

ARM-U8

Transceiver radio multi-canaux



Licence free M2M*

>1 km in 868 MHz
(25mW)

Serial (low level 3.3V)



- ▶ Radio module **ready-to-use** with **microcontroller**
- ▶ **868 MHz band** (433 et 915MHz, contact us)
- ▶ **Bidirectional** communication over 1km
- ▶ **UART serial link** low level & I/O ports
- ▶ Fonctionning modes: **transparent and secured**
- ▶ Configuration with **AT commands**
- ▶ **10 pins** plugable module
- ▶ Antenna with **U.FL connector**
- ▶ « **Low cost** » radio module
- ▶ **Development kit** available

The ARM-U8 radio transceiver is a professional, high performance and low cost radio module enabling "Wireless" connectivity to any electronic board equipped with a microcontroller and serial port.

It manages in standard transparent and secured/addressed mode and the configuration by Hayes commands. It is compatible with all the ARM radio modem range.

Its simple-to-use is unique: 4 pins are enough for basic operation: Vcc power supply (3.3V) and 0V, serial link Rxd (reception) and Txd (transmission).

The ARM-U8 can be plugged on a support or soldered by the edge or flat on a printed circuit (10 pins, 2.54mm pitch).

The radio channel (among 16) can be selected either by "Hayes" commands over serial port, or via 3 pins (8 channels) ride during the power up.

This module can switch in standby mode with a low consumption and can be waked up on change of state or on cyclic wake-up for instance.

Depending on your applications, our team can customize the product and develop the appropriate software to fit with your requirement (required minimum quantity of order, contact us for further information).

> BROCHAGE du BORNIER

Upside vue of the ARM-U8 radio modem :

1 2 3 4 5 6 7 8 9 10

N°	Designation	N°	Designation
1	Ground 0V	6	TxD
2	Power supply 3.3V	7	Sleep mode transition
3	INP2 / OUT1	8	RTS /
4	Sleep mode transition Radio channel selection	9	CTS
5	RxD	10	Ground 0V

APPLICATIONS TYPE

SIMPLE AND PERMANENT WIRELESS TRANSMISSION

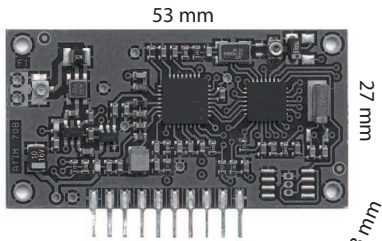
- Radio smart sensors
- Secured remote controls
- Objects or persons counting, etc.
- Wireless terminal and display
- Remote RFID
- Military applications



* Machine to Machine

ARM-U8

Transceiver radio multi-canaux



Weight: 5 g



Compatibility with ARM range

ARM-SE : Serial / Ethernet modem radio

ARM-IO : all versions

ARM-C8 : restricted compatibility see manual)

Article references

ARM-U4 : (433 MHz / 10 mW), contact us

ARM-U8 : standard version (868MHz / 50mW)

SDK-U : Starter Development Kit

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

CONNECTIONS



10 pins (2.54mm pitch)

Miniature U.FL type connector for antenna (UFL/SMA cable in option) or by soldering

INTERFACES

1 low-level serial port (3.3V) Rx Tx Rts Cts

3-5 low-level I/O ports (3.3V) of which

2 interruptions inputs

Technical specifications

FUNCTIONALITIES



RF card with microcontroller

Transparent mode

Secured and addressed mode

Customized software on request (contact us)

GENERAL INFORMATION



CONFIGURATION:

By Hayes commands (" AT ")

Parameters backup on EEPROM

ENVIRONMENTAL:

Operating temperature : -20 to +55°C

Storage temperature : -40 to +70°C

ENVIRONMENT:

RTTE1995/5/CE guideline

ETS300-220-3 v1.1.1

RADIO INTERFACE "RF"



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

ERP: 1 to 25mW according to standards and frequency range

GFSK modulation

Radio throughput : 9600bps NRZI

16 channels configurable by pin or by software

Sensitivity in reception ~ -100dBm@9600bps

POWER SUPPLY



3.3Vcc +/-5%

Consumption: < 100mA in transmission (25mW), <20mA in reception

Standby mode <50NA

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