



Model Number: D0104D1ULA-22411

RF Engineering
and Custom Build

4-way Dual L-band Active Dextra Series Splitter

With dual redundant amplifiers OPT-R version, switchable LNB powering & -20 dB monitoring port



The **Dextra** splitter range has been designed for high resilience RF distribution, and optimum satellite signal quality. The splitters benefit from excellent RF performance and compact form factor as well as advanced functionality.

Typical applications:

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

Benefits & features:

- Highly resilient solution minimising the risk of expensive downtime for the satcoms user
- Dual redundant power supplies
- LNB current monitoring
- Dual redundant amplifiers

Advanced functionality:

- 0/13/18V LNB powering (± 22 KHz tone)
- LNB current monitoring
- Customer settable alarm thresholds for LNB current
- Dual redundant amplifiers (option)
- 20 dB monitor port on the front panel
- Web browser access (and SNMP) for control and monitoring
- Compact 1RU 19" chassis

RF performance:

- Specified to **ensure optimum signal quality** with high throughput / high bandwidth satcoms.
- 850-2450 MHz operating range
- Excellent Gain flatness (frequency response)
- High return loss
- High linearity
- Low noise figure

Options: Dextra splitters can be specified with single amplifier or hot/cold-standby dual-redundant amplifier options. Please specify OPT-R for redundant amplifier option. This is remote configurable. The range covers 4-way and 8-way splitters and combiners in both single and dual configurations. 16-way splitters and combiners are available as single units. All these are supplied in a 1RU case for space efficient rack mounting.





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Technical specifications and operating parameters

Preliminary Specification

RF Parameters

| | | | | | | |
|-------------------------------------|---|--|------------|-------------------------|---------|---------|
| Capacity | Dual 4-way Splitter | | | | | |
| Front panel monitor | 50Ω SMA | | | -20dB, 16dB return loss | | |
| Frequency | 850-2450MHz | | | | | |
| Connector & impedances | 50Ω BNC | 50Ω SMA | 50Ω N-type | 75Ω F-type | 75Ω BNC | |
| Gain Flatness | 850-2450 MHz | ±0.8 dB | ±0.8 dB | ±0.8 dB | ±1.0 dB | ±1.0 dB |
| | Any 36 MHz | ±0.25 dB | ±0.25 dB | ±0.25 dB | ±0.3 dB | ±0.3 dB |
| Input return loss | Typ. | 20 dB | 20 dB | 20 dB | 20 dB | 20 dB |
| | Min | 16 dB | 16 dB | 16 dB | 16 dB | 16 dB |
| Output return loss | Typ. | 21 dB | 21 dB | 21 dB | 21 dB | 21 dB |
| | Min | 16 dB | 16 dB | 16 dB | 16 dB | 16 dB |
| Gain | 0 ± 1.0 dB | | | Mean across band | | |
| Group Delay | 850-2450 MHz | 2 ns maximum | | | | |
| | Any 36 MHz | 1 ns maximum | | | | |
| Amplifier Redundancy (Option OPT-R) | Dual redundant amplifier. Selectable hot or cold standby, 1:1 redundancy with auto switch over based on amplifier current monitoring. | | | | | |
| Isolation | 25 dB | Min. Between any two output ports | | | | |
| Noise figure | 50Ω | 10 dB | | | | |
| | 75Ω | 12 dB | | | | |
| Output 1dB GCP | +5 dBm | | | | | |
| OIP3 | +10 dBm | | | | | |
| OIP2 | +30 dBm | | | | | |
| 3rd order intermodulation level | -40 dBc | With 2 equi-magnitude -13dBm carriers. Total power -10dBm. | | | | |
| In Band Spurious | <-80 dBm | | | | | |

Physical

| | |
|------------|---------------------------------|
| Dimensions | 1U high x 350mm deep x 19" wide |
| Weight | 3 Kg |
| Colour | White 00-E-55 semi-gloss |

Power

| | | |
|----------------|---|--|
| AC Power | 85-264Vac 50-60Hz | Fused 2A |
| AC Consumption | <20W | At steady state. With max rated LNB current supplied |
| Input RF Power | 16dBm | Absolute maximum |
| LNB Power | 0/13V/18Vdc, 500mA via common (RF in) port, over current protected at 800mA typical. 22kHz tone on/off Ethernet port remote setting of LNB voltage and 22KHz tone; and LNB current alarm threshold. | |
| PSU | Dual redundant PSUs with dual IEC inlets. | Diode OR |
| Hot-swap PSU | No | |

System Control

| | |
|-----------------------------|---|
| Monitoring & Remote Control | Redundant amplifiers, LNB current and power supplies monitored via RJ45 port with 10baseT/100baseTX Ethernet offering web browser access, SNMP and ETL proprietary TCP protocol |
| Alarms | Dry contact, 9-way D-type alarm port for PSU and LNB supply. Full status and alarms are also available via the Ethernet interface. |
| Display | Front panel LEDs for PSU, LNB and amplifier status. |

Environmental

| | |
|-----------------------|--------------------|
| Operating temperature | 0 to 50°C |
| Location | Indoor use only |
| Storage temperature | -20°C to +75°C |
| Humidity | 85% non-condensing |

Options

Please add the relevant suffix to the model number to indicate your required connectors:

BNC 50 Ω - B5B5
 BNC 75 Ω - B7B7
 F-type 75 Ω - F7F7
 N-type 50 Ω - N5N5
 SMA 50 Ω - S5S5

Please use suffix **OPT-R** to specify the option of dual redundant amplifiers

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