TD-HALOC (US)

802.11ah Wi-Fi HaLow™ m.2 Card
Low power usage
High RF power output
Hosted or embedded systems

Product Overview

TD-HALOC (US) is an IEEE 802.11ah Wi-Fi **HaLow™** m.2 Key E 2230 card enabled by Newracom's NRC7394 SoC. It features a host SPI or USB interface to operate with an external processor or a microcontroller. It can also operate independently on its own internal MCU without a connection to an external host system. Its small footprint design with the integrated antenna connector saves PCB space and allows a more compact embedded system design. The TD-HALOC also features 1 Watt of high-transmission output power, the maximum allowed by the FCC, to gain more distance and coverage.

Features

Data Transfer Over Longer Distances

The TD-HALOC features higher transmission power than other Wi-Fi Halow modules. It ensures the best performance in data throughput over long distances, and provides wide coverage of Wi-Fi Halow radio signals.

Extreme Low Power Operation

The TD-HALOC features low power modes that reduce current usage to as little as 0.35 microamps. Not only is it capable of the highest power output available, but also the lowest power usage in power saving modes.

USB or SPI Interface for Linux Systems

The TD-HALOC supports a high-speed USB or SPI connection to external Linux host systems allowing maximum throughput via well proven high speed interfaces.
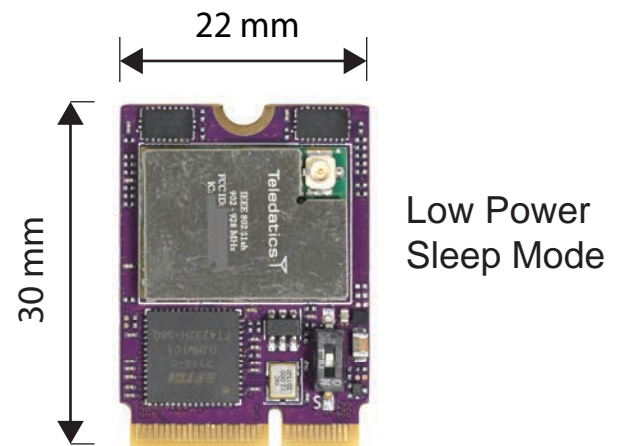
Standalone Operation

The TD-HALOC module contains an ARM Cortex-m3 on-board microprocessor and can operate completely independently of external systems. The open source SDK provides an easy-to-use framework to build standlone application firmware.

NGFF m.2 Key E Compatible

The TD-HALOC follows the Next Generation Form Factor m.2 card standard. The Key E 2230 format is used for RF devices such as Wi-Fi, Bluetooth, and 802.15.4, and Zigbee. TD-HALOC m.2 card follows the Key E standard with 1.8v IO. The SPI pins and a SPI interrupt follow the NXP AN13049 pin specification for m.2 Key E 2230 cards.

Made In USA

Specifications

Name	TD-HALOC
Host Interface	USB SPI UART
Wi-Fi Standard	IEEE Wi-Fi 802.11ah HaLow
Antenna	u.FL / IPEX
Operating Voltage	3.3v
Operating Environment	Temp: -40 to + 85 °C Humidity: 15% to 95%
Storage Environment	Temp: -40 to + 85 °C Humidity: 15% to 95%
Size	22 mm x 30 mm
Package	NGFF m.2 Key E 2230 card
Certification	FCC & IC
Output Power	30 dBm / 1 Watt maximum 0.35 µA minimum

22 mm
30 mm

Low Power Sleep Mode

30 dBm / 1 Watt High RF Output