

NEW! PAN1325 BLUETOOTH® HCI MODULE

Bluetooth® HCI Module with Embedded Antenna

Introducing the new PAN1325 Bluetooth RF module with embedded antenna. The PAN1325 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 PAN1325 has all the features of the proven PAN1315, with the added benefit of an onboard antenna.

Both the PAN1315 and the PAN1325 bring Texas Instrument's seventh generation Bluetooth core integrated circuit, the CC2560, to an easy-to-use module format with FCC certification. All of Panasonic's Bluetooth RF Modules feature unique, tiny footprint technology and are designed to accommodate PCBs with pad pitch of 1.3mm with as little as two layers for easy implementation and manufacturing.

Panasonic Bluetooth RF Modules make connectivity between mobile devices such as cellular phones and small button cell battery powered devices like fitness sensors, watches, healthcare, entertainment and mobile accessories easily implemented, creating a seamless data chain from sensors to the web.



BT component, CE and FCC certified.
(ETSI and IC certifications are pending.)



Product Performance:

- Best-in-class Bluetooth RF performance (Tx power, Rx sensitivity, blocking)
- Fully Qualified Bluetooth v2.1 EDR
- Dimensions PAN1325: 9mm x 9.5mm x 1.8mm (width x length x height)
- Dimensions PAN1315: 6.5mm x 9mm x 1.7mm (width x length x height)
- Certifications: Bluetooth, CE, FCC (ETSI & IC pending)
- Operating Temperature Range: -20°C to +70°C (Optional -40°C to +85°C)
- Supply Voltage Range: 1.7 - 4.8V
- Profiles: SPP, HDP, A2DP
- Based upon TI's CC2560
- Integrates with TI's ultra low-power MSP430 microprocessor
- Very fast algorithm for both ACL and eSCO
- Supports Extended Range Tx power with 10dBm typical output (10.5dBm for PAN1315)
- Low power scan method for page and inquiry scans at 1/3rd normal power

PAN1325 Part Numbers:

Part Numbers	Description
ENW-89818A2JF	PAN1325, CC2560 HCI module, antenna

PAN1315 Part Numbers:

Part Numbers	Description
ENW-89818C2JF	PAN1315, CC2560 HCI module, no antenna
PAN1315ETU	PAN1315, Development module, for use with EVAL_PAN1315 evaluation kit
EVAL_PAN1315	PAN1315 Evaluation kit, includes TI MSP430 controller

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Interfaces:

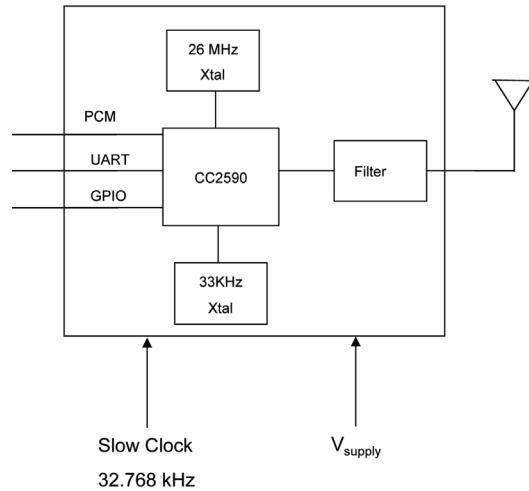
The PAN1315/PAN1325 Host Controlled Interface supports several transport layers with the following features:

- UART Rates of up to 4Mbps
- Three and Four Wire UART Transport

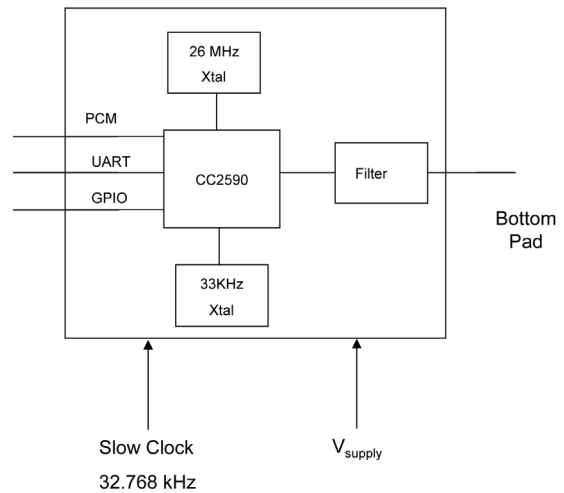
Applications:

- Consumer Health Devices
 - Heart Rate Monitor
 - Blood Pressure Sensor
 - Blood Glucose Meter
 - Thermometer
 - Fitness Sensors
- Assisted Living
 - Flood Alarm
 - Heating Control
 - Automatic Key Control
- Industrial Sensors
- Toys
- Entertainment Devices
- Mobile Accessories
- All Bluetooth Wireless Applications

Block Diagram PAN1325:



Block Diagram PAN1315:



Technical Specifications:

Parameter	Value		Condition / Notes
	PAN1325	PAN1315	
Receiver Sensitivity (BER=10 ⁻³)	-93 dBm	-93 dBm	GFSK, Typical, Dirty TX On
Output Power	10 dBm	10.5 dBm	VDD_In = VBAT
Power Supply	1.7 - 4.8 V	1.7 - 4.8 V	Battery or DC/DC
Ultra Low Power Scan	135 μA	135 μA	1.28s Interval
GFSK DH1\DH5	33 mA	33 mA	Full Throughput
Operating Temperature Range	-20°C to + 70°C	-20°C to + 70°C	-40°C to + 85°C Optional

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