

AEROCOMM Embedded Wireless Modules

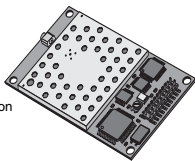


Wireless Solutions

AeroComm

2.4 GHZ AC4424 SERIES - WIRELESS TRANSCEIVER MODULES, FLEXIBLE PROTOCOL

AC4424 is a 2.4GHz FHSS digital transceiver that represents a breakthrough in industrial RF communication. Comprised of a complete, agency-certified radio and sophisticated RF232® protocol, AC4424 simplifies the OEM's design effort and assures successful field operation.



RF232 makes AC4424 a drop-in module for seamless integration, easy operation and fast time-to-market. As each transceiver receives raw data, it manages protocol over-the-air to assure successful transmissions. Headers, data packet length and CRCs are not needed. The process is transparent to the OEM.

AC4424 modules are socket-compatible with AeroComm's 900MHz AC4490 transceivers, enabling OEMs to design once and subsequently interchange radios to accommodate new markets, regulations and environments.* Developer tools and support back every transceiver line.

* Although AC4424s will not talk to AC4490s, socket-compatibility allows for seamlessly interchanging the modules network-wide.

** Power consumption assumes 50% transmitter on-time.

† 32 channels in U.S.; 16 channels in Spain, 16 channels in France.

Parameter	AC4424-10	AC4424-100	AC4424-200
Interface	20-pin mini connector	20-pin mini connector	20-pin mini connector
Frequency	2.402 - 2.478 GHz	2.402 - 2.478 GHz	2.402 - 2.478 GHz
Modulation	FHSS FSK	FHSS FSK	FHSS FSK
Serial Interface Options	3V or 5V TTL	3V or 5V TTL	3V or 5V TTL
Serial Interface Data Rate	Up to 192 Kbps	Up to 192 Kbps	Up to 192 Kbps
Output Power	10mW	100mW	200mW
Power Consumption**	115/90 mA	160/85 mA	260/90 mA
Sleep Mode	15 mA	15 mA	15 mA
Channels	4 sets of 16†	4 sets of 16†	4 sets of 16†
Security	One-byte system ID, DES	One-byte system ID, DES	One-byte system ID, DES
Voltage	5 V nominal ±2% ± 5 mV ripple	5 V nominal ±2% ± 5 mV ripple	5 V nominal ± 2% ± 5 mV ripple
Sensitivity	-100 dB @ full RF data rate	-100 dB @ full RF data rate	-100 dB @ full RF data rate
Range	Up to 0.5 mile (1 km)	Up to 1 mile (2 km)	Up to 2 miles (3 km)
Temperature	-40° to +80°C	-40° to +80°C	-40° to +80°C
Humidity	10% to 90%	10% to 90%	10% to 90%
Dimensions	1.65 x 2.65 x 0.20 inches (6.7 x 4.2 x 0.5 cm)	1.90 x 2.65 x 0.20 inches (6.7 x 4.2 x 0.5 cm)	1.90 x 2.65 x 0.20 inches (6.7 x 4.2 x 0.5 cm)
Weight	< 0.7 oz (< 20 g)	< 0.7 oz (< 20 g)	< 0.7 oz (< 20 g)
Antenna	MMCX receptacle	MMCX receptacle	MMCX receptacle

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	AeroComm Part No.	Description	Price Each	
			1	50
814-AC4424-10	AC4424-10	2.4GHz OEM Transceiver, 5V TTL Serial, 10mW	92.00	90.00
814-AC4424-10A	AC4424-10A	2.4GHz OEM Transceiver, 5V TTL Serial, 10mW, integral ant.	95.00	93.00
814-AC4424-100	AC4424-100	2.4GHz OEM Transceiver, 5V TTL Serial, 100mW	98.00	95.00
814-AC4424-200	AC4424-200	2.4GHz OEM Transceiver, 5V TTL Serial, 200mW	99.00	97.00

2.4 GHZ WIRELESS TRANSCEIVER MODULE DEVELOPMENT KITS, ANTENNAS, AND ACCESSORIES

For quantities of 10 and up, call for quote.

AeroComm provides a complete development environment to help you integrate and test RF communication in a matter of minutes.

Development Kits Include:

- 2 Transceivers
- 2 Adapter Boards
- Software Utilities
- 2 AC Power Adapters
- 2 DB9 serial cables
- 2 USB cables
- 2 Dipole Antennas
- Documentation

System Requirements:

- Win® 95, 98, ME, NT, XP, or 2K
- Two PCs each with one serial port, or one PC with two serial ports



