SHORT FORM CATALOGUE

Stand-Alone products and Accessories

TYPICAL RF APPLICATIONS

Energy - AMR

Remote energy reading and measurement, urban heating control, energy management in buildings and data centers, remote control of public lighting, energy cartography and regulation. RF solutions developed by ADEUNIS RF enable fine and optimized management of resources while achieving substantial energy savings.

Security & control

ADEUNIS RF is present in many fields linked to the security of goods and persons and access control: building security, alarms, access control to sites and danger zones, control of retractable bollards, management of hourly badge readers, secure stoppage devices for maintenance crews, home automation applications, ...

Military

ADEUNIS RF develops and installs RF systems, dedicated on-board systems in the military and defense sectors: target carrier systems, control of fuel cells and drones, night vision, frontier surveillance, etc...

General public

Geolocation systems, remote control of autonomous humanoid robots, maintenance of ticket validators, real-time display of the number of parking spaces available, queue management, electronic score displays, totems for fuel, ...,ADEUNIS RF designs and develops radio solutions based on extremely varied customer issues.

Industry

ADEUNIS RF contributes to the development of wireless systems in hostile industrial environments: industrial machine control, automatic system monitoring, trouble shooting, radio control for lifting machines, satellite positioning systems, drilling machines, container tracking, etc.

Transportation

By providing our radio skill, ADEUNIS RF contributes to developing complex systems in the field of transport, such as the control of traffic light priority, information for travellers, timetable synchronisation, car park and vehicle management, electronic display systems, signalling, satellite location systems....

Health

Wireless sensors for patients with respiratory problems, wireless links for intracranial pressure sensors, portable digital radiography appliances, miniature wireless sensors for orthopedic surgery, emergency call systems and satellite location, etc. ADEUNIS RF develops RF customized or catalogue systems, respecting strict constraints specific to the health field.

LICENCE-FREE RADIO MODEMS

ARF868 ULR

ARF868 ULR Integrated antenna	ARF7940AA
ARF868 ULR TNC antenna	ARF7940BA

Range	Up to 20km
Frequency	863-870MHz
Power	500mW
Radiated RF Power	27dBm
Number of channels	19 @2.4kbps/27dBm, +500 @2.4kbps/14dBm
Sensitivity	-120dBm
Modes	Transparent, Addressed, Repeater, Network, Legacy X3
RF Data rate	2.4 to 57.6kbps
UART data rate	1.2 to 115.2kbps
Serial port	RS232/RS485 autobaud
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

ARF868 LR

ARF868 LR Integrated antenna	ARF7941AA
ARF868 LR TNC antenna	ARF7941BA

Range	Up to 7km
Frequency	863-870MHz
Power	500mW
Radiated RF Power	27dBm
Number of channels	19 @2.4kbps/27dBm, +500 @2.4kbps/14dBm
Sensitivity	-112dBm
Modes	Transparent, Addressed, Repeater, Network, Legacy X3
RF Data rate	2.4 to 57.6kbps
UART data rate	1.2 to 115.2kbps
Serial port	RS232/RS485 autobaud
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

ARF868 MR

ARF868 MR Integrated antenna	ARF7942AA
ARF868 MR TNC antenna	ARF7942BA

Range	Up to 4km
Frequency	863-870MHz
Power	25mW
Radiated RF Power	14dBm
Number of channels	+500 @2.4kbps/14dBm, 60 @57,6kbps/14dBm
Sensitivity	-120dBm
Modes	Transparent, Addressed, Repeater, Network, Legacy X3
RF Data rate	2.4 to 57.6kbps
UART data rate	1.2 to 115.2kbps
Serial port	RS232/RS485 autobaud
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

ARF868 LP

ARF868 LP Integrated antenna	ARF7943AA
ARF868 LP TNC antenna	ARF7943BA

Range	Up to 1km
Frequency	863-870MHz
Power	25mW
Radiated RF Power	14dBm
Number of channels	+500 @2.4kbps/14dBm, 60 @57,6kbps/14dBm
Sensitivity	-112dBm
Modes	Transparent, Addressed, Repeater, Network, Legacy X3
RF Data rate	2.4 to 57.6kbps
UART data rate	1.2 to 115.2kbps
Serial port	RS232/RS485 autobaud
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

LICENCE-FREE RADIO MODEMS

ARF169 ULR

ARF169 ULR TNC antenna	ARF7944BA

Range	Up to 15km (whip short antenna)
Frequency	169.4-169.6 MHz
Power	500mW
Radiated RF Power	27dBm
Number of channels	11@27dBm
Sensitivity	-122dBm
Modes	Transparent, Addressed, Repeater, Secured
UART data rate	1.2 to 115.2kbps
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

