



AHMC7292S is world's first WiFi HaLow™ mini PCIe module

The AHMC7292S module series allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands. WiFi HaLow™ enables connectivity for many applications, including sensors and wearables.

With support for standalone and host based modes, up to 15 Mbps data throughput and complete SDK, getting started with this new WiFi standard will be straightforward.

Key features

- 1 Newracom™ NRC7292 WiFi HaLow™ SOC (IEEE 802.11ah draft 8.0 compliant)
- 2 Qorvo™ RFFM6901 front-end
- 3 IPEX/U.FL antenna connector
- 4 USB to UART bridge (AHMC7292SU)
- 5 Full-size mini PCIe form factor
- 6 Connector for UART3
- 7 2x LED

Chipset Newracom™ NRC7292

Frequency 847 MHz (TW)
866 MHz (EU)
915 MHz (US)
922 MHz (KR)
924 MHz (JP)

Modulation OFDM with BPSK, QPSK, 16QAM, 64QAM

Data rate 150 Kbps ~ 15 Mbps

Channel bandwidth 1/2/4 MHz

Antenna connector 1× IPEX/U.FL

Interfaces SPI
UART
I²C
USB (AHMC7292SU)

LED 1× TX
1× RX

Form factor full-size mini PCIe

Dimensions 30 × 51 × 4 mm

Software <https://github.com/newracom/>

PRELIMINARY

Top		Bottom	
1	SCK	3.3 V	2
3	SDO	GND	4
5	SDI	NC	6
7	CS	NC	8
9	GND	NC	10
11	UART TX (NRC7292: GP01_UART2_RX)	NC	12
13	UART RX (NRC7292: GP00_UART2_TX)	NC	14
15	GND	BOOT (XIP/ROM)	16
Mechanical key			
17	INT	GND	18
19	NC	NC	20
21	GND	PERSTn	22
23	NC	3.3 V	24
25	NC	GND	26
27	GND	NC	28
29	GND	I ² C SCL	30
31	NC	I ² C SDA	32
33	NC	GND	34
35	GND	USB 2.0 D- ¹	36
37	GND	USB 2.0 D+ ¹	38
39	3.3 V	GND	40
41	3.3 V	NC	42
43	GND	WLAN LED	44
45	NC	NC	46
47	NC	NC	48
49	NC	GND	50
51	NC	3.3 V	52

¹⁾ USB 2.0 interface is available only in AHMC7292SU version

