

ExtRef 10 MHz Oscillator with Diplexer/DC inserter

Key features



- For LNBs and BUCs
- L-Band and 22 kHz bypass
- Very Low power consumption OCXO
- Very High stability
- Available with F, N or SMA connectors
- Separate DC input as option
- 2nd 10 MHz output as option

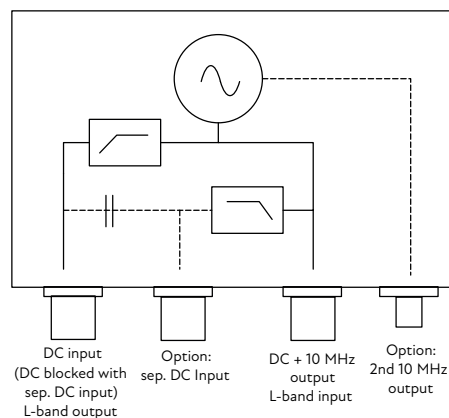
Description

The 10 MHz Reference Oscillator is used for control of the local oscillator in LNBs or BUCs when a very high LO stability and very low phase noise is needed. The SMW 10 MHz Ref. oscillator gives a LO stability of ± 20 ppb = $\pm 20 \times 10E-9$ (ppb=parts per billion).

Very Low power consumption OCXO.

Available with F-, N- or SMA-connectors.

DC, L-Band and 22 kHz bypass is standard. Options include Separate DC power input via connector (F, N or SMA) or via cable (pigtail) and 2nd 10 MHz output



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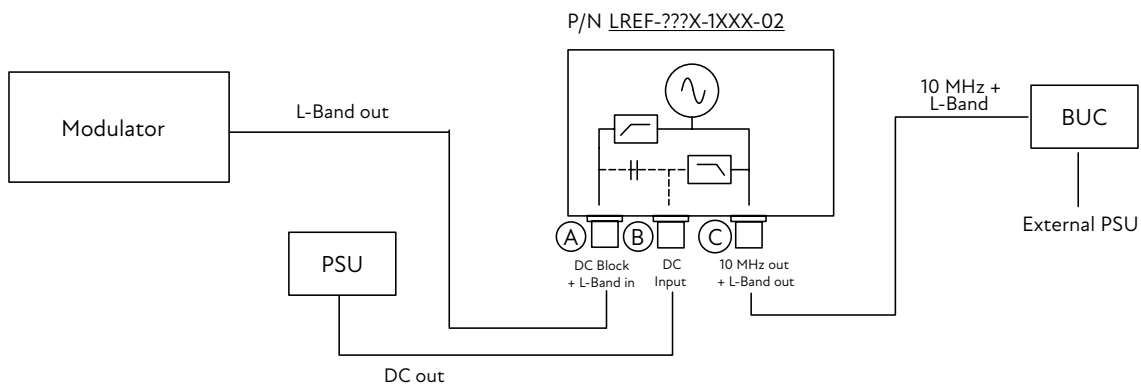
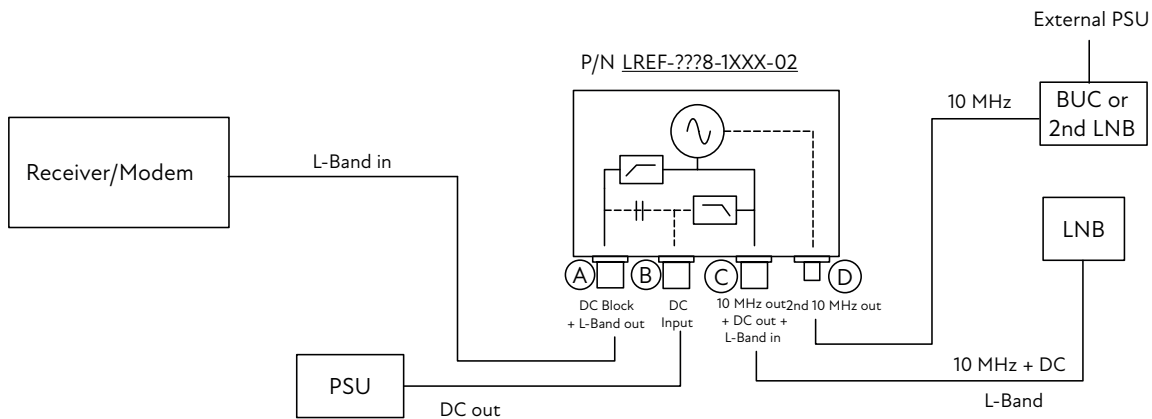
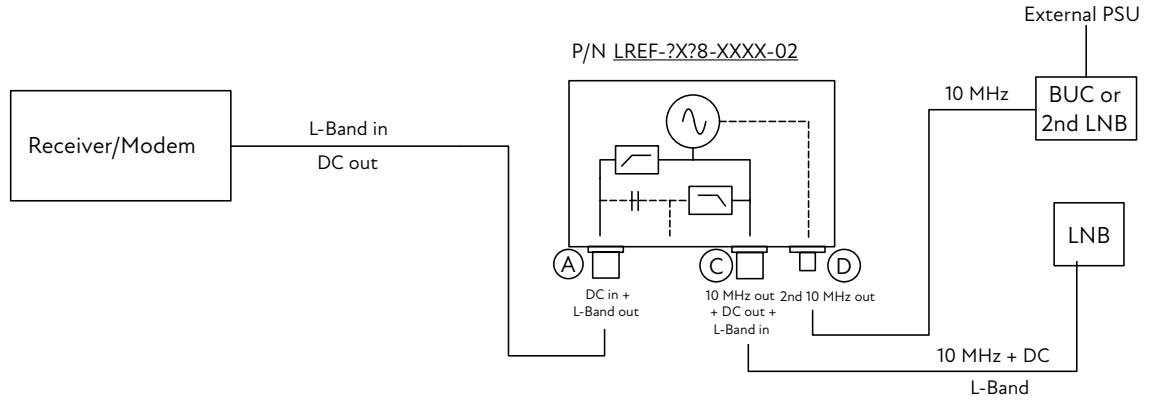
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Technical specifications

