

Bluetooth Classic and Low Energy embedded Dual Mode Module PAN1026

Panasonic



[OUTLINES]

PAN1026 is based on Toshiba's single chip TC35661 Bluetooth semiconductor device with embedded Toshiba Bluetooth SIG certified stack. The TC35661 is a highly integrated and compact Bluetooth controller that delivers high-speed operation at ultra-low power consumption. It significantly reduces external component count and power consumption in applications requiring support of Bluetooth 2.1 and 4.0 standards. EDR (enhanced data rate) is not supported. An embedded SPP (Serial Port Profile of Bluetooth Classic) and GATT (Generic Attribute Profile of Bluetooth LE) are also integrated. The device supports also a subset of standard and Toshiba extended HCI commands.

The device allows for serving both legacy Bluetooth classic and Bluetooth Low Energy connections with rapid connection and disconnection, needed by a wide range of application, all at a small form factor. The PAN1026 Module is manufactured in a very small 15.6 * 8.7 * 1.9 mm³ SMD package with shielded case and is qualified according to the Bluetooth 2.1 and 4.0 standard. FCC, IC and CE approval are available.

[FEATURES]

General

- Bluetooth Classic and BLE (Dual Mode) support
- Bluetooth Classic 2.1 embedded SPP, high level API commands
- Bluetooth 4.0 (LE) embedded GATT profile with high level API commands, compatible to Toshiba reference BLE profiles
- Standard and extended HCI command set supported
- Operational Temperature Range -40 / 85 degree C
- Operational Voltage 1.8V or 3.0V +/- 10%
- Dimension 15,6*8,7*1,9mm³

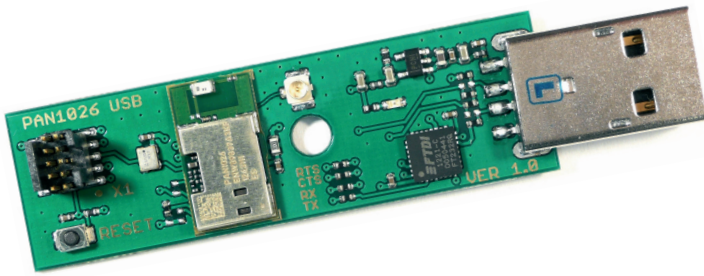
Interfaces

- UART, I2C, GPIO (10 input/output pins), Wake-Up control pins

Bluetooth 4.0

- GAP support for SPP
- GAP peripheral support for LE
- GATT Server and Client Mode are supported for LE

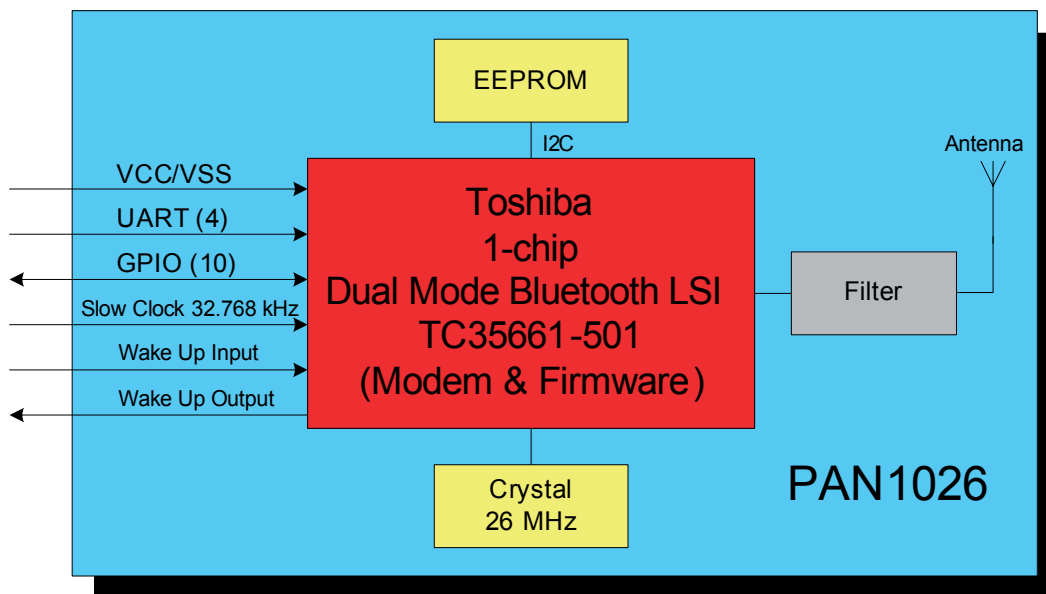
MODULES
Panasonic Electronic Devices Europe GmbH
WIRELESS



APPLICATIONS

- 2.4 GHz Bluetooth Classic Systems
- 2.4 GHz Bluetooth Low Energy Systems
- Health Care, Medical Diagnostic Systems
- Sports and leisure equipment
- Mobile phone accessories BT 2.1 and 4.0
- Consumer Electronics
- Automotive Aftermarket Products
- Industrial Sensors and Measurement Devices
- Heart Rate Monitor
- Blood Glucose Meter

BLOCK DIAGRAM



TECHNICAL CHARACTERISTICS

Parameter	0,1% BER	Value	Condition / Note
Receiver Sensitivity (1% PER)		- 88 dBm	@ 500 kpbs / MSK (high-gain mode)
Output Power		4 dBm	Maximum setting
Power Supply		1.8V or 3.0V	Single operation voltage
Transmit Mode		max 46mA	ACL, DH1
Receive Mode		max 46mA	ACL, DH1
Operating Temperature Range		-40C / +85C	Industrial Range