

Airmux-400E

ODU/F5XW/INT

Point-to-Point Radio (Airmux-400E/ODU/F5XW/INT)

**AIRMUX**

Description

Airmux-400 E is a premium solution for outdoor Point-to-Point (PtP) deployments

Airmux-400 E supports 4.9 to 6.4 GHz frequency range.

The Radio complies with regulations based on location.

The unit includes an integrated antenna.

Highlights

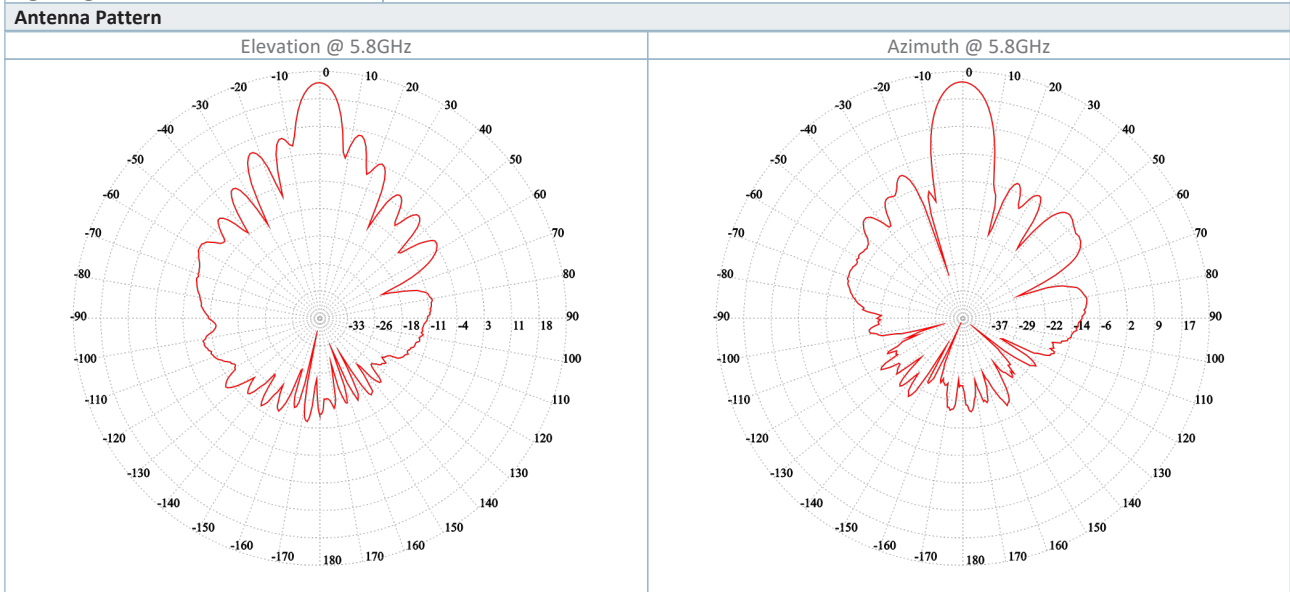
- Up to 2.5 Gbps net aggregated throughput
- Long range - Up to 120 km / 75 miles
- Exceptional short and constant latency
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable operation in harsh conditions, extreme temperatures and non-line-of-sight scenarios
- Ease of operation and maintenance
- Built-in GPS
- IP67 compliant
- Channel bandwidth from 20 to 160MHz

