

New PAN13x5B Series HCI *Bluetooth*® RF Module



NEW TI CC2560B *Bluetooth* IC in an Easy-to-Use Module Format!

Introducing the NEW PAN13x5B Series *Bluetooth* RF Modules from Panasonic Electronic Components, based on Texas Instruments' NEW CC2560B controller in an easy-to-use RF Module format with *Bluetooth*, FCC, IC and CE certifications. A ROM update from Texas Instruments to the already popular CC2560A IC has allowed Panasonic to improve its top selling PAN13x5A Series. The NEW PAN13x5B Series Modules has increased system and power efficiency resulting from reduced initialization script size, start-up time and decreased system memory requirements; supports ten simultaneous BLE connections -- increased from six and integrated SBC encoding and decoding for A2DP implementations, eliminating the requirement for an external CODEC.

All of Panasonic's *Bluetooth* RF Modules feature unique, tiny footprint technology and are designed to accommodate PCBs with pad pitch of 1.3 mm with as little as two layers for easy implementation and manufacturing. Available with or without an embedded antenna, the NEW PAN13x5B Series provides easily integrated *Bluetooth* connectivity into new and current designs by removing RF design and certification barriers from the application.

As the newest addition to Panasonic's Host Controlled Interface (HCI) *Bluetooth* RF Module product line, the PAN13x5B Series has all the features of the existing and proven PAN13x5A Series but with the added benefit of the improved efficiency.

An updated initialization script is required for modules based on the CC2560B. Compatibility of CC2560, CC2560A and CC2560B based products is a function of *Bluetooth* stack firmware residing on the host processor.

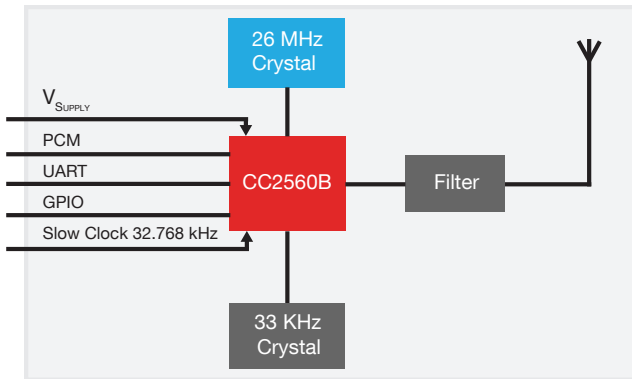
Features

- *Bluetooth* Version 2.1 EDR
- Temperature Range: -40 to +85°C
- High Sensitivity: -93 dbm
- V_{CC} Supply: 1.8 to 4.8 V
- Based on TI's CC2564B
- Integrates with TI's Ultra Low-Power MSP430 Microprocessor
- Very Fast Algorithm for Both ACL and eSCO
- Supports Extended Range Tx Power with 10 dBm (Typ.)

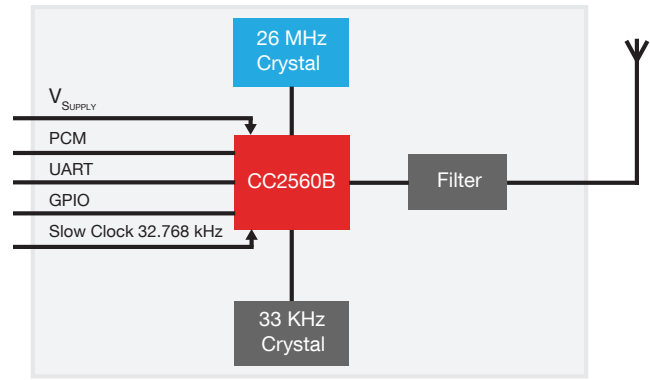
Applications

- Heart Rate Monitors
- Blood Glucose Meters
- Industrial Sensors
- Entertainment Devices
- Mobile Accessories
- Toys

Block Diagram (PAN1325B)



Block Diagram (PAN1315B)



Technical Characteristics

Parameter	Value		Condition
	PAN1325B	PAN1315B	
Receiver Sensitivity	-93 dBm typ.	-93 dBm typ.	GFSK, Typical, Dirty TX On
Output Power	10.0 dBm	10.0 dBm typ.	VDD_In = VBAT
Power Supply	1.8 - 4.8 V	1.8 to 4.8 V	Battery or DC/DC
Ultra Low Power Scan	135 µA	135 µA	1.28 s Interval
EDR 3-DH1\3-DH5	39.2 mA	39.2 mA	Full Throughput
Operating Temperature	-40 to +85°C	-40 to +85°C	

PAN1315B Part Numbers

Part Number	Description
ENW89829C3KF	PAN1315B <i>Bluetooth</i> HCI Module, CC2560B, Without Antenna

PAN1325B Part Numbers

Part Number	Description
ENW89829A3KF	PAN1325B <i>Bluetooth</i> HCI Module, CC2560B, Integrated Antenna

Additional Information

For detailed specification information on the **PAN13x5B** HCI *Bluetooth* Modules, visit our website at:

eu.industrial.panasonic.com/products/wireless-connectivity/bluetooth/