Panasonic ideas for life Ideas for Wireless Solutions Bluetooth 4.0 LE Dual Mode HCI Module PAN1326



The picture shows previous version



OUTLINES - ENW8923A2JF



Panasonic's new PAN1325 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 85.5mm². 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 PAN1325.

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

The PAN1326 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.



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: 9.0 mm x 9.5 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

Design and Specifications are subject to change without notice. Ask the factory for technical specifications before purchase and/or use. If there is any doubt regarding the safety of this product, kindly inform us immediately for technical consultation. PAN1326 BT4.0 Rev. A1

Hardware Status: Engineering Samples

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CONTACT

Stefan Koltes

Endrich Bauelemente Vertriebs GmbH Hauptstrasse 56 72202 Nagold, Germany Tel. +49 (0)7452-6007-22 Fax +49 (0)7452-6007-822

E-Mail: s.koltes@endrich.com HTTP: www.endrich.com

APPLICATIONS

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- All Wireless Applications
- Medical Applications
- Printers
- Access Points
- Wireless Sensors
- Industrial Applications

BLOCK DIAGRAM

- Cable Replacement
- Personal Digital Assistants (PDAs)
- PC Motherboards & Peripherals
- Scanners
- Mono & Stereo Audio Applications



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

Hardware Status: Engineering Samples