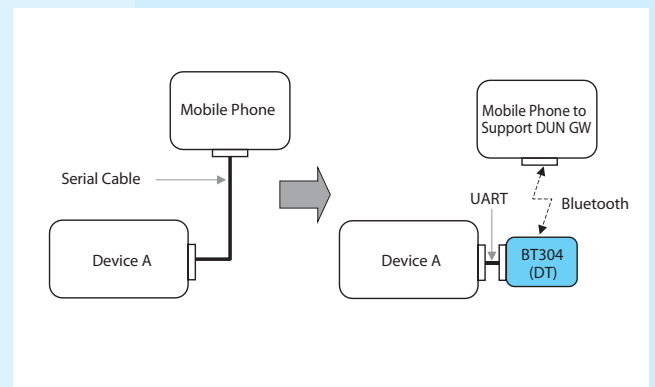
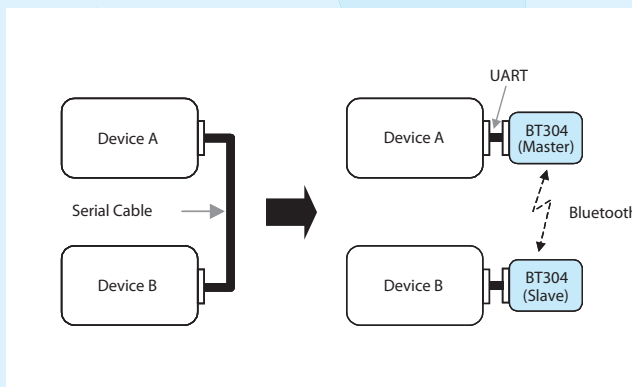


BT304 Series is module embedding Bluetooth wireless technology and specialized in serial cable replacement. They support SPP that realizes wireless transmission of serial data and DUN that conducts dial-up connection with Internet via a mobile phone and the public line.

SPP : Serial Port Profile

DUN : Dial-up Networking Profile

Image Figure



Gateway (GW) : Device that provides access to the public network.

Data Terminal (DT) : Device that uses dial-up service of the gateway.

Features

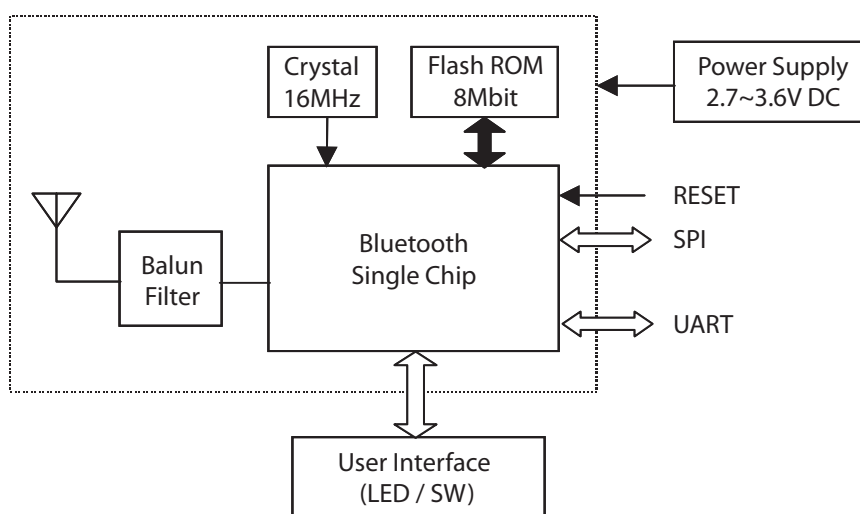
- Both module types are available, such as the surface mount module (BT304) and the connector mount module (BT304C), both with an antenna built on.
- Support SPP and DUN.
- Support both Command Mode where unique AT commands are used and Automatic Mode where BT304 connects with a partner automatically.
- Acquired Bluetooth SIG certification.
- BT304C, connector mount type, has acquired Japanese Radio Law certification, and BT304C acquired JATE* certification, as well.

