



## 5.8GHz Broadband Radios



The AirStream high-powered bridge/router is equipped with a 400mW OFDM radio that provides a clear distance advantage beyond typical 5.8GHz products.

Wireless Solutions AirStream maximizes the potential of wireless, offering an enterprise-class solution with superior range, throughput and operational ease.



## Product Summary

Wireless Solutions introduces AirStream, a new line of wireless broadband radios engineered to deliver high performance, enterprise-class reliability and ease of installation. Available in both **Point-to-Point** and **Point-to-Multipoint** configurations, AirStream is the right solution for most backhaul and high bandwidth last-mile situations.

With data rates to **108 Mbps** and up to **400 mW of RF power**, AirStream provides more capacity over longer distances. Such capability allows users to download large data files, high resolution images, video clips, and MP3 files within a matter of seconds. Streaming video and multiple VoIP connections can now be delivered or backhauled seamlessly.

**Orthogonal Frequency Division Multiplexing (OFDM)** technology delivers a wealth of benefits: high spectral efficiency supports class leading data rates while allowing multiple, non-overlapping channels that mitigate the effects of interference. OFDM is also capable of robust operation in **near or non-line-of-sight (NLOS)** link conditions, relaxing the stringent installation requirements associated with more traditional fixed wireless equipment.

**Quality of Service (QoS)** features throughout the AirStream product line architecture allow tagged voice and video traffic to take priority over general data packet transfer, providing reliable, real-time capability even under congested link conditions. Priority privileges for marked frames are maintained from port to port: Ethernet through RF.

With **security** remaining a key consideration in many applications, AirStream delivers **128 bit AES encryption / decryption at full line speed**. The AES algorithm was selected to be the standard encryption method of the US Government by the National Institute of Standards and Technology (NIST)

Physically, the AirStream radios are fully integrated. The network engine, digital baseband, radio and antenna are all combined into a single, weatherized outdoor chassis, complete with **Power over Ethernet (PoE)** support. Guaranteed operational from -30C to +60C, the product can be installed at any convenient outdoor location needing only inexpensive Ethernet CAT5 cable for connection to an indoor network switch.

AirStream is truly an enterprise class system that comes complete with full function bridge/router software and extensive network protocol and network management support.

Combining a high power, 108 Mbps OFDM radio with a high performance, QoS based bridge/router engine, the AirStream equipment is a powerful, yet easy-to-use product for all of your point-to-point and multipoint broadband wireless needs.

# AirStream Specifications – 5.8GHz Broadband Radios

Point to Point Performance			
	PTP-58-SR	PTP-58-MR	PTP-58-LR
Link Distance*	4 Miles	15 Miles	30 Miles
Radio Power	50mW	400mW	400mW
Multipoint Performance			
	MP-CU58-SR	MP-CU58-MR	MP-CU58-LR
Link Distance*			
With sectoral base station (MP-BU58-SA)	2 Miles	5 Miles	8 Miles
With omni base station	1 Mile	3 Miles	4.5 Miles
Radio			
Data Rate	108 Mbps, 72Mbps, 36 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps		
Modulation	OFDM – BPSK, QPSK, 16QAM, 64QAM		
Media Access	Prioritized CSMA/CA		
Frequency	5.470 – 5.875 GHz, country dependent		
DC Power	+48VDC / 0.8A, via Power-over-Ethernet, indoor DC injector (included)		
Networking			
Ethernet	10/100Base-T, Auto-negotiating, Full/Half duplex, up to 100m separation between radio and network closet		
QoS	Line speed packet inspection of 802.1p, IP ToS, IP Diffserv tags 4 queue prioritization engine, RF MAC prioritization		
Frame Aggregation	Dynamic, User enable/disable		
Protocol Support	Transparent MAC layer bridging, IP Static Routing, RIP v1/v2, Transparent VLAN (802.1q)		
Management	HTTP Web Server, FTP, VLAN, SNMP v1/v2 with trap support and custom MIB, custom Event Log		
Security			
Encryption	Hardware accelerated, line speed 128-bit AES & 64, 128, 152-bit WEP		
Authentication	MAC address-based access control		
Channel Plan	Non-standard		
Mechanical			
Configuration	Outdoor, Integrated Unit	Outdoor, Integrated Unit	Outdoor, Integrated Unit
Size	13" x 13" x 2.5"	13" x 13" x 2.5"	18" x 18" x 3.5"
Weight	7.5 lbs.	8.0 lbs.	14 lbs.
Pole Mount Adapter	2-Axis Adjustment, Accommodates 1-3" pole diameter		
Environmental			
Temperature	-30C to +60C		
Humidity	0-100% condensing		
Water/Dust	Meets IP67 requirements		
Lightning Suppression	Integrated, IEC 6100-4-5 Class 5 compliant		
Wind	125 MPH survivability, 110 MPH operation		
Wind Load @ 125 MPH	83 lbs.	83lbs.	128lbs.
Regulatory			
Radio Compliance	FCC CFR 47, 15.247 Industrie Canada RSS 210, China MII[2002] 277 (pending) EU: EN 60950-1, EN 61000-3-2, EN 61000-3-3, EN 301 489-1, EN 301 893 (pending)		

\* Note 1: System performance and link distance for 36 Mbits/sec RF link rate setting. Throughput and link distance may be lower under NLOS conditions.