Adeunis RF
Wireless products & solutions

A RF32

Class2 Bluetooth® module for Data or Audio transmission

This miniature module enables **full duplex Bluetooth® data or audio transmissions over 20m**.
It uses the international 2.45 GHz frequency band as described by European Directive RTTE / EN300-328 / EN301-489 and US FCC part 15 (USA/CAN).This module is **Bluetooth V2 "End Product" certified**, meaning users are able to directly use the Bluetooth® logo. Data transmission and configuration are both managed through UART-type TTL serial interface. The air rate is **723kbps**. **Miniature antenna is included**.

With the "Data" version, the embedded SPP profile allows the ARF32 module to establish a wireless serial connection with **PDAs, laptops, mobile phones** or any other Bluetooth enabled device.
The "Audio" versions offer, on top of the data features, an SCO link that supports **HFP, HSP and HSAG profiles**. By using the HSAG profile, the ARF32 module becomes a gateway to **any generic Bluetooth headset**. With the HFP and HSP profiles, and with additional basic microphone and speaker, the ARF32 module becomes a **"hand free" system**.

Both "Data" and "Audio" versions are extremely easy to use, evaluate and integrate with the tools included in the DemoKits.

Specifications

Available versions : "Data" / "Data & digital Audio" / "Data & analog Audio"

General characteristics

Bluetooth V2 stack	**Baseband, Link manager, L2CAP, RFCOMM, SDP, SCO**
Comm & Data profiles	**GAP, SDAP, SPP**
Air rate	**723 kbps**
Serial "TTL" Port	**TXD - RXD - RTS - CTS**
UART rate	**Standards from 9.6 up to 921.6kbps**
Frequency	**FHSS / 2.402 to 2.480GHz**
Radiated RF power	**1 mW through integrated antenna**
RF sensitivity	**-85 dBm for BER 10-3**
Operating range	**> 20 m**
Operating voltage	**3.3V typ (2.85 up to 3.6V)**
Consumption	**< 45 mA**
Temperature range	**-35°C / +70°C**
Dimensions	**25 x 18 x 3,5 mm** (+1.5mm for Audio version)
Compliance	**EN 300-328 / EN 301 489** (Europe) - **FCC part 15** (USA/CAN)
Mounting	**Plugged** (or SMD only for Data version)

Specific audio characteristics

	Digital version	Analog version
Audio profiles	**HFP* , HSP**, AG*****	
Digital Audio coding	**PCM**	**PCM 13 bits**
Onboard Audio CODEC	**n/a**	**WINBOND W681360**
Audio bandwidth	**Depends on host**	**200 - 3400 Hz**
Audio I/Os	**PCM SRD-STD-SFS-SCLK**	**External Mic / Earphone**

* Hand free profile
** Headset
*** Audio gateway

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

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

Part Numbers

ARF7044A : Class2 Bluetooth® module - "Data" version
ARF7069B : RS232 "Data" DemoKit
ARF7208A : Class2 Bluetooth® module - "Data & analog Audio" version
ARF7208D : Class2 Bluetooth® module - "Data & digital Audio" version
ARF7213B : RS232 "Audio" DemoKit

Your distributor

V4