Order Number LBEE5HY1MW

Shielded Ultra Small Dual Band WiFi 11a/b/g/n/ac with Bluetooth 5.0 Module

2.4GHz & 5 GHz WiFi+Bluetooth Module
Network Topology: AP and STA dual mode
Chipset: Cypress (CYW43455)
Processor: No
Modulation: DSSS / CCK / OFDM

High-Performance Capabilities for Internet of Things

For Industrial IoT, Smart Home, Audio/Video/Voice, Gateway
802.11 a/b/g/n/ac 1x1 433Mbps
NXP i.MX Linux, Cypress WICED

Recommended In Production

Data Sheet
Where to Buy | Distributor Inventory
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Add to Compare List

- Description
- Specs
- Documents
- Software
- Eval Tool
- Purchase

Type 1MW is a small and very high performance module based on Cypress CYW43455 combo chipset which supports WiFi 802.11a/b/g/n/ac + Bluetooth 5.0 BR/EDR/LE up to 433Mbps PHY data rate on Wifi and 3Mbps PHY data rate on Bluetooth. The WLAN section supports SDIO v3.0 DDR50 interface and the Bluetooth section supports high-speed 4-wire UART interface and PCM for audio data.

The CYW43455 implements highly sophisticated enhanced collaborative coexistence hardware mechanisms and algorithms, which ensure that WLAN and Bluetooth collaboration is optimized for maximum performance.

In IEEE 802.11ac mode, the WLAN operation supports rates of MCS0 - MSC9 (up to 256 QAM) in 20MHz, 40MHz and 80MHz channels for data rate up to 433Mbps.

Type 1MW module is packaged in an impressively small form factor that facilitates integration into size- and power-sensitive applications such as IoT applications, handheld wireless system, gateway and more.

Annual Volume	100000
Product Type	Module
Product Status	recommended in production
Grade	4646
Frequency	2.4GHz & 5 GHz
Frequency MHz (min)	2400
Frequency MHz (max)	5825
Chipset	Cypress (CYW43455)
Processor	No
Modulation	DSSS / CCK / OFDM
Antenna	External
RF Conn/ Antenna	Not Included
Sleep Clock	No
System Clock	Internal X'tal
Operating Temperature Range	-20 to +75
Operating Temperature °C (min)	-20
Operating Temperature °C (max)	75

Related Links

- Applications for Wireless
- Support for Wireless
- Wireless Modules for IoT Applications
- Wi-Fi/Bluetooth Modules for NXP i.MX
- LoRa Modules

Related Product Categories

- « Go Back
- Wi-Fi
- Wi-Fi + Bluetooth
- Bluetooth
- LPWA Modules
- 802.15.4
- Wi-Fi Bluetooth for NXP i.MX
- HyperMesh / FHSS
- M2M & Sensor Networking
- Wireless Network / Telemetry
- RFIC Radios
- Resonators
- Filters

Mounting Type	SMT
Package	LGA
Dimension	7.9 x 7.3 x 1.1mm
Supply Voltage (Vdc)	3.2 - 4.2
Transmit Power	17 dBm @ 11b (2.4GHz) 13 dBm @ 11g (2.4GHz) 12 dBm @ 11n (2.4GHz) 13 dBm @ 11a (5GHz) 13 dBm @ 11n (5GHz) 10 dBm @ 11ac (5GHz)
Receiver Sensitivity	-51 dBm @ 433Mpbs (5GHz)
Transmit Mode Current	420mA @ 11b (2.4GHz) 370mA @ 11g (2.4GHz) 360mA @ 11n (2.4GHz) 330mA @ 11a (5GHz) 310mA @ 11n (5GHz) 340mA @ 11ac (5GHz)
Receive Mode Current	130mA @ 433Mbps (5GHz)
Data Rate WLAN	11, 54, 65, 150, 433 Mbps
Data Rate Bluetooth	3 Mbps
WLAN	802.11a/b/g/n/ac
Bluetooth	5.0 BR/EDR/LE
Power Class	Class 1
Technology	WiFi+Bluetooth
Network	AP and STA dual mode
Host Interface	SDIO
I/O Interface	PCM/I2S
Host Interface Other	No
Host Interface BT	UART
Interface Voltage (Vdc for VIO)	1.8 or 3.3
FCC/IC Certified	FCC/IC "Reference" Certified
ETSI Certified	Yes
CE Compliant	CE Compliant
ISO9001	Yes
TS16969	No
Platform	Linux, WICED
Document Statement	If you use NXP i.MX platforms for Linux, please check Wi-Fi Bluetooth for NXP i.MX for supported combination.
Data Sheet	Download PDF
Data Sheet Date	May 16, 2019
Additional Docs	HW Application Note Module Footprint Topview DXF Antenna Guide Antenna DXF

Software

- To develop software on NXP i.MX (Linux), please visit Wi-Fi Bluetooth for NXP i.MX for supported combination.
- To develop software on RTOS, please visit Cypress WICED™ SDK web site.
- Please check Cypress Based Modules for software options.

WICED™ is a Cypress development system that vastly reduces the effort required to add wireless connectivity to embedded devices. The SDK enables developers to quickly create network connected applications targeted for low-resource microcontrollers.

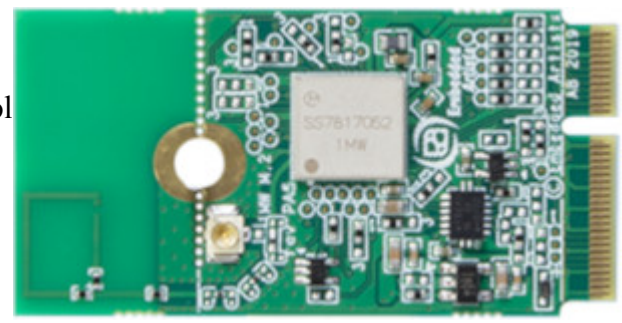
The WICED™ SDK includes:

- An open source build system and toolchain based on GNU make.
- A GUIDE based on Eclipse CDT that seamlessly integrates with a programmer and single-step, thread-aware, debugger based on OpenOCD and gdb.
- A complete software stack that includes advanced security and networking features such as SSL/TLS, IPv4/IPv6 networking, and mDNS/Bonjour.
- Production ready example applications.

Driver Firmware

- Linux driver/firmware for NXP i.MX platform
- RTOS driver/firmware for Cypress WICED

- For Linux: 1MW M.2 Module by Embedded Artists.
- Please check Wi-Fi Bluetooth for NXP i.MX for supported combination.

Evaluation Tool	
Order Number	LBEE5HY1MW
Where to Buy | Distributor Inventory	
Production Part Number	LBEH5HY1MW-230
	Please engage with Murata sales team and wireless team to determine if this module is suitable for your applications.
Purchase	Murata reserves the right to support or not to support requests based on the corporate policy that includes export control and application restrictions, annual volume requirement (100kpcs) or other requirements. To expedite the qualification of your application for these modules, please submit the information through the Contact Us button on the top.
Order Increment	2,000