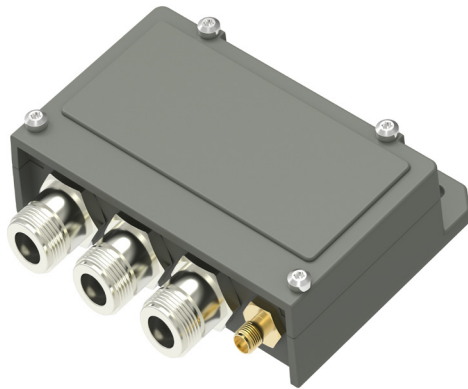


ExtRef 10 MHz Recovery Oscillator / DC inserter

Key features



- For LNBs and BUCs
- L-Band and 22 kHz bypass
- Very Low power consumption OCXO
- Very High stability
- Excellent cleaning effect
- Available with F, N or SMA connectors
- Separate DC input as option

Description

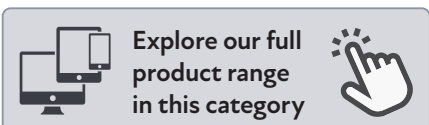
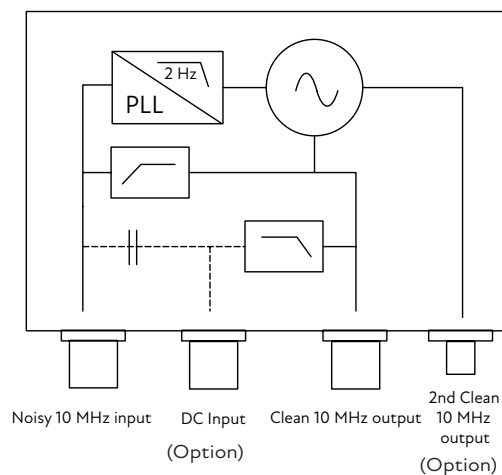
The 10 MHz Recovery oscillator is used to enhance the Phase Noise Performance of a 10 MHz Reference Signal, thus "cleaning" a noisy incoming 10MHz signal. Ideal for use together with LNB or BUC.

L-Band loopthrough, separate DC input and dual 10 MHz outputs. The Recovery Oscillator latches on to the incoming 10 MHz and it will not take care of stability issues of the incoming signal. Hence the feedback loop filtering characteristics is set up to give a "cleaning effect" of 50% at 10 Hz and 100% from 100 Hz and above.

Very Low power consumption OCXO.

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

DC, L-Band and 22 kHz bypass is standard. Option include Separate DC power input via connector (F, N or SMA) or via cable (pigtail).



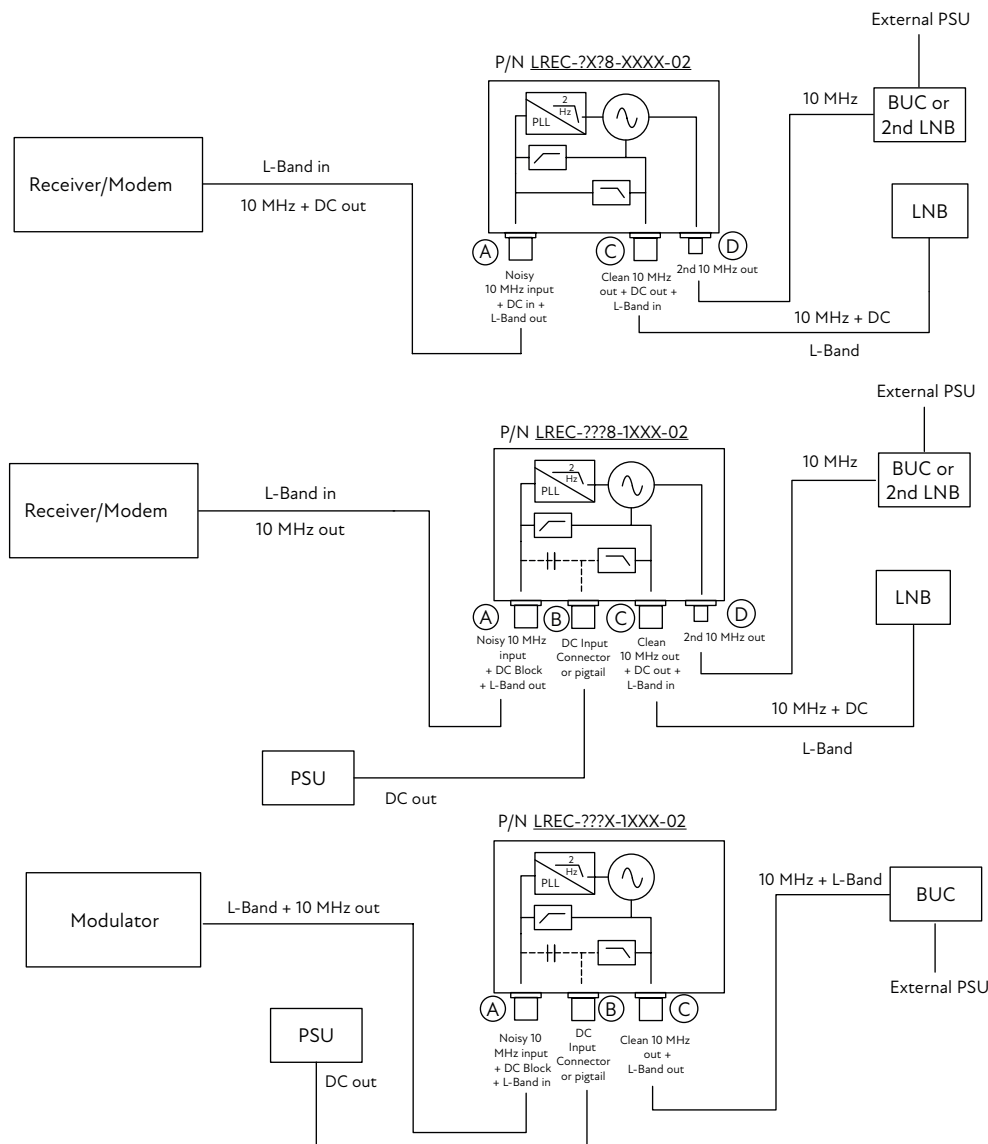
ExtRef 10 MHz Recovery Oscillator / DC inserter

