

AXPLO100

PHASE LOCKED OCXO (PLOCXO) - Delivers a low noise 100 MHz output from a 10 MHz reference input signal

FEATURES

- SMA Connectorized Package, size 54 x 40 x 19 mm
- Phase Locked OCXO (PLOCXO)
- Delivers a low noise 100 MHz output from a 10 MHz reference input signal (Note 2)
- Sine Wave output, +7 dBm (R 50Ω)

55 x 40 x 19 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Nominal output frequency	100.000			MHz	Note 2
RF output					
Signal waveform	Sine wave				
Load R_L	50			Ω	±5 %
Amplitude	+7			dBm	Note 4
Harmonics			-30	dBc	
Phase Noise @ 100.000 MHz (Note 5)			-125 -155 -165 -170	dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz
Frequency Stability (free-running)					
frequency tolerance, not locked		±1	±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			±100	ppb	After 30 days operation
Input frequency (sine wave)	10.000			MHz	Note 3
Frequency accuracy			±0.5	ppm	
Input level	0		+13	dBm	
Input impedance		50		Ω	
Lock Detect Output	3.5	0 5	1.5	V V	Out of lock Locked
Supply voltage V_S	11.4	12.0	12.6	V	Note 6
Current consumption (warm-up)			450	mA	
Current consumption (steady state)			200	mA	@ +25°C
Operating temperature range	-10		+60	°C	
Enclosure (see drawing) (L x W x H)	54 x 40 x 19			mm	h = 2.0
Flange thickness h		2.0		mm	
Weight			60	gram	
Packing	Palette				

Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Other output frequency on request with $f_{out}=f_{ref} \cdot M$ or $f_{out}=f_{ref} \cdot M/N$
3. Other input frequency on request
4. Higher output level (up to 15 dBm) on request
5. For other Phase Noise please consult us
6. Other supply voltage on request

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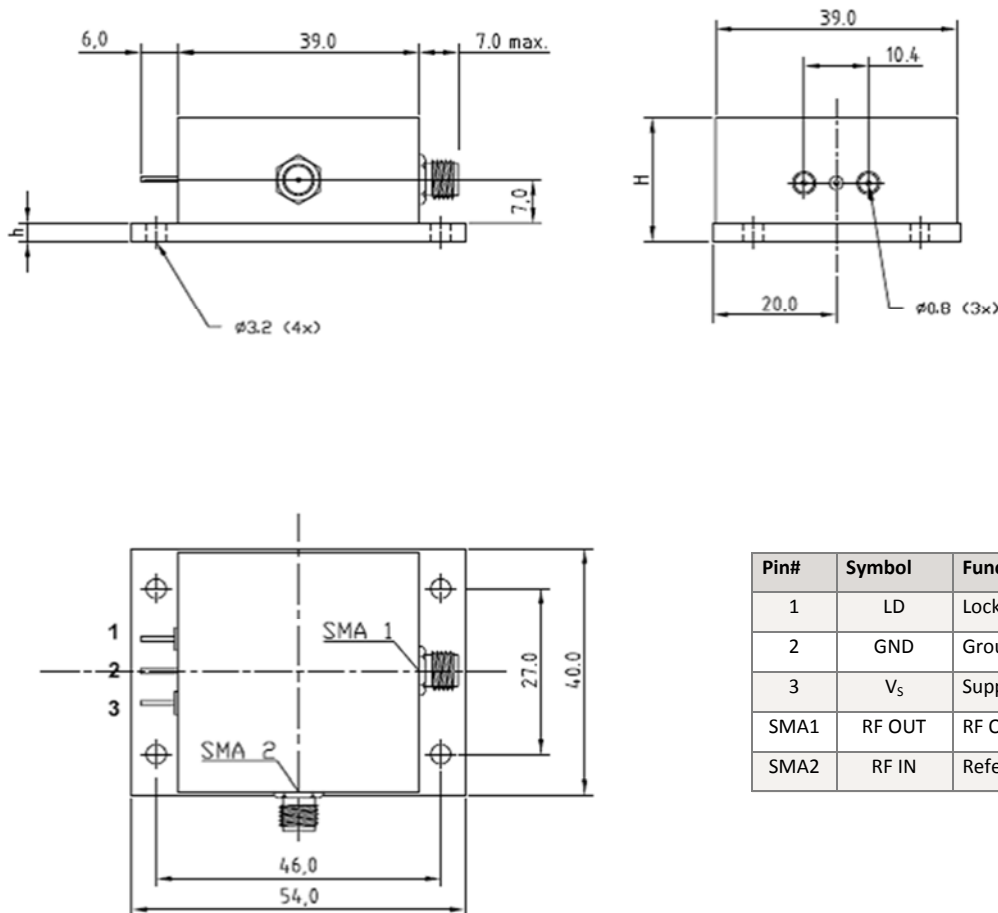
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Ordering Code

Model (Specification)	Input Reference Frequency [MHz]	Output Frequency [MHz]	Revision
AXPLO100	10.000	100.000	Rev.2

Example: AXPLO100-10.000-100.000_Rev.2

Enclosure



Pin#	Symbol	Function
1	LD	Lock Detect
2	GND	Ground
3	V _s	Supply Voltage
SMA1	RF OUT	RF Output
SMA2	RF IN	Reference Frequency Input

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit	Condition
Supply Voltage V _s	-0.5	V _s + 10%	V	V _s to GND
Reference Input Level	-	+15	dBm	
Storage Temperature	-55	+125	°C	

Rev. 2 Date : 20-06-2014

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Parameter	Procedure	Condition
Electrostatic discharge (ESD)		
THD devices	IEC60749-26 HBM	2000 V
SMD devices	IEC60749-27 MM	200V
Washable	YES	
RoHS Compliant	YES	

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta Method 1 Test Td ₁ Method 2 Test Td ₂ Method 2
Shock*	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Vibration random *	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - ageing - extended aging		5.7.1 5.7.2	108A		4.8.35	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request

Data sheet is for information purposes only and may be subject to modifications or may be discontinued without notice

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