



# L-Band Distributing Matrix 8<sup>2</sup>



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

### **Product**

**DEV 1982** 8x8 Distributing Matrix 8<sup>2</sup>; 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 8<sup>2</sup>

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 -20...+30 dB

Flatness ±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 <2 ns (in any 36 MHz Interval)

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 • via Web Interface (Ethernet)

(Interface) • via SNMP (Ethernet)

**Redundant Power Supply** 

Supply Voltage 100...240 V AC supplied by two different Lines

Power Consumption Max. 100 VA

**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 3.1E

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

Option 20B Change 4 Input Channels to 50 Ohm, SMA (f) with LNB Powering

Option 200 Change 4 Output Channels to 50 Ohm, SMA (f)

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

With Option 20B the four input channels are capable to deliver LNB power in addition:

**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 Levelhmax. 330 mALower Alarm Levelmin. 50 mA



# **Technical Data (cont.)**

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

Option 21B Change 4 Input Channels to 75 Ohm, BNC (f) with LNB Powering

Option 210 Change 4 Output Channels to 75 Ohm, BNC (f)

Per Option 21I (Option 210), one input (output) module with four channels is equipped with 75 Ohm, BNC (f) connectors instead of 75 Ohm, F (f) connectors.

With Option 21B the four input channels are capable to deliver LNB power, in addition:

**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 LevelLower Alarm Levelmax. 330 mAmin. 50 mA

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

Option 22IHP Change 4 Input Channels to Optical providing LC/APC (High Input Power)

Option 24I Change 4 Input Channels to Optical providing SC/APC

Option 24IHP Change 4 Input Channels to Optical providing SC/APC (High Input Power)

Per Option 22I (24I), one input module with four channels is equipped with optical LC/APC (SC/APC) connectors instead of 75 Ohm, F (f) RF connectors.

Furthermore, optical input modules are available that are capable to handle higher optical input levels, as provided by some optical LNBs. These high power optical input modules are to be ordered via Option 22IHP (with optical LC/APC connectors) and via Option 24IHP (with optical SC/APC connectors)

**Optical Specifications** 

Fiber Type Single Mode 9/125 μm

Connector Type Option 22I, Option 22IHP: LC/APC

Option 24I, Option 24IHP: SC/APC

Wavelength 1100...1650 nm

Optical Input Level Option 22I, Option 24I: -22...0 dBm

Option 22IHP, Option 24IHP: -22...3 dBm

Damage optical Input Level +10 dBm

# Option 23B Change 4 Input Channels to 75 Ohm, F (f) with LNB Powering

Per Option 23B, one input module with four channels with 75 Ohm, F (f) connectors is capable to deliver LNB power per input:

**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 LevelLower Alarm Levelmax. 330 mAmin. 50 mA

# Option 25 Variable Slope (all Channels)

With Option 25, the matrix provides slope control for all paths.

Variable Slope 0...8 dB



# **Technical Data (cont.)**

### 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 be performed either manually or automatically.

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

With Option 85 or 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 appropriate input module or output module.



### **Order Information**

Product DEV 1982	8x8 Distributing Matrix 8 <sup>2</sup> ; 9502150 MHz; 75 Ohm, F (f)
22. 2002	5.16 2.16 1.16 4.11.16 7 555 11.12 7 7 5 5 11.11 7 (1)
Options	
Option 20I	Change 4 Input Channels to 50 Ohm, SMA (f)
Option 20B	Change 4 Input Channels to 50 Ohm, SMA (f) with LNB Powering
Option 200	Change 4 Output Channels to 50 Ohm, SMA (f)
Option 21I	Change 4 Input Channels to 75 Ohm, BNC (f)
Option 21B	Change 4 Input Channels to 75 Ohm, BNC (f) with LNB Powering
Option 210	Change 4 Output Channels to 75 Ohm, BNC (f)
Option 22I	Change 4 Input Channels to Optical providing LC/APC
Option 22IHP	Change 4 Input Channels to Optical providing LC/APC (High Input Power)
Option 23B	Change 4 Input Channels to 75 Ohm, F (f) with LNB Powering
Option 24I	Change 4 Input Channels to Optical providing SC/APC
Option 24IHP	Change 4 Input Channels to Optical providing SC/APC (High Input Power)
Option 25	Variable Slope (all Channels)
Option 38	Secure Lock Operation
Option 48	Input Channel Redundancy
Option 85	4 Input Channels less
Option 86	4 Output Channels less

Modules DEV 13-0270 DEV 13-0281 DEV 13-0271	(Input Modules and Output Modules for Upgrade or as Spare Part) Input Module, 4 Paths; 9502150 MHz; 50 Ohm, SMA (f) Input Module incl. LNB Powering, 4 Paths; 9502150 MHz; 50 Ohm, SMA (f) Output Module, 4 Paths; 9502150 MHz; 50 Ohm, SMA (f)
DEV 13-0268 DEV 13-0280	Input Module, 4 Paths; 9502150 MHz; 75 Ohm, BNC (f) Input Module incl. LNB Powering, 4 Paths; 9502150 MHz; 75 Ohm, BNC (f)
DEV 13-0269	Output Module, 4 Paths; 9502150 MHz; 75 Ohm, BNC (f)
DEV 13-0276 DEV 13-0242 DEV 13-0293	Input Module, 4 Paths; 9502150 MHz; 75 Ohm, F (f) Input Module incl. LNB Powering, 4 Paths; 9502150 MHz; 75 Ohm, F (f) Output Module, 4 Paths; 9502150 MHz; 75 Ohm, F (f)
DEV 13-0253	Optical Input Module, 4 Paths; LC/APC
DEV 13-0397 DEV 13-0384	Optical Input Module, 4 Paths; High Input Power; LC/APC Optical Input Module, 4 Paths; SC/APC
DEV 13-0398	Optical Input Module, 4 Paths; High Input Power; SC/APC

### **Contact**

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