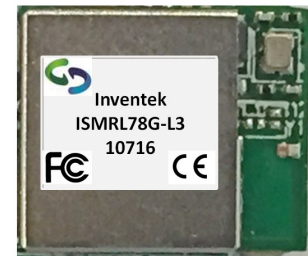


Bluetooth 4.1 (BLE) Module

Low Power... Low Cost... Small Footprint

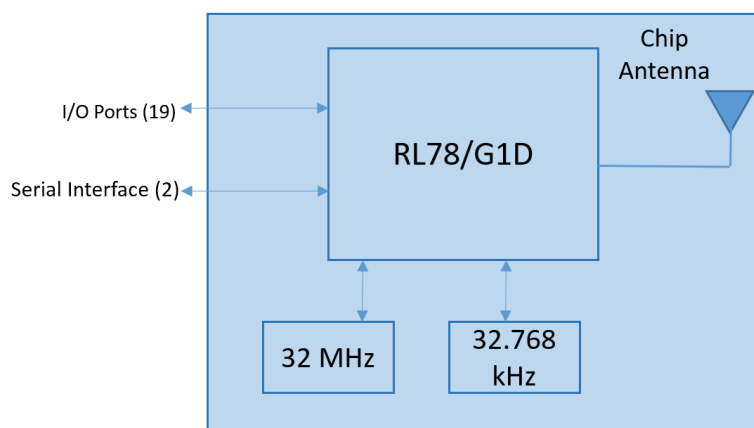
The Inventek ISM78G1D-L31 is an embedded connectivity device that incorporates a Bluetooth radio and a host microcomputer. The module hardware consists of an RL78 CPU core and a Bluetooth 4.0 RF transceiver. Also, the device consumes very low power and has an on-board chip antenna.



The module provides UART, I²C, and CSI interfaces enabling easy connection to an embedded design. The low-cost, the small foot-print design (11mm x 13 mm) and the ease of design-in make it ideal for a wide range of embedded BLE applications.

Main Features

- ◆ Bluetooth 4.0 (Bluetooth Low Energy)
- ◆ Memory
 - 256 KB Flash ROM
 - 16 KB RAM
 - 8 KB Data Flash
- ◆ FCC and CE certified in process
- ◆ Serial Interfaces:
 - CSI/UART/I²C: 2 Channels
- ◆ Low power operation (1.8-3.6V supply) built in low power modes
- ◆ On-Board antenna, oscillators, and power-on-reset circuit.



Application Examples

- ◆ BLE sensors and Wearables
- ◆ Building automation and smart energy control
- ◆ Industrial sensing and remote equipment monitoring
- ◆ PC and gaming peripherals
- ◆ Printers, scanners, alarm and video systems
- ◆ Medical applications including patient monitoring and remote diagnostics

NETWORK STANDARD	Bluetooth v4.0
RF FREQUENCY	2.400 GHz ~ 2.480 GHz
Data Rate	Max: 25 Mbit/s
WIRELESS SECURITY	AES Encryption
SERIAL INTERFACES	UART, I ² C, CSI
PROTOCOLS	BLE Modes, GATT Profiles
BLUETOOTH FUNCTIONS	Power save modes
CONFIGURATION	E ² Studio, IAR
SUPPLY VOLTAGE	1.8—3.6 V
PACKAGE	31-pin LGA 11 mm x 13 mm
OPERATING TEMPERATURE	-40°C to +80°C
CERTIFICATIONS	FCC and CE

Part Number	Description	Type	Package
ISM78G1D-L31	Bluetooth 4.1	31 pin LGA	Tray
ISM78G1D-L31-TR	Bluetooth 4.1	31 pin LGA	Tape/Reel
ISM78G1D-EVB	EVB	Evaluation Board	Box

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