Intelligent Universal Optribution Chassis

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

Product

DEV 4111	Intelligent Universal Optribution Chassis; 2 Slots

Features

- Versatile 1 RU Chassis for up to 2 Modules
- Amplifier Modules with
  - Variable Gain
  - Variable Slope
  - Monitoring Output
  - RF Sensing
  - LNB Power with Current Monitoring
- Optical Transmitter and Receiver Modules (Separate Optribution Spec Sheet)
- Impedance 50 Ohm, SMA (f) or 75 Ohm, F (f)
- 1:8 or 1:16 Distribution
- 1+1 Redundancy for Optical Transmitter and Receiver Modules
- Redundant Amplifier for "No single Point of Failure"
- Automatic Switch Back / Main Backup Swap Option
- SNMP Support
- DEV Web Interface
- Signal Recording and Data Backup Feature
- Power Supply Redundancy

THE ART OF ENGINEERING

DEV 4111 Intelligent Universal Optribution Chassis; 2 Slots

	Value	Condition
Capacity		
Front Side	2 Slots for Optical Modules or for Amplifier Modules	
Remote Communication		
Interface (connector)	Ethernet RJ 45	
Remote Control and Surveillance	via Web Interface and via SNMP	
Redundant Power Supply		
Supply Voltage	100…240 V AC supplied by two different Lines	
Power Consumption	<80 VA	
General Specifications		
Size	19" (483 mm) Width 1 RU (44 mm) Height ~360 mm Depth	
Weight	~5 kg	empty Chassis
Environmental Conditions	ETS 300019 Part 1-3 Class 3.1E	

L-Band Amplifier Modules for the DEV 4111

Amplifier modules for the DEV 4111 are offered with one or two output ports.

- The amplifier module with one output port (DEV 11-0096) is to be applied in combination with Option 8/zz, or with one output cabling option, or (two times) in combination with a redundant amplifier option (Option 23/zz, Option 24/zz).
- The amplifier module with two output ports (DEV 11-0081) is to be applied in combination with Option 16/zz, only.

	Value	Condition
RF Specifications		
Number of Output Ports	DEV 11-0096: 1 DEV 11-0081: 2	
Frequency Range	700…2300 MHz	
Damage Level	+10 dBm @ 50 Ohm / 120 dBµV @ 75 Ohm	
Nominal Input Level	–10 dBm @ 50 Ohm / 85 dBµV @ 75 Ohm	
Return Loss	>14 dB	
Amplifier Gain Variation	0…31 dB	
Variable Slope	0…8 dB	
Group Delay	<5 ns	
Noise Figure	<10 dB	
Monitoring Port		
Impedance, Connector	50 Ohm, SMA (f)	
Return Loss	>18 dB	
LNB Power & Current Monitoring		
Voltage and Tone Control	13 V, 18 V and 0 Hz, 22 kHz	
LNB Power	max. 350 mA	
Adjustable Level Setting: • Upper Alarm Level • Lower Alarm Level	 • max. 330 mA • min. 50 mA	
Alarm indication	Via Front Panel LED and via Remote Interface	
RF Sensing		
Adjustable Threshold Level	0 dBm > Threshold Level > -50 dBm	
Threshold Level Accuracy	±3 dB	
Threshold Repeatability	<0.5 dB	
Alarm indication	Via Front Panel LED and Remote Interface	

Optical Modules for the DEV 4111

Please refer to the corresponding Optribution spec sheet for the available optical transmitter modules and optical receiver modules that can be installed in the DEV 4111.

Cabling Options

Cabling options are used for stand-alone optical Tx/Rx modules or amplifier modules, to be configured per RF input (Option 4y/I) or per RF output (Option 4y/O).

- Available in 50 Ohm with SMA (f) or in 75 Ohm with F (f) connectors
- Available for DC…3000 MHz, or for 10…1006 MHz, or for DC, 700…2500 MHz

Distribution Options

Distribution options provide a number of RF outputs per RF input.

- Available for optical L-Band Rx modules or for amplifier modules
- Up to 2 times 1:8 distribution
- One 1:16 distribution
- A mix with a redundancy option is not allowed

	Value	Condition
Number of RF Output Ports	8 or 16 Outputs per Distribution Option	
Impedance, Connectors	50 Ohm, SMA (f) or 75 Ohm, precision F (f)	
Flatness	±1.0 dB	over entire Band
	±0.3 dB	in any 36 MHz Interval
Intermodulation Distortion	<-40 dBc	@ -10 dBm

1+1 Redundancy Options

1+1 redundancy options are used to realize a redundant optical link to a dedicated main link.

