

# ARM-C8

Transceiver radio O.E.M. 868MHz

Licence free M2M\*

>5 km in 868 MHz  
500mW

Serial Tx/Rx  
& Low Power



The ARM-C8 radio transmitter is a very high-performance embedded radio module enabling wireless connectivity to any electronic device equipped with a micro-controller with serial port interface. It integrates in standard, transparent and securized modes as well as the configuration by Hayes commands. It's also compatible with all the ARM range. Its easy-to-implement is unique: just only 4 pads: 5 and 3-3.3 VDC power supply, 0V, Rxd (Reception) and Txd (Transmission) to solder and it's done. The radio throughput is 19,200 bps in standard and as for the serial port one, it's configurable from 1,200 up to 115,200 bps.

The ARM-C8 is furnished in standard version with pins to solder or to plug in a tulip type support (thread: 2,54mm). Also available on volume, the option welds plat like a CMS component.



- ▶ RF module for **electronic designer**
- ▶ **868 MHz band** (433 et 915MHz, contact us)
- ▶ **European norm**, licence free
- ▶ **High sensibility, high range**
- ▶ Modes : **transparent and secured**
- ▶ Configuration with **AT commands**
- ▶ Module **2x12 pins or pads** (pins in standard)
- ▶ Basic functions : **4 pins !**
- ▶ **TCXO version** high performances
- ▶ **Low Power version**



## APPLICATIONS TYPE

Intelligent sensors radio-contacting

- Counting (objects, persons, etc.)
- Secured remote-control
- Terminals, wireless displays
- RFID deport
- UAV, pyrotechnics, etc.



## > Terminal pins

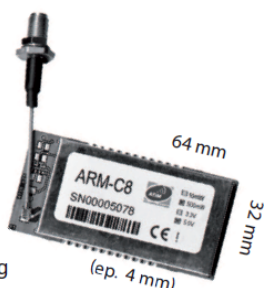
N°	Désignation	N°	Désignation
N°	Désignation	N°	Désignation
1	Gnd (ground)	13	Ground
2	Antenna	14	Power supply input 3,3V (link to the pin 15)
3	Gnd (ground)	15	Sortie alimentation 3.05-3.25V (max 20mA)
4	Vcc (power)	16	Test mode (put pull up)
5	CTS (Clear to Send)	17	Reserved
6	Rts (Request to Send)	18	Transition to sleep mode (if unused put 0V)
7	RxD (Reception data)	19	Reserved
8	TxD (Transmission)	20	Reserved
9	Radio channel select.	21	Reserved
10	Radio channel select.	22	Reserved
11	Radio channel select.	23	Interrupting input in sleep mode
12	Gnd (ground)	24	Reserved

\* Machine to Machine

[www.atim.com](http://www.atim.com)

# ARM-C8

Transceiver radio multi-canaux



Weight: 10 g

## ARM range compatibility

ARM-SE : radio modem Serial / Ethernet

ARM-IO : all versions

ARM-U8 : restrictive compatibility (see manual)

ARM-IO : all versions

ARM-U8 : restrictive compatibility (see manual)

## Articles references

ARM-C4 : (433 MHz / 10 mW) contact us

ARM-C8 : standard version (868MHz / 50mW)

SDK-C : Starter Development Kit

ANTCAB-UFL-SMA : coaxial cable 5cm with SMA-M

## CONNEXIONS

2x12 pins, thread: 2,54mm

12 pins, reserved for specific use

Miniature antenna connector UFL type (cable UFL/SMA in option) or by pads 1 and 2

### INTERFACE:

1 serial port low level (3,3V) Rx, Tx, Rts, Cts

3 input/output ports low level (3,3V)

1 extension connector (12 pins)

# Technical specifications

## FUNCTIONALITIES

RF card with micro-controller

TCXO version (very precise oscillator, clearee in temperature)

Low power version (performing sleep mode)

Transparent and secured/addressed modes

Customized firmware on demand (contact us)

## GENERAL INFORMATION

### CONFIGURATION:

With Hayes commands ("AT")

Parameters backup in EEPROM

With Hayes commands ("AT")

Parameters backup in EEPROM

### ENVIRONMENT:

Functioning temperature: -30°C to +60°C

Storage temperature: -40°C to +70°C

### NORMALIZATION:

RTTE1995/5/CE directive

ETS300-220-3v1.1.1

## RADIO INTERFACE

Bands: 868MHz (433 and 915MHz in option)

Powerful emission: 1 to 500mW depending on norms and frequency range

GFSK modulation

Radio debit: 19200bps NRZI

16 configurable channels via pin or soft

Sensibility in reception: -110dBm @ 9600bps

## POWER SUPPLY

5Vcc (low power version 3-3,3V)

Consumption: max 350mA in emission 500mW, <50µA in sleep mode with low power version



# www.atim.com

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