



AirTegrity™ 3204 Series
Single Radio Ethernet
Router/Bridge Systems
900MHz, 2.4GHz, 5GHz and 4.9 GHz



Key Features:

- Speeds up to 108 Mbps
- OFDM to 64 QAM
- Complete Security
- QoS for Voice & Video
- Up to 30 Miles
- Scalable Architecture
- Full IP Services
- AES, IPSec
- 900 MHz, 2.4 GHz, 5GHz Unlicensed Frequencies
- 4.9 GHz Licensed Public Safety



High Speed Intra Network Pipes

The AirTegrity AT3204 Series™ of Ethernet combined Routers and/or Bridges are designed for network operators looking to deploy state-of-the-art systems that provide the highest level of security and performance, while supporting carrier class QoS requirements needed for VoIP and other latency critical network data.

Using its comprehensive set of IP services, the AT3204 Routing/Bridge Series supports Bandwidth Management, Traffic Shaping, IP Routing, VPN and Encryption Services in a single pair of units. Available in a rugged NEMA 4X outdoor housing, it uses an industry standard PMC (PCI Mezzanine Card) slot for flexible radio card configurations.

The AirTegrity AT3204 Router/Bridge Series provides outstanding RF performance and convenient mounting options. Units can use the optional integrated high gain internal antennas or may be connected to higher gain directional antennas for extended range. The AT3204 Router/Bridge Series is ideally suited for any point-to-point application including, backhauling service provider networks, hot spots, fiber extension, campus buildings and video surveillance systems.

These systems can be configured to operate as traditional Ethernet bridges or optionally as a true IP router that supports standard RIP and OSPF routing protocols. With its wide selection of encryption protocols, including DES, DES3, IPSec and AES, you can truly deploy a secure wireless link, to feed any small, medium or large network.

High Performance Single Radio System Architecture

The AirTegrity AT3204 Router/Bridge Series utilize OFDM modulation with standard 20MHz channels. When operating in Turbo Mode these 20MHz channels expand to 40MHz wide to offer twice the throughput -Turbo mode, allows bit-rate transfer speeds of up to 108 Mbps.

The AirTegrity AT3204 Series Ethernet Router/Bridge systems provide outstanding RF performance and dynamically adjust the system operations to ensure link quality and system needs. Any radio interfaces card can be selected and integrated antennas are supported for the 2.4GHz, 4.9GHz & 5GHz frequencies only.





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Feature	Technical Specifications	Feature	Physical Specifications
Radio Architecture	WiFi 802.11a/b/g radios for backhaul See Radio Configuration Matrix Below	Dimensions	W 7.5 x H 7.5 x D 4 inches
Capability	LOS, non LOS, TDD (Time Division Duplex)	Mount	AZ/EL control—Pole Size 1 3/4±3" ø
Modulation	Auto Select QPSK, 16 QAM, 64 QAM	IEC Standard	Water Tightness IEC 529 / IP67
Encryption	DES, 3DES, AES	Wind Load	Front Thrust 47 Kg - Side Thrust 6 Kg
MAC	Point to Point	Temperature	-40° to +55° C
PHY	OFDM	Humidity	100% condensing, NEMA 4X
Data Rates	Configurable or Dynamically Auto Select 6-108Mbps	Regulatory	FCC Part 15 subpart C including 15.205/207 and 247, EN 300.328
Latency	2-6ms	Power / Data	PoE 19W / Single 10/100 Base-T Ethernet Port
		External Antenna Connector	N Type Female
		Internal Panel Antenna	Optional—15.5dBi (2.4), 18dBi (4.9) & 18dBi (5GHz)

Single Radio & Channel Configuration Matrix

Frequency	900 MHz	2.4-2.484 GHz	4.950-4.990 GHz Public Safety Band	5.725-5.850GHz
Protocol	802.11g	802.11b/g	802.11a	802.11a
Channel Size	5, 10, 20MHz	22MHz	5, 10, 20MHz	20, 40MHz
Maximum Transmit Power	+28 dBm	+28 dBm	+26 dBm	+28 dBm
Fade Margin Included	20 dB	20 dB	20 dB	20 dB
Rx Sensitivity Data Rate, Distance.	-93 dBm, 1Mbps -92 dBm, 2 Mbps -90 dBm, 6 Mbps -88 dBm, 11 Mbps -86 dBm, 18 Mbps -82 dBm, 24 Mbps -73 dBm, 48 Mbps -70 dBm, 54 Mbps	-97dBm, 6Mbps -94dBm, 9Mbps -91dBm, 12Mbps -90dBm, 18Mbps -86dBm, 24Mbps -83dBm, 36 Mbps -77dBm, 48 Mbps -74dBm, 54 Mbps	-93 dBm, 6 Mbps -92 dBm, 9 Mbps -91 dBm, 12 Mbps -90 dBm, 18 Mbps -85 dBm, 24 Mbps -82 dBm, 36 Mbps -76 dBm, 48 Mbps -73 dBm, 54 Mbps	-94dBm, 6Mbps, 12Mbps -93dBm, 9Mbps, 18Mbps -91dBm, 12 Mbps, 24Mbps -90dBm, 18 Mbps, 36Mbps -86dBm, 24 Mbps, 48Mbps -83dBm, 36 Mbps, 72Mbps -77dBm, 48 Mbps, 96Mbps -74dBm, 54 Mbps, 108Mbps
Integrated Antenna Options	External Antenna ONLY	2.400-2.475GHz, 15.5dBi, H-32, V-32 degree beam width flat panel or External Antenna N-Type Connector.	4.900-5.350GHz, 18dBi, H-9, V-9 degree beam width flat panel or External Antenna N-Type Connector.	5.150-5.875GHz 18dBi, H-18, V-18 degree beam width flat panel or External Antenna N-Type Connector
*Order optional external high-gain antennae separately				

AT3204 Series Ordering Options

- All radio configurations can be ordered with an N-type female connector for use with a high-gain external antenna
- Includes basic mounting hardware, POE injector, and localized power cord
- Order additional mounting hardware and optional external antenna separately
- Contact an AirTegrity representative for details on optional configurations

About AirTegrity Wireless, Inc.

AirTegrity™ Wireless is a market leader providing a secure wireless broadband platform that encompasses all networking and security requirements for the delivery of voice and data services in a single cohesive product. AirTegrity award winning wireless modules operate in both licensed and unlicensed frequencies. AirTegrity™ Smart Networks dramatically reduce the cost of network deployment, ownership and management by integrating Multi-Channel Radio and Antenna technology with powerful routing, switching and security functions into each AirTegrity™ system.

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