

Signal Distribution with Perfection



Products:

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|-------------------|------|--------------------------------|
| DEV 2851 - | 1:8 | Ku-Band Distribution Amplifier |
| DEV 2853 - | 1:16 | Ku-Band Distribution Amplifier |

Features:

- Frequency Range 10,95...12,75 GHz
- 50 Ohm Input(s) and Outputs
- SMA Connectors
- Two different Configurations available

Application Areas:

- Satellite Ground Stations
- Cable Head End Stations
- Non-commercial Applications

*Front DEV 2851**Rear DEV 2851*

The Situation

There are various applications in the RF world which do require the distribution of incoming high frequency signals to several sinks. For signals ranging in the CATV-Band or L-Band this task is addressed by a large number of models within the portfolio of DEV-Systemtechnik.

For higher frequency ranges, e.g. within the Ku-Band, amplification and distribution of this kind of signals is far more demanding.

DEV worked out a Solution

DEV Systemtechnik has developed two types of Ku-Band distribution amplifiers for professional users. The instruments of this series are able to distribute an input signal to 8 or 16 equal output signals with an almost perfect frequency response.

The Technical Concept

The base of the technical concept is the application of high performance amplifiers and splitters, thus providing considerable gain and a high isolation of the outputs.

The Ku-Band Distribution Amplifier is available as a 1:8 splitter and as a 1:16 splitter for a higher number of output signals, i.e. to avoid cascading.

The instruments are delivered in 1 RU housings with redundant power supplies.

Technical Data

DEV 2851 / DEV 2853 Ku-Band Distribution Amplifiers

RF Specifications

Frequency range	10,95...12,75 GHz	
Number of inputs	1	
Number of outputs	8	(DEV 2851)
	16	(DEV 2853)
Impedance, connectors	50 Ohm, SMA (f)	
Damage level	0 dBm	
Nominal input level	-10 dBm	
Return loss	>10 dB, typ. 15 dB	
Gain	7±3 dB	(DEV 2851)
	3±3 dB	(DEV 2853)
Frequency response	±0,7 dB	(in any 500 MHz interval)
	±0,3 dB	(in any 40 MHz interval)
Isolation between output ports	>16 dB	
Intermodulation distortion	<-40 dBc	(two tones @ -25 dBm)
Group delay	<5 ns	
Noise figure	<6 dB	

Alarms

Two stage alarm signalisation for power line failure	Potential free contacts
Alarm connector	Sub-D-9 (m)
Contact load	60 V; 0,3 A
B-Alarm	One power supply unit does not deliver any secondary power.
A-Alarm	Both power supply units do not deliver any secondary power.

Redundant Power Supply

Redundant power supplies	100...260 V AC supplied by two different lines or -36...-60 V DC supplied by two different lines (Option 14)
Power consumption	<40 VA

General Specifications

Housing	19" (483 mm), 1 RU (44 mm), 260 mm depth
Weight	~5 kg
Environmental conditions	ETS 300019 Part 1-3 Class 3.1

Order Information

DEV 2851	1:8	Ku-Band Distribution Amplifier
DEV 2853	1:16	Ku-Band Distribution Amplifier
Option 14	-36...-60V	DC supply voltage

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