Technical specifications

GENERAL	L-Band Frequency range	950-2150 MHz
	IF insertion loss	1.5 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 (DC block by request for Input and/or Output)
	Power consumption	100 mA warm up 1 min. , 35 mA steady state typ.
	10 MHz Input Freq. Range	10 MHz ± 0.2 ppm
	10 MHz Output Freq. Stability	Depending on stability of input frequency source, max. ±0.5ppm @ loss of 10 MHz input
	10 MHz input level	-10 dBm to +7 dBm
	Return loss 10 MHz in/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	230 g (F & SMA connectors), 270 g (N connectors), 396 g (N connectors + pigtail)
	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 optional integrated DC-block(s)

ExtRef 10 MHz Recovery Oscillator / DC inserter

Installation examples



Part number designation for the 10 MHz recovery 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
LREC	?	?	?	?	?	?	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 SMA		2nd 10 MHz out. +6 dBm on C & D	1	DC Block			
		9 Pigtail							

Example : L-Band + 10 MHz input + DC block (N), L-Band in + DC Block + 10 MHz out (N), Separate DC input (N), 2nd 10 MHz out = LREC-5558-11XX-02

Rev. K

C-BAND

X-BAND

KU-BAND

KA-BAND

Q/V-BAND

RFo FIBER

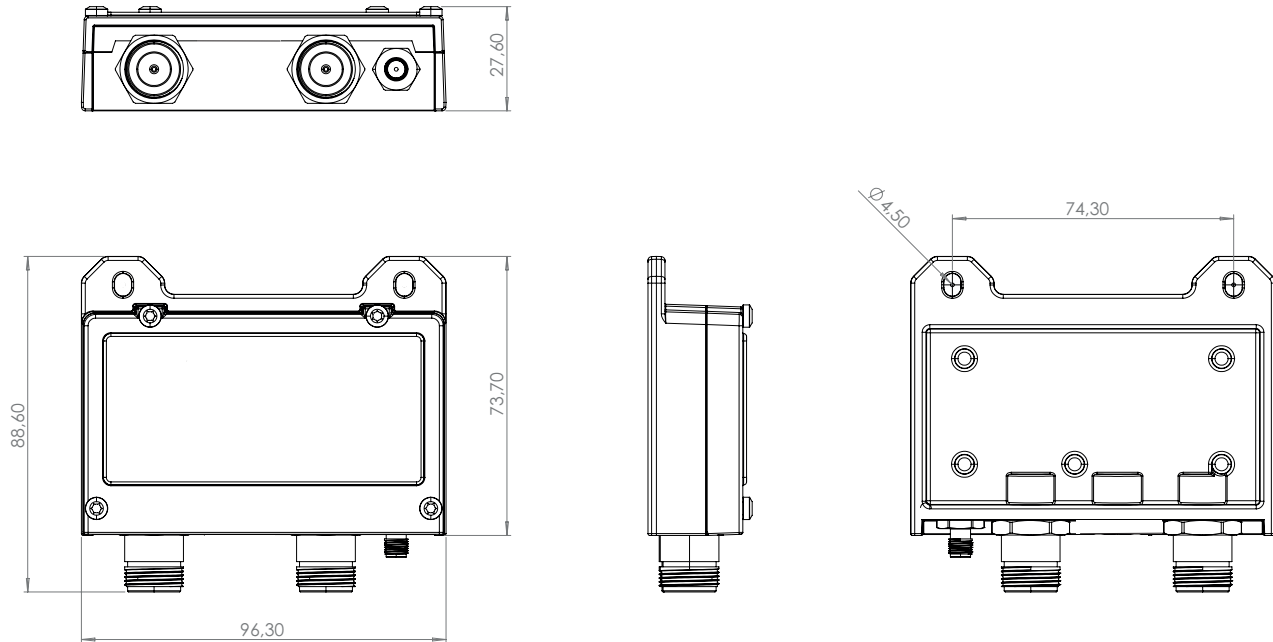
L-BAND

EXT REF

OTHER

ExtRef 10 MHz Recovery Oscillator / DC inserter

Technical Drawing



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.

