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Intelligent Optribution Distribution Chassis

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

Product:

DEV 7114	Intelligent Optribution Distribution Chassis 4 RU

Features:

- Versatile 4 RU Chassis for up to 16 Optical Modules
- 50 Ohm, SMA (f) or 75 Ohm, F (f)
- Distribution Options
- IRD Controlled Switch Options
- 1+1 Redundancy Options
- Automatic Switch Back / Main Backup Swap Option for 1+1 Redundancies
- N+1 Redundancy Options
- RGC (Redundancy Path Gain Compensation) for N+1 Redundancy Options
- CWDM for 4, 8, and 9 Channels
- Optical Ethernet Options
- SNMP Support
- DEV Web Interface
- Signal Recording and Data Backup Feature
- Power Supply Redundancy

DEV 7114 Intelligent Optribution Distribution Chassis 4 RU

	Value	Condition
Capacity		
Front Side	16 Slots for Optical Modules	
Rear Side	4 horizontal Slots with up to 32 RF Ports, each	
Remote Communication		
Interface (Connector)	Ethernet (RJ-45)	
Remote Control & Surveillance	via Web Interface and via SNMP	
Redundant Power Supply		
Supply Voltage	100…240 V AC supplied by two different Lines	
Power Consumption	<250 VA	
General Specifications		
Size	19" (483 mm) Width, 4 RU (178 mm) Height, ~470 mm + max. 80 mm (Optical Connectors) Depth	
Weight	~10 kg	empty Chassis
Environmental Conditions	ETS 300019 Part 1-3 Class 3.1E	

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.

- Available in combination with 1+1 redundancy options, only

Option 54 SFP Ethernet Module

The SFP Ethernet Module is to be applied in one optical slot. The SFP Ethernet Media Converter can be equipped with any SFP module that is appropriate to the application requirements.

Option 55 Change Ethernet to optical Ethernet Interface; 30 km
Option 56 Change Ethernet to optical Ethernet Interface; 1530 nm; 100 km
Option 57 Change Ethernet to optical Ethernet Interface; 1550 nm; 100 km

With Option 55, Option 56, or Option 57 the CPU module of the device provides a 100Base-FX Ethernet interface with SC/PC connectors (instead of the standard 100Base-TX Ethernet interface with RJ-45 connector) for the optical transmission of Ethernet signals.

IRD Controlled Switch Options

Four optical receiver modules feed an IRD controlled switch.

- Up to 4 times 4x16 IRD controlled switch or up to 2 times 4x32 IRD controlled switch
- One 4x48 IRD controlled switch or one 4x64 IRD controlled switch

	Value	Condition
Number of Output Ports	16, 32, 48, or 64 Output Ports per IRD Controlled Switch Option	
Frequency Range	950…2150 MHz	
Impedance, Connectors	75 Ohm, precision F (f)	
Return Loss	>14 dB typ., >10 dB min.	
Isolation between Output Ports	>25 dB	
Front Slot Requirements	• 4 Slots per IRD Controlled Switch Option	
Rear Slot Requirements (Rx Modules)	• 1 Slot for a IRD Controlled Switch Option with 16 Outputs • 2 Slots for a IRD Controlled Switch Option with 32 Outputs • 3 Slots for a IRD Controlled Switch Option with 48 Outputs • 4 slots for a IRD Controlled Switch Option with 64 Outputs	

Distribution Options and IRD Controlled Switch Option Extensions

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

IRD controlled switch option extensions are distribution options providing additional RF outputs per IRD controlled switch input.

- Up to 16 times 2*1:4 distribution or 1:8 distribution
- Up to 8 times 1:16 distribution
- Up to 4 times 1:32 distribution
- Up to 2 times 1: 64 distribution
- One 1:128 distribution
- Up to 4 times 1:8 (1:16) IRD controlled switch option extensions for IRD controlled switch options with up to 48 (32) outputs
- 1:1 links can be added (not possible for twin modules)

	Value	Condition
Number of Output Ports	2*4, 8, 16, 32, 64, or 128 Output Ports per Distribution Option 8 or 16 Output Ports per IRD controlled Switch Option Extension	
Frequency Range	700…2300 MHz	
Impedance, Connectors	50 Ohm, SMA (f) or 75 Ohm, precision F (f)	
Return Loss	>14 dB	
Isolation between Output Ports	>20 dB, typ. >25 dB	
Front Slot Requirements (Rx Modules)	• 0 Slots per IRD controlled Switch Option Extension • 1 Slots per 8, 16, 32, 64, or 128 Output Ports Distribution Option • 2 Slots per 2*4 Output Ports Distribution Option	
Rear Slot Requirements	• ¼ Slot per 2*4 Output Ports Distribution Option • ¼ Slot per 8 Output Ports Distribution/Extension Option • ½ Slot per 16 Output Ports Distribution/Extension Option • 1 Slot per 32 Output Ports Distribution Option • 2 Slots per 64 Output Ports Distribution Option • 4 Slots for a 128 Output Ports Distribution Option	

