

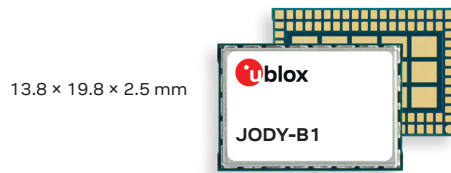
# JODY-B1 series



## Host-based compact automotive modules

### Automotive grade modules featuring Bluetooth® Dual-Mode

- High-performance for in-vehicle infotainment and telematics applications
- Bluetooth LE Audio and Qualcomm aptX™ audio technology support
- Qualified against Bluetooth Core 5.4
- Compact JODY form factor 13.8 x 19.8 mm



### Product description

JODY-B1 automotive host-based modules are designed, manufactured, and tested to meet the high reliability and quality requirements of applications in advanced in-vehicle infotainment and telematics.

Qualified against Bluetooth® Core 5.4, JODY-B1 supports Bluetooth Dual-Mode, including LE features such as high data rates, extended advertising, long range, and the use of isochronous channels for LE Audio. Qualcomm® aptX™ scalable codec is supported.

The modules work with host processors running a Linux or Android operating system connected through UART. JODY-B1 modules are based on the automotive-qualified Qualcomm QCA8695AU chipset. They undergo automotive qualification according to u-blox qualification policy based on AEC-Q104 and are manufactured in line with ISO/TS 16949.

### Key features

- Bluetooth LE physical layer (PHY) data rates up to 2 Mbit/s
- Bluetooth long range
- Advertising extension, high duty cycle directed advertising
- All standard pairing, authentication, link key, and encryption operation
- Operating temperature up to 105°C
- LTE co-ex filter available as option

JODY-B1511-01A

<b>Grade</b>	
Automotive	•
Professional	
Standard	
<b>Radio</b>	
Chip inside	QCA8695AU
Bluetooth qualification	5.4
Bluetooth profiles	HCI
Bluetooth BR/EDR	•
Bluetooth LE	•
Max Bluetooth output power [dBm]	14
LTE co-ex filter	Optional
Antenna type	1p
<b>OS support</b>	
Android / Linux drivers (from Qualcomm)	•
<b>Interfaces</b>	
High speed UART (for Bluetooth only)	1
PCM / I2S (Bluetooth Audio)	1
<b>Features</b>	
Bluetooth LE Audio	BIS/CIS
Bluetooth long range	•
Automotive Grade	105°C
Dual eSCO/A2DP streams	•
Qualcomm® aptX™	•

\*BIS - LE Audio Broadcast, CIS - LE Audio Unicast



## Features

Bluetooth	Bluetooth Dual-Mode, Class 1 and 2 transmission Bluetooth Low Energy long range Power management, LE Audio
Antenna	1 antenna pin
Output power (preliminary)	Bluetooth BR/EDR: 14/10.5 dBm Bluetooth LE: 14 dBm
RX sensitivity (preliminary)	Bluetooth BR DH5/EDR 3-DH5: -95/-94.5 dBm Bluetooth LE: -98.5 dBm (1M), -109 dBm (LE coded S=8)
Security	Full AES hardware encryption Secure boot

## Software features

MAC addresses	Available in on-board OTP memory
Software support	Linux and Android

## Interfaces

Bluetooth	High-speed UART, 4-wire
Bluetooth audio	PCM and I2S
Coexistence	WCI-2 (2-wire) interface for LTE radio coexistence
Other interfaces	GPIOs

## Package

Dimensions	13.8 × 19.8 × 2.5 mm
Mounting	Solder pins (LGA), 94 pins, additional large ground pins

## Environmental data, quality, and reliability

Operating temperature	-40 °C to +105 °C
Moisture sensitivity level	3
RoHS and REACH compliance	
Automotive qualification	according to u-blox Qualification Policy based on AEC-Q104

## Electrical data

Power supply	1.8 V
I/O power supply	1.8 V

## Certifications and approvals <sup>1</sup>

Type approvals	Europe (RED); US (FCC); Canada (ISED); Japan (Giteki); Great Britain (UKCA) Other certifications will be considered upon request
Bluetooth qualification <sup>1</sup>	Bluetooth Core 5.4 Bluetooth Dual-Mode (Classic and LE)

<sup>1</sup> = Pending approvals

## Support products

EVK-JODY-B151-00C	Evaluation kit for JODY-B151 modules
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## Product variants

JODY-B151-01A	Automotive grade, 105 °C module for Bluetooth 5.4 (no LTE co-ex filter), under development
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## Further information

For contact information, see [www.u-blox.com/contact-u-blox](http://www.u-blox.com/contact-u-blox).

For more product details and ordering information, see the product data sheet.

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