A RF54

Long distance UART TTL module

This module enables **a two-ways 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

	863/870MHz version	902/928MHz version
• Embedded protocol	ADEUNIS RF enhanced & versatile RF comm manager	
• Embedded profil	Middle data rate multichannel Modem High data rate monochannel Modem	Full & sub-band FHSS modem Improved full & sub-band FHSS modem
• Link setup & configuration	Through AT commands	
• Rough data rate	Programmable up to 57.6kbps	
• Serial link	RS232 TTL or RS485 (485 buffer lines)	
• UART TTL ports	TXD - RXD - RTS - CTS or RS485 driving capabilities	
• Specific modes	Specific development upon request	
• Modulation	FSK	
• Programmable radiated RF power	Up to 500mW / 27dBm	
• Sensitivity	-108dBm (WB) / -112dBm (NB)	
• Range	5000m (WB) 6000m(NB)	
• RSSI level	RF signal qualification	
• UART programmable data rates	Standards from 0.6 to 115kbps	from 1.2 to 57.6kbps
• Function modes	Transparent or Adressed	Adressed secured
• Programmable frequencies	869.40 to 869.65MHz	902 to 928MHz
• Channelization	1 (WB) – 3 (NB)	up to 50 channels

DemoKit - Integration kit including : demoboard, module, cable RS232, power supply :
• Evaluate the products
• Perform RF measurements
• Develop a prototype

Part Numbers

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

Your distributor

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