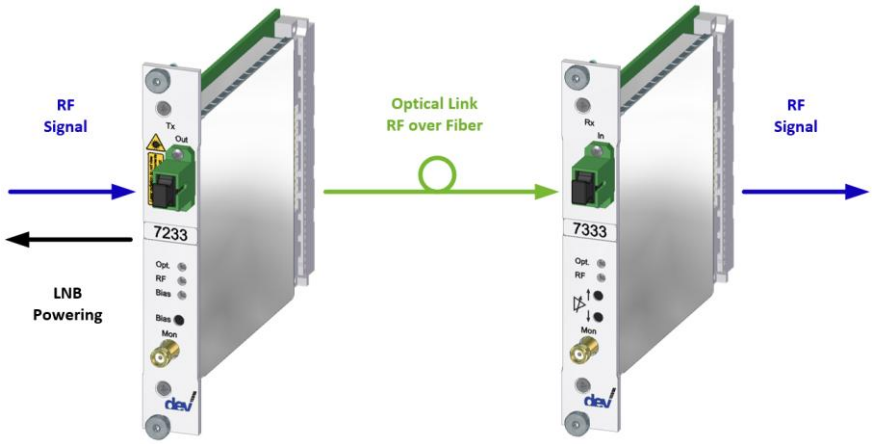
Optribution Top L-Band Link
DEV 7233 & DEV 7333



The final product may vary from the above image depending on the options selected.

Products:	
DEV 7233	Top Performance Optribution Transmitter; 850…2450 MHz; SC/APC; with adjustable Gain and Automatic OMI Optimization
DEV 7333	Top Performance Optribution Receiver; 850…2450 MHz; SC/APC; with adjustable Gain and Slope

Features:

- Recommended for RF-over-Fiber Links with optical Losses up to 20 dB
- Adjustable Rx and Tx Gain
- Continuous Optical Modulation Index Optimization
- RF Sensing with Status LED
- LNB Powering, switchable 13/18 V and 22 kHz Tone
- Push Buttons for Gain Control and LNB Power
- RF Monitor Ports
- 16 CWDM Wavelengths
- Optical Connector Type SC/APC (optional FC/APC or E2000 HRL)

Link Specifications DEV 7233 & DEV 7333

	Value	Condition
Frequency Range	850…2450 MHz	
Max. Link Gain	35±2 dB	
Adjustable Gain (Tx Module)	-20…20 dB ±0.5 dB in 1 dB Steps	
Adjustable Gain (Rx Module)	0…15 dB ±0.5 dB in 1 dB Steps	
Adjustable Slope (Rx Module)	0…4 dB in 1 dB Steps	
Flatness	±1.0 dB ±0.15 dB	850…2450 MHz In any 36 MHz window
Return Loss	>14 dB, typ. 16 dB	
Gain Stability	±2 dB	0...+50 °C / 32…122 °F
Group Delay	<2 ns	Note 2
Nominal RF Input Level	-20 dBm	Aggregated power
Noise Figure	<31 dB <16 dB	Tx Module Gain 0 dB Tx Module Gain 18 dB
SFDR2/3	108 dB/Hz$^{2/3}$	
CNR	50 dB	Notes 1, 2
Output IP3	>21 dBm >26 dBm	Rx Module Gain 0 dB Rx Module Gain 15 dB
OP1dB	>7 dBm >18 dBm	Rx Module Gain 0 dB Rx Module Gain 15 dB
Input Power dynamic Range	-70…+10 dBm	Aggregated power
Dynamic Power Range Automatic OMI Optimization	 -20…+10 dBm	 Aggregated power
Damage RF Input Level	15 dBm	Aggregated power
Optical Budget	20 dB	Notes 1, 3

Note 1: P_{in} = -20 dBm aggregated power
Note 2: 36 MHz window
Note 3: CNR 15 dB minimum

Technical Data DEV 7233 & DEV 7333

	Value	Condition
Common Optical Specifications		
Fiber Type	Single Mode 9/125 µm	
Optical Connector	SC/APC, E2000/HRL, or FC/APC	Standard is SC/APC
Tx Specifications (DEV 7233)		
Laser Type	DFB	
Laser Class (according to IEC 60 825-1)	Class 1M (low Risk to Eyes, no Risk to Skin)	
Optical Power Output	3.5 mW / 5.4 dBm	
Available CWDM Wavelengths	(16 different Wavelengths)	Note 1
Power Consumption	12 V; 200 mA	Without LNB power
Weight	~0.5 kg	
Tx LNB Power & Current Monitoring		
LNB Power	Max. 350 mA	
Voltage and Tone Control	13 V, 18 V and 0 Hz, 22 kHz	
Alarm Indication	Via LED on the Front Panel & via Remote Communication	
Rx Specifications (DEV 7333)		
Wavelength Range	1100…1650 nm	
Min. optical Input Level (optical Sensitivity)	>-15 dBm	
Damage optical Input Level	+10 dBm	
Power Consumption	12 V; 250 mA	
Weight	~0.3 kg	
Tx & Rx Monitor Port		
Impedance, Connector	50 Ohm, SMA (f)	
Return Loss	>18 dB typ.	
Insertion Loss / Flatness Monitor Port	= Input Level – 26 dB ±2 dB (Tx) = Output Level – 26 dB ±2 dB (Rx)	
Tx & Rx RF Sensing		
Adjustable Threshold Level (THL)	0 dBm > THL > -50 dBm	
Threshold Level Accuracy	±3 dB	
Threshold Repeatability	<0.1 dB	
Alarm Indication	Via LED on the Front Panel & via Remote Communication	
Tx & Rx General Specification		
Size	4 HP (20 mm) Width, 3 RU (133 mm) Height, 3.94" (100 mm) Depth	
Environmental Conditions	ETS 300019 Part 1-3 Class 3.1E	

Note 1: Please refer to the Order Information section for the available wavelength options.

Order Information

Products	
DEV 7233	Top Performance Optribution Transmitter; 850…2450 MHz; SC/APC; with adjustable Gain and Automatic OMI Optimization

Wavelength Options:

Option	Wavelength	Option	Wavelength
Lambda 0 (or Lambda 9)	1310 nm ±10 nm	Lambda 10	1330 nm ±10 nm
Lambda 1	1470 nm ±10 nm	Lambda 11	1350 nm ±10 nm
Lambda 2	1490 nm ±10 nm	Lambda 12	1370 nm ±10 nm
Lambda 3	1510 nm ±10 nm	Lambda 13	1270 nm ±10 nm
Lambda 4	1530 nm ±10 nm	Lambda 14	1290 nm ±10 nm
Lambda 5	1550 nm ±10 nm (standard)		
Lambda 6	1570 nm ±10 nm	Lambda 15	1430 nm ±10 nm
Lambda 7	1590 nm ±10 nm	Lambda 16	1450 nm ±10 nm
Lambda 8	1610 nm ±10 nm		

DEV 7333	Top Performance Optribution Receiver; 850…2450 MHz; SC/APC; with adjustable Gain and Slope

Optical Connector Options	
Option 07	FC/APC Optical Connector
Option 08	E2000/HRL Optical Connector

Contact
DEV Systemtechnik GmbH
Grüner Weg 4A
61169 Friedberg
GERMANY
Phone: +49 6031 6975 100
Fax: +49 6031 6975 114
info@dev-systemtechnik.com
www.dev-systemtechnik.com

Rev. 11-Aug-2025