AzureWave Technologies, Inc.

AW-HM482

802.11ah Module EVK

User Guide

Rev. 0.1

(For Standard)

FORM NO.: FR2-015_ A Responsible Department：WBU Expiry Date: Forever
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Revision History

Document NO:

Version	Revision Date	DCN NO.	Description	Initials	Approved
0.1	2021/01/28		Initial Version	Daniel Lee	NC Chen

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Table of Contents

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1 Overview

1.1 Device supported

This document supports the AW-HM482 (18 x 24 mm LGA Module). The AW-HM482 EVB can be operated in MFG mode or Host Mode. If you want to perform AW-HM482 RF performance test, please contact the relevant personnel of Newracom to obtain NRC7292 Manufacturing Test Tool GUI (MFT GUI) and related user guide.

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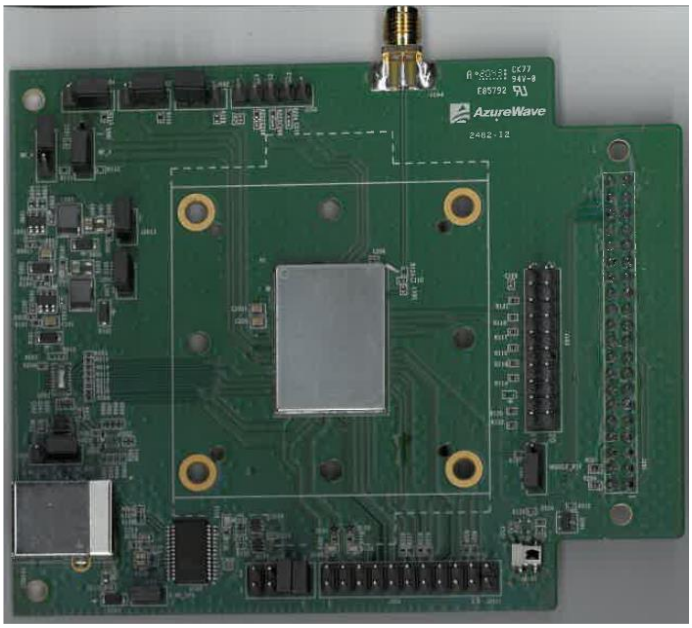
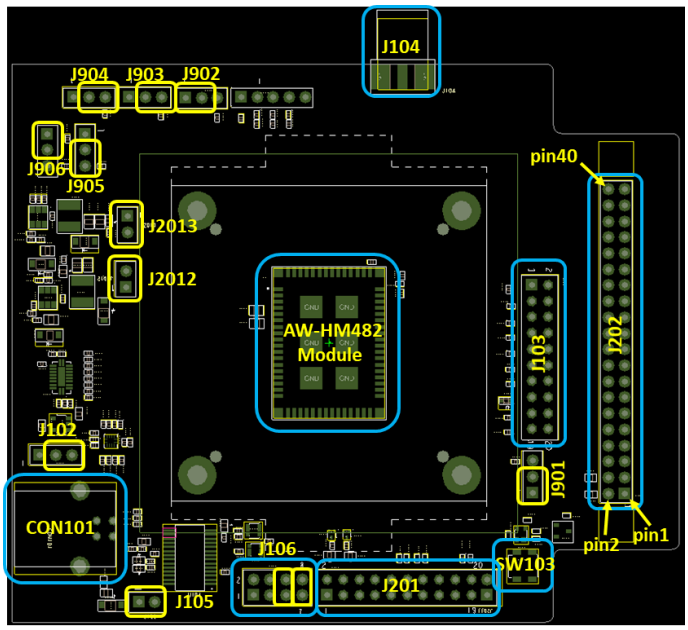
2. Basic Setup and Requirements for MFG Mode

This section provides the detailed information about the setting for AW-HM482 EVB. Shows the overview of the AW-HM482 EVB physical photo and PCB placement (TOP). The description of jumpers' functions and settings on EVB is as follows:

Azurewave AW-HM482 EVB physical photo and PCB placement





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2.1 Operation Mode Configurations

AW-HM428 can be operated in MFG mode or Host Mode through the setting of jumpers (J902, J903, J904, J905, J906).

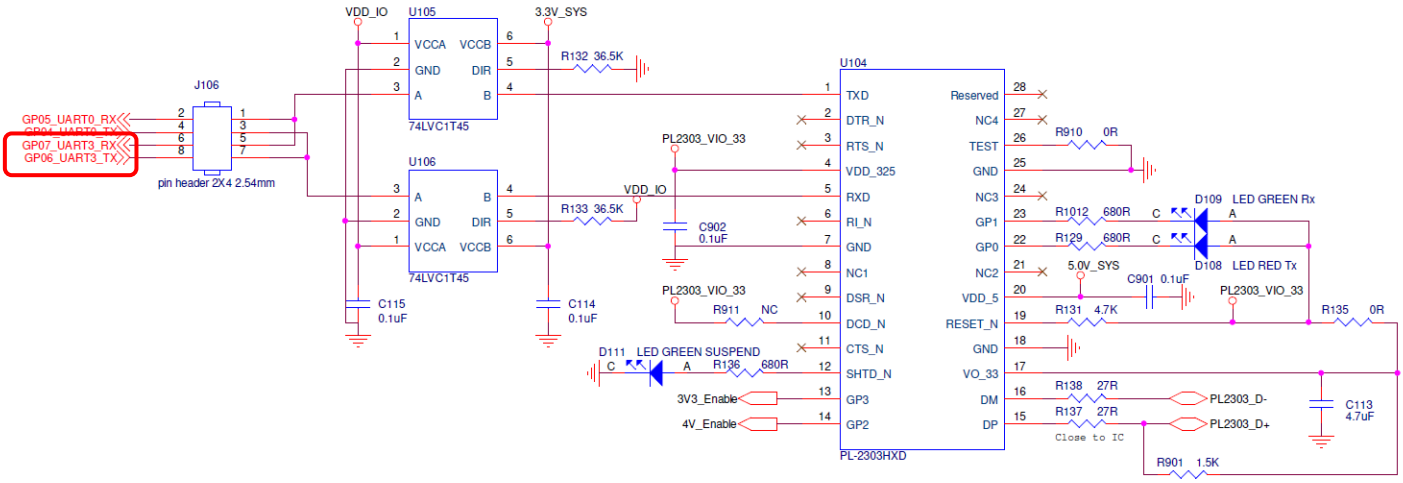
J902, J903, J904, J905, J906 = H, L, L, L, H (Host Mode)
J902, J903, J904, J905, J906 = H, H, L, L, H (MFG Mode)

