



AF-3X
 Ubiquiti airFiber 3X 3GHz Backhaul Radio

Bands
 3.5GHz
Ethernet Speed
 1Gbps
Connectors
 RP-SMA , SMA
Integrated PoE
 PoE (non standard)

Stock Level: **Product in stock**

\$1,395.00 + GST

Description

Ubiquiti Networks continues to disrupt the wireless broadband market with revolutionary technology at breakthrough pricing by introducing airFiber® X, a modular airFiber radio system that will serve a wide range of frequencies and is designed to be compatible with a variety of Ubiquiti® antennas. Building upon the proven design of the airMAX® Rocket™ system, airFiber X allows you to customize airFiber backhaul links or upgrade existing Rocket Point-to-Point (PtP) links. The airFiber X comes in multiple models for use in the 2.4GHz, 3.5GHz and 5GHz frequency bands. Ubiquiti's INVICTUS™ custom silicon and proprietary radio architecture are designed specifically for long-distance, outdoor wireless applications. Our INVICTUS core communications processing engine surpasses all of the limitations inherent to generic Wi-Fi chips to provide superior performance, long-range capability, DFS flexibility, and power output. The airFiber X features industry leading spectral efficiency of up to 17.1 Mbps/MHz, line-rate data packet processing for up to 500+ Mbps of real data throughput, and innovative xtreme Range Technology (xRT™) for up to 100+ km in range.

Features

Optimal Operation in Unlicensed Bands: Channel width flexibility (3.5, 5, 7, 10, 14, 20, 28, 30, 40, 50, 56 MHz) allows independent TX and RX channel frequency configurations anywhere within the radio band to avoid local interference, and the channel centers are selectable in 1 MHz increments. You also have the ability to program different uplink and downlink duty cycles to support asymmetric traffic requirements.

Ultra-Low Latency with HDD Technology: airFiber X is designed to provide the highest TDD throughput available and is engineered with proprietary Hybrid Division Duplexing (HDD) technology. In a backhaul link, two airFiber X radios use patent-pending HDD technology to calculate the propagation delay and know when each radio can transmit and receive, so they send packets in precise synchronization. Packet transmission latency is virtually eliminated.

Co-Location: Co-location is vital in many scenarios. For example, a WISP may have limited tower space, so it must co-locate all equipment within that allotted footprint.

GPS Synchronization: Precise GPS frame synchronization frees the airFiber X from interference for superior co-location capability. GPS enables the concurrency of TX and RX frames so you can co-locate the airFiber X radios and enhance the overall performance of your backhaul links.

Clean Power Output: Using digital pre-distortion compensation and multi-IFFT processing, the innovative RF design delivers ultra-clean power output that improves noise immunity and co-location performance. This reduces the potential impact on the RF noise environment and allows for the use of higher-order modulation, such as 256QAM.

Specifications

Details

Manufacturer's Code	airFiber AF-3X
Chipset	INVICTUS IC
Output Power	29dBm

Details

Operating Modes	Master/Slave
Frequency Range	3300-3900 MHz
Security	128-bit AES
Interfaces	(2) RP-SMA Weatherproof (CH0, CH1); (1) SMA Weatherproof (GPS); (1) 10/100/1000 Ethernet Port (Data); (1) 10/100 Ethernet Port (Management)
Temperature Range	-40 to 55° C
PoE In	Yes, 19-29VDC
Operating System	airOS F
Max Power consumption	17W
Number of chains	2x2
Polarisation	Dual Linear
Pole Diameter	30-50mm
Dimensions	224 x 82 x 48 mm
IP Rating	IP54
Typical Range (Based on PtP)	100km+ (Antenna Dependent)

Resources

- [Manufacturer Website](#)
- [Firmware & Downloads](#)
- [Community Forum](#)
- [Help and Documentation](#)
- [Case Studies](#)
- [Blogs](#)

Details

Power Supply	3 Pin Clover Lead
Power Injector	24V POE Injector
Pole Mount	Yes, Hose Clamp or Cable Tie