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- FlexibleModular
  - Powerful
  - **▶** Robust
  - Certified

# SHORT FORM CATALOGUE



# **RF Modules**

Wireless Expertise
www.adeunis-rf.com

### TWIMO RF Modules

#### 863 / 870MHz

### 6000m range - up to 500mW

**HP868** 



Radiated RF Power: 27dBm Sensitivity: -110dBm

RF data rate: 10 / 38.4 / 57.6 kbps

Features : TDMA, Addressed, Transparent modes.... API version (programmable), RTU version (Radio gateway)

Power supply: 3 to 3.6V

Power consumption: 600mA (TX) -22mA (RX) - 25µA (Stby)

Operating temperature: -20 / +70°C Dimensions (mm): 32 x 16 x 3 Standards: EN300-220 v2010

Versions	Part Nb
RTU	ARF7581AA
API	ARF7736AA

#### 863 / 870MHz

## 1000m range - up to 50mW

**MP868** 



Radiated RF Power: 17dBm Sensitivity: -110dBm

RF data rate: 10 / 38.4 / 57.6 kbps

Features : TDMA, Addressed, Transparent modes.... API version (programmable), RTU version (Radio gateway)

Power supply: 3 to 3.6V

Power consumption: 100mA (TX) -22mA (RX) - 25µA (Stby)

Operating temperature: -20 / +70°C Dimensions (mm): 32 x 16 x 3 Standards : EN300-220 v2010

Versions	Part Nb
RTU	ARF7580AA
API	ARF7735AA

# Wireless M-Bus Modules

#### 868 / 870MHz

# 1000m range - 20mW -117dBm

RTL



Radiated RF Power: 14dBm

Sensitivity: -110dBm (T or S modes) / -117dBm (R mode)

RF data rate: 4.5 kbps (R mode) / 32 kbps (S mode) / 100 kbps (T mode) Fully certified M-Bus stack with applicative firmware: M-Bus modes: R / S / T

Power supply: 2 to 3.6V

Power consumption: 35mA (TX) - 25mA (RX) - <0.6µA (stby)

Operating temperature: -30 / +70°C Dimensions (mm): 26 x 16 x 2 Standards: EN13757-4: 2005

Versions	Part Nb
RTU	ARF7751AA

### 868 / 870MHz

# 1000m range - 20mW -117dBm

PRG



Radiated RF Power: 14dBm

Sensitivity: -110dBm (T or S modes) / -117dBm (R mode)

RF data rate: 4.5 kbps (R mode) / 32 kbps (S mode) / 100 kbps (T mode) Fully certified M-Bus stack with applicative firmware : Mbus modes: R / S / T

16KB of available memory to embedd client application

Power supply: 2 to 3.6V

Power consumption: 35mA (TX) - 25mA (RX) -  $<0.6\mu A$  (Stby)

Operating temperature: -30 / +70°C Dimensions (mm): 26 x 16 x 2 Standards: EN13757-4: 2005

PRG	ARF7751BA
Versions	Part Nb

<sup>\*</sup>All TWIMO and Wireless M-Bus modules have compatible footprints

### 2.41/2.48GHz

# 30m range - 1mW

#### **BTC2-Data**



Radiated RF power: 0dBm Sensitivity: -86dBm RF data rate: up to 3Mbps EDR Bluetooth 2.1 stack (Chipset BC04) Data profiles: SPP - OPP - DUN

Baseband - Link Manager - L2CAP - RFCOMM - SDP - SCO

Power supply: 3 to 3.6V

Power consumption: 50mA (RX) - 50mA (TX) Operating temperature: -35 / +70°C Dimensions (mm): 22 x 14 x 3

Versions	Part Nb
Integrated antenna	ARF7678AA
RF Out Pin	ARF7678BA

### 2.41 / 2.48GHz

# ▶ 150m range - 100mW

#### **BTC1-Data**



Radiated RF power: 20dBm Sensitivity: -86dBm RF data rate: up to 3Mbps EDR Bluetooth 2.1 stack (Chipset BC04) Data profiles: SPP - OPP - DUN

Baseband - Link Manager - L2CAP - RFCOMM - SDP - SCO

Power supply: 3 to 3.6V

Power consumption: 50mA (RX) - 300mA peak (TX)

Operating temperature: -35 / +70°C Dimensions (mm): 32 x 14 x 3

Versions	Part Nb
Integrated antenna	ARF7680AA
RF Out Pin	ARF7680BA
U.FL Connector	ARF7681AA

# Perform your application in a few minutes

# Starter Kits & Software Development Kits



Evaluate ADEUNIS RF products Perform RF measurements Develop a prototype

Available for the following modules

- TWIMO RF range
- Wireless M-Bus range
- Bluetooth® range

Versions	Part Nb
TWIMO HP868 Starter Kit	ARF7864AA
TWIMO MP868 Starter Kit	ARF7865AA
TWIMO - Software Development Kit	ARF7689AA
Wireless M-Bus Starter Kit	ARF7863AA
BTC1-Bluetooth® Starter Kit	ARF7861AA
BTC2-Bluetooth® Starter Kit	ARF7862AA

### TWIMO Extension board for Starter kit



Versions	Part Nb
TWIMO HP868 Extension Board	ARF7860CA
TWIMO MP868 Extension Board	ARF7860CB
869MHz SMA Articulated antenna	ACC1300AE