2.2 Power Supply

a. The 5.0V power supply can be provided by USB connector (CON101) and short J105 or by J202 pin.2.
b. The 4.0V power supply (J2013) for AW-HM482 pin.5 VDD_FEM is converted from the 5.0V power supply through the LDO on the EVB.
c. The 3.3V power supply (J2012) for AW-HM482 pin.6 VBAT is converted from the 5V power supply through the LDO on the EVB.
d. The 1.8V power supply is converted from the 3.3V power supply through the LDO on the EVB
e. VDDIO for AW-HM482 can be set to 1.8V or 3.3V through J102
   Short J102 pin.2 and pin.3 to set VDDIO to 3.3V (default)
   Short J102 pin.2 and pin.1 to set VDDIO to 1.8V

2.3 USB to UART (J106)

Set the UART port (UART3) of AW-HM482 by short-circuiting pin5 to pin6 and pin7 to pin8 of J106. The USB bridge IC used by AW-HM482 EVB is Prolific's PL2303GC. You can download its driver from Prolific's official website.



UART TO USB

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2.4 Module Reset (J901)

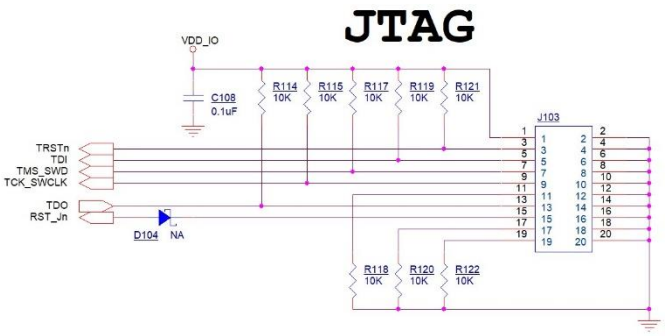
Pin.2 of J901 is the reset control pin of AW-HM482. By shorting pin1 and pin2, the reset function can be controlled by SW103.

2.5 GPIOs (J201)

The GPIO pins of AW-HM482 are connected to J201, the definition of each pin is as follows

2.6 JTAG (J103)

The JTAG pins of AW-HM482 are connected to J103, the definition of each pin is as follows



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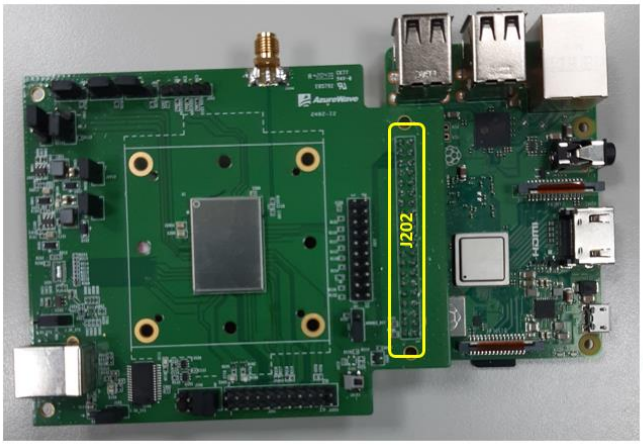
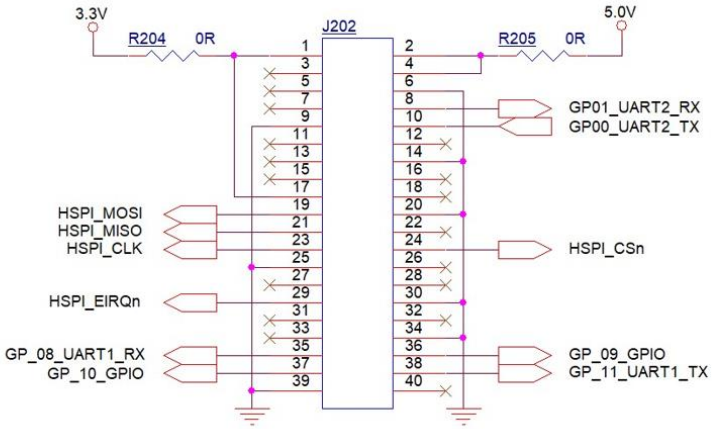
3. Basic Setup and Requirements for Host Mode

AW-HM482 can be connected to the Host side via SPI interface. The picture below is a photo of AW-HM482 EVB connected to Raspberry Pi3 via J202. Please note that the mode of J902, J903, J904, J905, J906 must be set correctly when operating in Host Mode.

J902, J903, J904, J905, J906 = H, L, L, L, H (Host Mode)





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