

Airmux-400L

Broadband Wireless Multiplexer



Airmux-400L (Lite)



Product Highlights:

- 50 Mbps Ethernet net throughput and up to 8T1/E1
- Native TDM transport
- Single Small Form Factor with embedded antenna and connectorized for external antenna
- Long range – up to 75 miles / 120 km
- Adaptive asymmetric throughput – dynamic allocation between uplink and downlink
- Single radio supporting multiple bands 5.x GHz
- Advanced MIMO, OFDM and Diversity technologies
- Robust and reliable to operate in tough conditions, extreme temperatures and non-line-of-sight scenarios

Product Description: Airmux-400L/ODU/F50F/EMB

Airmux-400L (Airmux-400 Lite) is a carrier-class radio supporting the 5.x GHz bands and complying with FCC, IC (Canada) regulations (factory default: 5.8 GHz FCC/IC).

The multi-band radio is part of the Airmux-400L (Lite) series that delivers highest capacity and extended range for carrier's backhaul needs.

Packing native TDM and Ethernet over a single wireless link, the Airmux-400L series provides 50 Mbps net aggregate throughput (up to 8T1/E1 plus Ethernet) at a range of up to 75 miles / 120 km.

Airmux-400L/ODU/F50F/EMB includes an embedded antenna and connectors for use with external antennas, offering a single Small Form Factor radio configuration.

PRODUCT SPECIFICATIONS

Configuration	
Architecture	Small form factor ODU unit with embedded antenna and connectorized for external antenna
IDU to ODU Interface	Outdoor CAT-5e cable; maximum cable length: 100m
Radio	
Capacity	50 Mbps net aggregate throughput (up to 8T1s/E1s plus Ethernet)
Range	Up to 75 miles / 120 km
Channel Bandwidth	Configurable: 5,10, or 20 MHz
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Adaptive Modulation & Coding	Supported
Automatic Channel Selection	Supported
Diversity	Supported
Spectrum View	Supported
Max Tx Power	25 dBm
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
Supported Indoor Units	IDUE, PoE device
QoS	Packet classification to 4 queues according to 802.1p and Diffserv, Dynamic scheduling according to air interface changes
VLAN	Supported
Ethernet Ring Protection	Supported, including Ethernet 1+1
Hub Site Synchronization (HSS)	Up to 16 collocated links
Monitored Hot Standby (MHS)	1+1 with Airmux-200 or Airmux-400 link

Supported Bands		
Band	Occupied Frequency Range	Radio Compliance
5.8 GHz FCC/IC*	5.725 - 5.850 GHz	FCC 47CFR, Part 90, Subpart C and IC RSS-210
5.9 GHz Universal	5.730 - 5.950 GHz	
5.8 GHz FCC/IC	5.725 - 5.850 GHz	FCC 47CFR, Part 15, Subpart C and IC RSS-210
5.8 GHz MII China	5.730 - 5.845 GHz	MII for 5.8 GHz
5.8 GHz WPC India	5.825 - 5.875 GHz	WPC GSR-38
5.4 GHz FCC	5.480 - 5.715 GHz	FCC 47CFR, Part 15, Subpart E
5.4 GHz IC	5.480 - 5.715 GHz	IC RSS-210
5.4 GHz Universal	5.490 - 5.710 GHz	
5.3 GHz FCC/IC	5.260 - 5.340 GHz	FCC 47CFR, Part 15, Subpart E and IC RSS-210
5.3 GHz Universal	5.140 - 5.345 GHz	

***Factory Default**

Mechanical	
Dimensions	19.5(w) x 27.0(h) x 8.0(d) cm
Weight	1.8 kg / 3.6 lbs
Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<35W (IDU + ODU)
Environmental	
Operating Temperatures	-35°C - 60°C / -31°F – 140°F
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1m)
Safety	
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
ETSI	EN/IEC 60950-1, EN/IEC 60950-22
EMC	
FCC	CFR47 Class B, Part15, Subpart B
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4
CAN/CSA-CEI/IEC	CISPR 22-04 Class B
AS/NZS	CISPR 22-2004 Class B

Integrated Antenna	
Minimum Peak Gain	15.0 ± 1.0 dBi @ 5.15-5.47 GHz 15.5 ± 1.0 dBi @ 5.47-5.875 GHz 12.5 ± 1.0 dBi @ 5.875-6.02 GHz
VSWR	1.5 : 1 (typ) 2 : 1(max)
Azimuth 3 dB Beamwidth	35° (typ)
Elevation 3 dB Beamwidth	15° (typ)
AZ & EL Beam Squint	± 2.5° Port V & Port H
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	ETSI EN 302 085 V1.1.2, TS1-TS3
Cross Polarization	ETSI EN 302 085 V1.1.2, TS1-TS3
F/B Ratio	20 dB (max)
Port To Port Isolation	40 dB (min)
Lightning Protection	DC grounded
Antenna Pattern	
Elevation @ 5.8GHz	Azimuth @ 5.8GHz
	