ARF53-915MHz

ARF53-915MHz Integrated antenna RS232 / RS485	ARF7474CF
ARF53-915MHz TNC antenna RS232 / RS485	ARF7474EF
ARF53-915MHz Integrated antenna USB	ARF7474GF
ARF53-915MHz TNC antenna USB	ARF7474IF

Range	Up to 6km
Frequency	902-928MHz
Power	500mW
Radiated RF Power	27dBm
Number of channels	50 FHSS
Sensitivity	-112dBm
Modes	Transparent, Addressed, Secured
UART data rate	9.6 / 57.6kbps
Supply voltage	4.5 to 36Vdc
Operating temperature	-30° / +70°C

WIFI® MODEMS

ARF45 PRO

ARF45 PRO WEP64, WEP128, WPA-PSK	ARF7532I
ARF45 PRO WEP64, WEP128, WPA-PSK, WPA2-PSK, WPA2- Enterprise	ARF7532K

Range	Up to 200m
Frequency	2.41-2.48GHz
Power	32mW
Sensitivity	-82dBm
Modes	Transparent
Serial port	RS232
UART data rate	2.4 to 921.6kbps
Set up & Configuration	RS232 - Telnet / HTTP
Supply voltage	8 to 30Vdc
Operating temperature	-30° / +70°C

UNDER LICENCE FREQUENCIES RADIO MODEMS

ARF73

ARF73 TNC antenna RS232	ARF7499B
ARF73 TNC antenna RS485	ARF7499C
ARF73 TNC antenna RS232 - STIF	ARF7499D

Range	Up to 25km
Frequency	406-470MHz
Power	0.5 to 4W
Radiated RF Power	27 to 36dBm
Sensitivity	-115dBm
Modes	Transparent, Addressed, Repeater
RF data rate	4.8 / 9.6kbps
Serial data rate	9.6 / 115.2kbps
Serial port	RS232 or RS485
Supply voltage	10 to 28Vdc
Operating temperature	-30° / +70°C

WIRELESS M-BUS MODEMS / AMR RANGE

Transmitter
Wireless M-Bus

W-MBus Transmitter AMR Gas	ARF7904
W-MBus Transmitter AMR Water	ARF7906

Radio transmission of meter data (consumption index)

RF Radiated power : 14dBm (25mW)

Range : up to 1000m

Extremely simple and fast installation

Up to two meters per transmitter

Up to 12 years of autonomy on battery (T1 - 10s)

IP65 and ATEX standards

Gas & Water version

Repeater
Wireless M-Bus

W-MBus Repeater AMR Mains	ARF7923AA
W-MBus Repeater AMR Self powered	ARF7924AA

Radio repetition of Wireless M-Bus consumption indexes

RF Radiated power : 14dBm (25mW)

Sensitivity : -117dBm

Range : up to 1000m

Up to 200 products can be repeated (T1 mode), up to 60 products repeated (S1 mode), up to 30 products repeated (R1 mode)

Extremely simple and fast installation

Several repeaters can be associated

Mains or self-powered version

IP65 standard

Receiver
Wireless M-Bus

W-MBus Receiver AMR RS232	ARF7922BA
W-MBus Receiver AMR RS485	ARF7922CA
W-MBus Receiver AMR USB	ARF7922EA

Radio reception of Wireless M-Bus consumption indexes

RF sensitivity : -117dBm

Extremely simple and fast installation

RS232 or RS485 serial port, USB port

Mains power supply

External antenna

IP65 standard

The combination of products in the Adeunis RF AMR range allows you to create an independent ecosystem to ensure the emission, transport and collection of consumption indexes using Wireless M-Bus protocol.

Our Wireless M-Bus solution provides a **full compatibility with EN 13757-4: 2005 standard**.

