

PAN1326C

Bluetooth Basic Data Rate and Low Energy 4.2 HCI Module

Panasonic



[OVERVIEW]

Panasonic's new PAN1326C is a Host Controlled Interface (HCI) Bluetooth RF module that brings Texas Instrument's seventh generation Bluetooth core integrated circuit, the CC2564, to an easy-to-use module format.

The PAN1326C is Bluetooth-4.2-compliant and it offers best-in-class RF performance with about twice the range of other Bluetooth Low Energy solutions. Panasonic's tiny footprint technology has produced a module of only 85.5 mm². The module is designed to accommodate PCBs pad pitch of 1.3 mm and as few as two layers for easy implementation and manufacturing. The module has been designed to be 100 % pin-compatible with previous generations of Texas Instruments-based Bluetooth HCI modules.

[FEATURES]

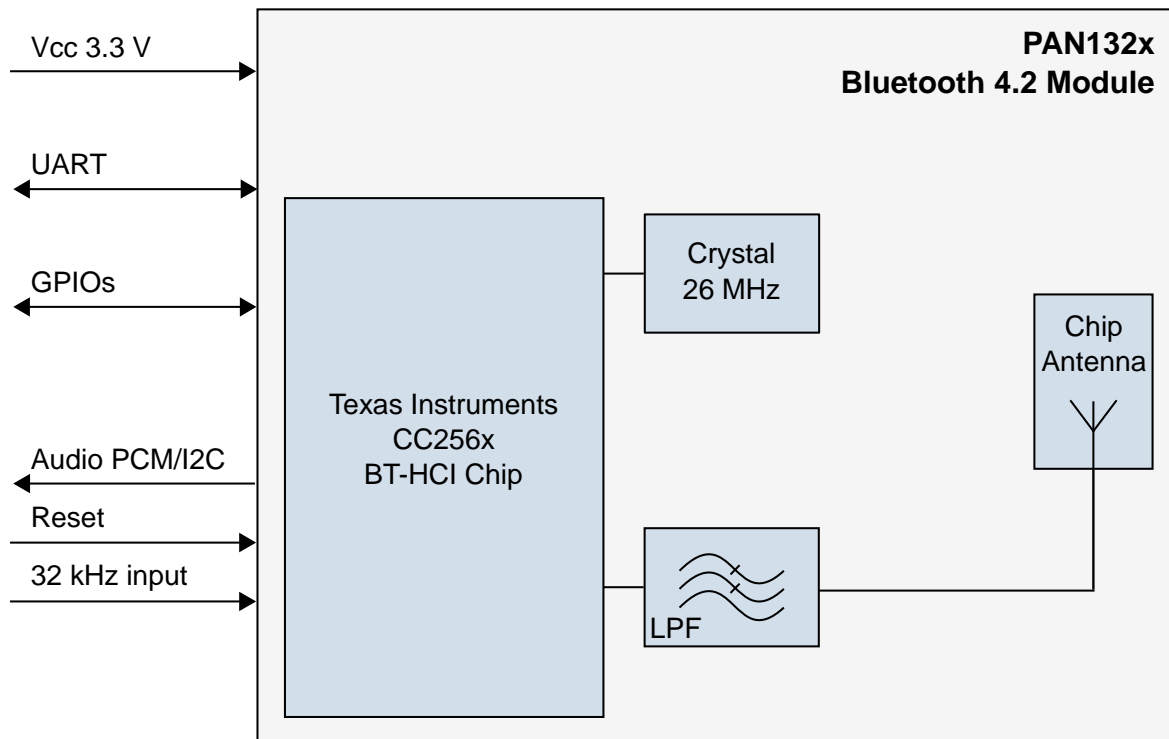
- Bluetooth-4.2-compliant up to the HCI layer
- Best-in-class Bluetooth RF performance (Tx, Rx sensitivity, blocking)
- Fully-qualified Bluetooth, FCC- and IC-listed, CE-compliant
- Dimensions: 9.0 mm x 9.5 mm x 1.8 mm
- Based upon TI's CC2564C
- Interfaces: UART, GPIO, PCM

[BLUETOOTH]

- Up to seven active devices
- Scatternet: up to three piconets simultaneously, one as master and two as slaves
- Up to two Synchronous Connection Oriented (SCO) links on the same piconet
- Support for All Voice Air-Coding - Continuously Variable Slope Delta (CVSD), A-law, μ -law, modified Subband Coding (mSBC), and transparent (uncoded)
- Assisted mode for HFP 1.6 Wideband Speech (WBS) profile or A2DP profile to reduce host processing and power
- Support of multiple Bluetooth profiles with enhanced QoS
- Multiple sniff instances tightly coupled to achieve minimum power consumption
- Independent buffering for Low Energy allows large numbers of multiple connections without affecting BR or EDR performance
- Built-in coexistence and prioritization handling for BR, EDR, and Low Energy
- Capabilities of link layer topology Scatternet - can act concurrently as peripheral and central
- Network support for up to 10 devices
- Time line optimization algorithms to achieve maximum channel utilization

WIRELESS MODULES
Panasonic Industrial Devices Europe GmbH

[BLOCK DIAGRAM]



[CHARACTERISTICS]

- Bluetooth 4.2
- Receiver sensitivity -93 dBm
- Output power 10 dBm
- Power supply 1.7 to 4.8 V
- Power consumption Tx 40 mA
- Power consumption Rx 20 mA
- Sleep mode 135 μ A
- Operating temperature range -45 °C to +85 °C