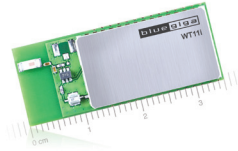


# Bluetooth® BR/EDR module comparison chart

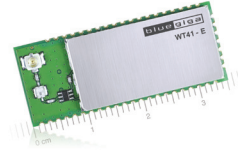
WT12



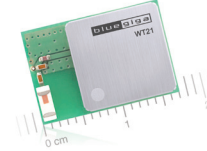
WT11i



WT41



WT21








WT32



## Bluetooth

|                            |                     |                     |                     |                     |                     |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Version                    | Bluetooth 2.1 + EDR | Bluetooth 2.1 + EDR | Bluetooth 2.1 + EDR | Bluetooth 2.1 + EDR | Bluetooth 2.1 + EDR |
| Low energy support         | -                   | -                   | -                   | -                   | -                   |
| BR/EDR support             | Yes                 | Yes                 | Yes                 | Yes                 | Yes                 |
| <b>Radio</b>               |                     |                     |                     |                     |                     |
| Typical TX power           | +3 dBm              | +17 dBm             | + 19 dBm            | + 7 dBm             | +7 dBm              |
| Typical RX sensitivity     | -83 dBm             | -85 dBm             | -93 dBm             | -88 dBm             | - 88 dBm            |
| Class                      | 2                   | 1                   | 1                   | 1.5                 | 1.5                 |
| Typical range              | 30-50m              | 200-400m            | 500-1000m           | 100-200m            | 30-60m              |
| <b>Antenna options</b>     |                     |                     |                     |                     |                     |
| Integrated chip            | Yes                 | Yes                 | Yes                 | Yes                 | Yes                 |
| Integrated meander line    | -                   | -                   | -                   | -                   | -                   |
| U.FL                       | -                   | Yes                 | Yes                 | -                   | Yes (W.FL)          |
| 50ohm pin                  | Yes                 | Yes                 | Yes                 | Yes                 | Yes                 |
| <b>Interfaces</b>          |                     |                     |                     |                     |                     |
| UART                       | 1                   | 1                   | 1                   | 1                   | 1                   |
| USB                        | 2.0 device          | 2.0 device          | 2.0 device          | -                   | 2.0 device          |
| SPI (debugging)            | 1                   | 1                   | 1                   | 1                   | 1                   |
| GPIO                       | 6 configurable      | 6 configurable      | 6 configurable      | 7                   | 10 configurable     |
| AIO                        | -                   | 1 x 8-bit           | 1 x 8-bit           | 1                   | 2 x 10-bit          |
| <b>Audio Interfaces</b>    |                     |                     |                     |                     |                     |
| PCM                        | 1                   | 1                   | 1                   | 1                   | 1                   |
| I2S                        | -                   | -                   | -                   | 1                   | 1                   |
| SPDIF                      | -                   | -                   | -                   | -                   | 1                   |
| Analogue                   | -                   | -                   | -                   | -                   | 2 inputs/outputs    |
| <b>Microcontroller</b>     |                     |                     |                     |                     |                     |
| Architecture               | 16-bit RISC (XAP2)  | 16-bit RISC (XAP2)  | 16-bit RISC (XAP2)  | 16-bit RISC (XAP2)  | 16-bit RISC (XAP2)  |
| RAM                        | 48 kB               | 48 kB               | 48 kB               | 48 kB               | 48 kB               |
| Flash                      | 8 Mbit              | 8 Mbit              | 8 Mbit              | -                   | 8 Mbit              |
| <b>Current consumption</b> |                     |                     |                     |                     |                     |
| TX                         | -                   | -                   | -                   | -                   | -                   |
| RX                         | -                   | -                   | -                   | -                   | -                   |
| Deep Sleep                 | -                   | -                   | -                   | -                   | -                   |
| <b>Operating voltage</b>   |                     |                     |                     |                     |                     |
| Operating voltage          | 2.6 - 3.6V          | 2.6 - 3.6V          | 2.6 - 3.6V          | 1.8 - 3.6V          | 1.8 - 3.6V          |
| <b>Copper plated edges</b> |                     |                     |                     |                     |                     |
| No                         | Yes                 | Yes                 | Yes                 | Yes                 | Yes                 |

