

# **AW-HM662**

## **Reference Design Guide**

**Rev. 01**

## Revision History

Version	Revision Date	Description	Initials	Approved
01	2024/9/5	● Initial Version	Daniel Lee	N.C. Chen

## 1. AW-HM662

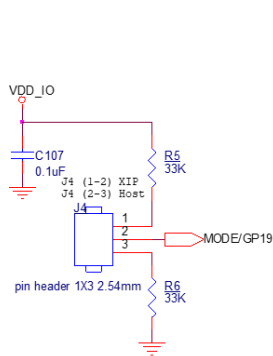
The schematic diagram illustrates the internal circuitry of the AW-HM662 module. The central component is the AW-HM662 chip, which is connected to various external components and pin headers. Key connections include:

- Power and Ground:** VDD\_FEM, 3.3V\_SYS, and VBAT are connected to the chip's power pins. Ground connections are provided for multiple pins.
- Connectors:** Two pin headers (1X2 2.54mm) are used for external connections. One header is connected to GP16 / CSD, GP15 / CTX, and GND. The other header is connected to GP17 / ADC0, GP18 / ADC1, and GND.
- Resistors and Capacitors:** Various resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100) and capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100) are used for signal conditioning and timing.
- Signal Lines:** The chip is connected to various signal lines, including UART, I2C, and SPI. The UART lines are labeled as UART0\_TXD, UART0\_RXD, UART1\_TXD, and UART1\_RXD. The I2C lines are labeled as I2C\_SDA and I2C\_SCL. The SPI lines are labeled as SPI\_CS, SPI\_CLK, SPI\_MISO, and SPI\_MOSI.
- Other Components:** The chip is also connected to an antenna (ANT) and a reset button (PMS\_POR/RST).