WIRELESS M-BUS MODEMS / AMR RANGE

Gateway
W-MBus/GPRS

AMR GATEWAY BATTERY / INT.ANTENNA	ARF8011AA
AMR GATEWAY BATTERY / EXT.ANTENNA	ARF8011BA
AMR GATEWAY MAINS / INT.ANTENNA	ARF8015AA
AMR GATEWAY MAINS / EXT.ANTENNA	ARF8015BA

W-MBus data collector / GPRS transmission
RF Radiated power : 14dBm (25mW)
Range : up to 1000m (W-MBus)
Extremely simple and fast installation
GSM/DCS GPRS module
Lifespan self-powered version: up to 5 years
IP67 and IK8 standards
Mains or self-powered version

USB Dongle
Wireless M-Bus

DONGLE USB WMBUS AMR	ARF8020AA

USB Wireless M-Bus transmitter/receiver
RF radiated power : 14dBm (25mW)
Range : up to 200m
Extremely simple and fast installation
W-Mbus modes : R1, R2 / S1, S1-m, S2 / T1, T2
Power supply : 5V/USB
Standards : EN 300-220, EN 301-489, EN 60950, EN 13757-4:2005

I/O MODULES

ARF51 PRO

ARF51 PRO 4 digital I/O + 2 analog I/O	ARF8029BA

Range	Up to 20km (integrated RF modem)
I/O refreshing rate	from 100ms
Digital Inputs	0/40V NPN
Digital Outputs	0/40V PNP
Analog Inputs/Outputs	12 bits 0/20mA or 0/10V
Supply voltage	10 to 36Vdc
UART data rate	9.6 / 57.6kbps
Bus	RTU Modbus
Operating temperature	-10°/+70°C

ARF51

ARF51 4 digital I/O	ARF8029AA

Range	Up to 20km (integrated RF modem)
I/O refreshing rate	from 100ms
Digital Inputs	0/40V NPN
Digital Outputs	0/40V PNP
Supply voltage	10 to 36Vdc
UART data rate	9.6 / 57.6kbps
Bus	RTU Modbus
Operating temperature	-10°/+70°C

ARF50 PRO & ARF50

ARF50 PRO 4 digital I/O + 2 analog I/O	ARF7663BA
ARF50 4 digital I/O	ARF7663AA

	ARF50 PRO	ARF50
Range	Up to 25km (depending on radio modem connected)	
I/O refreshing rate	from 100ms	from 100ms
Digital Inputs	0/40V NPN	0/40V NPN
Digital Outputs	0/40V PNP	0/40V PNP
Analog Inputs/Outputs	12 bits 0/20mA or 0/10V voltage	
Supply voltage	10 to 36Vdc	10 to 36Vdc
UART data rate	9.6 / 57.6kbps	9.6 / 57.6kbps
Connection to modem & supervisor	RS485	RS485
Bus	RTU Modbus	RTU Modbus
Operating temperature	-10°/+70°C	-10°/+70°C

BLUETOOTH® DONGLES

ARF62

ARF62 DCE/DB9F + power supply	ARF7501B
ARF62 DTE/DB9M + power supply	ARF7502B
ARF62 DTE/DB15HD M + self-powered	ARF7503C
ARF62 DCE/DB9F + DTE/DB9M	ARF7509A

Range	Up to 150m
Frequencies	2.41-2.45GHz
Sensitivity	-87dBm
RF data rate	Up to 723kbps
Serial port	DCE/DB9 - DTE/DB15
Profiles	GAP - SDAP - SPP - DUN
Size	65 x 20 x 25mm

REMOTE CONTROL 433MHz - 1 way

ARF18

ARF18 remote control 1 key	**ARF7291A**
ARF18 remote control 2 keys	**ARF7291B**
ARF18 remote control 4 keys	**ARF7291D**
ARF18 remote control 8 keys	**ARF7291R**

Range	**150m**
Frequency	433.92MHz
Power	1mW
Operating temperature	-30° / +70°C
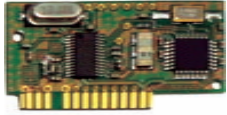
ARF18 OEM Receiver	**ARF7293A**

Sensitivity	**-104dBm**
Frequency	433.92MHz
Consumption	15mA
Outputs	Serial interface level, 0/VCC
Power supply	2.7-3.6V

ARF18 Receiver 1 relay NO/NC	**ARF7341F**
ARF18 Receiver 2 relays 1NO + 1NO/NC	**ARF7341D**
ARF18 Receiver 4 relays NO	**ARF7341B**
ARF18 Serial decoder RS232	**ARF7263K**
ARF18 Serial decoder USB	**ARF7263S**

Sensitivity	**-104dBm**
Frequencies	433.92MHz
Consumption	16mA (RS232) - 32mA (USB)
Power supply	8 to 30V
Enclosure	IP65 box
Operating temperature	-30° / +70°C

REMOTE CONTROL 869MHz - 2 ways

ARF18

ARF18 remote control 1 key	**ARF7292A**
ARF18 remote control 2 keys	**ARF7292B**
ARF18 remote control 3 keys	**ARF7292C**
ARF18 remote control 4 keys	**ARF7292D**

