RFK-15C
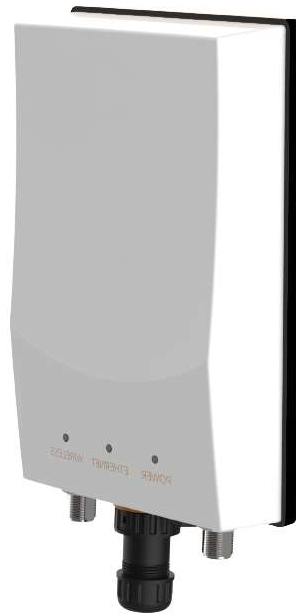
Backhaul Radio
Extreme Customization and Reliability

RF KOREA Co.,Ltd.

T: 02-853-8381   F: 02-853-8415

www.rfk.co.kr

MODEL : RFK-15C

The RF KOREA RFK-15C is the industry's fastest connectorized unlicensed and public safety connectivity solution, allowing virtually any antenna to be used for long distance point-to-point backhaul. The RFK-15C is ideal for long-range relay and tower links, and custom engineered collocation. It is also suitable for licensed Public Safety operation on the 4.9 GHz spectrum.

Ultra Rugged

Carrier-grade IP67 design allows the RFK-15C to withstand the harshest of environmental conditions.

Double Reliability

Tames unlicensed spectrum interference via custom engineered multi-channel and auto-everything technology. As good as two smart links in one radio.

Incredibly Fast and Flexible

Recognized as the fastest unlicensed backhaul in the industry. Extensive bandwidth control options, low latency, reserved bandwidth and GPS sync mode mean peak performance.

Easily Add New Links

The RFK-15C is spectrum friendly. Unique high-precision GPS sync technology reuses the same channel network wide. Keep adding more capacity to more sites and waste less spectrum.

Monitor with Ease

Assessing link health and identifying potential problems has never been easier. Links are instantly monitored by our RF KOREA Cloud service with rich data collection and analysis.

Technical Specifications

Performance	• Max Throughput: Up to 1.5 Gbps IP aggregate UL/DL (1.7 Gbps PHY)	• Low Latency: <1 ms in Auto Mode • 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 – 6200 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

Technical Specifications

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: 4,420 m (14,500') 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: RF KOREA 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) • Collocation Synchronization: 1PPS GPS TX/RX synchronization for collocated cochannel radios Adjustable up/downstream bandwidth ratio
Regulatory + Compliance	• Approvals: FCC Part 15.407 and Part 90Y, IC RSS210 and RSS111, CE, ETSI 301 893/302 502 • RoHS Compliance: Yes • Safety: UL/EC/EN/ 60950-1 + CSA-22.2

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