

TD-HALOM (US)

802.11ah Wi-Fi HaLow™ SPI module

Low power usage

High RF power output

Hosted or embedded systems



Product Overview

TD-HALOM (US) is an IEEE 802.11ah Wi-Fi HaLow™ SPI module enabled by Newracom's NRC7394 SoC. It features a host SPI 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-HALOM 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-HALOM 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-HALOM 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.

SPI Host Interface for Linux Systems

The TD-HALOM supports a high-speed SPI connection to external Linux host systems allowing maximum throughput via a well proven high speed interface.

Standalone Operation

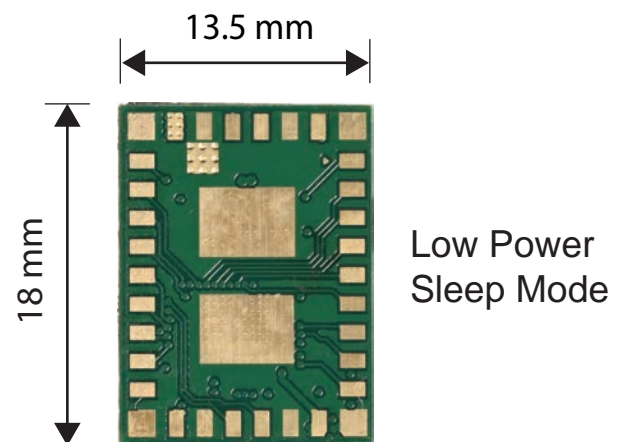
The TD-HALOM module contains an ARM Cortex-m3 on-board microprocessor and can operate completely independently of external systems. The open source SDK provides an easy-to-use framework to build standalone application firmware.

Small Footprint

The TD-HALOM module is just 18 mm by 13.5 mm and contains an on-board u.FL / IPEX industry standard antenna connector. The small footprint and compact design with integrated connector allows engineers to save PCB space and complexity.

Specifications

| | |
|-----------------------|--|
| Name | TD-HALOM |
| Host Interface | SPI & UART |
| Wi-Fi Standard | IEEE Wi-Fi 802.11ah HaLow |
| Antenna | u.FL / IPEX |
| Operating Voltage | VDD: 3.3v VDDIO: 1.8v or 3.3v VDDFEM: 3.3v or 5v |
| Operating Environment | Temp: -40 to + 85 °C Humidity: 15% to 95% |
| Storage Environment | Temp: -40 to + 85 °C Humidity: 15% to 95% |
| Size | 18mm x 13.5mm x 2.4 mm |
| Package | 36 pin LGA module |
| Certification | FCC & IC |
| Output Power | 30 dBm / 1 Watt maximum 0.35 µA minimum |



30 dBm / 1 Watt
High RF Output

Made In USA