Specification	AXIOM75-11	Rev.: 3	Date: 2014-07-08

Oscillator type: Low Phase Noise OCXO with Sine Wave Output

Parameter	min.	typ.	max.	Unit	Condition
Nominal frequency		10.000		MHz	
Frequency stability					
Initial tolerance @+25°C			±500	ppb	@ V_C = 2.5 V
vs. operating temperature range			±25	ppb	steady state
operating temperature range	0		+70	°C	
vs. supply voltage variation			±10	ppb	V_S ±5%
vs. load change			±5	ppb	R_L ±5%
Long term (aging) per day		±1	±2	ppb	after 30 days operation
Long term (aging) 1st year			±100	ppb	after 30 days operation
Frequency adjustment range					
Electronic Frequency Control (EFC	±0.8	±1		ppm	
EFC voltage V_C	0.25	2.50	4.75	V	
EFC slope ($\Delta f / \Delta V_C$)		Positive			
EFC input impedance	100			kΩ	
RF output					
Signal waveform		Sine wave			R_L = 50 Ω
Output level	+7			dBm	
Harmonics			-30	dBc	
Spurious			-90	dBc	
Warm-up time			5	min	$\Delta f_{final}/f_0$ < ±0.1 ppm
Phase noise		-140 -150 -155 -160		dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1kHz @ 10 kHz @ 100 kHz
Supply voltage V_S	11.4	12.0	12.6	V	
Current consumption (steady state)			100	mA	@ +25°C
Current consumption (warm-up)			250	mA	
Operable temperature range	-20		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)		25.8x25.8x13.5 max.		mm	
Weight			10	g	
Packing		Palette			
ESD Sensitivity	1500			V	HBM as in IEC 61000-4-2

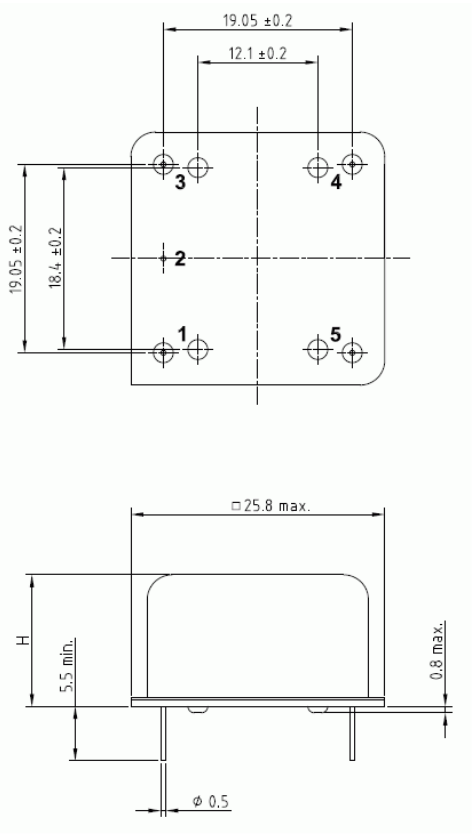
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated

Ordering Code:

Model (Specification)	Revision	Frequency [MHz]
AXIOM75-11	Rev.3	10.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	RF OUT	RF Output
2	GND	Ground
3	V_C	Control Voltage (EFC)
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

Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
3	D0	08.09.2009	New package drawing with 0.5 mm pins	BN	BN
3	D1	08.07.2014	Editorial changes	HH	HH