4-way Hybrid Splitter & Combiner L-band Active Dextra Series

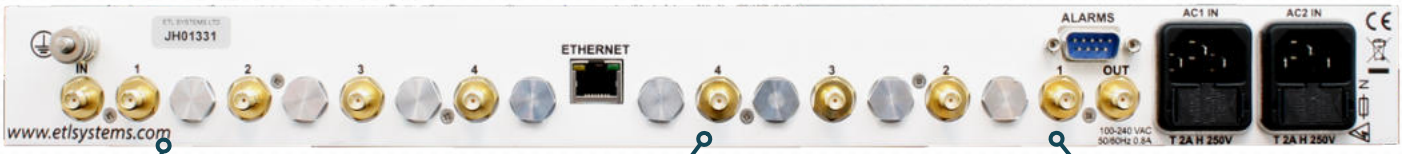
with 10MHz internal source & dual redundant amplifiers (OPT-R version)

10Mhz Internal Source

950-2150MHz
operating frequency range. HTS ready.

Dry contct alarm port
for power supply status

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



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

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

Resilience
dual redundant power supplies and amplifiers (optional)

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.

RF Parameters					
Capacity		4 way Splitter & 4-way Combiner			
Frequency Range		950 to 2150MHz			
Connector & 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.			
10MHz Pass		On port 1 to Common of Combiner Only (Max input +10dBm)		Insertion Loss: 1 dB Typical, 2dB max	
10MHz Rejection		>50 dB On ports 2 to 4 of Combiner			
Isolation (950-2150MHz) Minimum between any two multi ports	Typical	30dB	30dB	30dB	30dB
	Minimum	20dB	20dB	20dB	20dB
Splitter					
Input Return Loss	Typical	20dB	20dB	14dB	14dB
	Minimum	14dB	14dB	12dB	12dB
Output Return Loss	Typical	21dB	21dB	18dB	18dB
	Minimum	14dB	14dB	12dB	12dB
Noise Figure dB (Typical)	50Ω	12dB			
	75Ω	14dB			
Output 1dB Compression		0dBm			
OIP3		+10 dBm			
OIP2		+30 dBm			
Input RF Power		16 dBm (Absolute maximum)			
In Band Spurious	Non-signal related	<-80 dBm			
	signal related	< 60 dBc			
Combiner					
Input Return Loss	Typical	21dB	21dB	18dB	18dB
	Minimum	14dB	14dB	12dB	12dB
Output Return Loss	Typical	20dB	20dB	14dB	14dB
	Minimum	14dB	14dB	12dB	12dB
Noise Figure	Typical	23dB			
	Maximum	25dB			
Output 1dB GCP		+10dBm			

Combiner			
OIP3		+20 dBm	
OIP2		+30 dBm	
Input RF Power		16 dBm (Absolute maximum)	
In Band Spurious	Non-signal related	Non-signal related < -80dBm	Signal related <60dBc
10MHz Internal Source			
Internal Reference		10MHz sine wave	
10MHz Accuracy		Factory set to 0.1 ppm	
10MHz Output Level		+3dBm ± 2 (At common port)	
Frequency Stability over temperature		±1x10-8 (0 to +55°C)	
Reference Source Ageing		±5x10-8/year	
Reference Source Phase Noise		≤ -85dBc/Hz @ 1Hz ≤ -135dBc/Hz @ 100Hz ≤ -115dBc/Hz @ 10Hz ≤ -145dBc/Hz @ 1000Hz ≤ -150dBc/Hz @ 10000Hz	
Warm Up Time		< 2 minutes (At 25°C to within <±1x10-7)	
Environmental			
Operating temperature		0 to 50˚C	
Location		Indoor use only	
Storage temperature		-20˚C to +75˚C	
Humidity		85% non-condensing	
Altitude		10,000 feet AMSL	
Physical			
Weight		3.05Kg	
Dimensions		1U high x 350mm deep x 19” wide	
Colour		RAL9003- White (Semi-Matte)	
System Control			
Display		Tri colour LEDs for PSU & 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 supply. Full status & alarms are also available via the Ethernet interface.	
10MHz Reference		Combiner: Automatic or manual switch between external 10MHz at port 1 and internal 10MHz source to common port. Internal 10MHz source on/off Splitter: Internal 10MHz source on/off	Combiner automatic switchover based on level detect for 10MHz from port 1, user settable level –30dB to +5dB. Power level is indicative only.
Power			
AC Consumption		<35 W	At steady state
PSU Power		100-240 Vac 50/60Hz	Fused 2A
PSU Redundancy		Dual redundant with dual IEC inlets	Diode Or.Not hot swap
MTBF		>118,000 hours	