

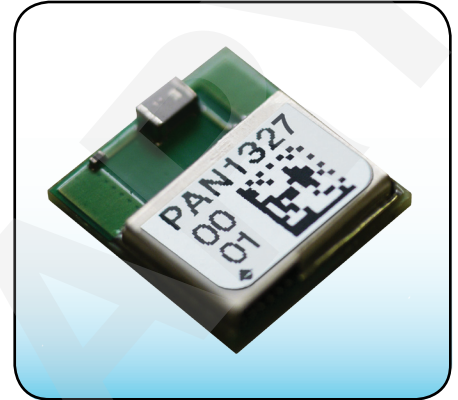
NEW! PAN1327/1317 SERIES **BLUETOOTH**[®] RF MODULES

Dual-Mode ANT+[™] and Wireless **Bluetooth**[®] Connectivity

Introducing Panasonic's newest breakthrough in wireless networking ... the PAN 1327/1317 Series RF Modules featuring both Dynastream's dual-mode Area Network Technology (ANT+[™]) software protocol and *Bluetooth* connectivity. This powerful new technology combination creates a low cost, ultra-low power wireless networking solution for short range applications.

ANT protocol is perfectly suited for low data rate sensor network topologies in personal area networks (PANs) and practical wireless sensor networks (WSN's). ANT+ managed network software facilitates the collection, automatic transfer and tracking of sensor data for monitoring personal wellness information. ANT+ applications are most commonly found in sports and low power medical devices.

The PAN1327/1317 Host Controlled Interface (HCI) Series also brings Texas Instrument's CC2567, to an easy-to-use module format. Panasonic's tiny footprint technology offers a module of only 85.5 mm² including antenna. The modules are designed to accommodate PCBs pad pitch of 1.3mm and as little as two layers for easy implementation and manufacturability.



Product Performance:

- Best-in-class *Bluetooth* RF performance (Tx power, Rx sensitivity, blocking)
- Fully Qualified *Bluetooth* v2.1 EDR
- Dimensions PAN1327: 9mm x 9.5mm x 1.8mm (width x length x height)
- Dimensions PAN1317: 6.5mm x 9mm x 1.7mm (width x length x height)
- Certifications: *Bluetooth* and FCC pending
- Operating Temperature Range: -20°C to +70°C (Optional -40°C to +85°C)
- Supply Voltage Range: 1.7 - 4.8V
- Profiles: SPP, A2DP and AVRCP
- Based upon TI's CC2567
- 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
- Low power scan method for page and inquiry scans at 1/3rd normal power

PAN1327 Part Numbers:

Part Numbers	Description
ENW-*****	PAN1327, CC2567 HCI module, antenna

PAN1317 Part Numbers:

Part Numbers	Description
ENW-*****	PAN1317, CC2567 HCI module, no antenna
PAN1317ETU	PAN1317, Development module, for use with EVAL_PAN1317 evaluation kit
EVAL_PAN1317	PAN1317 Evaluation kit, includes TI MSP430 controller

Panasonic ideas for life

Interfaces:

The PAN1327/PAN1317 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

Bluetooth® Module Pin Compatibility:

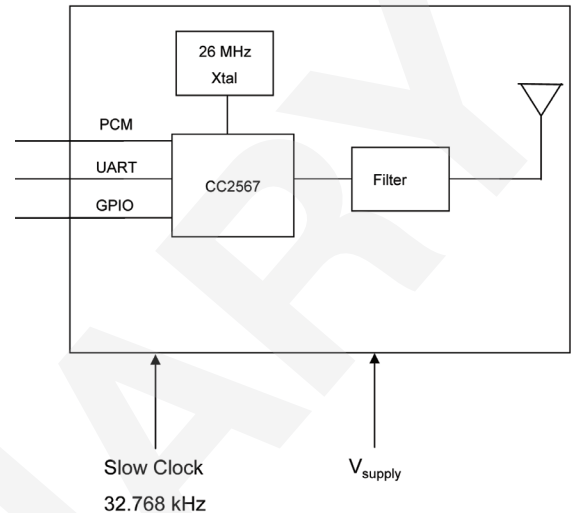
Series	Description	Compatibility
PAN1315	BT Classic	100% Pin Compatible
PAN1317	Dual Mode BT and ANT+™	
PAN1325	BT Classic with antenna	100% Pin Compatible
PAN1327	Dual Mode BT and ANT+™ with antenna	

All Panasonic *Bluetooth* RF Modules are 100% pin compatible with the next generation of *Bluetooth* Classic and Low Energy devices. This unique design feature enables designers to seamlessly transition between *Bluetooth* Classic, Low Energy and ANT enabled modules, addressing larger markets and providing migration paths to circumvent obsolescence.

Technical Specifications:

Parameter	Value		Condition / Notes
	PAN1327	PAN1317	
Receiver Sensitivity (BER=10 ⁻³)	-93 dBm	-93 dBm	GFSK, Typical, Dirty TX On
Output Power	10 dBm	10 dBm	VDD_In = VBAT
Power Supply	1.7 - 4.8 V	1.7 - 4.8 V	Battery or DC/DC
Ultra Low Power Scan	TBD	TBD	TBD
GFSK DH1\DH5	TBD	TBD	TBD
Operating Temperature Range	-20°C to + 70°C	-20°C to + 70°C	-40°C to + 85°C Optional

Block Diagram PAN1327:



Block Diagram PAN1317:

