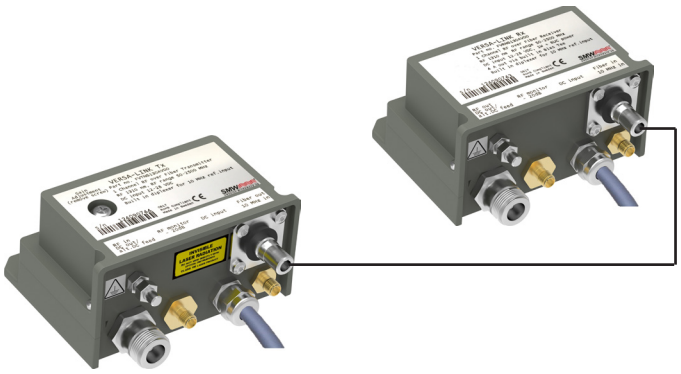
RFoF Versa-Link Transmitter & Receiver

Key features



- **High RF and Optical performance**
- **Fully analog (no field setup)**
- **Fully outdoor proof (IP 67)**
- **1 RF channel 1310nm**
- **Up to 20 km distance (optional 40 km with 1550 nm)**
- **SMA input for 10 MHz Ext. ref.**

A typical setup includes the following parts:
- Fiber transmitter
- Fiber receiver
- Power supply
- Fiber cable/cables

Description

The Versa-Link contains one L-band forward channel over a single fiber using a direct modulated 1310 nm laser over a single mode fiber cable.

- Manually adjustable gain for large antennas and Beacon applications.
- Up to 20 km link distance with 1310 nm or as option up to 40km with 1550nm , depending on link budget, with very high C/N maintained.

Fully Outdoor Proof, IP67

- Both the transmitter and the receiver unit packaged in a compact outdoor rugged aluminium enclosure.
- Ideal to mount on the satellite antenna or structure, without using a bulky separate outdoor enclosure.
- -40° to +80°C fully operating temp. range.
- Highly rugged push on, quick connect, Q-ODC fiber connector on both units.

Versatility

- Multi role RF over Fiber link for LNB or BUC simply by swapping location of the receiver/transmitter pair.
- Easy DIN-rail mount option for multi-unit, multi channel and VSAT (LNB+BUC) stacking.
- Built in 4A Bias-tee and 10MHz ref. diplexer.
- Versa-Link Rx receiver is compatible with SMW Fiber output LNBs for cost effective single channel systems.
- SMW Fiberoptics are compatible with many other manufacturer's corresponding indoor devices.

Applications

- Single fiber downlink connection from one LNB.
- Single fiber uplink connection to one BUC.
- Carries any 290-2500 MHz (option 10-2500 MHz), RF signal - Satcom, Terrestrial TV, GPS, FM etc.

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Rev. 12-23-6H

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Technical specifications

		Fiber transmitter	Fiber receiver
GENERAL	RF Frequency	290 - 2500 MHz (290 - 2350 MHz with F connectors), Optional 10 - 2500 MHz w/o 10 MHz ref. & Monitor output	
	Bias Tee for LNB/BUC DC supply	4 A max with N-conn., 28 V DC max. out via RF out for BUC (DC block optional), RF in connector for LNB	
	DC feed	Standard 3 x 0,75 mm2, 15 meter cable (pigtail) or via RF connector	
	Power consumption	1 W max. (exclusive LNB/BUC power)	
	Dimensions	96 (L) x 91 (W) x 49 (H) mm, for drawing, see www.smw.se	
	Weight	465 g (SMA- & F-connector), 480 g (N-connector)	
	Temperature Range	Storage and Operating -40 to +80°C, -40 to +176°F	
	Ingress protection code	IP 67, Q-ODC connector only IP67 when mated with dust cover or Q-ODC cable connector	
	System gain variation	± 0.20 dB within 30 MHz, ± 1 dB @ 950 - 2150 MHz, ± 2.5 dB @ 290 - 2500 MHz max. , ± 3 dB @ 10 - 2500 MHz max.	
	Standards compliance	Optical interface: EIA/TIA 568, ITU std. G694.2; EMC: EN 55013:2013, EN 55020, EN 300 386; Safety: EN 60950-1, EN 60950-22, EN 60065:2002	
	Miscellaneous	Installed pigtail DC cable 15 meter. Custom length available as option.	
INPUT	Input level RF / Optical	-10 to -50 dBm @ 20 transponders	-6 dBm to +5 dBm
	Input RF connector	F, N or SMA female	
	Input connector optical		Dual fiber, Single mode Huber & Suhner, Q-ODC
	IP 3 RF input	+25 dBm typ.	
	DC input	+12 to +28 Volt	
	10 MHz input		Sinewave, -10 to + 5 dBm input via separate 10 MHz connector (SMA only).
INTERNAL	Optical interface	Direct modulated DFB laser, 1310nm (1550nm as option)	
	RF gain TX	User adjustable, -10 dB to +10 dB, factory set 0dB @ 100 meter fiber cable. For gain adjustment, use a Philips nr 2 screw-driver to remove the cover screw and use a 2mm flat screwdriver to adjust the gain	
	System noise figure	20 dB typ. @ full gain	
	10 MHz Phase Noise	-123 dBc@100 Hz, -140 dBc@1kHz, -150 dBc@10kHz, -155 dBc@100 kHz	
	System C/N Single carrier	> 56 dB @ 30 MHz	
	System C/N 40 transponders	> 33 dB @ input level -15 dBm (composite level)	
	SFDR	115 dB/Hz	
	RF Return loss / VSWR	N / SMA connector: min. 12 dB / 1.7:1, F connector: min. 8 dB / 2.3:1	
OUTPUT	10 MHz	Diplexer built in, Insertion via SMA connector 50Ω, n/a @ 10 - 2500 MHz RF range	
	IP3 RF input / RF output	+33 dBm @ min. gain, +13 dBm @ max. gain	+30 dBm typ.
	Optical output power	2 mW	
	Output RF connector		F, N or SMA female
	Output connector optical	Dual fiber, Single mode Huber & Suhner, Q-ODC	
OTHER	Cables	Outdoor to Outdoor fiber cables (Q-ODC to Q-ODC), Outdoor to indoor patch cables	
	Power supply (AC/DC)	TDK Lambda +15VDC and +24 VDC	
	Options	Increased fiber distance (1550 nm laser), Custom freq. range, Custom DC cable length	

