

Datasheet

AXPLO10

PHASE LOCKED OCXO (PLOCXO)

Delivers a low noise output from a noisy reference input signal

FEATURES

- SMA Connectorized Package, size 54 x 40 x 19 mm
- Phase Locked OCXO (PLOCXO)
- Delivers a low noise output from a noisy reference input signal
- Sine Wave output, +7 dBm (R 50Ω)
- Nominal output frequency: 10.00 MHz

55 x 40 x 19 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Nominal output frequency f_{out}		10.000		MHz	Note 4
RF output					
Signal waveform		Sine wave			
Load R_L		50		Ω	±10 %
Amplitude	+7			dBm	Note 2
Harmonics			-25	dBc	
Frequency Stability (free-running)					
frequency tolerance, not locked		±1.2	±2	ppm	
over operating temperature range			±10	ppb	
vs. supply voltage variation			± 2	ppb	$V_S \pm 5\%$
vs. load change			± 2	ppb	$R_L \pm 5\%$
Long term (aging) per year			±50	ppb	
Input frequency f_{in}		10.000		MHz	Note 5
Frequency accuracy			±0.5	ppm	
Input level	0		15	dBm	
Input impedance		50		W	
Lock Detect Output					
	3.5	0	1.5	V	Out of lock
		5		V	Locked
Supply voltage V_S	11.4	12.0	12.6	V	Note 3
Current consumption (warm-up)			450	mA	
Current consumption (steady state)			200	mA	@ +25°C
Operating temperature range	-10		+60	°C	
Storage temperature range	-55		+105	°C	
Enclosure (see drawing) (L x W x H)					
		54 x 40 x 19		mm	h = 2.0
Weight			60	gram	
Packing		bulk			

Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Higher output level (up to 15 dBm) on request
3. Other supply voltage on request
4. Other Output frequency on request with $f_{out} = f_{in} \cdot M$ or $f_{out} = f_{in} \cdot M/N$
5. Other Input frequency on request

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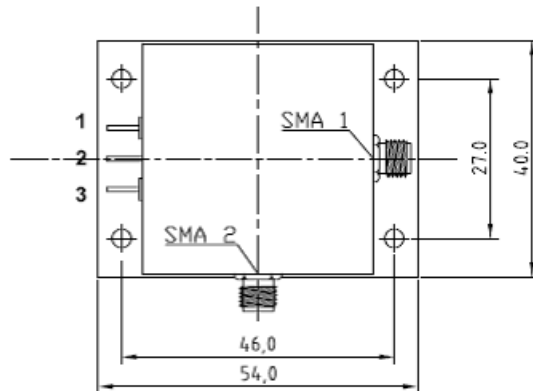
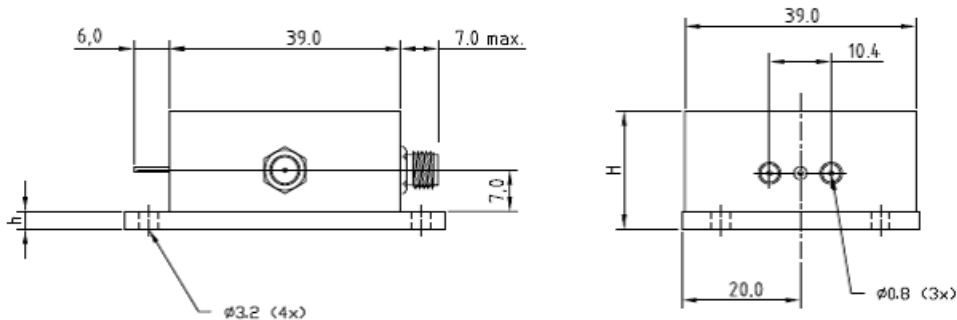
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Ordering Code

Model (Specification)	Input Reference Frequency [MHz]	Output Frequency [MHz]
AXPLO10	10.000	10.000

Example: AXPLO10-10.000-10.000 MHz

Enclosure



Pin#	Symbol	Function
1	LD	Lock Detect
2	GND	Ground
3	V _S	Supply Voltage
SMA1	RF OUT	RF Output
SMA2	RF IN	10 MHz Input

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	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

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