Data Sheet

Airmux-400A

ODU/F50W/500M/EXT

Point-to-Point / SU Radio (Airmux-400A/ODU/F50W/500M/EXT)

Description

Airmux-400A/ODU/F50W/500M/EXT is a carrier-class radio that belongs to the Airmux 5000/400 A-PRO Model.

Airmux-400A/ODU/F50W/500M/EXT is a PtP outdoor radio unit that can be used as a PtMP Subscriber Unit (Guaranteed Service Level Agreement or Best Effort Service level).

The Radio complies with multiple regulation based on location.

Airmux-400A/ODU/F50W/500M/EXT delivers up to 500 Mbps throughput.

The radio is compatible with all 5GHz PtMP Base stations and PtP units.

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

Highlights

- Up to 500 Mbps net aggregated
- Telco-grade, extremely robust in harsh conditions
- Built-in GPS for intra and inter site TDD synchronization
- Configurable asymmetric throughput
- Advanced OFDM & MIMO technologies for operation in nLOS/NLOS and dense radio environments
- IP-67
- Simplified installation using a Smartphone app.
- Support AES 256 encryption over the air

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Specifications

Configuration						
Architecture	Outdoor Unit connectorized for external antenna (2 x N-Type)					
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT					
Radio						
Max Capacity	500 Mbps net aggregate throughput (up to 250 Mbps per direction)					
Range	Up to 120 km / 75 miles in PtP mode. Up to 40 km / 25 miles in SU mode *					
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					
Automatic Channel Selection	Supported upon power up					
DFS	Supported (FCC/IC, FCC, ETSI, ETSI, ETSI/GER, IC, IC, Nigeria, IL)					
Diversity	Supported					
Spectrum Viewer	Supported					
Max Tx Power	26 dBm per chain					
Duplex Technology	TDD					
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6					
Encryption	AES 256 in PtP mode, AES 128 in SU mode (Supports AES 256 by license, if BS supports AES 256)					
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric					
Layer 2	HUB Mode					
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					
TDD Inter Site Synchronization	Supported through common GPS receiver per site					
ODU Management	IPv4/IPv6 dual-stack; DHCP client for SU (IPv4 only); SNMPv1, SNMPv3; HTTP/HTTPS using web browser;					
RADIUS Authorization	Supported					
RADIUS User authentication	Supported					
Syslog	Supported					
Option 82	Supported in SU mode					
Non PPPoE filtering	Supported in SU mode					
DHCP Filter	Supported in SU mode					
IGMP snooping	Supported in SU mode					
Nomadic subscribers	Supported in SU mode					
Dying gasp	**Supported (PoE voltage must be >= 55v)					
Supported Bands						
Band	**CBW 5MHz [GHz]**	**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
4.9 GHz IC	-	4.940-4.990	4.940-4.990	4.940-4.990	-	ISED RSS-111
4.9 GHz Universal	-	4.895-6.005	4.890-6.010	4.880-6.020	4.860-6.040	Universal
4.9 GHz Universal	-	4.900-4.995	4.900-4.995	4.900-4.995	4.900-4.995	Universal
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
5.1 GHz UBR	-	5.125-5.880	5.125-5.880	5.125-5.880	5.125-5.880	Universal
5.1 GHz Universal	-	5.145-5.340	5.140-5.345	5.130-5.355	5.130-5.375	Universal
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
5.1 GHz WPC/UBR	-	5.150-5.875	5.150-5.875	5.150-5.875	5.150-5.875	Universal
5.2 GHz FCC/IC	-	-	5.255-5.340	5.255-5.340	5.250-5.340	FCC 47CFR Part 15.407
5.2 GHz IC	-	-	5.255-5.340	5.255-5.340	5.250-5.340	ISED RSS-247
5.4 GHz Australia	-	-	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.4 GHz ETSI	-	5.475-5.705	5.470-5.710	5.490-5.690	5.490-5.650	ETSI EN 301 893
5.4 GHz FCC	-	-	5.480-5.715	5.480-5.715	5.485-5.715	FCC 47CFR Part 15.407
5.4 GHz IC	-	-	5.480-5.715	5.480-5.715	5.485-5.600	ISED RSS-247
5.4 GHz Universal (default)	-	5.470-5.725	5.465-5.730	5.455-5.740	5.455-5.760	Universal
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 IC	-	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED 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	5.735-5.865	5.710-5.890	5.690-5.910	ETSI EN 302 502

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5.8 GHz Australia	-	-	5.735-5.865	5.725-5.875	5.725-5.875	ETSI EN 302 502; ECC Recommendation (06)04
5.8 GHz ETSI	-	-	5.735-5.865	-	-	ETSI EN 302 502
5.8 GHz FCC/IC	-	5.730-5.845	5.730-5.845	5.730-5.845	5.730-5.845	FCC 47CFR Part 15.407; ISED RSS-247
5.8 GHz MII	-	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	CMIIT RTA
5.8 GHz Universal	-	5.725-5.850	5.725-5.850	5.725-5.850	5.725-5.850	Universal
5.8 GHz WPC	5.8275-5.8725	5.825-5.875	5.825-5.875	5.825-5.875	-	WPC (India) G.S.R 38(E) dated 19 January. 2007 Notification
5.9 GHz Universal	-	5.725-5.955	5.720-5.960	5.710-5.970	5.710-5.990	Universal
6.0 GHz Universal	-	5.695-6.055	5.690-6.060	5.680-6.070	5.680-6.090	Universal
Mechanical						
ODU Dimensions	19.5(w) x 12.5(h) x 4.0(d) cm					
ODU Weight	0.5 kg / 1.10 lbs					
Mounting Kit	Included					
Power						
Power Feeding	Power provided over ODU-IDU cable					
Power Consumption	<13W					
Network Device						
AC POE	RD-9921-102x (included)					
DC POE	RD-9921-2069					
Package Content						
Package	Connectorized radio unit, 2x stainless steel pole bands, IP67 gland for POE port, 24V POE unit and AC Power cable					
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	4,075,000 hours (Telcordia SR332 @25°C)					
Wind Resistance operational	180Km/h					
Safety						
EU/Intl	IEC 62368-1:2014, EN 62368-1:2014/A11:2017, IEC 60950-22:2016, EN 60950-22:2017					
Canada	CAN/CSA-C22.2 NO. 62368-1-14, CAN/CSA-C22.2 No. 60950-22:17					
USA	UL 62368-1:2014, UL 60950-22:2017					
EMC						
FCC	47 CFR, Part15, Subpart B, Class B					
ETSI	EN 301 489-1, EN 301 489-4, EN 301 489-17					
Canada	ICES-003 issue 7, CISPR 32, Class B					
AS/NZS	CISPR 32, Class B					

Ordering

Airmux-400A/ODU/F50W/500M/EXT

RAD A-PRO 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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