1+1 Redundancy Options

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

- For the DEV 7114 1+1 redundancy options are available for the Rx side only
- Up to 6 times with single link modules and up to 10 times with twin modules
- A mix of single link and twin modules is not allowed
- A mix with stand-alone optical Rx modules is allowed
- A mix with n+1 redundancy options is not allowed
- Link gain will be decreased by ~5 dB

	Value	Condition
Return Loss	>14 dB	
Front Slot Requirements (including Rx Modules)	• 3 Slots for a single 1+1 Redundancy with Single Link Modules • 5 Slots for two 1+1 Redundancies with Single Link Modules • 3 Slots for two 1+1 Redundancies with Twin Modules	

N+1 Redundancy Options

N+1 redundancy options are used to provide a redundant optical link to a number of main links.

- For the DEV 7114 n+1 redundancy options are available for the Rx side only
- Up to 2 times for a 4+1 redundancy option
- Once with single link or 2 times with twin modules for an 8+1 redundancy option
- A mix with stand-alone optical Rx modules is allowed
- A mix with 1+1 redundancy options is not allowed
- **R**edundancy path **G**ain **C**ompensation) (RGC) to align the gain of the redundant link with the related main link in case of redundancy switching
- Link gain for main links will be decreased by ~2 dB for 4+1 redundancy options and by ~5 dB for 8+1 redundancy options

	Value	Condition
Number of Main Channels (n) per Redundancy Option	4 or 8	
Return Loss (Signal Path)	>14 dB	
Front Slot Requirements (including Rx Modules)	• 6 Slots per 4+1 Redundancy with Single Link Modules • 7 Slots for two 4+1 Redundancies with Twin Modules • 11 Slots for an 8+1 Redundancy with Single Link Modules • 13 Slots for two 8+1 Redundancies with Twin Modules	

Order Information

Optribution Chassis	
DEV 7114	Intelligent Optribution Distribution Chassis 4 RU
Option 28	Automatic Switch Back / Main Backup Swap
Option 54	SFP Ethernet Module
Option 55	Change Ethernet to optical Ethernet Interface; 30 km
Option 56	Change Ethernet to optical Ethernet Interface; 1530 nm; 100 km
Option 57	Change Ethernet to optical Ethernet Interface; 1550 nm; 100 km

Order Information (cont.)

IRD Controlled Switch Options	
Option 4x16/75	4x16 IRD Controlled Switch; 950…2150 MHz; 75 Ohm, F (f)
Option 4x32/75	4x32 IRD Controlled Switch; 950…2150 MHz; 75 Ohm, F (f)
Option 4x48/75	4x48 IRD Controlled Switch; 950…2150 MHz; 75 Ohm, F (f)
Option 4x64/75	4x64 IRD Controlled Switch; 950…2150 MHz; 75 Ohm, F (f)
Distribution Options	
Option 2*4/50	2*1:4 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 2*4/75	2*1:4 Distribution; 700…2300 MHz; 75 Ohm, F (f)
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)
Option 32/50	1:32 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 32/75	1:32 Distribution; 700…2300 MHz; 75 Ohm, F (f)
Option 64/50	1:64 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 64/75	1:64 Distribution; 700…2300 MHz; 75 Ohm, F (f)
Option 128/50	1:128 Distribution; 700…2300 MHz; 50 Ohm, SMA (f)
Option 128/75	1:128 Distribution; 700…2300 MHz; 75 Ohm, F (f)
IRD Controlled Switch Option Extensions	
Please specify for which polarization/band the additional splitter is to be applied.	
Option plus8/50	1:8 Additional Splitter; 50 Ohm, SMA (f); for IRD Controlled Switch only
Option plus8/75	1:8 Additional Splitter; 75 Ohm, F (f); for IRD Controlled Switch only
Option plus16/50	1:16 Additional Splitter; 50 Ohm, SMA (f); for IRD Controlled Switch only
Option plus16/75	1:16 Additional Splitter; 75 Ohm, F (f); for IRD Controlled Switch only
1+1 Redundancy Options	
Option 45/Rx	1+1 Rx Redundancy Kit; 950…2150 MHz
N+1 Redundancy Options	
Option 47/Rx/4+1	4+1 Redundancy Kit; 950…2150 MHz
Option 47/Rx/8+1	8+1 Redundancy Kit; 950…2150 MHz

Contact

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