

deRFnode for AVR and ARM based radio modules

Datasheet

- The deRFnode is a development and application platform optimized for dresden elektronik radio modules based on AVR and ARM microcontrollers.
- The deRFnode platform supports pluggable dresden elektronik radio modules.
- Designed for low power current consumption.
- The serial USB interface allows the radio module communication with a host PC or notebook.
- The platform can be powered over USB, DC-Plug or battery.
- Onboard sensors for transmission of environmental data like temperature, luminosity and acceleration.
- Onboard memory sufficient for data storage and over-the-air firmware updates.

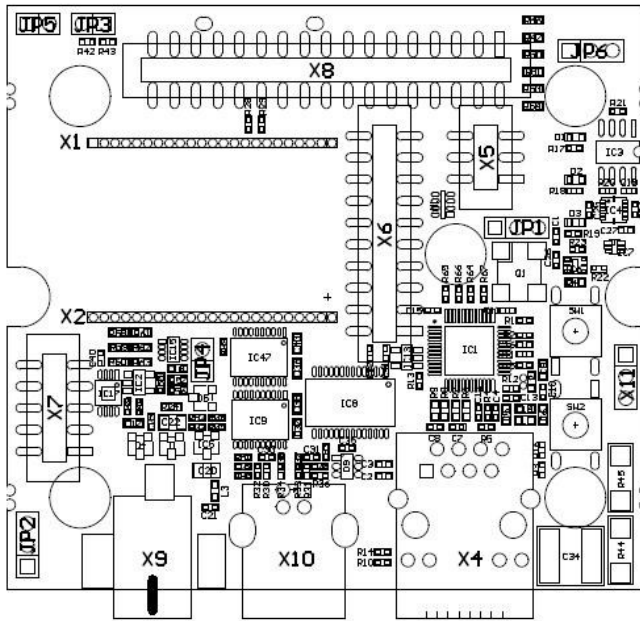


Technical Data

Dimensions	70 x 68 x 33 mm
IP protection	IP 00
Operating temperature	-40 to +85°C
Control and display elements	2x Buttons and 3x LED
Power supply	DC: 5 VDC USB: 5 VDC over USB Battery: 3 x AA
Power consumption	deRFnode with deRFmega128 radio module I _{sleep} = 10 µA I _{idle} = 10 mA I _{TxRxOn} = 28 mA (TXpwr = +3 dBm)
Interfaces	JTAG (AVR & ARM), Debug, USB, I2C, UART, SPI, ADC
Onboard Sensors	Temperature, Luminosity, Acceleration
Onboard Memory	4 Mbit Serial Flash
Supported Radio Modules	deRFarm7 series (pluggable), deRFmega128 series (pluggable), deRFmega256 series (pluggable), deRFsam3 series (pluggable)
Certification	CE

Technical Data

Board Overlay



Top View deRFnode

- X1 & X2: Radio Module
- X4: Ethernet RJ45
- X5: Debug & Trace
- X6: JTAG for ARM
- X7: JTAG for AVR
- X8: 34 Pin User Interface
- X9: DC
- X10: USB Type-B

- JP1: Acc. INT or SW2
- JP2: Bat or DC/USB
- JP3: VBAT monitor
- JP4: RST Supervisor
- JP5: VCC module
- JP6: SW1

Overlay

Scope of delivery

deRFnode for AVR/ARM

Accessories (optional)

RS232 level shifter
DC power supply 5 V / 1.2 A

Board variants

deRFgateway for ARM
deRFnode for ARM

Order No.

BN-031634

BN-028560
BN-023431

BN-031633
BN-031632

Order Information

Variants

More information about the variants are described in detail in the user manual.
Order online: <https://shop.dresden-elektronik.de>

Contact