L-Band Distributing Matrix 8²

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

Product:

DEV 1982 8x8 Distributing Matrix 8²; 950…2150 MHz; 75 Ohm, F (f)

Features:

- 8x8 in 1 RU
- Various Input and Output Modules
  - 75 Ohm, F (f) or BNC (f), or 50 Ohm, SMA (f)
  - Optical Inputs
- Variable Gain (MGC or AGC)
- Variable Slope
- RF Sensing
- Extra switchable Output Port for Monitoring
- LNB Powering, switchable 13/18 V and 22 kHz Tone
- Graphical Local User Interface
- Input Channel Redundancy
- Power Supply Redundancy
- Secure Lock Operation
- SNMP Support
- Easy to use DEV Web Interface
- Signal Recording and Data Backup Feature

Technical Data

DEV 1982 Distributing Matrix 8²

Capacity	
Number of Inputs x Outputs	8x8
RF Specifications	
Frequency Range	950…2150 MHz
Impedance, Connectors	75 Ohm, precision F (f)
Damage Level	+25 dBm
Operational Input Level	<-5 dBm
Return Loss	>14 dB
Variable Gain	0…+35 dB
Frequency Response	±3.0 dB (over entire Band) ±0.4 dB (in any 36 MHz Interval)
Isolation	Input/Input, Output/Output: typ. 60 dB Input/Output (Crosstalk): typ. 60 dB Off: typ. 80 dB
Intermodulation Distortion	<-40 dBc (two Tones @ -8 dBm)
Group Delay Distortion	<7 ns
Noise Figure	<14 dB
OP1dB	0 dBm
Relay Type	Semiconductor
Monitoring Port	
Impedance, Connector	50 Ohm, SMA (f)
Return Loss	>14 dB
Local Operation	
Display	2.2" Full Color (18 Bits)
Controls	Rotary Switch
Remote Communication	
Interface (Connector)	Ethernet (RJ-45)
Remote Control & Surveillance (Interface)	• via Web Interface (Ethernet) • via SNMP (Ethernet)
Redundant Power Supply	
Supply Voltage	100…240 V AC supplied by two different Lines
Power Consumption	Max. 60 VA (standard) or max. 100 VA (with Option 34)
General Specifications	
Size	19" (483 mm) Width, 1 RU (44 mm) Height, ~300 mm Depth
Weight	~6 kg
Environmental Conditions	ETS 300019 Part 1-3 Class 3.1

Option 20I Change 4 Input Channels to 50 Ohm, SMA (f)
Option 20O Change 4 Output Channels to 50 Ohm, SMA (f)

Per Option 20 one module with four channels is equipped with 50 Ohm, SMA (f) connectors instead of 75 Ohm, F (f) connectors.

Option 21I Change 4 Input Channels to 75 Ohm, BNC (f)
Option 21O Change 4 Output Channels to 75 Ohm, BNC (f)

Per Option 21 one module with four channels is equipped with 75 Ohm, BNC (f) connectors instead of F (f) connectors.

Technical Data (cont.)

Option 22I Change 4 Input Channels to Optical providing LC/APC

Per Option 22I one module with four input channels is equipped with LC/APC optical connectors instead of F (f) RF connectors.

Optical Specifications

Fiber Type	Single Mode 9/125 µm
Connector Type	LC/APC
Wavelength	1100…1650 nm

Option 25 Variable Slope (all Channels)

With Option 25 the device provides slope control for all paths.

Variable Slope	0…8 dB

Option 34 LNB Powering (all Channels)

With Option 34 each RF input port of the matrix is capable to deliver LNB power and to select the polarity (vertical (13 V) or horizontal (18 V)) and the band (low band (0 Hz) or high band (22 kHz)) of the LNB.
As Option 34 is per chassis a mix of RF Input Modules with and without LNB Powering is not allowed. But it is possible to combine an Optical Input Module with an RF Input Module with LNB Powering.

LNB Power & Current Monitoring

LNB Power	Max 350 mA per Input
Voltage and Tone Control	13 V, 18 V and 0 Hz, 22 kHz
Adjustable Level Setting:	
• Upper Alarm Level	• max. 330 mA (Factory Setting: 250 mA)
• Lower Alarm Level	• min. 50 mA (Factory Setting: 100 mA)

Option 38 Secure Lock Operation

With Option 38 the matrix provides the ability of Secure Lock Operation for multiple user operation. While each user can be configured to operate dedicated inputs and outputs, Secure Lock Operation allows user X to lock a switched path while user Y cannot unlock this path to prevent unwanted service interruptions. Admin user is able to overwrite any path locked by normal users.

Option 48 Input Channel Redundancy

With Option 48 the matrix software provides the ability to configure redundant input channel configurations. Triggered via the integrated RF Sensing functionality an assigned redundancy channel can take over autonomously the signal transport of a main channel. The switching back to the main channel can either be performed manually or automatically.

Option 85 4 Input Channels less
Option 86 4 Output Channels less

With Option 85 or with Option 86 the device is delivered with four input channels or with four output channels less.
Thus, the standard configuration can be equipped with less input or output channels. This provides the flexibility to configure the device for the current requirements and to keep the option to upgrade the device to an application specific maximum size. The field upgrade can be performed by the customer by ordering the corresponding input or output module.

Order Information

Product	
DEV 1982	8x8 Distributing Matrix 8^2; 950...2150 MHz; 75 Ohm, F (f)

Options	
Option 20I	Change 4 Input Channels to 50 Ohm, SMA (f)
Option 20O	Change 4 Output Channels to 50 Ohm, SMA (f)
Option 21I	Change 4 Input Channels to 75 Ohm, BNC (f)
Option 21O	Change 4 Output Channels to 75 Ohm, BNC (f)
Option 22I	Change 4 Input Channels to Optical providing LC/APC
Option 25	Variable Slope (all Channels)
Option 34	LNB Powering (all Channels)
Option 38	Secure Lock Operation
Option 48	Input Channel Redundancy
Option 79	Additional Web License 1 RU
Option 85	4 Input Channels less
Option 86	4 Output Channels less

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Rev. 21-Sep-2016