# The fastest way to wireless.

AeroComm's AC5124 is a 2.4GHz FHSS digital transceiver designed specifically for secure, highly reliable RF communication in local-area data networks. The module is fully assembled, agency approved and ready to integrate into volume OEM applications. No additional hardware or software engineering development is required!

AC5124 supports point-to-point, point-to-multipoint, and multipoint-to-multipoint configurations. Accordingly, it is able to broadcast data to all transceivers or it can address packets to specific destinations using unique MAC addresses embedded in each radio.

AC5124 employs a user-selectable identification number embedded in the radio's firmware. Users can protect network integrity by assigning unique IDs to their radios; only radios with identical IDs will synchronize. No other radio can eavesdrop on AC5124—even if it's an AeroComm radio. The result is highly reliable wireless communication for even the most critical applications.
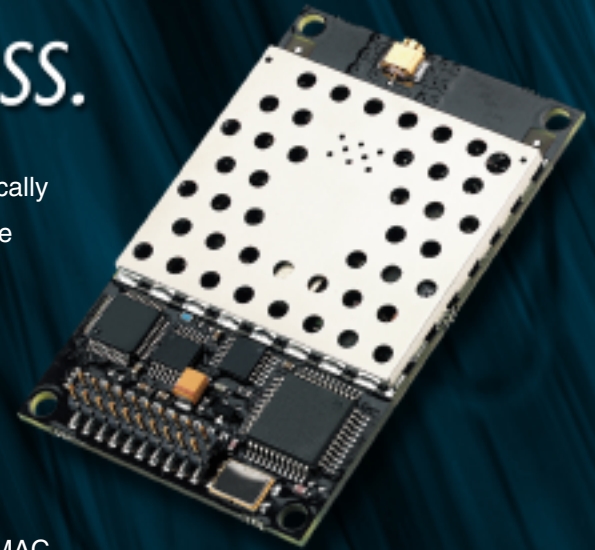
AC5124 Highlights

· Random back-off.
· Full duplex throughput of 115.2Kbps.
· Full modem handshaking.
· AT command mode for configuration.
· API command set.
· Auto destination mode.
· Eight-byte system ID for security.

Applications

Automotive
• Wheel alignment
• Handheld diagnostics
• Onboard diagnostics
• Engine analyzers
• Data logging

Signs & P.O.S.
• Scoreboards
• Parking & traffic signs
• Remote displays
• Printers & registers
• Kiosks & ATMs

Fleet management
• Vehicle tracking
• Cargo data
• Weight & load registry
• Maintenance logs
• Delivery confirmation

Gaming Devices
• Lottery machines
• Portable bingo
• Trivia sets
• Casino slots
• Gaming kiosks

Home & Recreation
• Fitness machines
• Pool & spa control
• Security systems
• Environmental control
• Audio & video

Specifications

PARAMETER	AC5124–10	AC5124–200
Interface	40-pin mini connector	40-pin mini connector
Frequency	2.402 - 2.478 GHz	2.402 - 2.478 GHz
Modulation	FHSS FSK	FHSS FSK
Serial interface options	5V TTL	5V TTL
Serial interface data rate	Up to 192 Kbps	Up to 192 Kbps
Output power	10mW	200mW
Power consumption** TX/RX	123/100 mA	280/100 mA
	Assumes 50% TX duty cycle	Assumes 50% TX duty cycle
Sleep mode TX/RX	25/45 mA	25/45 mA
Channels†	77	77
Security	Unique IEEE address	Unique IEEE address
Voltage	5 V nominal +/- 2% +/- 5 mV ripple	5 V nominal +/- 2% +/- 5 mV ripple
Sensitivity	-90 dB @ full RF data rate	-90 dB @ full RF data rate
Range	Up to 0.5 mile (1 km) line of sight	Up to 2 miles (3.2 km) line of sight
Temperature	-40° to +80ºC	-40° to +80ºC
Humidity (non-condensing)	10% to 90%	10% to 90%
Dimensions	1.65 x 2.65 x 0.20 inches (42 x 67 x 51 mm)	1.90 x 2.65 x 0.20 inches (42 x 67 x 51 mm)
Weight	< 0.7 oz (< 20 g)	< 0.7 oz (< 20 g)
Antenna	MMCX or integral	MMCX receptacle

* Although AC5124s will not talk to AC4490s, socket-compatibility allows for seamlessly interchanging the modules network-wide.
† 40 channels for Europe; 20 channels for France.

RF Architectures

Point-to-point

Point-to-multipoint

### Multipoint-to-multipoint

Peer-to-peer
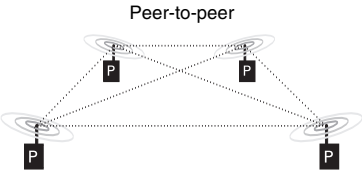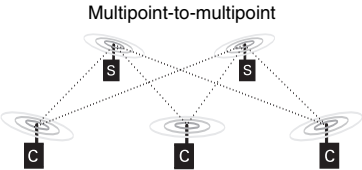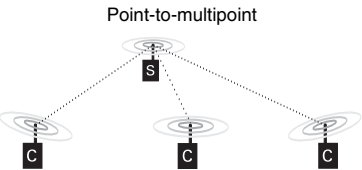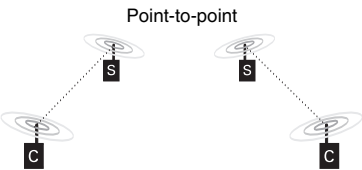
Ordering Information

Select features from the list below to identify the appropriate part number. More product lines are available for industrial & commercial applications. Contact an AeroComm Sales Representative for details: toll-free 1-800-492-2320, email sales@aerocomm.com.

DESCRIPTION: NUMBER:

DESCRIPTION	NUMBER
2.4GHz 10mW transceiver, 5V, TTL serial, −40º to +80º C temperature, MMCX antenna	AC5124-10
2.4GHz 10mW transceiver, 5V, TTL serial*, −40º to +80º C temperature, integral antenna	AC5124-10A
2.4GHz 200mW transceiver, 5V, TTL serial*, −40º to +80º C temperature, MMCX antenna	AC5124-200
2.4GHz 10mW Developer Kit, 5V, TTL serial*, −40º to +80º C temperature, MMCX antenna	SDK-AC5124-10
2.4GHz 200mW Developer Kit, 5V, TTL serial*, −40º to +80º C temperature, MMCX antenna	SDK-AC5124-200

RS485 interface available.

AC5124 module
(actual size)
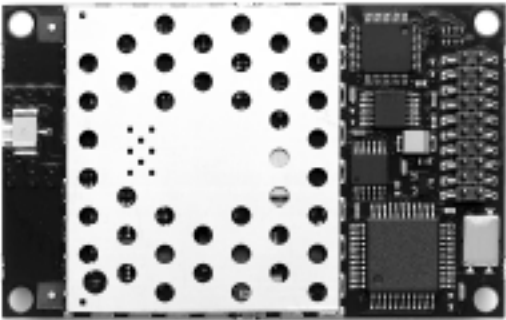
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  [AC5124-10](#) [AC5124-10A](#) [AC5124-200](#)