ALPW-BLEM103
Bluetooth® SMART HCI module

Description

The ALPW-BLEM103 module is a complete ready-to-use single mode *Bluetooth®* Smart HCI specification compliant.

The ALPW-BLEM103 module enables to develop a full *Bluetooth®* Smart solution together with an existing host microcontroller which supports the *Bluetooth®* protocol stack.

Alpwise provides the relevant *Bluetooth®* protocol stack which fits with user application needs.

Alpwise solutions benefit from best-in-class product from leading wireless controller manufacturer.
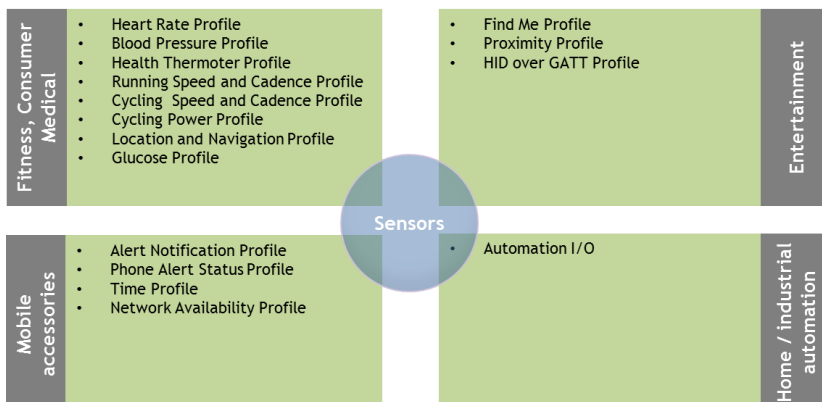
Main Features

- Ready-to-use *Bluetooth®* Smart module
- Very small form factor
- Complete Power Down 1 μA
- Autonomy for 1 year on a coin cell battery
- EM9301 2,4 GHz *Bluetooth®* Smart controller
- Optional UFL connector for external antenna
- Easy connection via SPI or UART to any Host MCU, running core stack, profiles and applications

User Applications

The ALPW-BLEM103 facilitates the integration of cost-effective and low power consumption wireless technologies for the following application segments, thanks to a continuously updated and qualified list of profiles:

Fitness, Consumer Medical
- Heart Rate Profile
- Blood Pressure Profile
- Health Thermoter Profile
- Running Speed and Cadence Profile
- Cycling Speed and Cadence Profile
- Cycling Power Profile
- Location and Navigation Profile
- Glucose Profile

Entertainment
- Find Me Profile
- Proximity Profile
- HID over GATT Profile

Sensors

Mobile accessories
- Alert Notification Profile
- Phone Alert Status Profile
- Time Profile
- Network Availability Profile

Home / industrial automation
- Automation I/O

Contact

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Alpwise Worldwide

You can buy our products through our International distributors. You will find the distributors details on our website on the contact page.

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Technical Data

Bluetooth® controller	EM9301
Module Dimensions (mm)	12 x 12 x 1.6 without shielding
	12 x 12 x 2.4 with shielding
Frequency Range	2.4 GHz
TX Output Power	-18 dBm to +3 dBm
RX Sensitivity	-80 dBm
Operating Temperature	-40˚C to +85˚C
Power Supply	2.0 to 3.3 V

Connectivity	SPI/UART
Certifications	CE, IC, FCC, MIC, BT SIG
Options	UFL antenna, shielding

Module Pin-Out

PAD1	GND	PAD14	GND
PAD2	NC	PAD15	RESET
PAD3	NC	PAD16	UART RX/ SPI_MOSI
PAD4	NC	PAD17	SEL
PAD5	UART RTS/IRQ	PAD18	NC
PAD6	UART CTS/SPI SCK	PAD19	NC
PAD7	WU/CSN	PAD20	NC
PAD8	VDD 3V	PAD21	GND
PAD9	GND	PAD22	GND
PAD10	NC	PAD41	GND
PAD11	UART TX/SPI_MISO	PAD42	RF OUTPUT
PAD12	NC	PAD43	GND
PAD13	NC		

Dimensions

Antenna Keepout 3mm x 5 mm

0.6mm
0.6mm
1.4mm
1.4mm
12mm
12mm
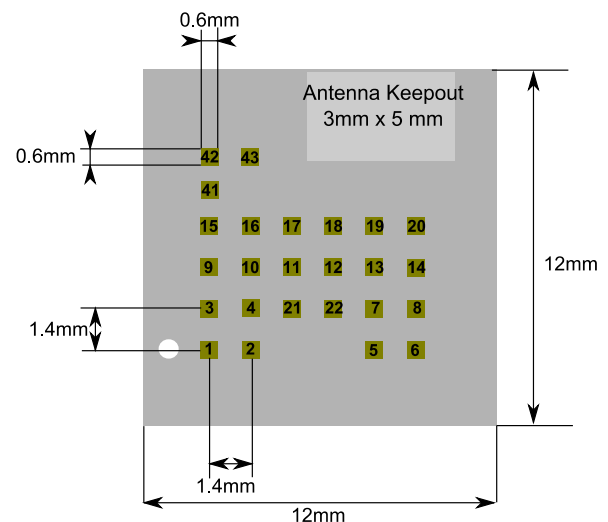
More detailed technical data will be available in the coming weeks, please contact Alpwise for more information.

You may also be interested in these products

ALPW-BLEDVKCM3
Development Kit

ALPW-BLESDK
Protocol Stack and tools

ALPW-BLESDKiOS
Stack for iOS
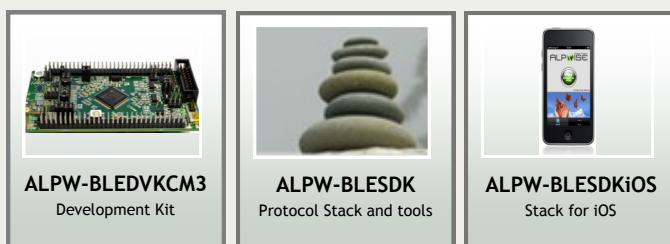
Along with the ALPW-BLEM103 module, Alpwise provides all the tools and facilities to easily implement your *Bluetooth*® application: development kit, SDK, SDK for iOS

Please contact us to know more about our complete offer.