* : Japan Approvals Institute for Telecommunications Equipment

■ Specification

Series	BT304 Series	
Bluetooth	Specification	2.1+EDR
	Power Class	Class2
	Profile	GAP (Generic Access Profile) SPP (Serial Port Profile) DUN (Dial-up Networking Profile)
	Power Mode	Active/Sniff/Passive
	QDID	B015601
UART	Methodology	Full duplex synchronous
	Baud Rate	115.2kbps (Initial Setting)
	Flow Control	Hardware (RTS/CTS)
Power Supply	2.7V to 3.6V DC	
Operating Temperature Range	-40°C to +85°C	
Dimension	23mm(W)×11mm(D)×2mm(H) Excluding the height of the connector (in case of BT304C)	

■ Block Diagram



■ Software Structures

SPP Application	DUN-DT Application
SPP	DUN
Bluetooth Stack	
Baseband / RF	

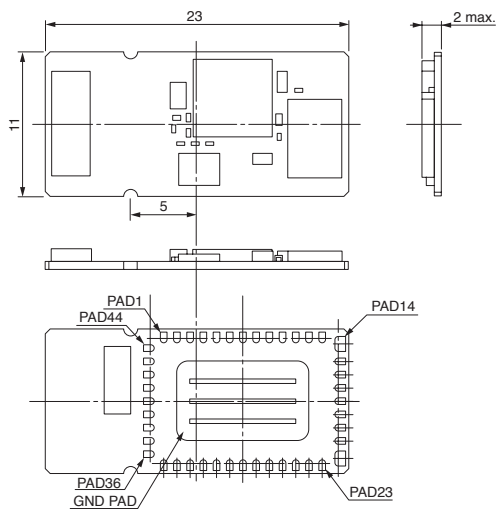
BT304 Series

■ Application

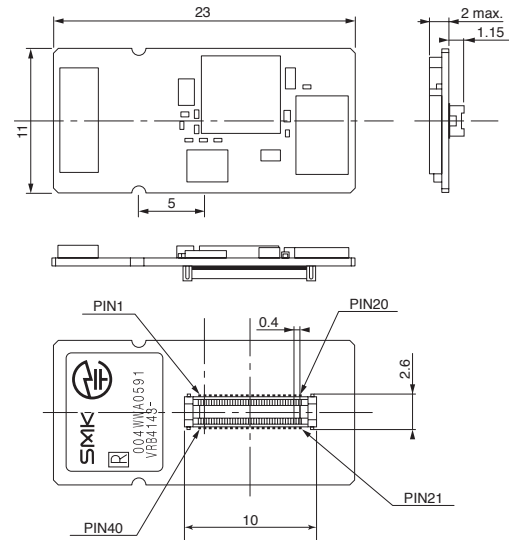
- Handheld devices (Handy terminals, Portable printers, etc.)
- Industrial equipment (Measurement, FA, etc.)
- Auto-ID Systems (RF-ID Readers, Barcode Readers, etc.)

■ Dimension

● SMD Type (BT304)



● Connector Type (BT304C)



■ Terminal Assignment

No.	BT304	No.	BT304	No.	BT304
1	GND	16	-	31	UART_CLEAR*2
2	UART_DCD*1	17	-	32	BT_RENEW_SW*2
3	UART_RI*1	18	-	33	BT_STATUS_LED*2
4	UART_DSR*1	19	-	34	BT_TRANSFER*2
5	UART_DTR*1	20	-	35	GND
6	-	21	BT_MODE*2	36	GND
7	-	22	BT_AUTO*2	37	GND
8	VDD	23	GND	38	GND
9	GND	24	BT_PROFILE*2	39	GND
10	UAT_RXD*1	25	BT_ROLE*2	40	GND
11	UART_CTS*1	26	RESET	41	GND
12	UART_TXD*1	27	-	42	GND
13	UART_RTS*1	28	-	43	GND
14	GND	29	-	44	GND
15	-	30	-		

※ 1 : UART terminals. The signal lines are defined for RS232C DEC devices.

※ 2 : User Interface terminals, used for indicating status or for controlling operation modes.

■ Evaluation Kit BT304K

BT304K is the engineering tool for evaluating Bluetooth Serial Port Adapter BT304 Series (consisting of the following).

- Evaluation Module
- Evaluation Board
- AC Adapter
- CD-ROM

■ Miscellaneous

- Certification

BT304 series prior to use, requires of acquiring type approval to laws or rules enacted in each country.

Please consult SMK, when you need clarification or support around its procedures.

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Caution

- Specification is subject to change without prior notice for improving performance of the product and so on.
- Dimension and specification described herein are limited to major items. When applying the products, please confirm details the drawing and spec sheets which will be provided upon request.
- Every product carried here is compliant to RoHS* requirements. For detail, please refer to our sales representative.

*RoHS Directive : An EU Directive for restriction of the use of certain hazardous substances in electrical and electronic equipment.

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