正基科技股份有限公司

AMPAK Technology Inc.

AP6275HH3

Evaluation Board User Manual

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Revision

Revision	Date	Description	Revised By
1.0	2020/ 12/ 29	Initial released	Ali
1.1	2022/ 05/ 05	Revise EVB Introduction	Ali

Contents

1. EVB Introduction 2
2. WiFi Function Verification Step 3
2.1 WiFi PCIE 3
2.2 Hardware Setup 4
2.3 WiFi Software Setup 4
3. Bluetooth Function Verification Step 4

1. EVB Introduction

AP6275HH3 Evaluation board (EVB) likes as figure1. That is designed for IEEE802.11 a/b/g/n/ac/ax WLAN with integrated Bluetooth application. It is subject to provide a convenient environment for customer's verification on WiFi or Bluetooth function. There are many controller pins and reserved GPIO on Evaluation board which describes as below.

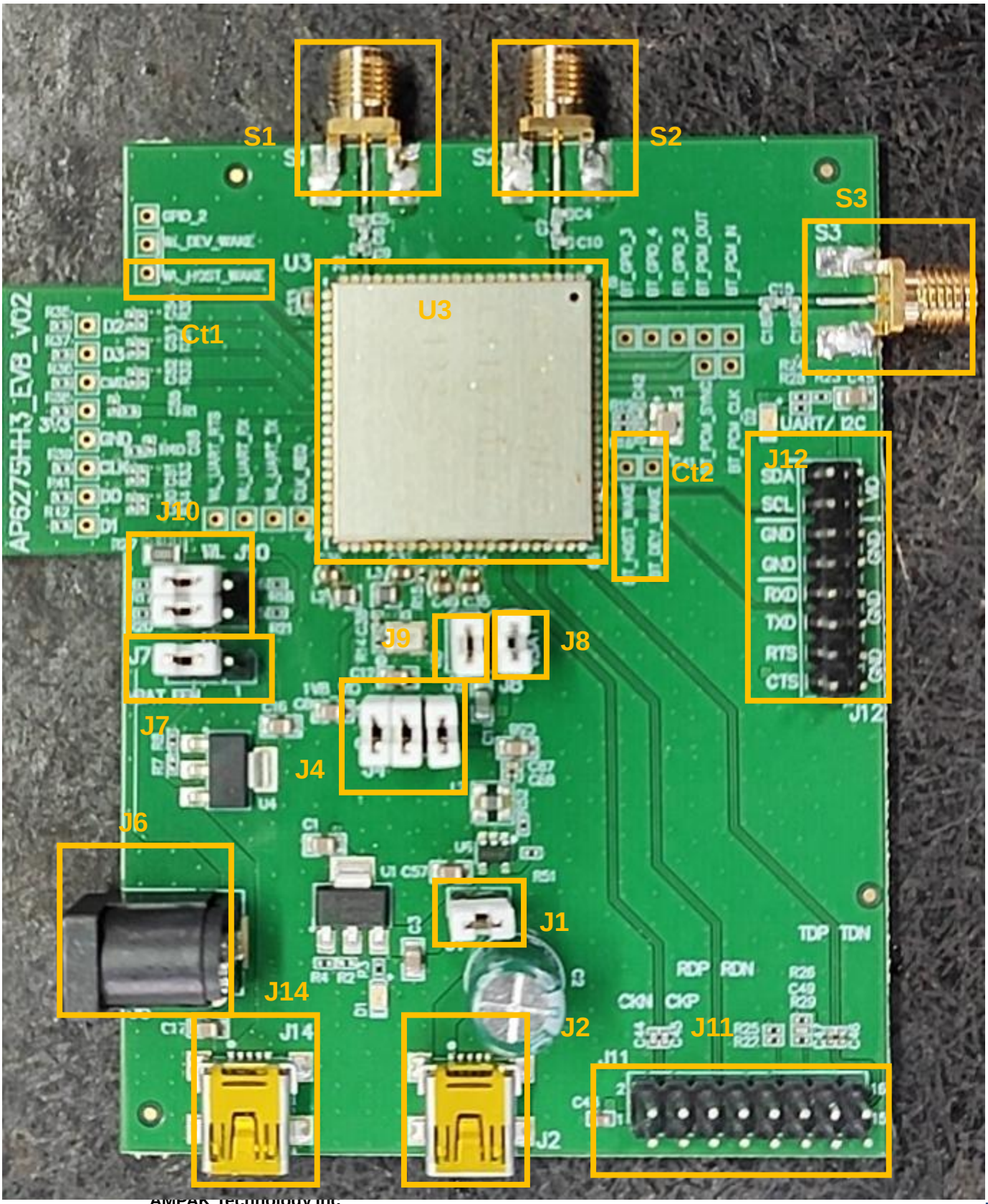


Figure1. Top view of AP6275HH3 EVB

Interface highlights:

1. U3: AP6275HH3 SIP module.
2. J12: UART interface connects with UART transport board for BT measuring
3. J10: Enable(H) or disable(L) Bluetooth, WiFi function
4. J4: BT_VIO / WL_VIO /VBAT for main system I/O power path.
5. J2/J14: 5V DC mini USB input connector for VBAT(current 2A up)/VBT_FEM.(current 1A up)
6. J6: 5V DC adaptor input connector for VBAT_FEM(current 1A up).
7. J9: WL_VIO 1.8V for main system I/O power path
8. J8: VBAT 3.3V for main system power path
9. J1: 5V for main system power path
10. S1: SMA connector WIFI RF ANT2 signal in/out path, you could connect with RF cable or Dipole antenna.
11. S2: SMA connector WIFI RF ANT1 signal in/out path, you could connect with RF cable or Dipole antenna.
12. S3: SMA connector BT RF ANT3 signal in/out path, you could connect with RF cable or Dipole antenna
13. Ct1: WLAN pins, strongly recommended WL_HOST_WAKE(IRQ) connected to MCU or CPU I/O.
14. Ct2: BT pins, strongly recommended BT_HOST_WAKE(IRQ) & BT_DEV_WAKE connected to MCU or CPU I/O.

