mimosa

Next Generation Broadband

B5c Connectorized Backhaul

The B5c Connectorized Backhaul Radio. 802.11ac, 4 streams + revolutionary engineering join together for 1.7 Gbps PHY, 1 million PPS and fiber-like reliability. Just add your favorite antenna to engineer next generation Internet access.

Dual Link

Actively load balances across two different channels - noise or radar/DFS issues? We've got you covered

Auto Everything

Automatically optimize bandwidth, frequency + power use

Site Share

GPS sync for multiple collocated devices in one location for maximum spectrum re-use

Hardware Reliability

IP67, lightning protected device + PoE, innovative heat sink design

Lightweight

1.6 kg (3.5 lbs)

Low Power

20 W max power consumption for solar deployments

Technical Specifications

Performance

- **Max Throughput:** Up to 1.5 Gbps IP aggregate UL/DL (1.7 Gbps PHY)
- **Low Latency:** 2+ ms
- **Wireless Protocols:** TDMA, TDMA-FD

Radio

- **MIMO & Modulation:** 4x4:4 MIMO OFDM up to 256QAM
- **Bandwidth:** Single or Dual 20/40/80 MHz channels
- **Frequency Range:** 4900-6000 MHz restricted by country of operation (*new* US/FCC 5600-5650 support)
- **Max Output Power:** 30 dBm (2-stream), 27 dBm (4-stream)
- **Sensitivity (MCS 0):** -87 dBm @ 80 MHz
  -90 dBm @ 40 MHz
  -93 dBm @ 20 MHz

Power

- **Max Power Consumption:** 20W
- **System Power Method:** 48 V DC 802.3 at compliant power injectors
- **System Lightning & ESD Protection:** 6 kV
- **PoE Power Supply:** Passive POE compliant, 48-56 V Power over Ethernet supply with IEC61000-4-5 surge protection

Physical

- **Dimensions:** Height: 267 mm (10.5") Width: 158 mm (6.2") Depth: 74 mm (3")
- **Weight:** 1.6 kg (3.5 lbs)
- **Enclosure Characteristics:** Outdoor UV stabilized plastic Aluminum mounting panel
- **Wind Survivability:** 200 km/h (125 mph)
- **Wind Loading:** 9.89 Kg @ 160 km/h (21.8 lbs @ 100 mph)
- **Mounting: Dual standard pole straps for 30 mm** (1.18") to 90 mm (3.54") OD pipes
- **Connector Type:** Female Type N (x2), intended for use with dual polarization antenna

Environmental

- **Outdoor Ingress Protection Rating:** IP67
- **Operating Temperature:** -40°C to +55°C (-40°F to 131°F)
- **Operating Humidity:** 5 to 100% condensing
- **Operating Altitude:** 4420 m (14500') maximum
- **Shock & Vibration:** ETS 300-019-2-4 class 4M5

Features

- **Gigabit Ethernet:** 10/100/1000-BASE-T
- **Dual Link Operation:** 2 independent dual-stream radios operating on non-contiguous frequencies
  Automatic load balancing of traffic across 4 total MIMO streams with individual stream encoding up to 256 QAM
- **Management Services:** Mimosa cloud monitoring and management SNMPv2 & Syslog legacy monitoring HTTPS HTML 5 based Web UI
  2.4 GHz 802.11b/g/n radio for local management access
- **Smart Antenna Alignment:** Hands-Free dedicated 2.4 GHz Wi-Fi management radio alignment tool
- **Smart Spectrum Management:** Active scan monitors/logs ongoing RF interference across channels (no service impact)
  Dynamic auto-optimization of channel and bandwidth use
- **Security:** 128-bit AES PSK with hardware acceleration
- **QoS:** Supports 4 pre-configured QoS levels
- **GPS Location:** GNSS-1 (GPS + GLONASS)
- **Colocation Synchronization:** 1PPS GPS TX/RX synchronization for collocated co-channel radios
  Adjustable up/downstream bandwidth ratio

Regulatory + Compliance

- **Approvals:** FCC Part 15.407and Part 90Y, IC RS10, CE, ETSI 301 893/302 502
- **RoHS Compliance:** Yes
- **Safety:** UL/EC/EN/ 60950-1 + CSA-22.2

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