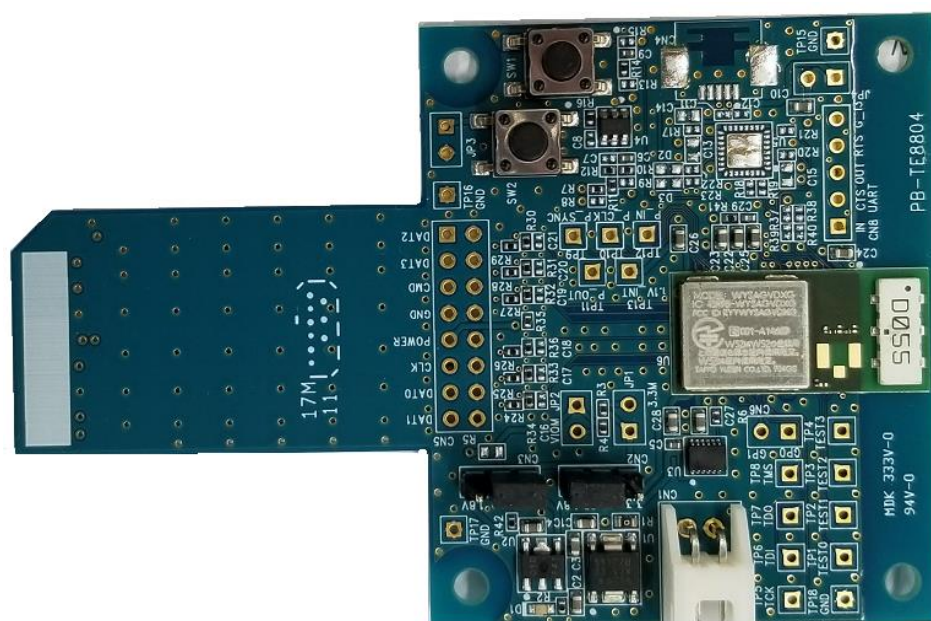


WBSAGVDXG

Wireless LAN and Bluetooth[®] Module Evaluation Board

(For WYSAGVDXG)

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This evaluation board is an object for experiment of operation, and does not guarantee quality. Moreover, the conditions of a module of operation are not recommended in the schematic, the parts, the software, etc. currently used for evaluation board.

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ATTENTION: This module requires device drivers that are under Japan export control. Depending on the customer's country and application (e.g. weapons), Taiyo Yuden may not be able to provide these drivers to all customers. Please contact your local Taiyo Yuden sales office for additional information.

To contact your local sales office and for additional product information, please visit www.ty-top.com.

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Rev. Records

Mar.08.2019> Ver.1.0 Release

Apr.08.2019> Ver.1.1 Update

May.24.2019> Ver.1.2 Update

Jul.02.2019> Ver.1.3 Update

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Introduction

This evaluation board is developed for communication test of **Wireless LAN** and **Bluetooth®** module which TAIYO YUDEN develops and sells.

This evaluation board makes it possible to perform easily the communication test of **Wireless LAN** and **Bluetooth®** module of TAIYO YUDEN.

Conformity module

WYSAGVDXG

Accessories

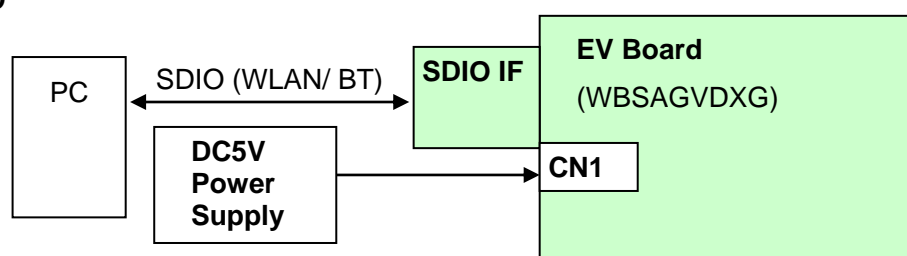
| | | |
|---|------------------------------|---------|
| 1 | Evaluation Board (WBSAGVDXG) | 1 piece |
| 2 | DC Power Cable | 1 piece |

Recommendation operation environment

PC with Linux Fedora18 with software development option and SDIO interface(CPU 1000MHz or higher)
 Attention: PC with SDIO is required. Although SDIO and SD Memory Card have the same slot shape, they are not compatible. WLAN Module and Evaluation Board will not work if they are connected to SD memory card slot.

