New Product Introduction

PAN1760A Series RF Modules For Advanced Wireless Connectivity

Next Generation *Bluetooth*® RF Module Features Extremely Low Power Bluetooth Low Energy SoC For Advanced IoT Designs

Introducing Panasonic's **NEW PAN1760A Series RF Modules!** **The PAN1760A Series** is a groundbreaking low power BLE device, offering years of operation using only a CR2032 Battery for simple, prompt and sound IoT designs. With ample amount of RAM and embedded flash, as well as simple-to-use programming interface, utilizing AT commands, designing the **PAN1760A Series** into any IoT device is an easy task, saving resources and time to market.

The **New PAN1760A Module** benefits from a peak power consumption of only 3.3mA in Tx and Rx mode, enabling advanced wireless functionalities in IoT, medical, and industrial applications without compromising Battery life. Mandatory and optional Bluetooth 4.2 features are supported.

The **New PAN1760A Series** offers superior BLE functionalities such as MESH, extended MTU, LE Secure Connections, along with comprehensive GATT service and profiles, all without compromising Battery life. The **PAN1760A** offers out-of-the-box ease of use, with AT-Commands.

In Stand-Alone mode, with 256 kB flash memory and at least 83 kB RAM for user application, the **PAN1760A** can be used for many applications without the need for an external processor, saving cost, complexity and space. The existing PAN1760, PAN1761, and PAN1026 RF Modules share the same footprint, thus migrating from these devices requires only minor code changes. Previously developed software (Bluetooth Low Energy profiles and applications) can be easily migrated with a minimal effort. FCC, IC, and CE approval are in preparation.

The **New PAN1760A Evaluation Kit** is an all-inclusive and comprehensive Evaluation Kit. The USB dongle allows the user to develop, run and debug the code. The break-out headers, provide the user an easy way to connect Sensors, as well as other devices for a rapid prototyping.

General Features and Benefits

- Embedded 256 kB flash memory and 192 kB internal RAM (83 kB RAM for user application)
- UART, SPI & I2C interface, PWM output, ADC (both external and internal), programmable I/O

Advanced IoT and BLE Features

- Standard SIG BLE GATT profiles and services as well as SPPoverBLE profile
- Plug-In for BT SIG Developer Studio
- AT command mode, Host mode, or Stand-Alone mode
- Simultaneous GAP central and peripheral
- Support for Over-the-Air update
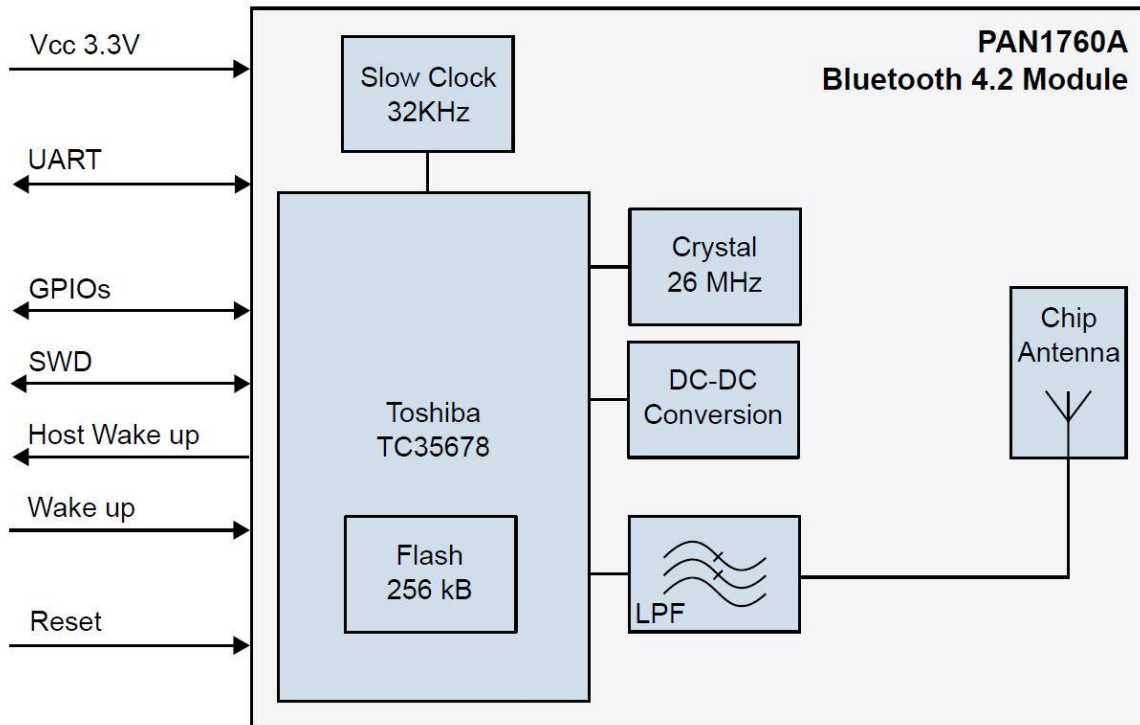- Support for BT SIG Mesh V1.0

Applications

- Wireless sensors
- Telemedicine
- Lighting Solutions
- Industrial controllers

Part Numbers

Part Number	Description	Series Number
ENW-89847A3KF	Bluetooth Low Energy Module	PAN1760A
ENW89847AWKF	2x USB Sticks In Case	PAN1760A Evaluation Kit

Block Diagram

Technical Characteristics

Parameter	Value	Condition/Note
Receiver Sensitivity	-93 dBm	
Output Power	0dBm	Maximum Setting
Power Supply	1.8 V to 3.6 V	Single operation voltage
Operating Temperature	-40ºC to +85ºC	Industrial Range
Tx/Rx current Consumption	3.3 mA	Peak current and low power modes available