

PAN1760

Bluetooth Low Energy Module

Panasonic



[OVERVIEW]

The PAN1760 is based on Toshiba's single chip TC35667 Bluetooth semiconductor device with embedded Toshiba Bluetooth 4.1 LE stack and GATT profile. Peak power consumption of only 5.4 mA in Tx mode allows advanced wireless functionalities in IoT, medical, and industrial applications without compromising battery life.

The PAN1760 can either be operated in Host mode for very simple integration of Bluetooth connectivity into existing products, or in Stand-Alone mode, where 24 kB RAM is available for the user application. The PAN1760, the PAN1761, and the PAN1026 share the same footprint.

Only minor code changes are required when migrating from PAN1026. Previously developed software (Bluetooth Low Energy profiles and applications) can be easily migrated with a minimal effort.

FCC, IC, and CE approval are available.

[FEATURES]

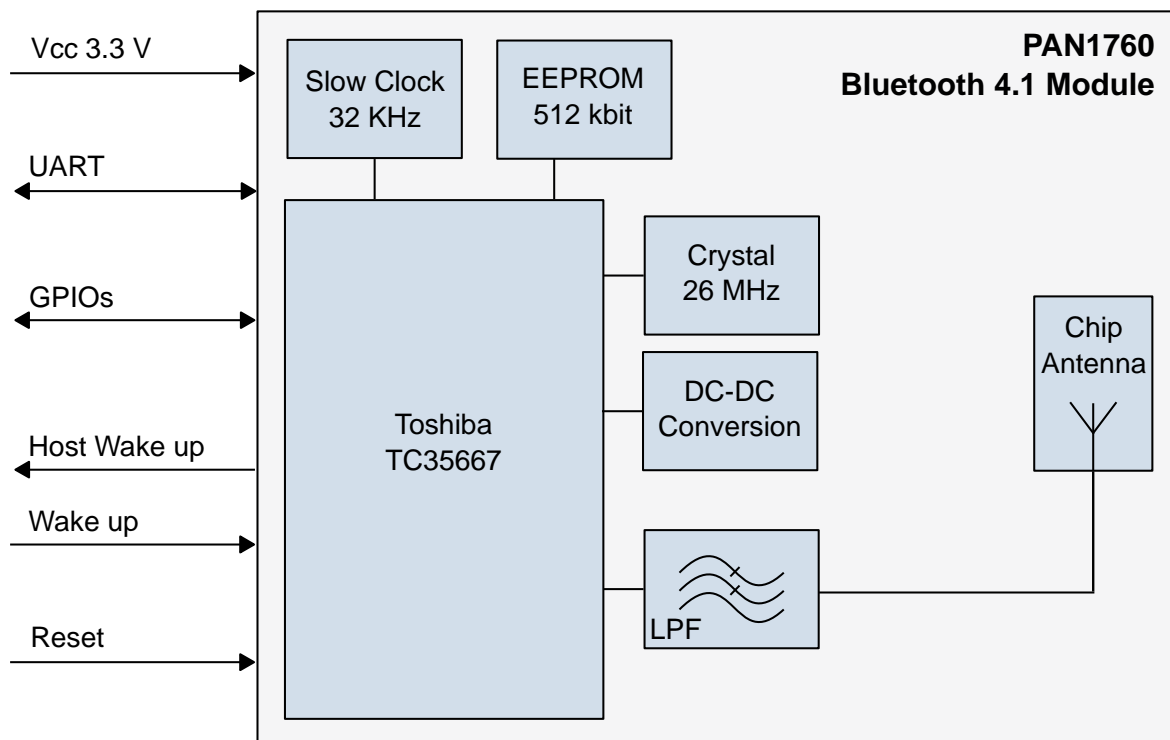
- Small 15.6 mm x 8.7 mm x 1.9 mm SMD module
- Same form factor and pinout as PAN1026, PAN1760A, and PAN1761
- Bluetooth Low Energy (BLE) 4.1 compliant
- 512 kbit EEPROM memory and 32 kB internal RAM
- 24 kB RAM available for user application
- Host mode, Stand-Alone mode
- Standard SIG BLE profiles as well as SPPoverBLE profile
- UART, I2C & SPI interface, PWM output (3x), ADC (3x), 10 programmable I/O
- JTAG interface

[BLUETOOTH]

- GAP central and peripheral support for LE
- GATT, SMP, and SDB support for LE
- Support for Over-the-Air update
- Support for Scatternet/Mesh network
- Frequent changing of device address (improved privacy, reduced tracking ability)
- Larger packet sizes (more efficient application and network layer security)

WIRELESS MODULES
Panasonic Industrial Devices Europe GmbH

[BLOCK DIAGRAM]



[CHARACTERISTICS]

- Receiver sensitivity -91 dBm typ.
- Output power 0 dBm maximum setting
- Power supply 1.8 V to 3.6 V single operation voltage
- Transmit power consumption @0dBm 5.4 mA
- Low Power 5 μ A Sleep mode
- Operating temperature range -40 $^{\circ}$ C to +85 $^{\circ}$ C