

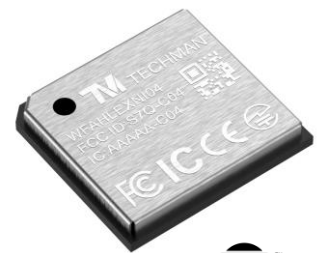
Product Overview

The WFAHLEXNI04 module includes ultra-long-reach PA, high linearity LNA, T/R switch, 32 MHz crystal oscillator and it has been designed for a simplified Wi-Fi HaLow connection to an external host for applications in which a customer wants to merely replace their prior RF technology with a Wi-Fi HaLow connection while leveraging the latest WPA3 security protocol.

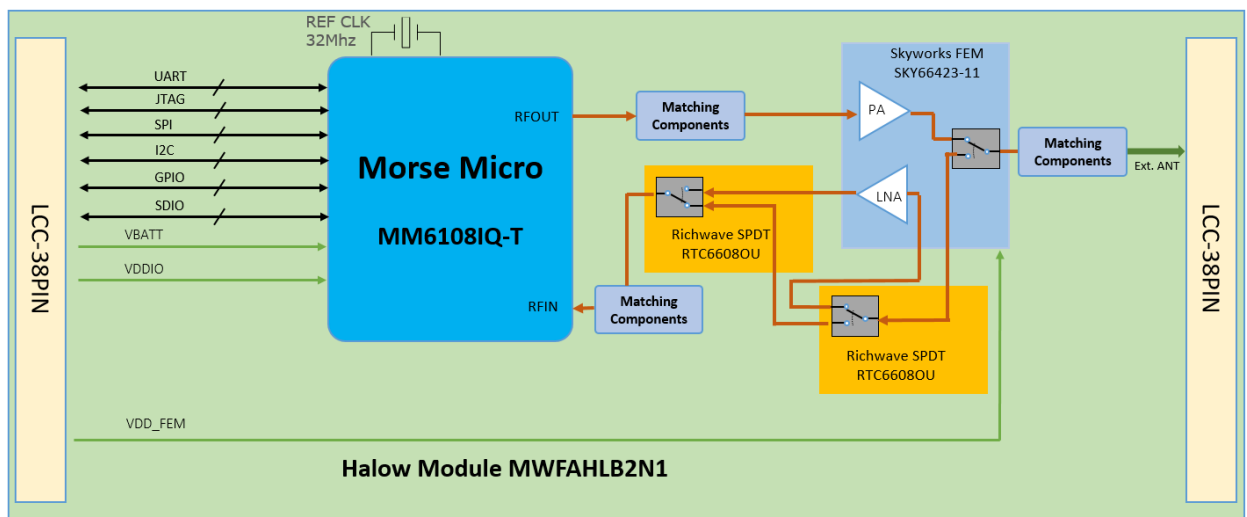
The module has been designed for a simplified Wi-Fi HaLow connection to an external host for applications in which a customer wants to merely replace their prior RF technology with a Wi-Fi HaLow connection.

Key Feature

- Ultra-long-range, low-power Wi-Fi HaLow module for IoT Applications
- Support for STA and Soft AP mode
- Power-Saving Target Wake Time (TWT) support for long battery life
- Single Chip Wi-Fi HaLow Transceiver.
- Single-stream max data rate of 32.5 Mbps.
- Radio supporting worldwide Sub-1 GHz frequency bands.
- 802.11ah OFDM PHY supporting future WFA HaLow certification.
- Power Management Unit (PMU) for various modes of operation.
- SDIO 2.0 and SPI Host interface Options
- SDIO Support for both 1-bit and 4-bit data mode.
- With FEM Tx power up to 21dBm
- Wide spectrum of Security features
- Support industrial temperature level



Block Diagram



Technical Specifications

Chipset	Morse Micro MM6108
Host Interface	SDIO2.0 (DS at 25MHz, HS at 50MHz), SPI
WLAN Specifications	IEEE 802.11ah
Operating Frequency	860 ~ 930MHz
Bandwidth	1/2/4/8 MHz channel
Max Data Rate	32.5 Mbps @ 8MHz or 15 Mbps @ 4MHz channel
Transmit Power	Max. +21dBm
Receiver Sensitivity	Min. -107dBm
Power Consumption	Tx @ +21dBm: 225mA, Rx: 57.5mA
Deep Sleep Mode	1uA
Peripherals	1x SDIO 2.0 (host interface) 2x UARTs 1x SPI (host interface)
Form Factor	LCC 38 pins
Antenna	Internal LGA PAD x1 (1T1R)
Operating Voltage	VBATT, VDD_FEM: 3.0V to 3.6V VDDIO: 1.8V/3.3V
Operating Temperature	-40 to 85°C
Storage Temperature	-40 to 125°C
Host Operating System	Linux 4.19 above
Certifications	FCC, IC, CE, TELEC, BSMI

Dimension : 13.5mm x 14.6mm x 2.0mm (± 0.1 mm)

