

Airmux-5000D

BS/F55F/INT

Sector Base Station (Airmux-5000D/BS/F55F/INT)



Description

Airmux-5000D/BS/F55F/INT is a sector Base Station radio unit (HBS) that includes two radios at 5 GHz band in a single unit. The unit provides up to 1.5 Gbps net aggregate throughput.

Airmux-5000D/BS/F55F/INT includes separate smart beamforming antenna for each carrier. It also includes an embedded GPS unit.

Airmux-5000D/BS/F55F/INT supports 4.9 to 5.8 GHz.

Highlights

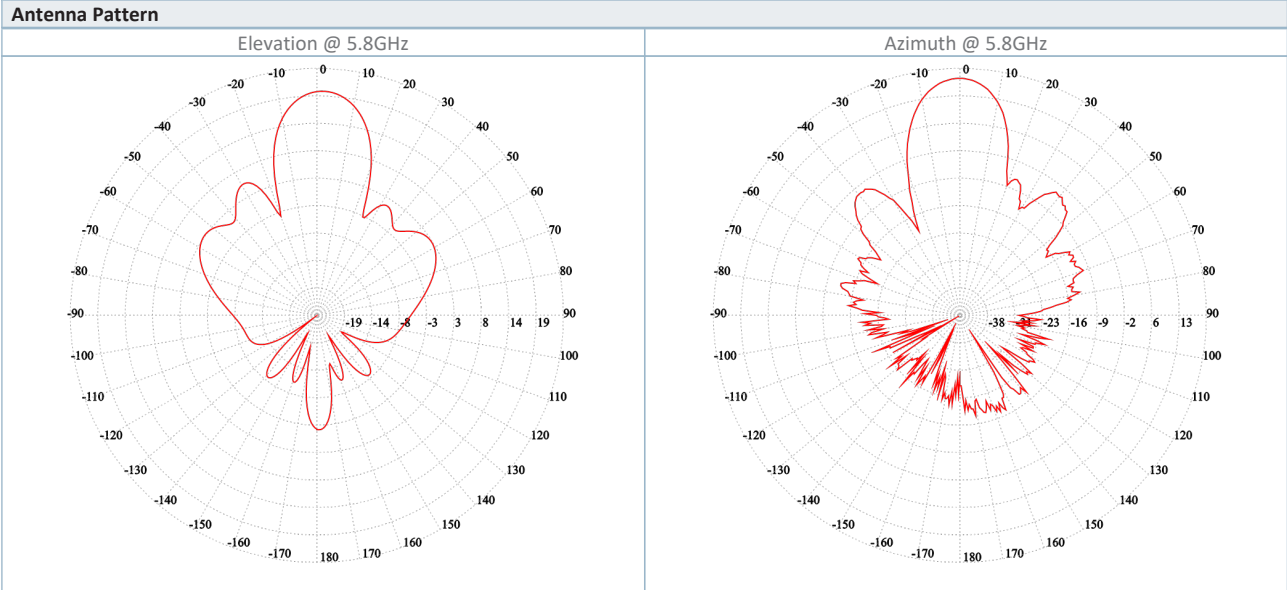
- Dual carriers base station radio with smart beamforming antennas supporting 5 GHz bands
- Up to 1.5 Gbps (2 x 750 Mbps) net aggregated throughput
- Long range - Up to 40 km / 25 miles
- CIR or Best-Effort per SU
- Built-in GPS
- Gigabit WAN connectivity (SFP / PoE)
- Advanced MIMO, OFDM and Diversity technologies
- Dynamic Channel Bandwidth Selection
- Robust and reliable operation in harsh environments
- Ease of operation