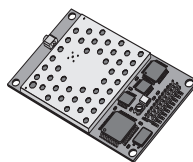
MOUSER STOCK NO.	AeroComm Part No.	Description	Price Each
2.4 GHz Development Kits			
814-SDK-AC4424-10	SDK-AC4424-10	AC4424-10 Developer Kit	199.95
814-SDK-AC4424-10A	SDK-AC4424-10A	AC4424-10A Developer Kit	199.95
814-SDK-AC4424-100	SDK-AC4424-100	AC4424-100 Developer Kit	199.95
814-SDK-AC4424-200	SDK-AC4424-200	AC4424-200 Developer Kit	199.95
2.4 GHz Antennas			
814-0600-00002	0600-00002	1/2 wave, 5", 2dBi, RA, MMCX plug	15.00
814-0600-00008	0600-00008	1/2 wave, 5", 2dBi, MMCX plug	15.00
814-0600-00014	0600-00014	1/2 wave, 5", 2dBi, RA, RPSMA	15.00
814-0600-00012	0600-00012	7", 5dBi, RA, MMCX plug	16.00
814-0600-00011	0600-00011	7", 5dBi, MMCX plug	16.00
814-0600-00010	0600-00010	7", 5dBi, RA, RPSMA	16.00
814-2150-00006	2150-00006	NZH2400 microstrip antenna	10.00
814-1300-00023	1300-00023	5" RG178 coax, RA MMCX plug to RPSMA bulkhead	14.00
2.4 GHz Accessories			
814-0700-00012	0700-00012	Samtec 20-pin mating connector for AC4424 and AC4490	4.00
814-0650-00005	0650-00005	Power Supply, 7.5 VDC, 1.5A, Sw. Reg, 100-240 VAC	20.00

868 MHZ AC4486/4868 SERIES - WIRELESS TRANSCEIVER MODULES

Compact 868MHz** transceivers can replace miles of cable in harsh environments. Using field-proven RF technology which needs no additional ETSI (Europe) licensing, OEMs with little or no previous RF experience can easily and quickly make existing systems wireless.

Modules features drop-in installation and a number of on-the-fly control commands, providing OEMs with a versatile interface. They can be used as direct wire replacements, requiring no special host software for communication. All synchronization, and RF system data transmission/reception is performed by the transceiver. The modules are socket-compatible** with AeroComm's 900MHz AC4490 modules and 2.4GHz AC4424 models to allow for interchanging the network's frequency. This preserves OEMs' hardware/software investments while providing solutions that meet different markets and regulations.

NEW FROM SUPPLIER



* The 868MHz frequency band is approved in Europe as an unlicensed spectrum subject to approval by device.

** Although AC4486/4868 radios will not talk to AC4490 radios, socket-compatibility allows for interchanging the modules network-wide.

Parameter	ACE6490 Model	ACE6790 Model
Interface	20-pin mini connector	20-pin mini connector
Frequency *	869.70 – 869.65MHz *	869.40 – 869.65MHz *
Modulation	FSK	SF FSK
Serial interface options	3V TTL	3V TTL
Serial interface data rate	Up to 115.2 Kbps	Up to 57.6 Kbps
Output power (w/ 2dBi ant.)	5mW variable	250mW variable
Power consumption	40mA/30mA (transmit/receive)	240mA/36mA (transmit/receive)
Security	One-byte system ID	One-byte system ID
Sensitivity (w/ 2dBi ant.)	-100 dB typical @ 76.8 Kbps	-103 dBm typical @28.8 Kbps
Voltage	3.3V nominal ±2%, +/-30mV	Pin 10: 3.3-5.5V ±50mV ripple Pin 11: 3.3V ±3%, ±100mV ripple
Range	Up to 1000 meters	Up to 15 kilometers
Temperature	-40o to +80°C	-40o to +80°C
Humidity	10% to 90%	10% to 90%
Dimensions	1.90 x 1.65 x 0.20 inches (49 x 42 x 5 mm)	1.90 x 1.65 x 0.20 inches (49 x 42 x 5 mm)
Weight	< 0.75 oz (< 21 g)	< 0.75 oz (< 21 g)
Antenna	External MMCX connector	External MMCX connector

MOUSER STOCK NO.	AeroComm Part No.	Description	Price Each	
			1	50
5mW Variable Modules				
814-AC4486-5M	AC4486-5M	868MHz transceiver, TTL serial RS232, 0–250mW, MMCX antenna	58.45	55.00
814-AC4486-5A	AC4486-5A	868MHz transceiver, TTL serial RS232, 0–250mW, integral antenna	60.35	57.00
250mW Variable Modules				
814-AC4868-250M	AC4868-250M	868MHz transceiver, TTL serial RS232, 0–250mW, MMCX antenna	78.65	75.00

868 MHZ WIRELESS TRANSCEIVER MODULE DEVELOPMENT KITS, ANTENNAS, AND ACCESSORIES

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System Requirements:

- Win® 95, 98, ME, NT, XP, or 2K
- Two PCs each with one serial port, or one PC with two serial ports



MOUSER STOCK NO.	AeroComm Part No.	Description	Price Each
868 MHz Development Kits			
814-SDK-AC4486-5M	SDK-AC4486-5M	AC4486-5M Development Kit	199.95
814-SDK-AC4486-5A	SDK-AC4486-5A	AC4486-5A Development Kit	199.95
814-SDK-AC4868-250M	SDK-AC4868-250M	AC4868-250M Development Kit	199.95
868 MHz Antennas			
814-0600-00020	0600-00020	1/2 Wave Antenna, 7", 2dBi, RA, MMCX plug	16.00
814-1300-00023	1300-00023	5" RG178 Coax Cable, RA MMCX plug to RPSMA bulkhead	14.00
868 MHz Accessories			
814-0700-00012	0700-00012	Samtec 20-pin mating connector	4.00
814-0650-00005	0650-00005	Power Supply, 7.5 VDC, 1.5 A, Sw. Reg., 100-240 VAC Input	20.00