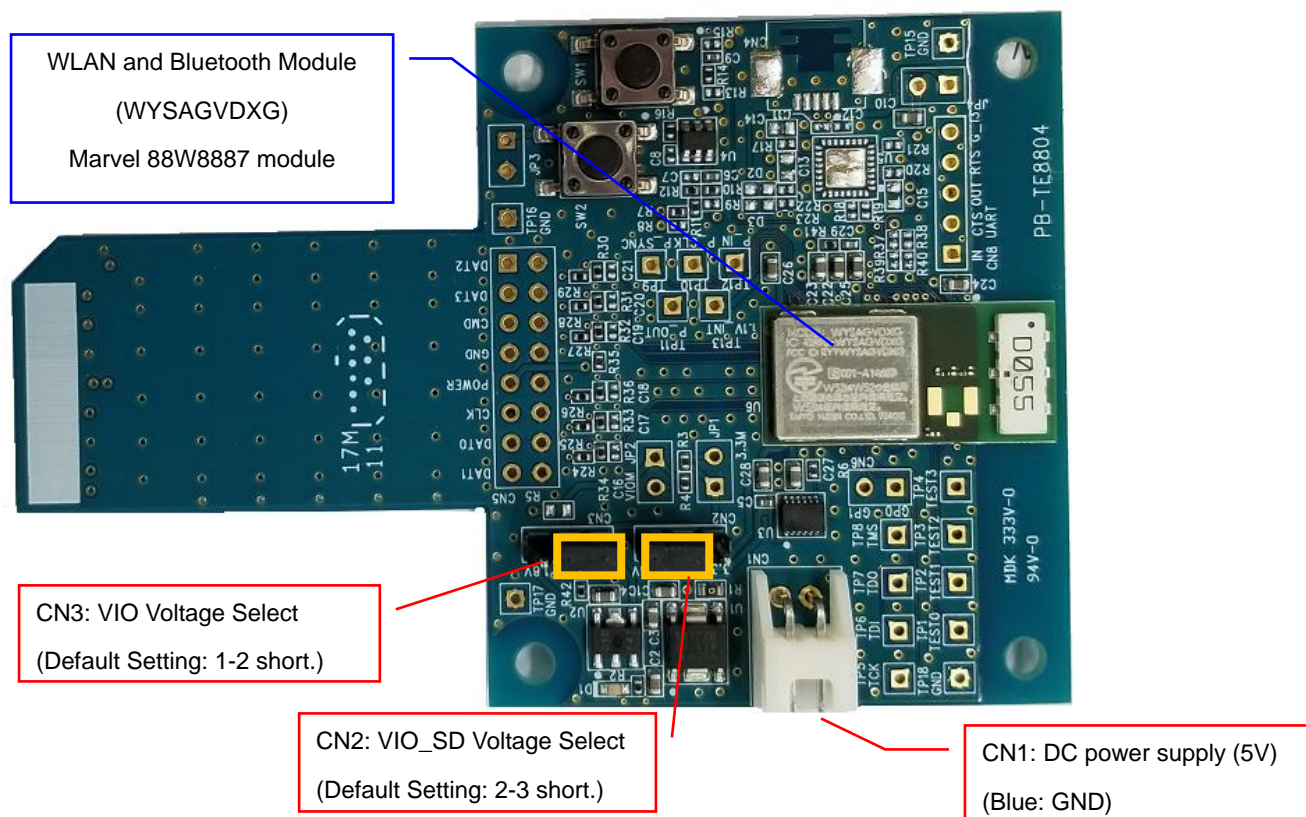
The example of connection

SDIO



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Evaluation board layout



Pin description of evaluation board

WBSAGVDXG (TE8804)

CN1: DC Power Supply

| No. | Pin name | Direction | Description |
|-----|----------|-----------|-------------|
| 1 | 5V | Input | 5.0V input. |
| 2 | GND | GND | Ground |

CN2: VIO_SD Voltage Select (Default Setting: 2-3 short.)

| No. | Pin name | Direction | Description |
|-----|----------|-----------|-------------------|
| 1 | 3.3V | Output | 3.3V output. |
| 2 | VIO_SD | Input | Input for VIO_SD. |
| 3 | 1.8V | Output | 1.8V output. |

CN3: VIO Voltage Select (Default Setting: 1-2 short.)

| No. | Pin name | Direction | Description |
|-----|----------|-----------|----------------|
| 1 | 3.3V | Output | 3.3V output. |
| 2 | VIO | Input | Input for VIO. |
| 3 | 1.8V | Output | 1.8V output. |

