Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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The fastest way to wireless.

Designed to provide OEMs with license-free communications over long distances, AC4868 becomes the essential, affordable alternative to products operating in the saturated 433MHz band. The fully certified 868MHz transceiver delivers 250mW of output power, ideal for highly industrial European applications where reliable data deployment is crucial.

AC4868 supports a host of communication architectures: point-to-point, point-to-multipoint and peer-to-peer. Its dynamic serial firmware manages difficult over-the-air issues such as error detection, multipath concerns, link verification and interference. It is simply the best price/performance 868MHz available.

AC4868 modules are socket-compatible with AeroComm's 900MHz or 2.4GHz transceivers, enabling OEMs to design once and subsequently interchange radios to accommodate new markets, regulations and environments. European approval allows use of the transceiver in both mobile and fixed installations without further licensing requirements.

AC4868 Highlights

- *Approved for **European use.***
- ***Seamless** cable-to-transceiver replacement.*
- *High 868MHz data rate: **57.6 Kbps.***
- *Small form factor: **1.65 x 1.9 inches.***
- *Operates in **–40°C to +80°C** temperatures.*
- *250mW enables up to **15-kilometer range.***

Applications

Recreation Areas
- Irrigation systems
- Golf cart tracking
- Score keeping
- Order entry
- Grounds maintenance

Pool & Spa Control
- Temperature monitoring
- Pump activation
- Illumination
- Environmental controls
- Access & activity alerts

Point of Sale
- Inventory tracking
- Order processing
- Credit/debit verification
- Merchandise vending
- Portable registers

Gaming Devices
- Lottery machines
- Portable bingo
- Bar trivia
- Casino slots
- Game kiosks

Utilities Management
- Automatic meter reading
- Load profiling, forecasting
- Data management
- Tampering alerts
- Real-time support

Specifications

PARAMETER	AC4868–250
Interface	20-pin mini connector
Frequency	869.40–869.65MHz
Modulation	SF FSK
Serial interface options	3V TTL
Serial interface data rate	Up to 57.6 Kbps
Output power (w/ 2dBi antenna)	250mW variable
Power consumption (transmit/receive)	240mA/36mA
Security	One-byte system ID
Sensitivity (w/ 2dBi antenna)	-103 dBm typical @28.8 Kbps
Voltage	Pin 10: 3.3-5.5V +/–50mV ripple Pin 11: 3.3V +/–3%, +/–100mV ripple
Range	Up to 15 kilometers line of sight
Temperature	-40° to +80°C
Humidity (non-condensing)	10% to 90%
Dimensions	1.90 x 1.65 x 0.20 inches (49 x 42 x 5 mm)
Weight	< 0.75 oz (< 21 g)
Antenna	External MMCX connector

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

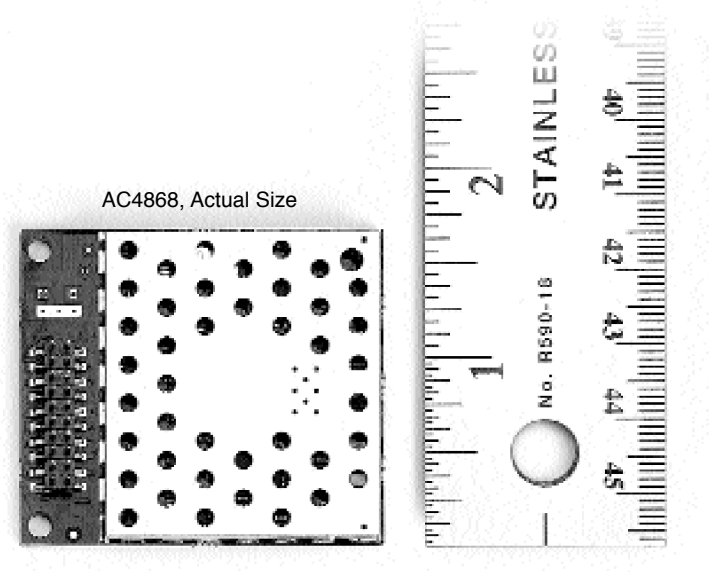
** Although AC4868 radios will not talk to AC4490 radios, socket-compatibility allows for interchanging the modules network-wide.

AEROCOMM

Flexible RF Protocol

AeroComm's embedded transparent protocol simplifies the OEM's integration process by allowing for drop-in installation. As each transceiver receives raw data, it manages over-the-air protocol to assure successful communication. Headers, data packet length, and CRCs are not needed.

RF232 supports simple cable-replacement to complex peer-to-peer configurations. Broadcast communication to all transceivers or address packets to a specific destination using unique MAC addresses embedded in each transceiver.



Protocol Features

RF PROTOCOL MODES

a) Communication
Unicast (one-to-one addressing)
Broadcast (one-to-many addressing)

b) Acknowledgement mode (ACK)
API with hardware/software ACK indication

INTERFACE PROTOCOL

a) On-the-fly transceiver configuration
Destination address
RF transmit power
Broadcast/addressed

b) 9-bit serial interface mode

c) A/D, D/A generic I/Os

d) Variable baud rate

e) RF packet size, timeout control

f) Onboard temperature sensor

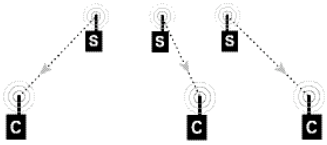
g) Handshaking
CTS/RTS

h) In-range indicator

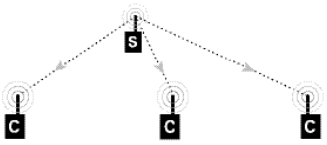
i) Error detection
Onboard CRC
Duplicate packet filtering

j) Data encryption standard (DES)

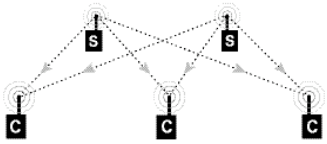
RF Architectures



Point-to-point



Point-to-multipoint



Multipoint-to-multipoint

Placing Orders

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

PART NUMBERS

AC4868-250M
868MHz transceiver, TTL serial RS232,
0–250mW, -40º to +80º C, MMCX antenna

AC4868-250M-485
868MHz transceiver, TTL serial RS485,
0–250mW, -40º to +80º C, integral antenna

AEROCOMM