ETL Systems
Excelling in RF Engineering

Model Number:
H0104D1ULA-22460-XXXX

4-way Hybrid Splitter & Combiner L-band Active Dextra Series with 10MHz pass, dual redundant amplifiers (OPT-R version), DC pass (OPT-D version), switchable LNB powering & -20 dB monitor port

Typical applications:
- Satellite operators, VSAT, teleports & broadcasters
- High resilience RF distribution, & optimum satellite signal quality
- 850-2450 MHz to cover Ka-band & HTS applications

10MHz Pass

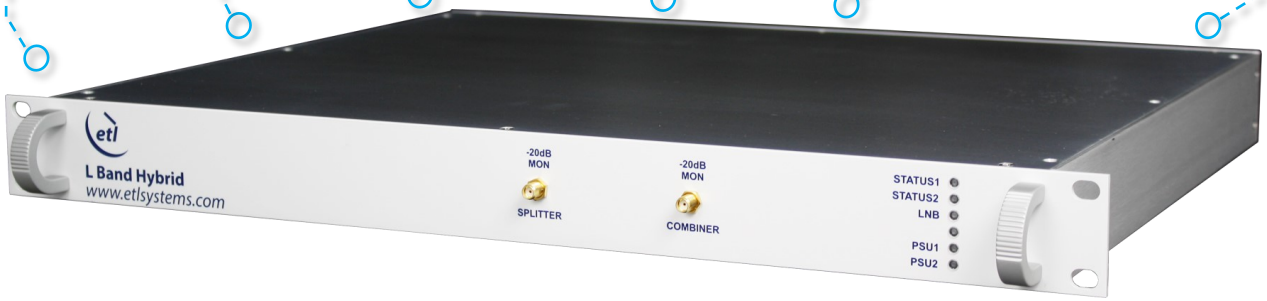
LNB Current Monitoring allows customer settable alarm thresholds for LNB current

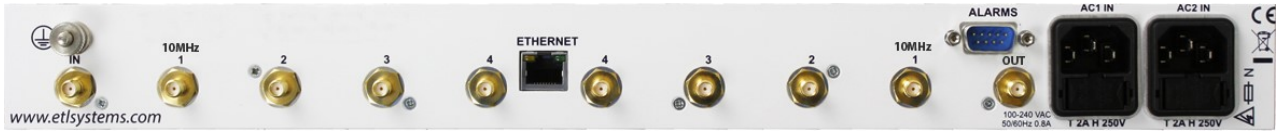
-20 dB monitor port to monitor signals on common path

LNB Powering 13/18V (on splitter)

850 - 2450 MHz operating frequency range. HTS ready.

Monitoring via front panel LEDs to indicate LNB & power supply status





Compact 1 x 4-way splitter & 1 x 4-way combiner housed in a 1U high chassis

Remote control & monitoring via RJ45 Ethernet port with SNMP & web browser interface

Dry contact alarm port for LNB & power supply status

Resilience from dual redundant power supplies & amplifiers (optional)

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Technical specifications and operating parameters

RF Parameters					
Capacity		4 way Splitter & 4-way Combiner			
Front Panel Monitor		50Ω SMA		-20 dB, 16 dB return loss.	
Frequency		850 to 2450MHz			
RF Connectors & Impedances		50Ω BNC	50Ω SMA	75Ω F-type	75Ω BNC
Gain		0±1.0 dB mean across band			
Gain Flatness	Full band	±0.8 dB	±0.8 dB	±1.0 dB	±1.0 dB
	Any 36MHz	±0.25 dB	±0.25 dB	±0.3 dB	±0.3 dB
Group Delay Variation	Full band	2 ns maximum			
	Any 36MHz	1 ns maximum			
Amplification		Single path amplifier (standard model)			
Options	OPT-R	Dual redundant amplifier. Selectable hot or cold standby, 1:1 redundancy with auto switch-over based on amplifier current monitoring.			
	OPT-D	DC pass port 1 to common port			
	OPT-RD	Dual redundant amplifier & DC pass port 1			
10MHz Pass		On ports 1 to Common Only (splitter & combiner)		Insertion Loss: <1.5 dB	
10MHz Rejection		>55 dB On ports 2 to 4			
Isolation (850-2450MHz) Minimum between any two multi ports	Typical	30 dB	30 dB	30 dB	30 dB
	Minimum	26 dB	26 dB	26 dB	26 dB
SPLITTER					
Input Return Loss	Typical	20 dB	20 dB	14 dB	14 dB
	Minimum	15 dB	15 dB	10 dB	10 dB
Output Return Loss	Typical	21 dB	21 dB	18 dB	18 dB
	Minimum	16 dB	16 dB	15 dB	15 dB
Noise Figure (typical)	50Ω	10 dB			
	75Ω	12 dB			
Output 1dB GCP		0 dBm			
OIP3		+10 dBm			
OIP2		+30 dBm			
Input RF Power		16 dBm Absolute maximum			
In Band Spurious		< -80 dBm Non-Signal Related			
COMBINER					
Input Return Loss	Typical	21 dB	21 dB	18 dB	18 dB
	Minimum	16 dB	16 dB	15 dB	15 dB
Output Return Loss	Typical	20 dB	20 dB	14 dB	14 dB
	Minimum	16 dB	16 dB	10 dB	10 dB
Noise Figure (typical)		23 dB			
Output 1dB GCP		+10 dBm			
OIP3		+20 dBm			
OIP2		+30 dBm			
Input RF Power		16 dBm Absolute maximum			
In Band Spurious		< -80 dBm Non-Signal Related			

Environmental	
Operating Temperature	0 to 50˚C
Location	Indoor use only
Storage Temperature	-20˚C to +75˚C
Humidity	85% non-condensing. Relative Humidity.
Altitude	10,000 feet AMSL (above mean sea level)

Power		
PSU Power	85-264Vac 50/60Hz	Fused 2A
LNB Power	0/13/18Vdc, 500 mA max via common (RF in) port, over current protected at 800 mA typical. 22 kHz tone on/off enable/disable through comms. Threshold settable by user through comms.	Splitter only. Controlled by Ethernet splitter only
PSU Redundancy	Dual redundant with dual IEC inlets	Diode OR. Not hot-swap
AC Consumption	<35W	At a steady state. With max rated LNB current supplied.
MTBF	118,000 hours	

System Monitoring Control & Alarms	
Display	Tri colour LEDs for PSU, LNB Supply & amplifier status on front panel.
Communication	RJ45 port with 10baseT/100baseTX Ethernet offering web browser access, SNMP & ETL proprietary TCP protocol.
Alarms	Dry contact, change-over via 9-way D-type. Available alarms are: PSU & LNB supply. Full status & alarms are also available via the Ethernet interface.

Physical	
Dimensions	1U high x 350mm deep x 19" wide
Weight	3.05 kg
Colour	RAL9003- White (Semi-Matte)

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.

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