GENERAL	L-Band Frequency range	950-2150 MHz
	IF insertion loss	1 dB @ 950-2150 MHz max.
	Return loss in/out	N- and SMA-connector: min. 10dB, typ 15 dB, with F connector min. 8dB, typ. 13 dB
	Group delay L-band	± 1 ns max.
	DC input	+10 to +28 V, 800mA max.@ DC output
	Power consumption	100 mA warm up 1 min. , 35 mA steady state typ.
	Return loss 10 MHz out	> 20dB
	10 MHz Harmonic Suppression	> 70 dBc (L-Band output), > 40 dBc (separate 10 MHz output)
	22 kHz Bypass	Through receiver or external source, n/a with DC Block IN or OUT
	Output frequency	10 MHz Sinewave
	Output level 1th output	+5 dBm ±1 dB
	Output level 2nd output (optional)	+4 dBm ±1 dB
	Frequency Stability	±20 ppb @ 0 to +50°C , ±50 ppb @ -40 to +85°C
	Calibration Tolerance	±10 ppb @ 25°C
	Aging	±500 ppb max. @ 10 years
	Phase Noise	-90 dBc @ 1 Hz, -120 dBc @ 10 Hz, -142 dBc @ 100 Hz, -155 dBc @ 1 kHz, -163 dBc @ 10 kHz, -163 dBc @ >10 kHz (max.)
	Dimensions	96 x 28 x 89 mm (N connectors)
	Weight	208 g (F & SMA connectors), 250 g (N connectors)
	Temperature Range	Storage and operating: -40 to +80°C, -40 to +176°F
	Ingress protection code	IP 67
Material & Finish	Die-cast aluminium, Powder coated	
Input connector (A)	SMA-type 50Ω female, N-type 50Ω female or F-type 75Ω female	
Output Connector (C)	SMA-type 50Ω female, N-type 50Ω female or F-type 75Ω female	
Options	Separate DC input (via F / N / SMA-connector, or cable) with integrated DC-block(s)	

