



Long distance UART TTL Module



This module enables a **two-way digital link** up to a range of **6000m**.

Available in the **869MHz** or **902/928MHz** in FHSS (Frequency Hopping Spread Spectrum) bands, these **pre-certified** module-modems usable **without a licence** can be qualified in compliance with the RTTE European Directive EN 300-220 / EN 300-489 and the FCC Part 15.247 American standard.

It is considered as a **complete radio solution** which integrates a digital radio transceiver, a microcontroller, a dedicated firmware. Data transmission is performed via a UART serial interface.

Its easy integration even for non RF specialists, allowing a high reduction of technologic risks and costs and a « Time to market » optimization.

It covers most applications requiring **long-distance communication**, automatic watering control system, long distance GPS data transmission, yachting autopilot, fireworks launching system, modular remote control system, modular radio telemetry system ...and more generally all types of applications requiring long range or in particular disturbed environment.

Specifications

	869MHz version (Europe)	902/928MHz version (US)
• Embedded protocol	ADEUNIS RF enhanced & versatile RF comm manager	Idem
• Embedded profiles	Middle data rate multichannel Modem	Full & sub-band FHSS modem
• Link setup & configuration	High data rate monochannel Modem	Improved full & sub-band FHSS modem
• Rough data rate	Through AT commands	Idem
• Serial Link	10 & 57.6kbps	Idem
• UART programmable data rates	RS232 TTL or RS485	Idem
• UART TTL ports	(lignes de gestion buffer 485)	From 1.2 to 57.6kbps
• Function modes	From 0.6 to 115kbps	Idem
• Specific modes	TXD - RXD - RTS - CTS	Idem
• Programmable frequency	or RS485 driving capability	Addressed Secured
• Channelization	Transparent or Addressed	Idem
• Modulation	Development upon request	902 to 928MHz
• Programmable radiated RF power	869.40 to 869.65MHz	50 channels
• Sensitivity	1 (WB) – 3 (NB)	Idem
• Range	FSK	Idem
• RSSI level	Up to 500mW / 27dBm	Idem
• Operating voltage	-106dBm (WB) / -110dBm (NB)	Idem
• TX / RX consumption	5000m (WB) 6000m (NB)	Idem
• Operating temperature	RF signal qualification	Idem
• Size	3.3V nominal (2.7 to 3.6V)	Idem
• Can be qualified in compliance with	550mA / 35mA	Idem
	-20°C / +70°C	Idem
	42 x 20 x 4 mm	FCC Part 15.247
	RTTE EN 300-220/EN 301 489	

DemoKit - Integration kit including : demoboard, module, RS232 cable, power supply

- Evaluate the products
- Perform RF measurements
- Develop a prototype

Part Numbers

ARF7429A : 869MHz version Module-modem
 ARF7429B : 902/928MHz version Module-modem
 ARF7439Q : 869MHz DemoKit
 ARF7439R : 902/928MHz DemoKit

Your distributor