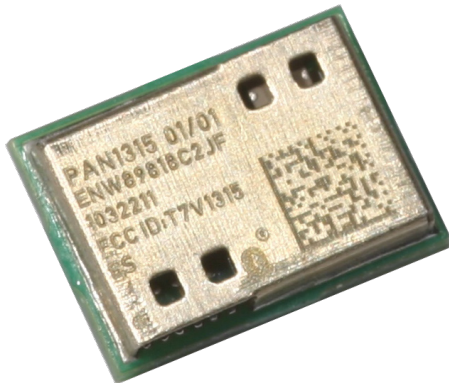


Bluetooth 4.0 LE Dual Mode HCI Module PAN1316



OUTLINES - ENW8923C2JF

Panasonic's new PAN1316 Host Controlled Interface (HCI) Bluetooth Low Energy dual mode module brings Texas Instrument's seventh generation Bluetooth core integrated circuit, the CC2564, to an easy to use module format.

Panasonic's tiny footprint technology has produced a module of only 58.5mm². The module is designed to accommodate PCBs pad pitch of 1.3mm and as little as two layers for easy implementation and manufacturing.

This module has been designed to be 100% pin compatible with the previous generation of Bluetooth Classic devices PAN1315.

This unique design feature provides the possibility to seamlessly switch Bluetooth classic products to Bluetooth low energy.

The PAN1316 connects mobile devices such as cellular phones and small button cell battery powered devices like fitness sensors, watches, and healthcare accessories. It can be easily implemented and creates a data chain from Bluetooth low energy to Bluetooth classic devices.

FEATURES

General

- Communicates with BT Low Energy single mode devices
- Best-in-class Bluetooth RF performance (Tx, Rx sensitivity, blocking)
- Fully Qualified Bluetooth v4.0 EDR, FCC and IC listed, CE complied
- Dimensions: 6.5 mm x 9.0 mm x 1.8 mm (width x length x height)
- Operating Temperature Range: -20°C to +70°C
- Supply Voltage Range: 1.7 - 4.8 V
- Based upon TI's CC2564
- Profiles: SPP, HDP, Audio and others can run on the host processor
- Integrates with TI's ultra low-power MSP430 microprocessor
- Very fast algorithm for both ACL and eSCO
- Supports Extended Range Tx power with 10.5dBm typical output
- Low power scan method and inquiry scans at 1/3rd normal power

Interfaces

- 3.25 Mbaud UART with transport layer detection (HCI UART, HCI Three and Four Wire UART)
- PCM/I2S interface for digital audio

MODULES
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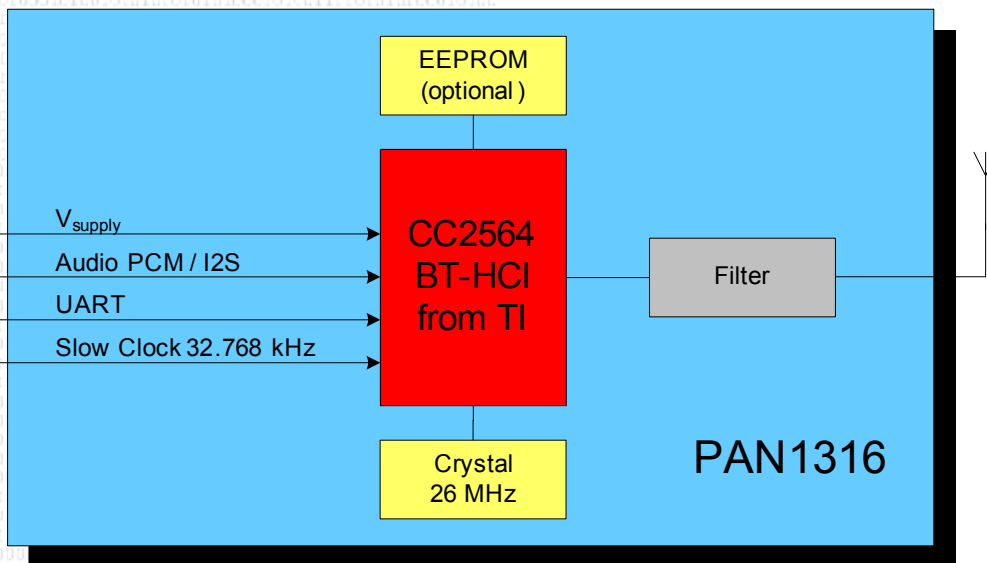
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APPLICATIONS

All Wireless Applications

- Medical Applications
- 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)	-93 dBm	ideal wanted signal
Output Power	10.5 dBm typ.	max. 4 dBm for BT Class2
Power Supply	1,7 - 4,8 V	Battery or DC/DC
Ultra Low Power Scan	135 µA	1.28s Interval
eSCO Link 2-EV3	8.3 mA	Enhanced Data Rate, 544.0 kb/s ⁽¹⁾
EDR 3-DH1\3-DH5	39.2 mA	Enhanced Data Rate, 544.0 kb/s ⁽¹⁾
Operating Temperature Range	-20°C to +70°C	

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