

Bluetooth V2.1 HCI Module PAN1320-HCI-2.1



PAN 1320

OUTLINES

Now you can integrate Bluetooth very easily into your final product, with the PAN1320-HCI. If you are searching for a SPP version, please have a look to PAN1311/PAN1321. The PAN1320 is manufactured in a SMD LGA package with shielded case. Total size including antenna is 15,6 x 8,7 x 2.8 mm³. The module is qualified to the Bluetooth 2.1 standard. Due to a very attractive price PAN1320 is well suited for units produced in all quantities, if you are able to integrate an HCI module into your application. This module complies with the national and international regulations, e.g. EMC, Safety, EN300328, FCC and IC.



FEATURES

General

- Complete Bluetooth 2.1 + EDR solution
- Ultra low power design
- Temperature range from -40°C to 85°C
- Integrates ARM7TDMI, RAM and patchable ROM
- On-module voltage regulator. External supply 2.7-3.6V
- Reference clock included
- Low power clock from internal oscillator or external low power clock (e.g. 32.768 kHz)
- Dynamic low power mode switching
- No external components needed (antenna is included)

Interfaces

- 3.25 MBaud UART with transport layer detection (HCI UART, HCI Three-Wire UART)
- PCM/I2S interface for digital audio
- WLAN coexistence interface
- General purpose I/Os with interrupt capabilities. JTAG for boundary scan and debug

Bluetooth

- Piconet with seven slaves. Scatternet with two slave roles while still being visible
- SCO and eSCO with hardware accelerated audio signal processing
- Power control and RSSI. Hold, Park and Sniff.
- Adaptive Frequency Hopping, Quality of Service, Channel Quality Driven Data Rate
- Bluetooth security features: Authentication, Pairing and Encryption
- Bluetooth test mode and Infineon's active Bluetooth tester mode

MODULES
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WIRELESS

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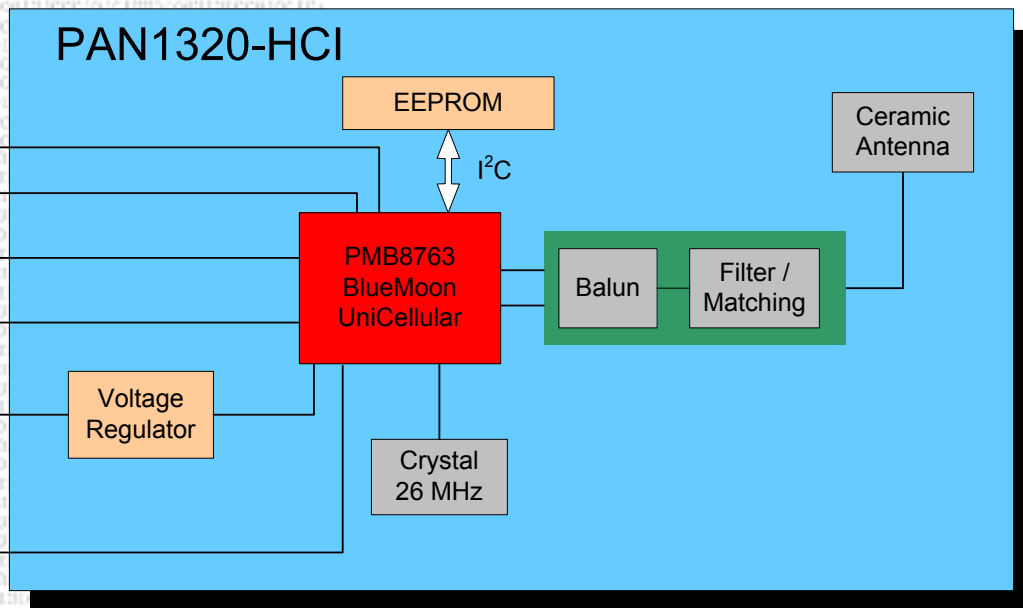
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APPLICATIONS

All Wireless Applications

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

BLOCK DIAGRAM



TECHNICAL CHARACTERISTICS

Parameter	Value	Condition / Note
Receiver Sensitivity (BER=10 ⁻³)	-86 dBm	ideal wanted signal
Output Power	3dBm typ.	max. 4 dBm
Power Supply	2,7 - 3,6 V	Single operation voltage
Ultra Low Power Mode	80µA	T = 25°C
ACL (Transmit 3-DH1)	40mA	Enhanced Data Rate, 544.0 kb/s ⁽¹⁾
ACL (Receive 3-DH1)	37mA	Enhanced Data Rate, 544.0 kb/s ⁽¹⁾
Operating Temperature Range	-40°C to +85°C	

(1) Figure indicates maximum possible data rate with this packet type