Range	**300m**
Frequency	869.525MHz
Power	6mW
Operating temperature	-30° / +70°C
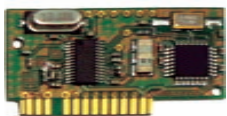
ARF18 OEM Receiver	**ARF7294A**

Sensitivity	**-104dBm**
Frequency	869.525MHz
Consumption	15mA
Outputs	Serial interface level, 0/VCC
Power supply	2.7-3.6V

ACCESSORIES

Antennas

Impedance: 50 Ohms
TNC connector type: Male

	Designation	Frequency	Gain	Size	Part Nb
	Flexible antenna 1/2 Wave	863/870MHz	2dBi	17.5 cm	**ACC1400AA**
	Antenna 1/2 Wave	902/928MHz	5dBi	21.5 cm	**ACC1400BM**
	Antenna 1/2 Wave	400/440MHz	5dBi	39 cm	**ACC1400AO**
	Antenna 1/2 Wave	425/455MHz	5dBi	38 cm	**ACC1400AP**
	Antenna 1/2 Wave	445/470MHz	5dBi	36.5 cm	**ACC1400AQ**
	Antenna 1/4 Wave + fixing system	400/470MHz	0dBi	10 x 10x 3 cm + 17cm	**ACC1400BP**
	Dual-band GPS/ISM groundplane antenna	869MHz - GPS	2dBi	6.8 x 4.8 x 4 cm	**ACC1400AU**
	Dual-band GPS/ISM groundplane antenna	410/430MHz - GPS	2dBi	diam: 16 cm	**ACC1400AS**
	Groundplane antenna	410/430MHz	2dBi	diam: 16cm	**ACC-1400AE**

Antenna adapters & supports

	Designation	TNC Connector type	Size	Part Nb
	TNC converter package	1 Male/Male + 1 Female/Female	-	**ACC1400AM**
	Fixing system for antenna	Male/Female adapter	10 x 10 x 3 cm	**ACC1400AN**
	DIN Rail fixing system for ADEUNIS RF IP65 boxes	-	-	**ACC1400AT**

Antenna cables

	Designation	TNC Connector type	Size	Part Nb
	Antenna cable - Coax 0.5dB loss	Male to Female	100 cm	**ACC1400AH**
	Antenna cable - Coax 1dB loss	Male to Female	300 cm	**ACC1400AI**
	Antenna cable - Coax 1.5dB loss	Male to Female	500 cm	**ACC1400AJ**

Power blocks
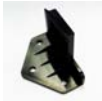
	Designation	Connector type	Size	Part Nb
	Power block - 220Vac/50mA to 9Vdc/500mA	Jack 3.5/1.3 «+ on the middle» connector	185 cm	**ACC1400AB**
	Power block - 100-240V - 50/60Hz - 250mA 9V	For ARF868 modems with lockable jack connector	200cm	**ACC1500AC**

ACCESSORIES

IP Protection for ARF868 modems

	Designation	Part Nb
	IP53 Protection for ARF868 modem	**ACC11500AD**
	IP67 Protection for ARF868 modem	**ACC1500AE**

Bracket accessories for ARF868 modems

	Designation	Part Nb
	Wall mount for ARF868 modem	**208816**
	Tube mount for ARF868 modem	**208815**

Miscellaneous for ARF868 modems

	Designation	Part Nb
	Lockable Jack connector for ARF868 modem	**ACC1500AA**
	Clamping tool for ARF868 modem Jack connector	**208820**

Data & Power cables

	Designation	Connector	Size	Part Nb
	Cable	USB to serial converter for ARF868 modem	150 cm	**ACC1500AB**
	Serial RS232 cable	DB9F to DB9M	100 cm	**ACC1400BS**
	Serial RS232 cable	DB9F to DB9F	100 cm	**ACC1400BT**
	4-wire cable	4-wire WAGO terminal block to breakout cable	75 cm	**ACC1400BK**
	4-wire cable	4-wire WAGO terminal block to breakout cable	200 cm	**ACC1400BL**
	4-wire cable for ARF50 chaining		100 cm	**ACC1400BV**

NOTES

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 Wireless M-Bus, Bluetooth®, Wifi® standards
Worldwide ISM bands
RF solutions from kHz to GHz
Low consumption products
Network - 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, EN13757 EN60950 ...

Your local distributor

V3.1.2.