Specifications

Configuration					
Architecture	Outdoor Unit with an integrated antenna				
PoE to ODU Interface E	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000/2500BaseT				
Data Interfaces	100/1000/2500Mbps Full Duplex RJ45 PoE, 1000Mbps Full Duplex SFP				
Radio					
Max Capacity	2.5 Gbps net aggregate throughput				
Channel Bandwidth	Configurable: 20, 40, 80, 160 MHz				
Modulation	MIMO-OFDM (BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM/4096QAM)				
Adaptive Modulation & Coding	Supported				
DFS	Supported (ETSI, IL, ETSI/GER, ETSI/GER)				
MIMO and Diversity	Supported				
Spectrum Scan	Supported (Offline)				
Max Tx Power	25 dBm per chain				
Duplex Technology	TDD				
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6				
Encryption	AES 256				
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric				
Networking					
Layer 2	HUB Mode				
QoS	Packet classification to 8 priority queues according to 802.1P or Diffserv				
VLAN Support	Supported				
Ethernet Ring Protection	Not supported				
TDD Intra Site Synchronization	Supported via built-in GPS receiver				
ODU Management	IPv4/IPv6 dual-stack; SNMPv1, SNMPv3; HTTP/HTTPS using web browser				
RADIUS User authentication	Supported				
Monitored Hot Standby	Not supported				
Supported Bands					
Band	CBW 20MHz [GHz]	CBW 40MHz [GHz]	CBW 80MHz [GHz]	CBW 160MHz [GHz]	Radio Compliance
4.9 GHz FCC	4.940-4.990	4.940-4.990	-	-	FCC 47CFR Part 90 Subpart Y; ISSED RSS-111
4.9 GHz IC	4.940-4.990	-	-	-	ISED RSS-111
4.9 GHz WorldWide (default)	4.900-6.060	4.900-6.060	4.900-6.060	4.900-6.060	Universal
5.1 GHz FCC	5.170-5.250	5.170-5.250	5.170-5.250	-	FCC 47CFR Part 15.407
5.1 GHz TH	5.150-5.350	5.150-5.350	5.150-5.350	5.150-5.350	N/A
5.1 GHz WPC	5.150-5.875	5.150-5.875	5.150-5.875	5.150-5.875	WPC (India) G.S.R_1048(E) dated 22 October 2018
5.4 GHz ETSI	5.470-5.710	5.490-5.690	5.490-5.650	5.430-5.765	ETSI EN 301 893
5.4 GHz TH	5.470-5.725	5.470-5.725	5.470-5.725	5.470-5.725	N/A
5.7 GHz ETSI/GER	5.735-5.865	5.735-5.865	5.735-5.865	-	ETSI EN 302 502; ECC Recommendation (06)04
5.7 GHz FCC	5.730-5.845	5.730-5.845	5.730-5.845	-	FCC 47CFR Part 15.407; ISSED RSS-247
5.7 GHz IC	5.730-5.845	5.730-5.845	5.730-5.845	-	FCC 47CFR Part 15.407; ISSED RSS-247
5.7 GHz IL	5.735-5.865	5.735-5.865	5.735-5.865	-	ETSI EN 302 502 with adaptation per Israeli Wireless Telegraph Regulations
5.7 GHz TH	5.725-5.850	5.725-5.850	5.725-5.850	-	N/A
5.8 GHz ETSI	5.735-5.865	-	-	-	ETSI EN 302 502
5.8 GHz MII	5.725-5.850	5.725-5.850	5.725-5.850	-	CMIIT RTA
5.9 GHz WorldWide	5.925-6.425	5.925-6.425	5.925-6.425	5.925-6.425	Universal
5.935-6.415 GHz FCC	5.935-6.425	5.940-6.425	5.945-6.425	5.945-6.425	FCC 47CFR Part 15.407
5.935-6.415 GHz IC	5.935-6.425	5.940-6.425	5.945-6.425	5.945-6.425	ISED RSS-248
Mechanical					
ODU Dimensions	37.3(w) x 37.0(h) x 9.8(d) cm				
ODU Weight	2.6 kg / 5.73 lbs				
Mounting Kit	Included				
Power					
Power Feeding	Power provided over ODU-IDU cable				
Power Consumption	<24W				
Network Device	802.3at Class 4 (30W)				
AC POE	RD-9921-400x				
DC POE	RD-9921-2069				
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	1,280,000 hours (Telcordia SR332 @25°C)
Wind Resistance operational	180Km/h
Maritime	IEC-60068-2-11 Test Ka: Salt mist.
Safety	
US/CAN (cTUVus)	UL 62368-1:2014, UL 60950-22:2017, CAN/CSA-C22.2 NO. 62368-1-14, CAN/CSA-C22.2 No. 60950-22:17
EU/Intl	IEC 62368-1:2014, EN 62368-1:2014/A11:2017, IEC 60950-22:2016, EN 60950-22:2017
EMC	
FCC	47 CFR, Part15, Subpart B, Class B
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4
Canada	CISPR 22-2010 Class B

Integrated Antenna	
Gain	24 dBi
Detailed Gain	4.9 - 5.05GHz: 21.2dBi (Min) 5.05 - 6.06GHz: 21.8dBi (Min)
VSWR	2.0 : 1
3 dB Azimuth Beamwidth	10 Deg. (Typ)
3 dB Elevation Beamwidth	10 Deg. (Typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	ESTI EN 302 326-3 V1.1.2 DN3
Cross Polarization	ESTI EN 302 326-3 V1.1.2 DN3
F/B Ratio	-40 dB
Port To Port Isolation	30 dB (typ)
Lightning Protection	DC Grounded



Ordering

Airmux-400E/ODU/F5XW/INT

RAD E ODU, with an integrated antenna, supporting multi frequency bands at 5.x GHz.

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

Datasheet information can be changed by manufacturer without prior notice