



16-way Single L-band Active Combiner with dual redundant amplifiers, 10MHz source (internal or external) & Ethernet Monitoring

Typical applications:

- Satellite operators, VSAT, teleports, and broadcasters
- High resilience RF distribution, and optimum satellite signal quality



850-2150 MHz
operating frequency range



Reliability from dual redundant amplifiers



Local monitoring via front panel LEDs for amplifier & PSU



Compact housed in a 1U high chassis



10MHz Reference Source
internal (switchable on/off) or external inject option



Remote control & monitoring via RJ45 Ethernet port on rear panel for PSU & Amplifier status



Dry contact alarm port for power supply status



Resilience from dual redundant power supplies





Technical specifications and operating parameters

RF Parameters						
Capacity	16-way					
Frequency Range	850-2150 MHz (L-band)					
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-type	
Gain Typical, mean across band	0 ± 2 dB	0 ± 2 dB	0 ± 2 dB	0 ± 2 dB	0 ± 2 dB	
Gain Flatness	850-2150MHz	±1.5 dB	±1.5 dB	±1.5 dB	±2.0 dB	±2.0 dB
	Any 36MHz	±0.5 dB	±0.5 dB	±0.5 dB	±0.75 dB	±0.75 dB
Input Return Loss	Typical	15 dB	15 dB	15 dB	12 dB	12 dB
	Minimum	9 dB	9 dB	9 dB	8 dB	8 dB
Output Return Loss	Typical	15 dB	15 dB	15 dB	12 dB	12 dB
	Minimum	9 dB	9 dB	9 dB	8 dB	8 dB
Isolation	23 dB maximum between any 2 input ports					
1dB Compression	Typical	8 dBm output power				
	Minimum	5 dBm output power				
Noise Figure	23 dB typical					
Amplifier Redundancy	1-to-1 Redundant Cold redundancy & current sensing					
Input RF Power	+ 20 dBm Absolute maximum					

10MHz Source Parameters		
10MHz Ref Source	U-Link on rear panel to select internal/external. The 10 MHz reference is injected onto the common L-band Port	Two 50 ohm BNC's on rear panel for 10 MHz external IN and internal OUT, with a U-Link supplied. There is no 10 MHz injection if the U-Link is removed and the port is terminated (i.e. no external source supplied.)
Internal Reference	10 MHz Sine Wave Ovenised Crystal Oscillator	
10MHz Output Level	+10 dBm ± 2 dB	
Frequency Stability over temperature	±1 x 10 ⁻⁸ 0 to +55 °C	
Reference Source Ageing	± 5 x 10 ⁻⁸ / year ± 5 x 10 ⁻¹⁰ / day	
Reference Source Phase Noise	<-85 dBc/Hz @ 1 Hz <- 115 dBc/Hz @ 10 Hz <- 140 dBc/Hz @100 Hz <- 150 dBc/Hz @ 1000 Hz <- 155 dBc/Hz @10,000 Hz	
Warm-up time	< 2 minutes At 25 °C to within <± 1 x 10 ⁻⁷	

System Control	
Local Monitoring	Front panel LED's for PSU & Amplifier status
Alarms	Dry contact (D-Type) on rear panel for PSU status
Remote Monitoring	RJ45 Ethernet Port on rear panel for PSU & Amplifier status

Environmental	
Operating temperature	0 to 45 °C
Location	Indoor use only
Storage temperature	-20°C to +75 °C
Humidity	20 to 90% non-condensing
Altitude	10,000 feet above mean sea level

Power		
PSU Power	85-264Vac 50-60Hz	Fused 2A
AC Consumption	15W	Max. consumption at steady state
PSU	Dual redundant	Diode OR. Not Hotswap

Physical	
Dimensions	2U high x 350mm deep x 19" wide
Weight	8kg
Colour	White 00-E-55 semi-gloss

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