Specifications

Configuration					
Architecture	Outdoor Unit with a smart beamforming integrated antenna with embedded GPS				
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT				
Data Interfaces	10/100/1000 Mbps RJ45 PoE or 1Gbps SFP				
Radio					
Max Capacity	1.5 Gbps net aggregate throughput				
Subscriber Units support	Up to 128 subscriber units (Applicable from release 5.0.70)				
Range	Up to 40 km / 25 miles *				
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz (for the default band); Dynamic Channel BW selection (20/40/80 MHz)				
Modulation	MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)				
Adaptive Modulation & Coding	Supported				
Smart Bandwidth Management (DBA)	Supported				
DFS	Supported (FCC, FCC/IC)				
Diversity	Supported				
Software Defined Sector (SDS)	Supported				
Max Tx Power	25 dBm per chain; max EIRP 36 dBm (for the default band)				
Duplex Technology	TDD				
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6				
Encryption	AES 128				
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric				
End to End Latency	Typical: 3.5msec @ 2 SUs; 20msec @ 128 HSUs				
Layer 2	Bridging learning of 5K MAC addresses				
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv				
VLAN Support	802.1Q, QinQ, 4094 VLANs				
TDD Intra Site Synchronization	Supported via built-in GPS receiver				
TDD Inter Site Synchronization	Supported via built-in GPS receiver				
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser				
802.1x	Supported				
Option 82	Supported				
Non PPPoE filtering	Supported				
DHCP Filter	Supported				
IGMP snooping	Supported				
Nomadic subscribers	Supported				
RADIUS Authorization	Supported				
RADIUS User authentication	Supported				
Syslog	Supported				
Supported Bands					
Band	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	Radio Compliance
4.9 GHz FCC/IC	4.940-4.990	4.940-4.990	4.940-4.990	-	FCC 47CFR Part 90 Subpart Y; ISED RSS-111
5.1 GHz FCC	5.170-5.250	5.170-5.250	5.170-5.250	5.170-5.250	FCC 47CFR Part 15.407
5.1 GHz FCC	5.170-5.845	5.170-5.845	5.170-5.845	5.170-5.845	FCC 47CFR Part 15.407
5.2 GHz FCC/IC	-	5.255-5.340	5.255-5.340	5.250-5.340	FCC 47CFR Part 15.407
5.4 GHz FCC	-	5.480-5.715	5.480-5.715	5.485-5.715	FCC 47CFR Part 15.407
5.8 GHz FCC/IC (default)	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED RSS-247
Mechanical					
ODU Dimensions	35.6(w) x 37.1(h) x 11.0(d) cm				
ODU Weight	4.89 kg / 10.78 lbs				
Mounting Kit	Included				
Power					
Power Feeding	Power provided over ODU-IDU cable				
Power Consumption	<50W				
Network Device					
AC POE	RD-9921-400x				
DC POE	RD-9921-1049				
Package Content					
Package	Radio unit with integrated antenna, pole/wall mounting kit, IP67 glands for POE and SFP ports				
Environmental					
Operating Temperatures	-40°C to 60°C / -40°F to 140°F				
Humidity	100% condensing, IP67 (totally protected against dust and against immersion in water up to 1m)				
MTBF	325,000 hours (Telcordia SR332 @25°C)				
Wind Resistance operational	180Km/h				

Safety	
EU/Intl	EN/IEC 62368-1, EN/IEC 60950-22
USA	cTUVus: UL 62368-1:2014, UL 60950-22
EMC	
FCC	FCC 47 CFR, Part15, Subpart B, Class B
ETSI	ETSI EN 301 489-1, ETSI EN 301 489-4, ETSI 301 489-17
Canada	ICES-003, CISPR 32, Class B
AS/NZS	CISPR 32, Class B

Integrated Antenna	
Gain	19 dBi
Detailed Gain	19
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	90 Deg. (Typ)
3 dB Elevation Beamwidth	Deg. (Typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-17 dB(typ)
Cross Polarization	-25dB (typ)
F/B Ratio	-25 dB
Port To Port Isolation	35 dB (typ)
Lightning Protection	DC Grounded



Ordering

Airmux-5000D/BS/F55F/INT

RAD 5000i-DUO ODU, with a smart beamforming integrated antenna with embedded GPS, supporting multi frequency bands at 5.x GHz, factory default 5.8 GHz FCC/IC.

* May be limited by regulation in the specific band being used

Datasheet information can be changed by manufacturer without prior notice