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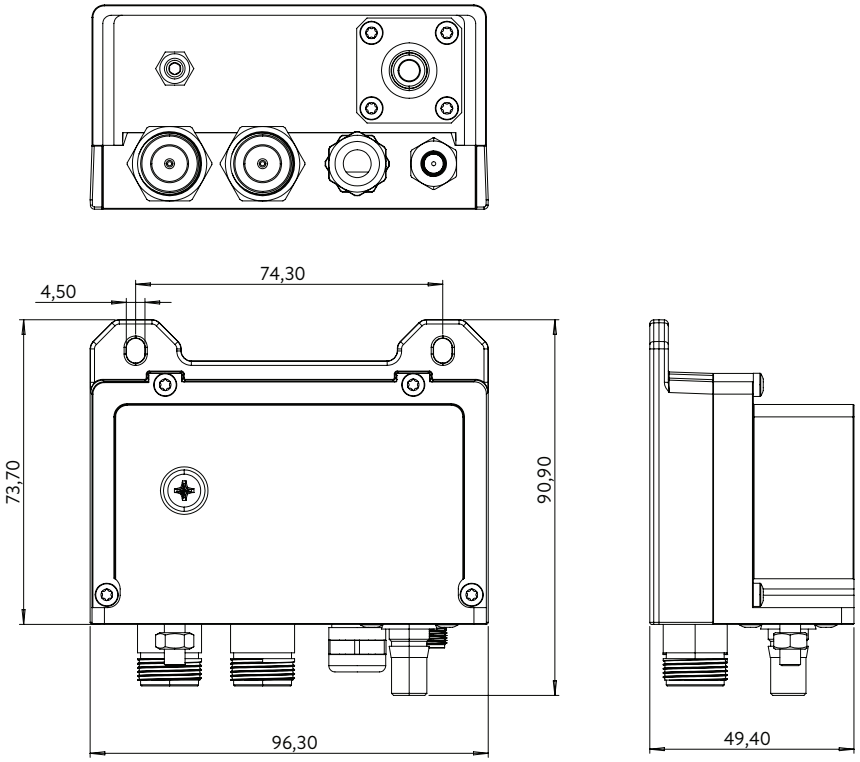
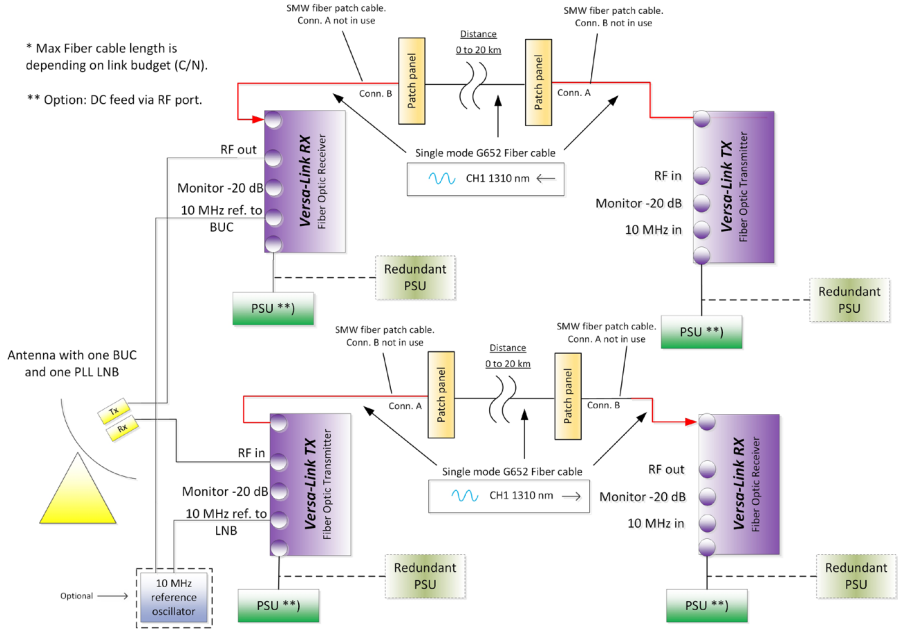
Technical Drawing





Designed and Manufactured IN SWEDEN

Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS complient 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.

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