2. WiFi Function Verification Step

2.1 WiFi PCIE Interface

WIFI PCIe: PCIe interface definition as below J12 dip connector and this should be used 3.3V for PCIe voltage.

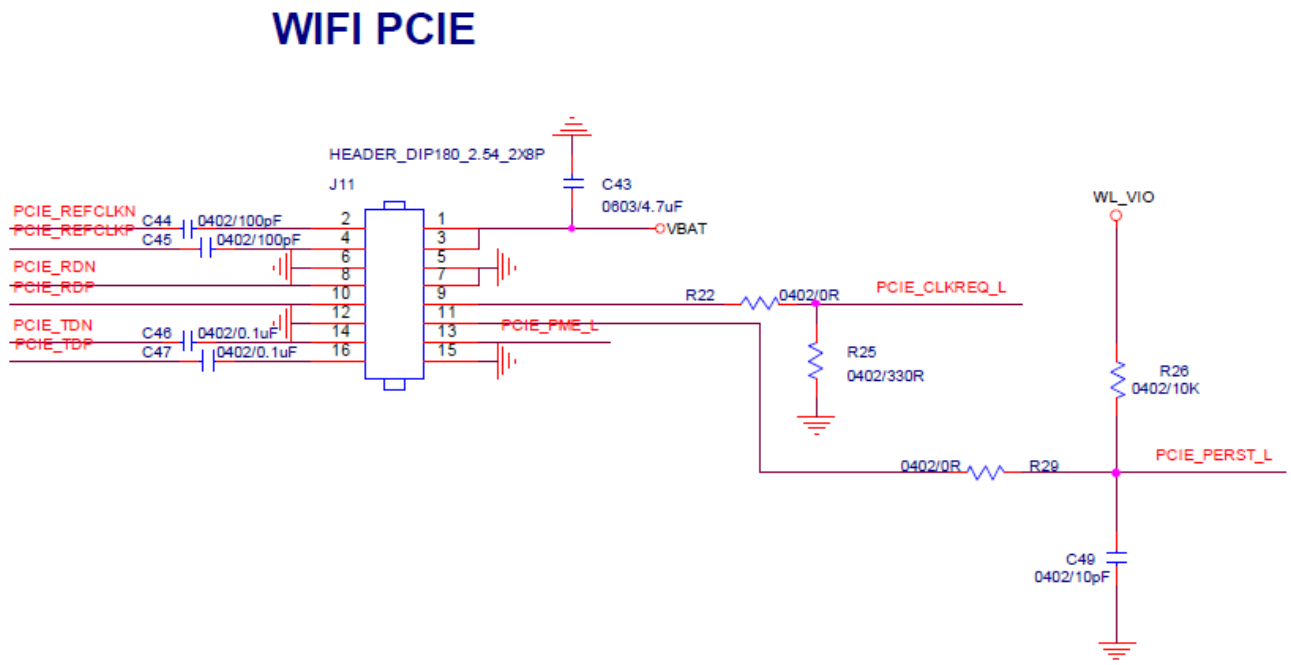


Figure2. WiFi verification connection interface to Host PCIE.

2.2 Hardware Setup

- Refer to Figure2 PCIE pin definition connects the J11 interface of AP6275HH3 evaluation board to Host PCIE control interface.
- choose 5V DC adaptor or 5V mini USB connector power supply for VBT_FEM LDO.
- Connects an external antenna at SMA connector on the evaluation board.

2.3 WiFi Software Setup

- Please follow up software guideline of Ampak official released.

Bluetooth Function Verification Step

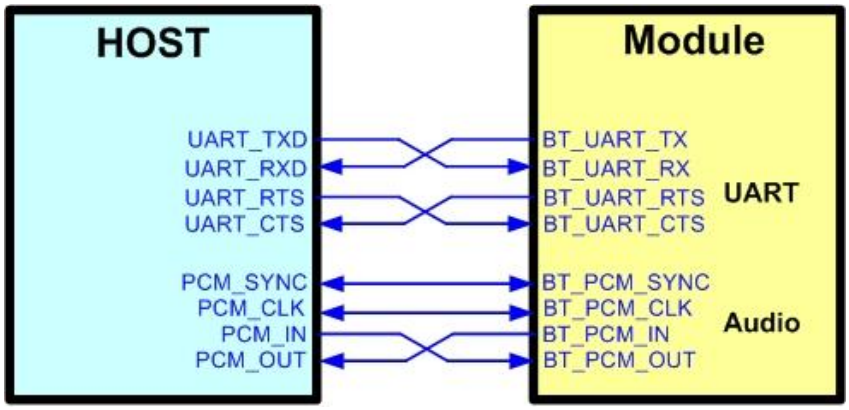


Figure5. Bluetooth verification connection interface to Host UART

Hardware Setup:

- Refer to Figure5 UART pin definition connects the J16 interface of AP6271S evaluation board to Host UART control interface.
- Connects an external antenna at SMA connector on the evaluation board.
- Note to the VDDIO voltage level should be the same as GPIO voltage level of Host CPU.

WiFi and Bluetooth software setup:

- Please follow up software guideline of Ampak official released.