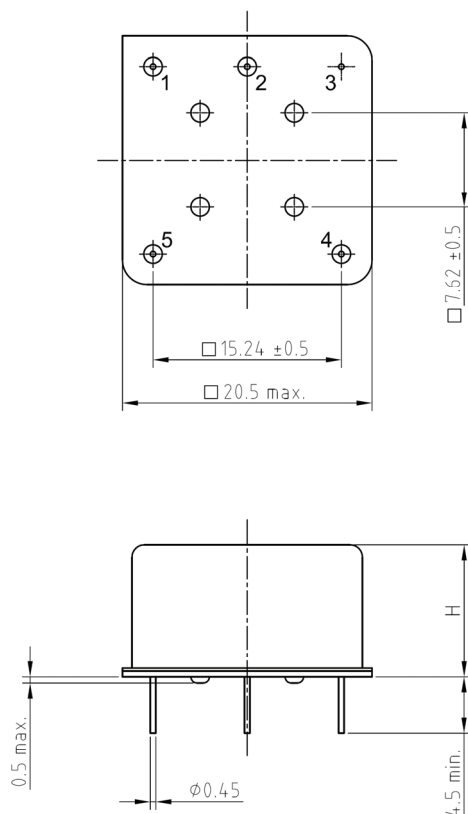
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other operating temperature range on request
3. Other reference voltages on request
4. Better phase noise values on request

Ordering Code:

Model (Specification)	Option I Supply voltage	Option II Stability	Frequency [MHz]
AXIOM35LN	12	10	10.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	V _S	Supply Voltage
2	RF OUT	RF Output
3	GND	Ground
4	V _C	Control Voltage (EFC)
5	VREF	Reference voltage

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clau- se ...	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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