

Airmux-400E

# ODU/F50W/EXT

Point-to-Point Radio (Airmux-400E/ODU/F50W/EXT)



## 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 radio is connectorized for external antenna (2 x N-Type).

## 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 connectorized for external antenna (2 x N-type)				
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, Nigeria)				
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 Nigeria	5.735-5.865	5.710-5.890	5.690-5.910	-	ETSI EN 302 502
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	25.8(w) x 12.5(h) x 10.7(d) cm				
ODU Weight	1.2 kg / 2.65 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	Connectorized radio unit, 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

### Ordering

#### Airmux-400E/ODU/F50W/EXT

RAD E ODU, connectorized for external antenna (2 x N-type), 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

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