

Specification	AXIS10LN	Issue: 02	Date: 2010-05-26
----------------------	-----------------	-----------	------------------

Oscillator type : VCXO with very low phase noise

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	50		165	MHz	
Standard frequencies				MHz	
Frequency stability				ppm	
Initial tolerance				ppm	
vs. temperature in operating temperature range			10	ppm	Option II = "070"
			10	ppm	Option II = "2070"
			15	ppm	Option II = "4085"
Operating temperature range	0		+70	°C	Option II = "070"
	-20		+70	°C	Option II = "2070"
	-40		+85	°C	Option II = "4085"
vs. supply voltage variation			± 3	ppm	$V_S \pm 5\%$
vs. load change			± 3	ppm	Load ± 10 %
long term (aging) 1 st year			± 3	ppm	@ 40°C
Aging following years			± 1	ppm	@ 40°C
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 40			ppm	50 MHz ... < 90 MHz
	± 25			ppm	90 MHz ... < 120 MHz
	± 15			ppm	120 MHz ... 165 MHz
EFC voltage V_C	0.25		4.75	V	Option 1 = "50" (5 V)
	0.15		3.15	V	Option 1 = "33" (3.3 V)
EFC slope ($\Delta f / \Delta V_C$)		positive			
Linearity		± 10		%	
EFC input impedance	100			kΩ	
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			3	ns	20% to 80%
Symmetry (duty cycle)	40	45...55	60	%	@ $V_S/2$
Sub-harmonics	None				
Phase noise (@ 60 MHz)		-132		dBc/Hz	@ 1 kHz
		-155		dBc/Hz	@ 10 kHz
Note 2		-160		dBc/Hz	@ 100 kHz
		-162		dBc/Hz	@ 1 MHz
Phase noise floor		-160	-155	dBc/Hz	
Phase jitter (RMS)		0.5	1	ps	12 kHz ~ 80 MHz
Supply voltage V_S	4.75	5.0	5.25	V	Option 1 = "50" (5 V)
	3.13	3.3	3.47	V	Option 1 = "33" (3.3 V)
Current consumption (Note 3)			20...30	mA	Option 1 = "50" (5 V)
			25...50	mA	Option 1 = "33" (3.3 V)
Operable temperature range	-45		+90	°C	
Storage temperature range	-55		+95	°C	
Enclosure (see drawing)	14.4x9.5x6 max			mm	IEC 61837 CO 27
Weight			3	gram	
Packing	Tape & reel				IEC 60286-3
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

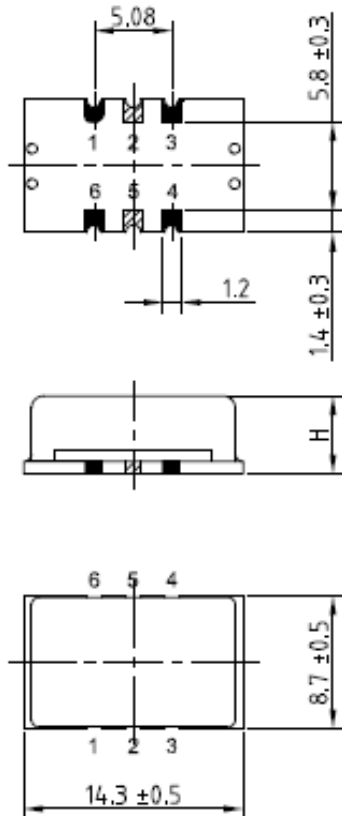
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Phase noise for other frequencies on request
3. Current consumption depends of frequency

Ordering Code:

Model (Specification)	Option 1	Option 2	Frequency [MHz]
	Supply	Temperature Range	
AXIS10LN	50	070	60.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	VC	Control Voltage (EFC)
2	N.C.	No connection
3	GND	Ground
4	RF OUT	RF Output (see table)
6	Vs	Supply Voltage

Environmental conditions:

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Visual inspection, dimensions		4.3	Enclosure styles as in IEC 60679-3 or 61837, if applicable
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