

# EB-58™ Broadband

## 5.8 GHZ BROADBAND CONNECTIVITY



**Intuicom's EB-58 Broadband provides the highest data rates along with the most robust industry-established security features. Designed for high bandwidth, long range industrial applications, the EB-58 Broadband utilizes the 5.8 GHz frequency band to provide a full-featured, enterprise class transceiver.**

### FUNCTIONALITY AND FLEXIBILITY

Simple to operate, the EB-58 offers a single solution for a broad range of applications. Each unit is universally configurable as either an access point or endpoint, and each unit can operate within either point-to-point or point-to-multipoint topologies. With up to 108 Mbps of available bandwidth, the EB-58 Broadband is capable of meeting the highest bandwidths supported within the 802.11a standard.

### "BEST-IN-CLASS" PERFORMANCE

Utilizing best-in-class OFDM-based technology along with the 802.11a industry standard, the EB-58 Broadband leads the marketplace in performance and efficiency.

Utilizing dynamic modulation techniques and auto-optimizing bandwidth allocation, the EB-58 is inherently resistant to interference from other RF equipment. With robust environmental specifications and security that includes, WPA2, AES encryption and RADIUS authentication, the EB-58 Broadband provides superior "real world" throughput and performance.

### EASE OF USE

Set-up has never been easier. Intuicom's set-up makes getting operational a straight-forward and simple process. The EB-58 includes utilities for site survey, antenna alignment, and auto discovery. The EB-58's ruggedized and weather-proof enclosures and Power-over-Ethernet (PoE) to ensure easy installation and quick deployment. Integrated antenna or external antennas options offer the flexibility to support a variety of installation requirements.

With proven performance in dense RF environments, Intuicom's wireless networks power through the congestion to provide reliable data transport where other technologies fall short.

### FEATURES

- Up to 108 Mbps data rates
- 20+ mile range (LOS)
- Extensive Security options including AES encryption, and RADIUS authentication
- 802.11a compatible
- OFDM technology
- Single Unit Operation™: any unit may serve as an access point or an endpoint
- Low power consumption
- Auto-crossover switching
- IP67 and NEMA exceeding environment specifications
- Complete Utility Suite to simplify set-up and operation

### APPLICATIONS

Security Systems  
 Video Surveillance/Monitoring  
 High Speed Backbones  
 T1/E1 Replacement  
 Mobile Data & Remote Access  
 Remote Sensor Data Collection  
 Backhaul connectivity to legacy networks

*To learn more about enabling wireless networking for your applications, please contact us at: [info@intuicom.com](mailto:info@intuicom.com) or call (303) 449-4330*





# EB-58™ Broadband

## 5.8 GHZ BROADBAND CONNECTIVITY

### GENERAL SPECIFICATIONS

	Pole Mount with External Antenna	Integrated Antenna
Enclosure	Ruggedized Extruded Aluminum	Ruggedized Extruded Aluminum with polycarbonate radome (UV shielded)
Size	8.25" x 5.95" x 2.30"	13.3" x 13.3" x 1.7"; 9.85" x 10.25" x 2.7"
Weight	3.75 lbs.	5.15 lbs.
Environmental	NEMA 67 RoHs compliant	IP 67 RoHs compliant
Operating Temperature	-40° C to +85° C (optimized for lo/hi-temp)	-40° C to +85° C (optimized for lo/hi-temp)
Antenna	Omni, Sector or Panel	Integrated flat panel, 23 dBi gain
Power Requirements	Input: 100 to 240 VAC, Power over Ethernet (POE) injector with surge protection Consumption: 7 W maximum	
Interface	RJ45, 10/100 Base-T Ethernet	
Mode	Access Point, End Point	

### WIRELESS TRANSCEIVER

Transmit Power	26 dBm maximum	
Data Rates	1 Mbps to 108 Mbps	
Receive Specifications	1 Mbps	-98 dBm
	6 Mbps	-95 dBm
	9 Mbps	-93 dBm
	12 Mbps	-91 dBm
	18 Mbps	-90 dBm
	24 Mbps	-86 dBm
	36 Mbps	-83 dBm
	48 Mbps	-77 dBm
54 Mbps	-74 dBm	
Security	WEP Encryption, WPA, WPA2, (including AES CCMP, TKIP), MAC/RADIUS Authentication	
Networking Features	Spanning Tree Protocol, DHCP, NTP, SNMP, VLAN, Routing, QOS (802.11e/WMM), VPN	
Channel Size	5 MHz, 10 MHz, 20 MHz, 40 MHz	
Modulation	OFDM, Adaptive modulation	
Wireless Protocol	802.11a, Intuicom Proprietary	
Utilities	Site Survey Tool, Antenna Alignment Tool, Discovery Utility	
Wireless Approvals	FCC Part 15, IC RS210	

### INTUICOM TURN-KEY KITS

All Intuicom Broadband units include	<b>POE Injector with surge protection</b> <b>160 feet of Cat.5 or better Industrial Outdoor rated cable</b> <b>Pole Mounting Hardware</b> <b>Intuicom's highly recognized support</b>
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Note: Specifications subject to change without notice

INTUICOM RADIOS REQUIRE PROFESSIONAL INSTALLATION

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# EB-6 PLUS™ Transceiver

HIGH SPEED IP/ETHERNET DATALINK



Intuicom's EB-6 PLUS is a long-range, high-speed industrial wireless transceiver enabling both IP and serial connectivity. The EB-6 PLUS provides remote serial and IP data connectivity to IP based networks, enabling high performance data transport, positioning and access for fixed or mobile operations.