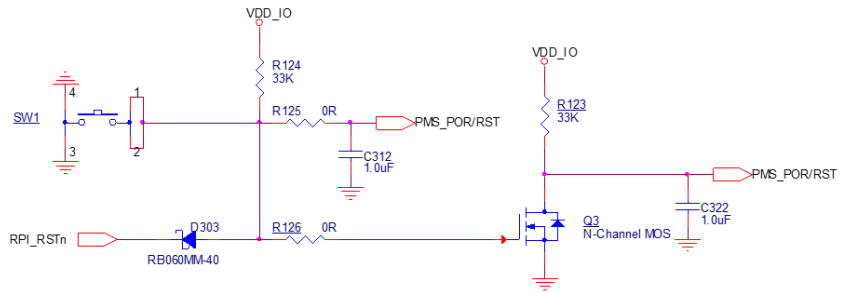
## 2. Antenna Connector

## ANTENNA CON

### 3. Mode Select / Reset / Indicate

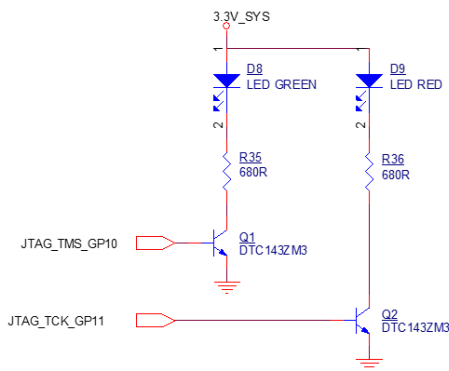


**MODE SELECT**



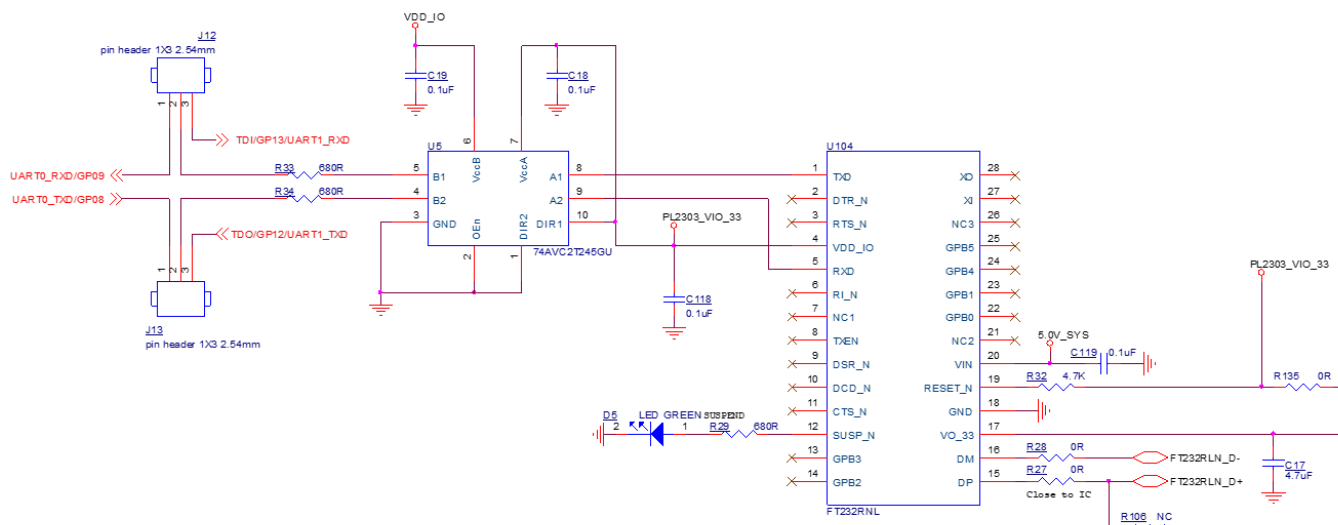
Active High R125 NC R914 on  
Active Low R125 on R914 NC

