

# Bluetooth-Module PAN1560



## OUTLINES - ENW89802J



Now you can integrate Bluetooth at its full range of more than 100 m (open field), without qualification – with the PAN1560. It has a serial interface and additional interfaces for integration into your system.

The PAN1560 is manufactured in a 47,5 x 20,0 x 4,0 mm<sup>3</sup> SMD package with an integrated ceramic antenna and has been qualified as a Bluetooth 1.2 product.

Re-qualification of your product is usually not required.

This is why the PAN1560 is particularly suited for units produced in smaller or medium quantities.

**Any customizations for the hard- and software can be handled by our design partner Stollmann.**

## FEATURES

### Overview

- Embedded Bluetooth Stacks including SPP, GAP and SDAP Profile available, other profiles supported on request
- Embedded applications supported
- Full product qualification (typically no re-qualification is needed)

### Basic Features

- Adaptive frequency hopping (AFH) enabled (1.2)
- High throughput (>600 kbps)
- Hold-, Park- and Sniffmode
- Up to 128 bit encryption
- Audio capability on an SCO channel
- Support for very low power modes - sleep and deep sleep
- All bluetooth data rates (up to 57,6/723,2Kbps)

### Interfaces

- Full-speed USB version 2.0 compliant
- Programmable baud rate UART (300 bps - 921,6 Kbps)
- Debug UART (DUART)
- Up to 14 General Purpose I/O's (interruptible)
- PCM audio (1 channel)
- SPI and JTAG interface

### Radio Features

- High sensitivity design (-80 dBm typ.)
- Integrated ceramic antenna and RF shield
- Optional external antenna
- Class 1 module (range approx. 100 m)



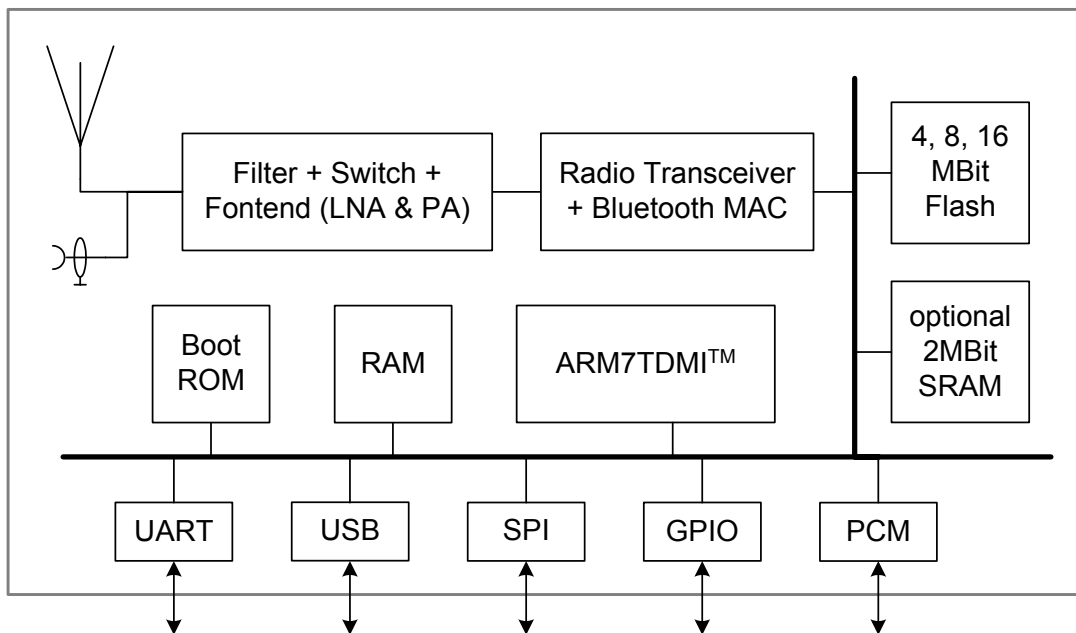
MODULES  
WIRELESS

**APPLICATIONS**

All Embedded Wireless Applications where range is important.

- Printer Adapters
- Printers
- Access Points
- Wireless Sensors
- Industrial Applications
- Cable Replacement
- Personal Digital Assistants (PDAs)
- PC Motherboards
- PC Peripherals
- Scanners

**BLOCK DIAGRAM**



**TECHNICAL CHARACTERISTICS**

Parameter	Value	Condition / Note
Receiver Sensitivity (BER=10 <sup>-3</sup> )	-80 dBm	with DH5 package
Output Power	13,5 dBm typ.	max. 20 dBm
Power Supply	3,3V ±2%	Single operation voltage
Deep Sleep Power Consumption	600 µA	@3,3V 32kHz Crystal is on board
Bluetooth connected (115 kbit/s)	75 mA	@3,3V
Idle Mode, no bluetooth link	18 mA	@3,3V
Operating Temperature Range	-25°C to +70°C	