

# 16-Way Single L-Band Active Dextra Series Combiner

With dual redundant amplifiers (OPT-R version) & -20 dB monitoring port

850-2450MHz

operating frequency  
range

Local control & monitoring  
display for amplifier and  
PSU Status



Signal Monitoring  
via -20dB monitor port

Compact  
16-way combiner housed in  
a 1U high chassis



Dry contact alarm port  
for power supply status

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

Resilience  
from dual redundant power  
supplies & dual redundant  
amplifiers (OPT-R)

| RF Parameters                               |           |                                                                                                                                          |          |                                                           |         |
|---------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------|---------|
| Capacity                                    |           | 16-way combiner                                                                                                                          |          |                                                           |         |
| Frequency Range                             |           | 850 to 2450MHz                                                                                                                           |          |                                                           |         |
| Front Panel Monitor                         |           | 50Ω SMA                                                                                                                                  |          | -20dB, 16dB return loss                                   |         |
| Rf 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 | ±0.4 dB                                                   | ±0.4 dB |
| Input Return Loss                           | Typical   | 21dB                                                                                                                                     | 21dB     | 21dB                                                      | 21dB    |
|                                             | Minimum   | 16db                                                                                                                                     | 16dB     | 16db                                                      | 16dB    |
| Output Return                               | Typical   | 20dB                                                                                                                                     | 20dB     | 20dB                                                      | 20dB    |
|                                             | Minimum   | 16dB                                                                                                                                     | 16dB     | 16dB                                                      | 16dB    |
| Group Delay Variation                       | Full Band | 2 ns Maximum                                                                                                                             |          |                                                           |         |
|                                             | Any 36MHz | 1 ns Maximum                                                                                                                             |          |                                                           |         |
| Amplification                               |           | Single path amplifier (standard model)                                                                                                   |          |                                                           |         |
| Amplifier Redundancy (Option OPT-R)         |           | Dual redundant amplifier.<br>Selectable hot or cold standby, 1:1 redundancy with auto switch over based on amplifier current monitoring. |          |                                                           |         |
| Isolation<br>850-2250MHz                    | Typical   | 28db                                                                                                                                     | 28dB     | 28dB                                                      | 28dB    |
|                                             | Minimum   | 24dB                                                                                                                                     | 24dB     | 23dB                                                      | 23dB    |
| Isolation<br>2250-2450MHz                   | Typical   | 28db                                                                                                                                     | 28dB     | 24dB                                                      | 24dB    |
|                                             | Minimum   | 24dB                                                                                                                                     | 24dB     | 22dB                                                      | 22dB    |
| Noise Figure                                |           | 25dB                                                                                                                                     |          |                                                           |         |
| Output 1dB GCP                              |           | +10dBm                                                                                                                                   |          |                                                           |         |
| OIP3                                        |           | +20 dBm                                                                                                                                  |          |                                                           |         |
| OIP2                                        |           | +30dBm                                                                                                                                   |          |                                                           |         |
| 3 <sup>rd</sup> Order intermodulation level |           | -40 dBc                                                                                                                                  |          | With 2 equi-magnitude -13dBm carriers. Total power -10dBm |         |
| Input RF Power                              |           | 16 dBm                                                                                                                                   |          | Absolute maximum                                          |         |
| In Band Spurious                            |           | < -80 dBm                                                                                                                                |          |                                                           |         |
| Enviromental                                |           |                                                                                                                                          |          |                                                           |         |
| Temperature                                 |           | 0 to 50°C Operating                                                                                                                      |          | -20°C to +75°C Storage                                    |         |
| Location                                    |           | Indoor use only                                                                                                                          |          |                                                           |         |
| Humidity                                    |           | 85% non-condensing. Relative Humidity.                                                                                                   |          |                                                           |         |
| Altitude                                    |           | 10,000 feet AMSL                                                                                                                         |          |                                                           |         |

| Physical                      |                                                                                                                                                    |                           |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Weight                        | 3.05Kg                                                                                                                                             |                           |
| Dimensions                    | 1U high x 350mm deep x 19" wide                                                                                                                    |                           |
| Colour                        | White 00-E-55 semi-gloss                                                                                                                           |                           |
| Power                         |                                                                                                                                                    |                           |
| PSU Power                     | 85-264Vac 50-60Hz                                                                                                                                  | Fused 2A                  |
| PSU                           | Dual redundant with dual IEC inlets.                                                                                                               | Diode OR.<br>Not hot-swap |
| AC Consumption                | <20W                                                                                                                                               | At steady state           |
| System Control & Alarm        |                                                                                                                                                    |                           |
| Alarms                        | Dry contact, change-over via 9-way D-type. Available alarms are: PSU supply. Full status and alarms are also available via the Ethernet interface. |                           |
| Remote Control and Monitoring | Via RJ45 port with 10baseT/100baseTX Ethernet offering web browser access SNMP, and ETL Proprietary TCP Protocol                                   |                           |
| Display                       | Tri coloured LEDs to indicate PSU and amplifier status.                                                                                            |                           |

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.