

Bluetooth V2.0 Embedded PAN1555-EMB-2.0



OUTLINES - ENW89815A3KF

Now you can integrate Bluetooth very easy in your final product, without qualification – with the PAN1555. This solution follows the national and international regulations, e.g. CE (Radio, EMC, Safety), FCC and IC. The PAN1555 is manufactured in a 13.50 x 22.75 x 2.85 mm³ SMD package with an integrated ceramic antenna or plug and will be qualified as a Bluetooth 2.0 product. Re-qualification of your product is usually not required. This is why the PAN1555 is particularly suited for units produced in smaller or medium quantities. This module is a one to one replacement for the well known PAN1550.

Any customizations for the software can be handled with our recommended partners.

FEATURES

General

- Complete Bluetooth 2.0 + EDR solution
- Full product qualification (Bluetooth, CE, FCC, IC)
- Profiles: GAP, SDAP, SPP, HID and HDP available, other could be supported on request.
- CSR BlueCore6-ROM inside
- Cortex-M3 ST32F103 core for embedded profiles or application software
- Temperature Range from -40°C to +85°C
- Supply Voltage Range from 2.7V to 3.6V, typ. 3.3V
- Fast Connection Setup
- Support for 802.11 Coexistence

Interfaces

- UART (programmable baud rate), USB, I²C, SPI and ADC
- 18 GPIOs for individual usage for your embedded software
- All bluetooth data rate up to 2178kbps asymmetric
- PCM Interface Master / Slave supporting 13 or 16 bit linear, 8 bit μ -law or A-law Codecs and CVSD transcoders on up to 3 SCO channels.

Bluetooth

- High Sensitivity Design (typ. -86 dBm)
- Full 8- to 128-bit encryption
- Power control and RSSI, Hold-, Park- and Sniffmode
- Support for very low power modes - sleep and deep sleep

MODULES
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WIRELESS

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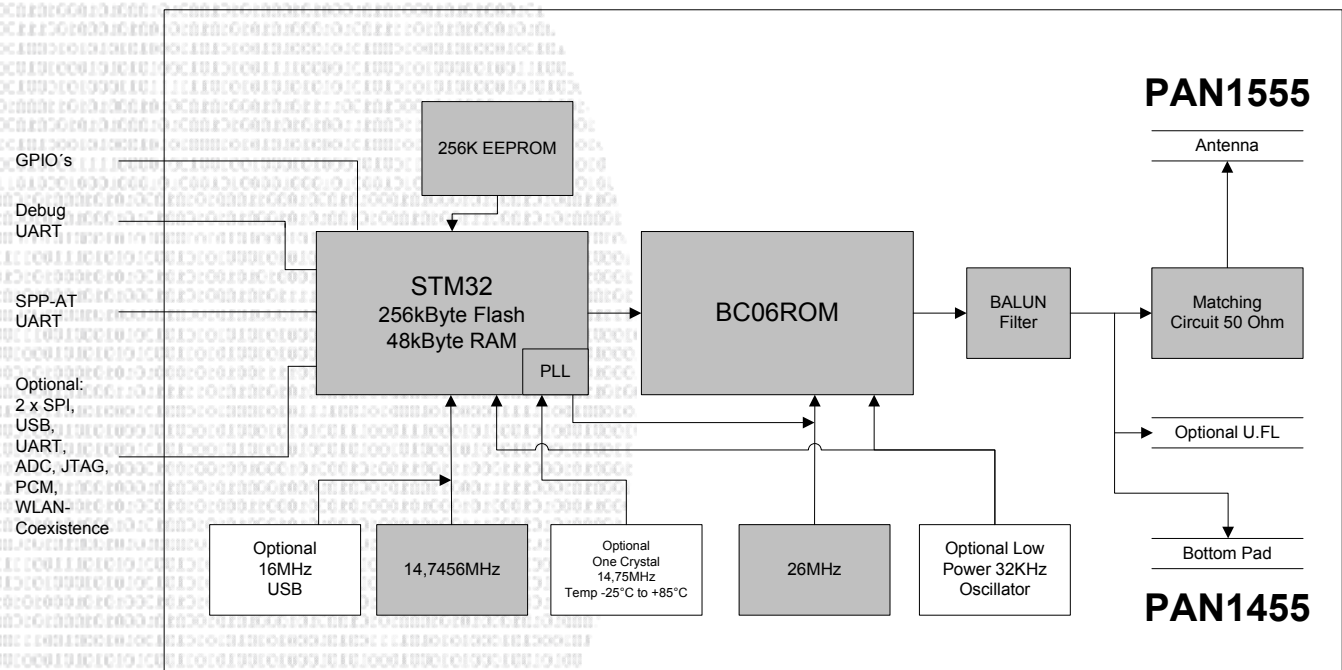
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APPLICATIONS

All Embedded Wireless Applications

- Printer Adapters
- Printers
- Access Points
- Wireless Sensors
- Industrial Applications
- Cable Replacement
- Personal Digital Assistants (PDAs)
- Personal Navigation Devices
- Medical Applications

BLOCK-DIAGRAM



TECHNICAL CHARACTERISTICS

Parameter	Value	Condition / Note
Receiver Sensitivity (BER=10 ⁻³)	-86 dBm typ.	ideal wanted signal
Output Power	+4 dBm typ.	
Power Supply	2,7 - 3,6 V	Single operation voltage
Ultra Low Power Mode	<100 µA	T = 25°C
ACL (connected DH5)	50.5mA to 49.5mA	max. power to min. power ⁽¹⁾
ACL (connected DH1)	48.0mA to 46.0mA	max. power to min. power ⁽¹⁾
Operating Temperature Range	-40°C to +85°C	Storage until +125°C

(1) Figure indicates to the shortest poll period and to the slave mode