# Bluetooth® BR/EDR module comparison chart

|                                 | WT12   | WT11i  | WT41   | WT21   | WT32   |
|---------------------------------|--|--|--|--|--|
| <b>Bluetooth stack features</b> |  |  |  |  |  |
| Version                         | 2.1 + EDR  | 2.1 + EDR  | 2.1 + EDR  | 2.1 + EDR  | 2.1 + EDR  |
| Integrated Bluetooth stack      | Yes  | Yes  | Yes  | HCI only   | Yes  |
| Security Simple Pairing         | Yes  | Yes  | Yes  | Stack dependent  | Yes  |
| Connections                     | 1-7  | 1-7  | 1-7  | 1-7  | 1-7  |
| Host API                        | ASCII commands / HCI   | ASCII commands / HCI   | ASCII commands / HCI   | HCI  | ASCII commands   |
| HCI interface                   | Over UART/USB  | Over UART/USB  | Over UART/USB  | Over UART/SDIO/CSPI  | -  |
| <b>Supported profiles</b>       |  |  |  |  |  |
| SPP                             | Yes  | Yes  | Yes  | -  | Yes  |
| OBEX OPP                        | Yes  | Yes  | Yes  | -  | Yes  |
| OBEX FTP                        | Yes  | Yes  | Yes  | -  | Yes  |
| DUN                             | Yes  | Yes  | Yes  | -  | Yes  |
| HID                             | Yes  | Yes  | Yes  | -  | Yes  |
| A2DP                            | -  | -  | -  | -  | Yes  |
| AVRCP                           | Yes  | Yes  | Yes  | -  | Yes  |
| HFP v.1.5                       | Yes  | Yes  | Yes  | -  | Yes  |
| HSP                             | Yes  | Yes  | Yes  | -  | Yes  |
| PBAP                            | Yes  | Yes  | Yes  | -  | Yes  |
| HDP                             | Yes  | Yes  | Yes  | -  | -  |
| DI                              | Yes  | Yes  | Yes  | -  | Yes  |
| Apple iAP support               | Yes  | Yes  | Yes  | -  | Yes  |
| Over-the-Air configuration*     | Yes  | Yes  | Yes  | -  | Yes  |
| BGIO*                           | Yes  | Yes  | Yes  | -  | Yes  |
| <b>Software development</b>     |  |  |  |  |  |
| On-board applications           | Yes  | Yes  | Yes  | -  | Yes  |
| Software development service    | Yes  | Yes  | Yes  | -  | Yes  |
| SDK/IDE                         | CSR BlueLab  | CSR BlueLab  | CSR BlueLab  | -  | CSR BlueLab  |
| <b>Evaluation kits</b>          |  |  |  |  |  |
| Availability                    | Available  | Available  | Available  | Available  | Available  |
| <b>Production</b>               |  |  |  |  |  |
| Status                          | Mass Production  | Mass Production  | Mass Production  | Mass Production  | Mass Production  |
| WT11i-E sampling                |  | WT11i-E sampling   |  |  |  |
| <b>Certifications</b>           |  |  |  |  |  |
| Bluetooth                       | Yes  | Yes  | Yes  | Yes  | Yes  |
| CE                              | Yes  | Yes  | Yes  | Yes  | Yes  |
| FCC                             | Yes  | Yes  | Yes  | Yes  | Yes  |
| IC                              | Yes  | Yes  | Yes  | Yes  | Yes  |
| <b>Dimensions</b>               |  |  |  |  |  |
| Dimensions (W x L)              | 26 x 14 x 2,4 mm   | 35,8 x 14,5 x 2,3 mm   | 35 x 14 x 3,5 mm   | 17,1 x 11,6 x 2,6 mm   | 24 x 16 x 0,3 mm   |
| Bluetooth branding              |  Bluetooth® |  Bluetooth® |  Bluetooth® |  Bluetooth® |  Bluetooth® |

\*) Bluegiga proprietary