

<b>Specification</b>	<b>AXIOM35LN</b>	Issue: 03	Date: 2010-03-25
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**Oscillator type : Low Noise Miniature OCXO with Sine Wave Output**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		20	MHz	
<b>Standard frequencies</b>	10.000			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance @+25°C		± 100	± 200	ppb	V <sub>C</sub> @ VREF/2
vs. temperature in operating temperature range (steady state)			± 25 ± 10 ± 5	ppb ppb ppb	Option II = "25" Option II = "10" 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 <sup>st</sup> year			± 50	ppb	after 30 days operation
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)	± 0.5	± 0.8		ppm	
EFC voltage V <sub>C</sub>	0	VREF/2	VREF	V	
EFC slope (Δf / ΔV <sub>C</sub> )	positive				
EFC input impedance	100			kΩ	
<b>RF output</b>					
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
Note 4			-130 -145 -150 -150 -150	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz
Warm-up time			3	min	Δf <sub>final</sub> /f <sub>0</sub> < ±0.1 ppm
<b>Reference voltage VREF output</b>		4.0		V	Option I = "50"
Note 3		5.0		V	Option I = "12"
<b>Supply voltage V<sub>S</sub></b>	4.75 11.4	5.0 12	5.25 12.6	V V	Option I = "50" Option I = "12"
<b>Current consumption (steady state)</b>			250	mA	Option I = "50"
@ +25°C			150	mA	Option I = "12"
<b>Current consumption (warm-up)</b>			600	mA	Option I = "50"
			300	mA	Option I = "12"
<b>Operable temperature range</b>	-20		+70	°C	
<b>Storage temperature range</b>	-40		+85	°C	
<b>Enclosure (see drawing) L x W x H</b>	20.5x20.5x12 max.			mm	IEC 60679-3 CO 15
<b>Weight</b>			10	gram	
<b>Packing</b>	Palette				
<b>Handling and Processing</b>	In accordance with AXAN-012				www.axtal.com
<b>Environmental Conditions</b>	In accordance with AXAN-013				www.axtal.com

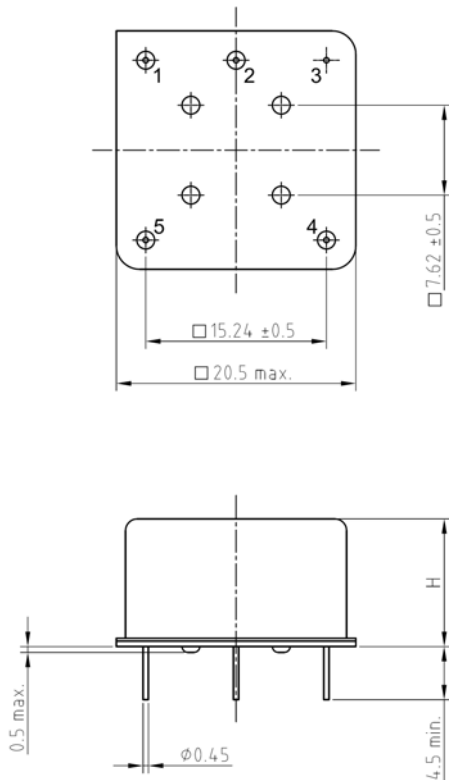
**Notes:**

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 <sub>S</sub>	Supply Voltage
2	RF OUT	RF Output
3	GND	Ground
4	V <sub>C</sub>	Control Voltage (EFC)
5	VREF	Reference 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