

## Passive L-Band Combiners



### Products:

<b>DEV 2251/50</b> -	4:1	L-Band Combiner, 50 Ohm
<b>DEV 2251/75</b> -	4:1	L-Band Combiner, 75 Ohm
<b>DEV 2252/50</b> -	8:1	L-Band Combiner, 50 Ohm
<b>DEV 2252/75</b> -	8:1	L-Band Combiner, 75 Ohm
<b>DEV 2253/50</b> -	2 * 8:1	L-Band Combiner, 50 Ohm
<b>DEV 2253/75</b> -	2 * 8:1	L-Band Combiner, 75 Ohm
<b>DEV 2255/50</b> -	16:1	L-Band Combiner, 50 Ohm
<b>DEV 2255/75</b> -	16:1	L-Band Combiner, 75 Ohm
<b>DEV 2257/50</b> -	32:2	L-Band Combiner, 50 Ohm

### Features:

- Series of passive L-Band Combiners
- Versions in 50 Ohm with SMA Connectors and in 75 Ohm with Precision F Connectors
- Monitoring Port
- DC blocked Inputs

### Application Areas:

- Satellite Ground Stations
- Cable Head End Stations

*Front DEV 2255**Rear DEV 2255/75*

### **The Situation**

In cable head end stations a lot of signals need to be combined to build the total transmission stream to the customer (subscriber). In addition parts of the transmission stream are to be combined before they leave their subsystem e.g. QAM modulators.

### **Introducing the DEV Solution**

DEV Systemtechnik has developed a series of passive L-Band combiners to provide high performance subsystem combiners for premium quality transmission.

### **The Technical Concept**

The instruments of this series are passive L-Band combiners with 4, 8, 16 or 32 inputs and one or two outputs, which carry the combined signal.

All inputs are DC blocked and a monitoring port carries the output signal at a reduced level.

In case of the DEV 2257/50 the monitoring port is located at the front side, the monitoring port(s) of all other combiners are available at the rear side of the compact 1 RU chassis.

By default, the instruments of this series are offered in either 50 Ohm with SMA connectors or in 75 Ohm with precision F connectors. Mixed impedances for inputs and output(s) are possible on request, please contact DEV Systemtechnik.

## Technical Data

### DEV 225x/zz Passive L-Band Combiners

#### RF Specifications

Frequency range	950...2150 MHz	
Number of inputs	4	(DEV 2251/zz)
	8	(DEV 2252/zz)
	2 * 8	(DEV 2253/zz)
	16	(DEV 2255/zz)
	32	(DEV 2257/50)
Number of outputs	1	(DEV 2251/zz, DEV 2252/zz, DEV 2255/zz)
	2	(DEV 2253/zz, DEV 2257/50)
Impedance, connectors	50 Ohm, SMA (f)	(DEV 225x/50)
	75 Ohm, Precision F (f)	(DEV 225x/75)
Return loss input	>16 dB	
Return loss output	>14 dB	
Insertion loss	<13 dB $\pm$ 2 dB	(DEV 2251/50, DEV 2252/50, DEV 2253/50)
	<15 dB $\pm$ 2 dB	(DEV 2251/75, DEV 2252/75, DEV 2253/75)
	<17 dB $\pm$ 2 dB	(DEV 2255/50)
	<19 dB $\pm$ 2 dB	(DEV 2255/75)
	<24 dB $\pm$ 3 dB	(DEV 2257/50)
Frequency response	$\pm$ 0.5 dB	(950...2150 MHz)
	$\pm$ 0.2 dB	(within any 36 MHz interval)
Isolation	>25 dB	

#### Monitoring Port

Impedance, connector	50 Ohm, SMA (f)
Return loss	>14 dB
Frequency response	= output level – 20 dB $\pm$ 1.0 dB

#### General Specifications

Housing	19" (483 mm), 1 RU (44 mm), 260 mm depth
Weight	~4 kg
Environmental conditions	ETS 300019 Part 1-3 Class 3.1

## Order Information

DEV 2251/50	4:1	L-Band Combiner, 50 Ohm
DEV 2251/75	4:1	L-Band Combiner, 75 Ohm
DEV 2252/50	8:1	L-Band Combiner, 50 Ohm
DEV 2252/75	8:1	L-Band Combiner, 75 Ohm
DEV 2253/50	2 * 8:1	L-Band Combiner, 50 Ohm
DEV 2253/75	2 * 8:1	L-Band Combiner, 75 Ohm
DEV 2255/50	16:1	L-Band Combiner, 50 Ohm
DEV 2255/75	16:1	L-Band Combiner, 75 Ohm
DEV 2257/50	32:2	L-Band Combiner, 50 Ohm

## Contact

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