**Reset**

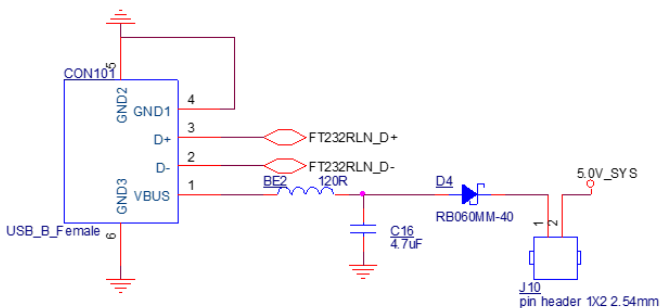


**Indicate**

## 4. USB to UART for DUT Control

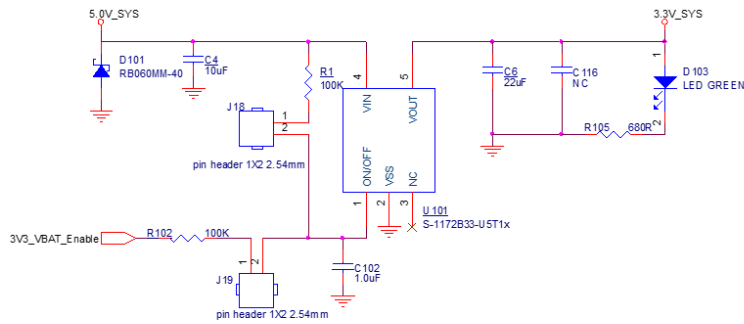


## USB TO UART (DUT Control)

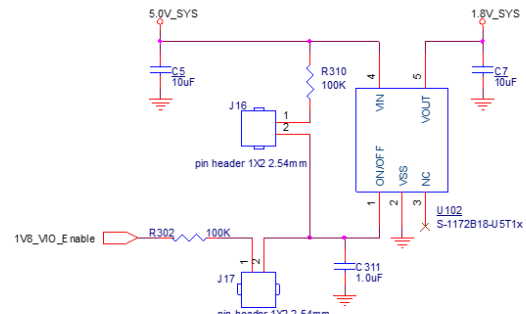


## USB for DUT Control

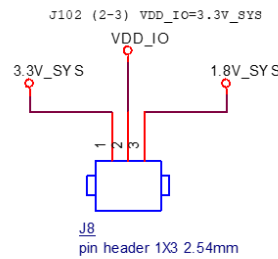
## 5. Power Supply



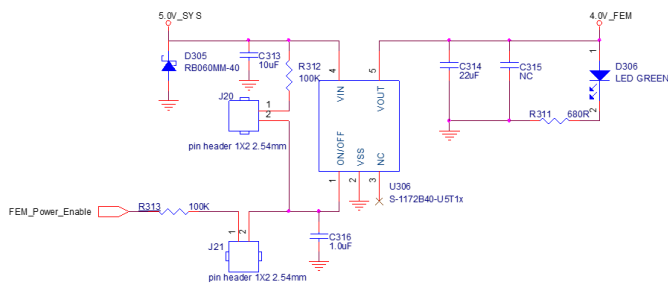
**3.3V POWER**



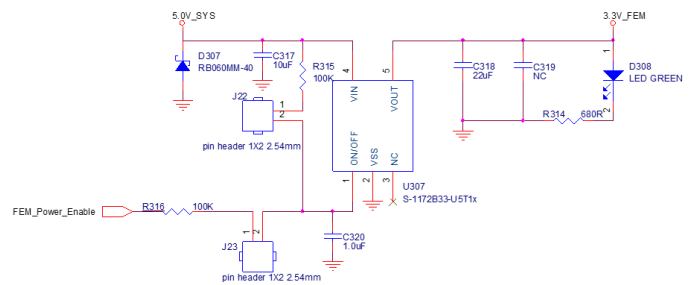
**1.8V POWER**



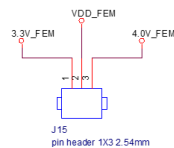
## IO VOLTAGE SELECT

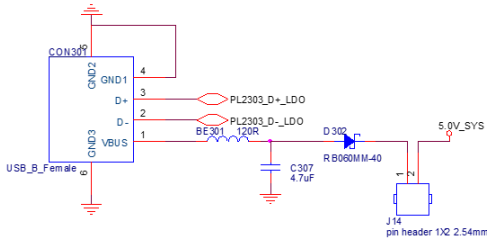


**4.0V FEM POWER**

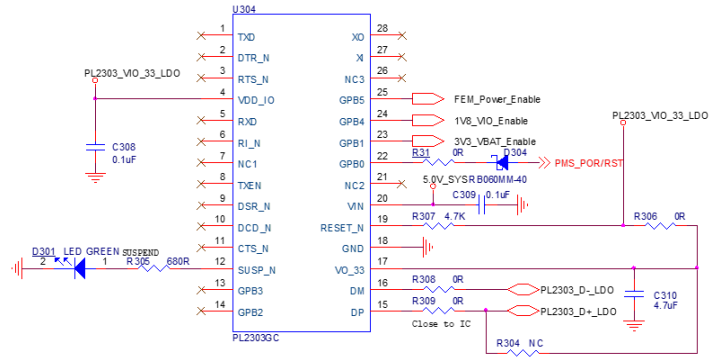


**3.3V FEM POWER**



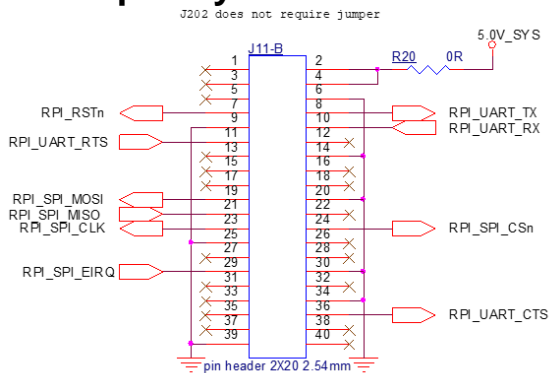


USB for LDO Control

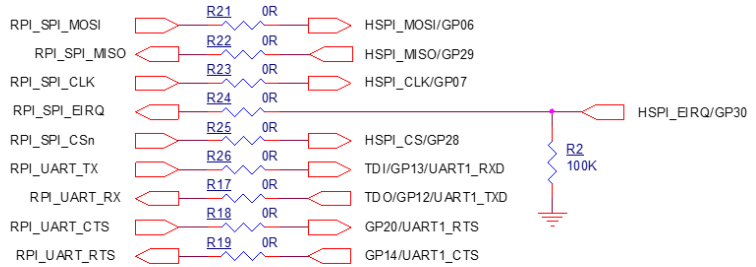


UBS TO UART (LDO Control)

## 6. Raspberry PI



RASPBERRY PI



## 7. Reserve for Debug