- Available for 10, 47…1006 MHz or for DC, 950…2150 MHz in 75 Ohm with F (f) connectors
- Available for DC, 950…2150 MHz in 50 Ohm with SMA (f) connectors
- One 1+1 Rx redundancy or one 1+1 Tx redundancy
- Link gain will be decreased by ~5 dB

Redundant Amplifier Options

Redundant amplifier options are used to realize a redundant backup link to a dedicated main link.

- Available in 50 Ohm with SMA (f) or in 75 Ohm with F (f) connectors
- Available with dedicated inputs (Option 23/zz) or
  with integrated 1:2 splitter for the input signal (Option 24/zz) or
  with integrated 1:2 switch for the input signal (Option 25/zz)
- Note that the redundant amplifier does not provide LNB power with applied Option 25/zz and that Option 25/zz is not available in combination with Option 28
- One redundant amplifier
- Add 0.5 dB to the flatness tolerance of amplifier/distribution options

Option 28 Automatic Switch Back / Main Backup Swap

Either functionality can be selected via a configuration menu:

Automatic Switch Back:
Automatic Switch Back enables the autonomous switching back from the redundant link to the main link based on the RF Sensing functionality.

Main Backup Swap:
Main Backup Swap enables the dynamic change of main and backup assignment to realize the autonomous switching from the backup link to the main link in addition to the (standard) autonomous switching from the main link to the backup link.

- Only in combination with a 1+1 Rx redundancy option (Option 44/75/Rx or Option 45/zz/Rx) or with Option 23/zz (redundant amplifier option)

Order Information

Product and Product Options

DEV 4111	Intelligent Universal Optribution Chassis; 2 Slots
Option 28	Automatic Switch Back / Main Backup Swap
Option 81	Blanking Plate

L-Band Amplifier Modules for the DEV 4111

DEV 11-0081	Amplifier Module with Variable Gain and Variable Slope; 700...2300 MHz; 2 Outputs
DEV 11-0096	Amplifier Module with Variable Gain and Variable Slope; 700...2300 MHz; 1 Output

Optical Modules for the DEV 4111

Please refer to the corresponding Optribution spec sheet for the available optical transmitter modules and optical receiver modules that can be installed in the DEV 4111.

Order Information (cont.)

Cabling Options		
Option 40/I		Input Cabling; DC…3000 MHz; 50 Ohm, SMA (f)
Option 40/O		Output Cabling; DC…3000 MHz; 50 Ohm, SMA (f)
Option 41/I		Input Cabling; 10…1006 MHz; 75 Ohm, F (f)
Option 41/O		Output Cabling; 10…1006 MHz; 75 Ohm, F (f)
Option 42/I		Input Cabling; DC, 700…2500 MHz; 75 Ohm, F (f)
Option 42/O		Output Cabling; DC, 700…2500 MHz; 75 Ohm, F (f)
Distribution Options		
Option 8/50		1:8 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 8/75		1:8 Distribution; 700…2300 MHz; 75 Ohm, F (f)
Option 16/50		1:16 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 16/75		1:16 Distribution; 700…2300 MHz; 75 Ohm, F (f)
1+1 Redundancy Options		
Option 44/75/Rx		1+1 Rx Redundancy Kit; 10, 47…1006 MHz; 75 Ohm, F (f)
Option 44/75/Tx		1+1 Tx Redundancy Kit; 10, 47…1006 MHz; 75 Ohm, F (f)
Option 45/50/Rx		1+1 Rx Redundancy Kit; 950…2150 MHz; 50 Ohm, SMA (f)
Option 45/50/Tx		1+1 Tx Redundancy Kit; DC, 950…2150 MHz; 50 Ohm, SMA (f)
Option 45/75/Rx		1+1 Rx Redundancy Kit; 950…2150 MHz; 75 Ohm, F (f)
Option 45/75/Tx		1+1 Tx Redundancy Kit; DC, 950…2150 MHz; 75 Ohm, F (f)
Redundant Amplifier Options		
Option 23/50		Redundant Distribution Amplifier Kit; 50 Ohm, SMA (f); Dual Input
Option 23/75		Redundant Distribution Amplifier Kit; 75 Ohm, F (f); Dual Input
Option 24/50		Redundant Distribution Amplifier Kit; 50 Ohm, SMA (f)
Option 24/75		Redundant Distribution Amplifier Kit; 75 Ohm, F (f)
Option 25/50	*	Redundant Distribution Amplifier Kit; 50 Ohm, SMA (f); Switched Input
Option 25/75	*	Redundant Distribution Amplifier Kit; 75 Ohm, F (f); Switched Input

* Not in Combination with Option 28

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. 03-Dec-2025

Disclaimer
The information contained herein is believed to be reliable. DEV Systemtechnik makes no warranties regarding the information contained herein. DEV Systemtechnik assumes no responsibility or liability whatsoever for any of the information and for the use of the information contained herein. The information contained herein is provided "AS IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders.