

PAN1761

Bluetooth Low Energy and NFC Combo Module

Panasonic



[OVERVIEW]

The PAN1761 is based on Toshiba's single chip TC35670 Bluetooth semiconductor device with embedded Toshiba Bluetooth 4.1 LE stack, GATT profile, and an NFC Forum Type 3 compliant NFC tag. Peak power consumption of only 5.8 mA in Tx mode allows advanced wireless functionalities in IoT, medical, and industrial applications without compromising battery life. Additionally, NFC allows products to wake up from zero standby power consumption to full Bluetooth operation. Highly secure Bluetooth connections are created using NFC to exchange link keys.

The PAN1761 can be operated in Host mode for very simple integration of Bluetooth connectivity into existing products. 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]

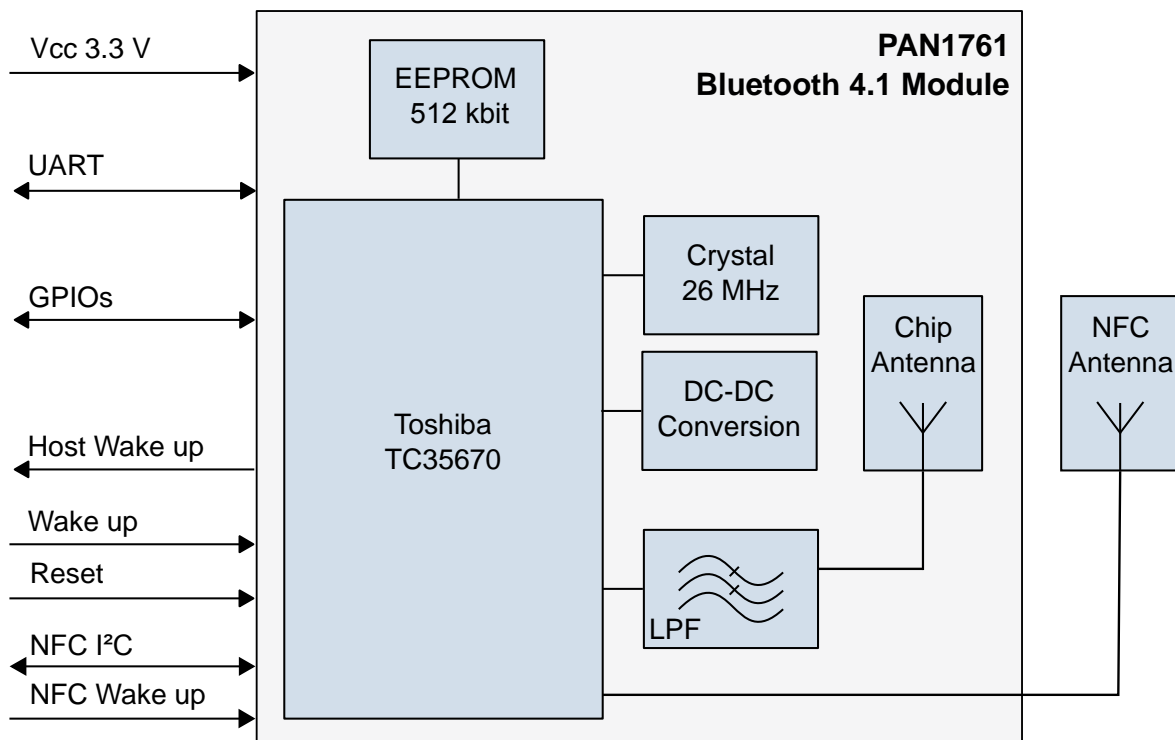
- Small 15.6 mm x 8.7 mm x 1.9 mm SMD module
- Same form factor and pinout as PAN1026, PAN1760, and PAN1760A
- Bluetooth Low Energy (BLE) 4.1 compliant
- 512 kbit EEPROM memory
- Host mode
- Standard SIG BLE profiles as well as SPPoverBLE profiles available in the SDK
- UART, I2C & SPI interface, PWM output (3x), ADC (3x), 10 programmable I/O

[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]



[NFC]

- Almost zero power consumption in standby mode by using NFC wake up
- Dedicated Bluetooth partner selection by simple device approximation
- Support for true out-of-band Bluetooth pairing

[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 5.8 mA
- Low Power 5 μ A Sleep mode
- NFC Forum Type 3 compliant NFC tag (external antenna)
- Operating temperature range -30 °C to +85 °C