## FUNCTIONALITY AND FLEXIBILITY

Providing Ethernet and dual serial port connectivity simultaneously, the EB-6 PLUS offers a single solution to a broad range of applications. With up to 867 Kbps of available bandwidth, the EB-6 PLUS is flexible enough to support legacy serials as well as the most current IP devices. Consistent with Intuicom's other transceivers, the EB-6 PLUS is multi-functional and may be operated as the access point, end-point, repeater, or endpoint/repeater in point-to-point and point-to-multipoint communications.

## "BEST-IN-CLASS" RF PERFORMANCE

Employing Intuicom's robust and secure frequency hopping spread spectrum technology, the EB-6 PLUS is inherently resistant to interference from other RF equipment including other spread spectrum radios. Empowered with an ultra sensitive and highly selective RF receiver, the EB-6 PLUS provides real-time, robust data transport. With top performance and security that includes 128-bit AES encryption, the EB-6 PLUS provides superior "real world" throughput and performance over other wireless products.

## EASE OF USE

Intuicom's embedded web-based set-up makes getting up and running a straight-forward and simple process. Not only is the EB-6 PLUS easy to set-up, but Intuicom makes it simple to optimize the performance of each transceiver on the network after it has been installed in the field. An IP addressable embedded server hosts a dynamic web page that provides diagnostics, performance criteria and access to key parameters for on-demand remote configuration.

With proven performance in dense RF environments, Intuicom's wireless networks power through the congestion to provide reliable data transport where other technologies fall short.

*To learn more about enabling wireless networking for your applications, please contact us at: [info@intuicom.com](mailto:info@intuicom.com) or call (303) 449-4330*

## KEY FEATURES

- Ethernet and dual serial port interfaces
- 40+ mile range (LOS)
- Secure, license-free 902-928 MHz FHSS technology
- Single Unit Operation™: any unit may serve as an access point, end point or repeater
- 867 Kbps over the air data rates
- 128-bit AES Encryption
- RADIUS compliant authentication
- Low power consumption
- Auto-crossover switching
- Optional embedded GPS

## APPLICATIONS

- Traffic system controls
- Video surveillance
- Security systems
- High speed backbones
- Mobile data & remote access
- Remote asset management
- AVL/Vehicle tracking
- Remote sensor data collection



# EB-6 PLUS™ Transceiver

HIGH SPEED IP/ETHERNET DATALINK

## GENERAL SPECIFICATIONS

Enclosure	Ruggedized extruded aluminum
Size	H: 56.6 mm x W: 74.4 mm x L: 165.1 mm
Weight	427 g
Operating Temperature	-40° C to +75° C
Connectors	
External Antenna	TNC-F
Data Interface	Ethernet: 10/100 BaseT, RJ45 (auto crossover) COM1: RS232/422/485, DB9-F COM2: RS232/422/485, DB9-F
Power (@ 12 VDC)	< 140 mA Receive; < 550 mA Transmit; 71 mA Idle
Input Voltage	6-30 VDC
Operating Modes	
Network Configurations	Point-to-Point, Point-to-Multipoint
Unit Operating Modes	Access Point, Repeater, End Point, Repeater/End Point
Unit Configurations	Access Point (Ethernet only), End Point (Ethernet and/or serial)

## WIRELESS TRANSCEIVER

Frequency Range	902 - 928 MHz (FHSS/FCC DTS)
Transmitter	
Output Power	5 mW to 1 W; Programmable
Range, Line of Sight	40 Miles / 15 Miles dependent on configuration
Modulation	2-level GFSK
Occupied Bandwidth	611.2 KHz
Spreading Method	Frequency Hopping/FCC DTS
Hopping Patterns	15 per band, 105 total, user selectable
Hopping Channels	41
Frequency Zones	16 Zones, 2-3 Channels per Zone
Receiver	
Sensitivity	-102 dBm at 10 <sup>-6</sup> BER at 614 Kbps -100 dBm at 10 <sup>-6</sup> BER at 867 Kbps
Data Transmission	
Error Detection	32 Bit CRC, retransmit on error
Data Encryption	128-bit AES, Proprietary Spread Spectrum Technology
Authentication	Central Authentication and RADIUS compliant
Protocol	TCP/IP, UPD, RS232/RS422/RS485
Data Rate* (over the air)	867 Kbps/614 Kbps
Management	HTTP, HTTPS, Locale Console; IP Auto Discover

**OPTIONAL EMBEDDED GPS** Contact Intuicom for configurations and specifications

\* Measured assuming 75% frequency availability  
Note: Specifications subject to change without notice.

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