### WMBus Extension board for Starter kit



Versions	Part Nb
Wireless M-Bus Extension Board	ARF7860BA
869MHz SMA Articulated antenna	ACC1300AE

### Bluetooth® Extension board for Starter kit



Versions	Part Nb
BTC1-Bluetooth® Extension Board	ARF7860AA
BTC2-Bluetooth® Extension Board	ARF7860AB
2.4GHz SMA Right angle antenna	ACC1300AD

#### **869MHz**

# **▶** 6000m range - up to 500mW

ARF54



Radiated RF Power: 27dBm Sensitivity: -103dbm RF data rate: up to 57.6kbps

Features: Transparent, Addressed, Repeater modes

Power supply: 2.7 to 3.6V

Power consumption: 700mA (TX) / 35mA (RX)

Operating temperature: -30 / +70°C Dimensions (mm): 41 x 24 x 6

Exteri	nal antenna	ARF7429A
Versio	ons	Part Nb

### 902/928 MHz

# 6000m range - 500mW

ARF54



Radiated RF Power: 27dBm Sensitivity: -103dbm RF data rate: up to 57.6kbps Features: Addressed mode Power supply: 2.7 to 3.6V

Power consumption: 700mA (TX) / 35mA (RX) Operating temperature: -30 / +70°C Dimensions (mm): 41 x 24 x 6

Versions	Part Nb
External antenna	ARF7429B

### 863/870MHz

### 300m range - 8mW

ARF44



Radiated RF Power: 9dBm Sensitivity: -103dbm RF data rate: 19.2 kbps Features: Transparent mode Power supply: 2.5 to 3.6V

Power consumption: 36mA (TX) / 23mA (RX) Operating temperature: -30 / +70°C Dimensions (mm): 27 x 24 x 6

External antenna	ARF7419A
Version	Part Nb

# **Remote Control**

## 869.525MHz

# 300m range - 2 ways

ARF18





#### Remote control

Radiated RF Power: 7dBm (6mW)

Modulation: FSK

Operating temperature: -30 / +70°C

#### **OEM** receiver

Sensitivity: -104dBm Power supply: 2.7 / 3.6V Consumption: 15mA

Numbers ok keys	Part Nb
1 key	ARF7292A
2 keys	ARF7292B
3 keys	ARF7292C
4 keys	ARF7292D

Receiver version		Part Nb
OEM	Outputs: serial interface level, 0/VCC	ARF7294A

# **Transmitters**

#### 869.52MHz

# **▶** 400m range - 10mW

#### ARF19



RF Radiated Power: 10dBm RF data rate: 1.2 to 2.4 kbps Power supply: 2.2 to 5V Power consumption: 15mA Operating temperature: -20 / +70°C Dimensions (mm): 25 x 14 x 7

Versions	Part Nb
ASK	ARF7242A
FSK	ARF7242B

#### 869.52MHz

# 4000m range - 500mW

ARF27



RF Radiated Power: 27dBm RF data rate: 1.2 to 2.4 kbps Power supply: 2.7 to 5V

Power consumption: 150mA to 600mA Operating temperature: -20 / +70°C Dimensions (mm): 24 x 30 x 7

ASK	ARF7243A
Versions	Part Nb

### Receivers

#### 869.52MHz

# AM / FM Digital link

**ARF19 / 27** 



Sensitivity: -113dBm (ASK) / -107dBm (FSK)

RF data rate: 1.2 to 2.4 kbps (ASK) / 1.2 to 9.6 kbps (FSK)

Power supply: 2.2 to 5V Power consumption: 10mA Operating temperature: -20 / +70°C Dimensions (mm): 26 x 15 x 7

Versions	Part Nb
ASK	ARF7245A
FSK	ARF7244A

# **Custom solutions & RF applications**

### From idea ... to product ... to market

Short time to market through wireless engineering expertise combinated with low-cost production



# Typical applications



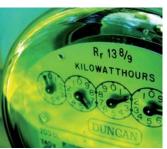
### Public & consumer market

Home automation
Access control
Alarm - Security
Technical building management
Clock system management
Medical
Electronic surveillance



#### Industry

Remote control for automation Measurement & telemetry Remote management Traceability On-board systems Door remote control Logistics & storage



**Energy - Environment** 

Metering Gas and oil industries Water treatment Photovoltaic Windmill



### Long range

Site-to-site communication Electronic display Signaling Agriculture Transport

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	<b>•</b>	Note	



#### **About ADEUNIS RF**



Founded in 1993, Adeunis RF is a privately owned independent company, designing and manufacturing solely Wireless Products. Based in the High Tech Valley near Grenoble and partnered with several research institutes and organizations, we benefit from unique technical expertise.

With an installed base of more than 4 million units and an annual production exceeding 500 000 pieces, we have acquired experience in a myriad of markets and applications requiring wireless connectivity. Our success is not only based on profitability and market share, but on building enduring, long term partnerships with our Customers based on our core values of innovation, quality, compliance and environmental responsibility.

#### Services & skills

#### Skills area

Solutions using Bluetooth, Wifi & Zigbee standards
Worlwide ISM bands
Rf solutions from kHz to GHz
Low consumption products
Mesh - Addressed - Repeater & Transparent transmission modes

#### Standard expertise

Owner of several patents
Strong worldwide Standards knowledge
Partnership with European laboratories
Capability to propose pre/full certifications and European Notifications
Strict compliance with Standards: EN300-220, EN301-489, EN300-113, EN60950 ...

Your local distributor



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