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Installation examples



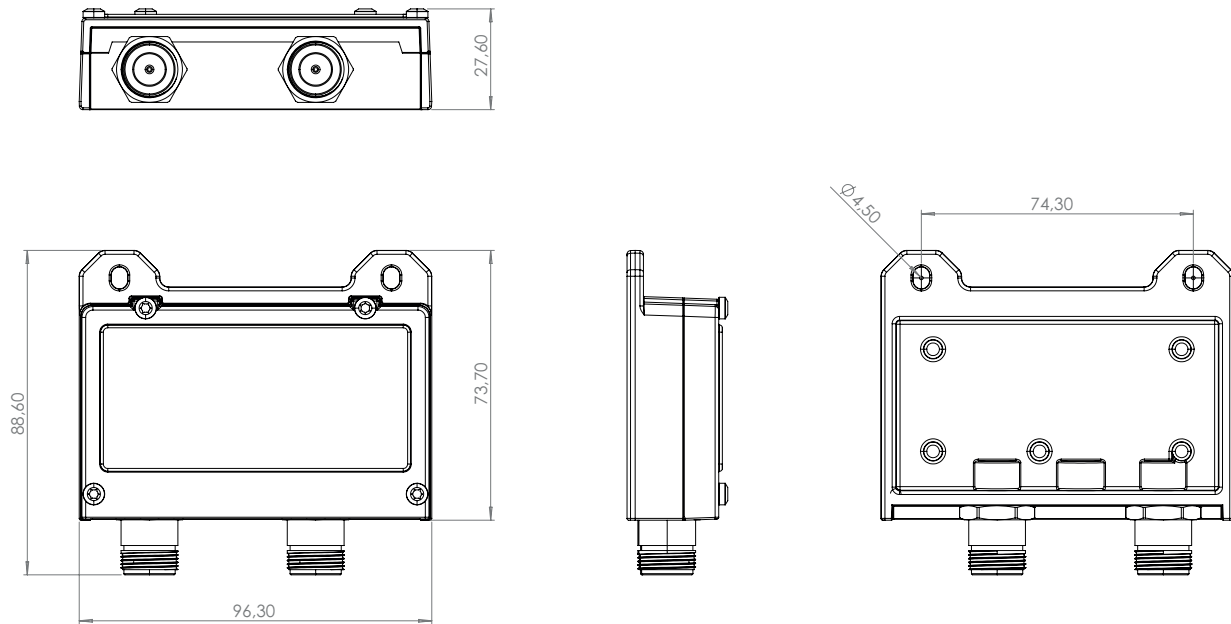
Part number designation for the 10 MHz reference oscillator

Model	Connector A	Sep. DC input B	Connector C	2nd 10 MHz out	DC Block A	DC Block C	Future use	Future use	Version
LREF	?	?	?	?	?	?	X	X	02
	0 F	X No	0 F	X No 2nd 10 MHz out. +7 dBm on C	X	No DC block			
	5 N	0 F	5 N						
	8 SMA	5 N	8 SMA	8 2nd 10 MHz out. +6 dBm on C & D	1	DC Block			
		8 SMA							
		9 Pigtail							

Example: L-Band out + DC block (N), L-Band in + DC & 10 MHz out (N), Separate DC input (N), 2nd 10 MHz out = LREF-5558-1XXX-02

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Technical Drawing



Designed and
Manufactured



Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS compliant and every unit includes full documentation of performance tests and quality control. Please contact sales@smw.se to configure or customize the unit to your needs. Visit smw.se or scan QR code to see our full product range and request a quote.

