

Model Number: 22263-F7



Hybrid 16-way L-band Active Splitter & Combiner

With Redundant Amplifiers, LNB Powering, 10MHz Source and Ethernet Monitoring



Front View of Hybrid 16-way Splitter/Combiner

This unit comprises a 16-way L-band active splitter and a 16-way L-band active combiner accommodated in a 3U, 19" rack mountable chassis.

The unit benefits from dual redundant power supplies and redundant amplifiers

The amplifiers which supply the unit with unity gain are cold standby, dual redundant with auto switchover based on amplifier current monitoring. Front panel LED's provide a visual status for the power supplies and splitter and combiner modules. A dry contact alarm port and an Ethernet port on the rear panel offer monitoring of the power supplies and amplifier status.



Rear View of a 16-way Hybrid Splitter/Combiner showing switchable LNB powering, 10MHz Ports, dry contact alarm port and Ethernet monitoring port

The unit also provides switchable LNB Powering. The 10MHz reference signal is available on the 10MHz OPS ports and if required, can be injected on to the output of the combiner or the input of the splitter using the supplied U-Link.

This unit is supplied with F-type 75 ohm connectors, but other impedances and connector types are available (model numbers will vary).



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LNB Powering, 10MHz Source & Ethernet Monitoring

Technical specifications and operating parameters

RF Parameters	
16-WAY SPLITTER	
Capacity	16-way
Frequency Range	850-2150 MHz (L-band)
Gain	0 dB \pm 2 dB nominal, mean
Flatness	850-2150MHz \pm 1.5 dB
	Any 36MHz \pm 0.75 dB
Noise Figure	12 dB
1 dB Compression	+ 3 dBm output power level
Input Return Loss	10 dB typical
Output Return Loss	10 dB typical
LNB Power	18V nominal, 500mA max per channel, switchable
10MHz Injection	On to Common Port. Internal or External via U-Link
Amp Redundancy	1-to-1 redundant, cold redundancy & current sensing
16-WAY COMBINER	
Capacity	16-way
Frequency Range	850-2150 MHz (L-band)
Gain	0 dB \pm 2 dB nominal, mean
Flatness	850-2150MHz \pm 1.5 dB
	Any 36MHz \pm 0.75 dB
Noise Figure	24 dB
1 dB Compression	+ 12 dBm output power level
Input Return Loss	10 dB typical
Output Return Loss	10 dB typical
10MHz Injection	On to Common Port. Internal or External via U-Link
Amp Redundancy	1-to-1 redundant, cold redundancy & current sensing

RF Parameters		
10MHz Source		
10MHz Ref Source	U-links on rear panel to select internal/external. The 10MHz reference is injected onto the common L-band port. Source can be de-powered from switch on rear panel	
Output	Type	Sine Wave
	Freq.	10MHz \pm 10Hz, factory setting is to \pm 1ppm \pm 10Hz for 10MHz source
	Level	+1.5 \pm 1.5 dBm typical, \pm 2.5 dBm worst case
Harmonic & Spurious Levels		-60 dBc typical, -50 dBc worst case
Freq. Stability	Over Temp	\pm 1 \times 10 ⁻⁸ typical over 55°C
	Over Time	\pm 1 \times 10 ⁻⁷ typical (per year)
	Short Term Stability	< \pm 1 \times 10 ⁻¹¹ typical (per sec)
	Load Change	< \pm 5 \times 10 ⁻⁹
	Power Supply Variations	< \pm 5 \times 10 ⁻⁹
Ageing	Per day	< \pm 5 \times 10 ⁻¹⁰ typical
	Per Year	< \pm 5 \times 10 ⁻⁸ typical
	Over Temp	< \pm 3 \times 10 ⁻⁸
Phase Noise (dBc / Hz)	1Hz	< -85
	10Hz	< -115
	100Hz	< -140
	1000Hz	< -150
	10000Hz	< -155
Warm up Time	< 2 min at 25°C to < \pm 1 \times 10 ⁻⁷	

System Control	
Display	Front Panel LED's for monitoring PSU's & splitter & combiner
Local Control	Switchable LNB Powering from rear panel
Alarms	Dry contact alarm port & Ethernet Port on rear panel

Power	
AC Power	85-264Vac 50/60Hz
PSU	Dual
Hot-swap PSU	No

Environmental	
Operating temp	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	85% non-condensing

Physical	
Connectors	F-type
Impedance	75Ω
Dimensions	3U high x 350mm deep x 19" wide
Weight	12 kg
Colour	White 00-E-55 semi-gloss



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