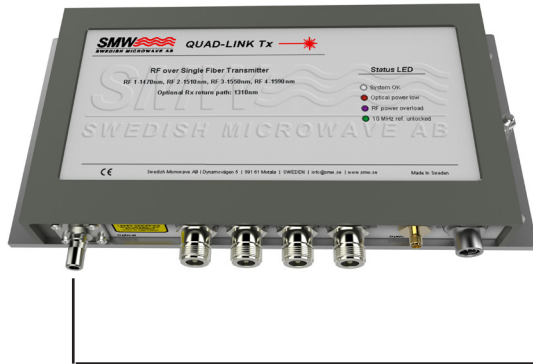


Quad-Link System



Four channel Transmitter / Receiver System



TECHNICAL SPECIFICATIONS

MODEL:	Quad-Link Fiber Transmitter	Quad-Link Fiber Receiver
RF Frequency	290 - 3000 MHz (50 - 2750 MHz as option, w/o 10 MHz ref.)	
Input Level RF / Fiber	-10 to -50 dBm @ 20 transponders	-6 dBm to +5 dBm
Optical Output / Input	Direct modulated DFB lasers, CWDM wavelengths: CH1 1470 nm, CH2 1510 nm, CH3 1550 nm, CH4 1590 nm	
Optical Output Power	8 mW (2 mW / channel)	
Return Channel Wavelength	1310 nm	
System Gain Variation	± 0.20 dB within 30 MHz, ± 1 dB @ 950 - 2150 MHz, ± 3 dB @ 290 - 3000 MHz, ± 3 dB @ 50-2750 MHz max.	
System Noise Figure	15 dB typ.	
10 MHz Phase Noise	-123 dBc@100 Hz, -140 dBc@1kHz, -150 dBc@10kHz, -155 dBc@100 kHz	
10 MHz Ref. Output / Input Level	0 dBm on all RF ports and separate output port.	-10 to + 5 dBm input via separate 10 MHz connector.
IP3 RF Input / IP3 RF output	+25 dBm typ.	+30 dBm typ.
RF Return Loss / VSWR	N / SMA connector: max. -10 dB / 1.9:1, F connector: max. -8 dB / 2.3:1	
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	
Fiber Connector	Dual fiber, Single mode Huber & Suhner, Q-ODC	
RF Connectors	F-type 75Ω / N-type 50Ω / SMA-type 50Ω	
Separate 10 MHz Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω	
DC Connector	Fischer ® 103 series, Circular IP 68 sealed	
DC Input	+12 to +28 V	
DC LNB Supply	600 mA max. / RF port, Autofused, Shortcircuit protected	
Power Consumption	6 W max. (excl. 600mA / RF Port for LNB Powering)	5 W max.
Temperature Range	Storage and operating: - 40° to + 80° C	
Dimensions	273 (L) x 154.4 (W) x 34.4 (H) mm, for drawing, see www.smw.se	
Weight	1890 g (SMA- & F-connectors), 1950 g (N-connectors)	
Ingress Protection Code	IP 67, Q-ODC connector only IP67 when mated with dust cover or Q-ODC cable connector	
Standards Compliance	Optical interface: EIA/TIA 568, ITU std. G.694.2; EMC: EN 55013:2013, EN 55020, EN 300 386; Safety: EN 60950-1, EN 60950-22, EN 60065:2002	
Options	AGC off (Beacon), DC connector type, 10 MHz connector type, No LNB DC supply, 50 - 2750 MHz RF freq. range	
Miscellaneous	Enclosed DC cable 15 meters with connector.	
Accessories	Outdoor to Outdoor fiber cables (Q-ODC to Q-ODC), Outdoor to indoor patch cables (different connector type and lengths), External 10 MHz ref. oscillator, Dual DC Inserter, Power Supply Unit (AC to DC), Custom DC cable length.	

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.

Rev.11-20-5C

The RF output level from the optical receiver depends on two things with a QuadLink system (with AGC):

1. Optical attenuation between optical transmitter and receiver.
2. Input level on the optical transmitter

The formulas are: Rx channel power = -6dBm - (2*optical_attenuation) - (log10(number of channels)*10)

If the RF input level is less than -15 dBm on the optical transmitter(sum of all carriers power):

Rx channel power = Tx_input_level +9 - (2*optical_attenuation) - (log10(number of channels)*10)

Quad-Link System

High RF and Optical performance

- 4x L-band forward channels + 10MHz return channel over a single fiber using a direct modulated 1550 nm laser and CWDM - Coarse Wavelength Division Multiplexing forming a high performance IFL - Inter Facility Link.
- AGC - Automatic Gain Control and optional Fixed Gain for large antennas and Beacon applications.
- Up to 40 km link distance, depending on link budget, with very high C/N maintained.
- SMW Fiberoptics are compatible with many other manufacturer's corresponding indoor devices.
- Free Link budget calculation support available on request.

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.

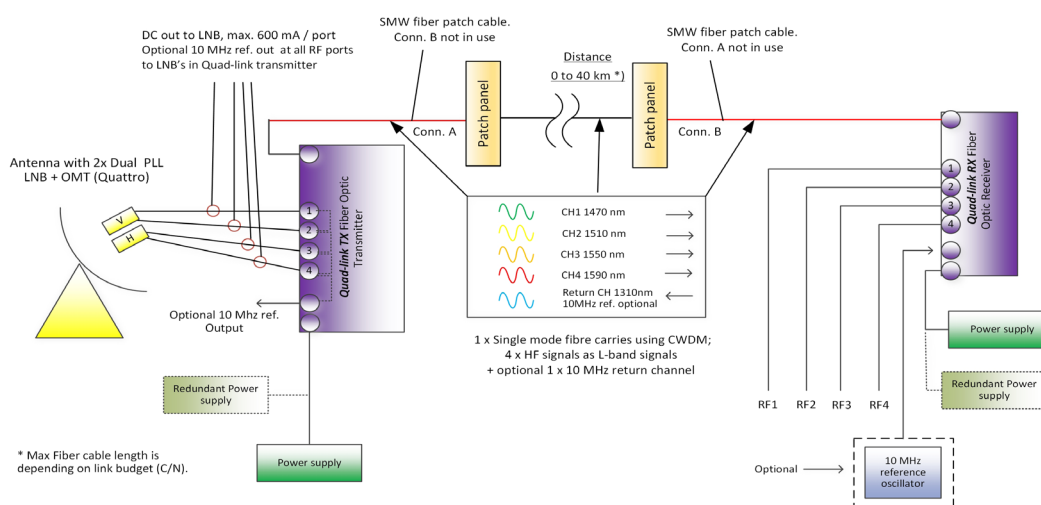
Versatility

- 4 x L-band fiber link in any direction simply by swapping location of the receiver/transmitter pair.
- Carries any 290 - 3000 MHz (Opt. 50 - 2750 MHz) RF signal - Satcom, Terrestrial TV, GPS, FM etc.
- Built in Bias-tees and 10MHz ref. diplexer.
- Available with custom options.

Applications

- Single fiber connection to one Quattro LNB equipped Satcom antenna.
- Single fiber connection to 4 separate single or multiband LNB's.
- Single fiber connection to multiband or multiple BUC's.

Quadlink system



Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.

Rev.09-20-2D

NOTE: Fiber cables can be ordered as patch cables or Q-ODC to Q-ODC cable