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BOM of evaluation board

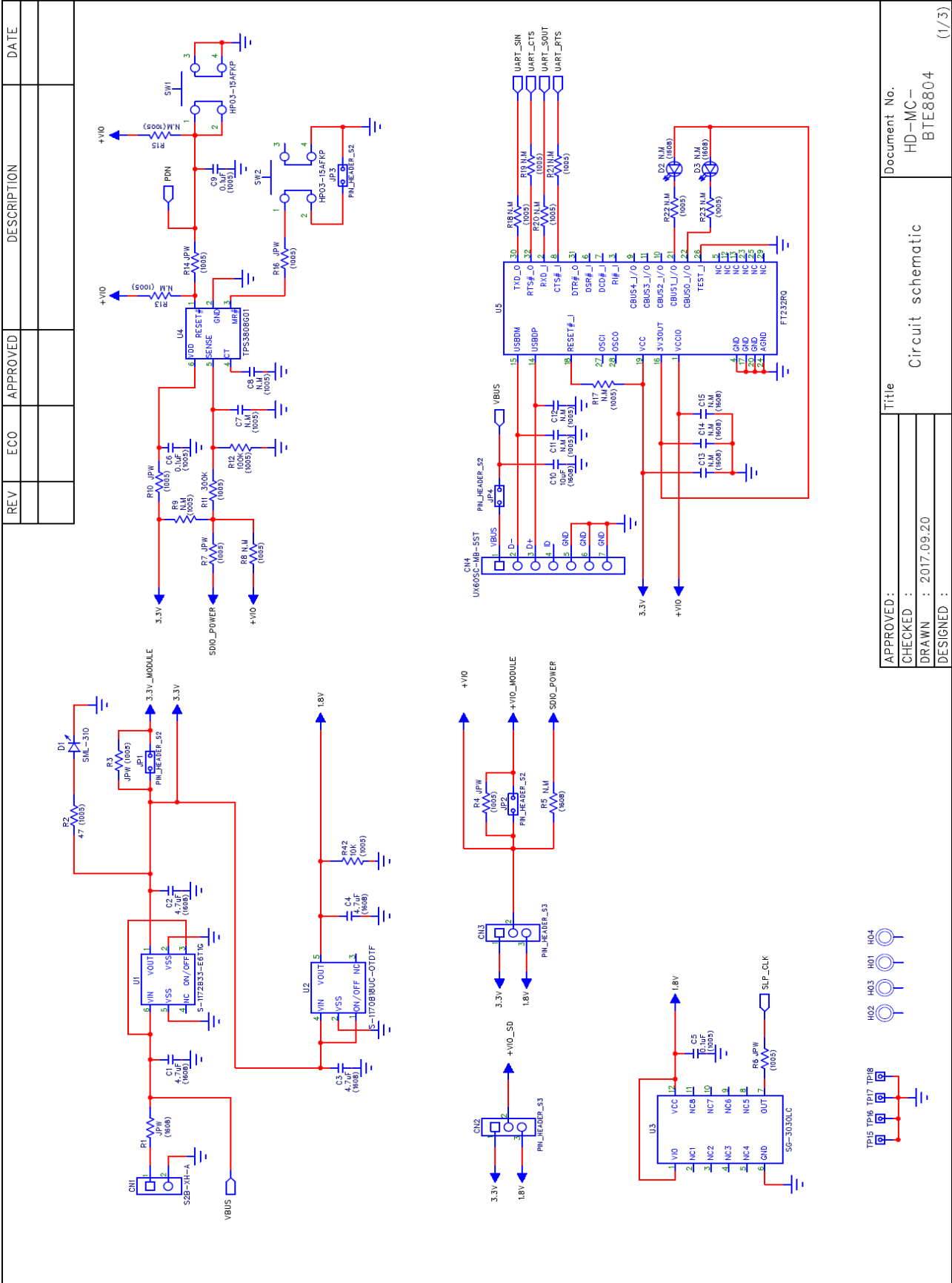
WBSAGVDXG (TE8804)

| Ref Name | Description | Parts name | Supplier |
|----------|---------------------|-------------------|----------------------------|
| U1 | IC(LDO 3.3V) | S-1172B33-E6T1G | SII or equivalent |
| U2 | IC(LDO1.8V) | S-1170B18UC-OTDTF | SII or equivalent |
| U3 | IC(32.768kHz clock) | SG-3030LC | EPSON or equivalent |
| U4 | IC | TPS3808G01DBVT | TI or equivalent |
| U5 | N.M | N.M. | |
| U6 | Module | WYSAGVDXG | TAIYO YUDEN |
| SW1 | SWITCH | HP03-15AFKP2 | NKK SWITCHES or equivalent |
| SW2 | SWITCH | HP03-15AFKP2 | NKK SWITCHES or equivalent |
| CN1 | CONNECTOR | S2B-XH-A | JST or equivalent |
| CN2 | CONNECTOR | PIN_HEADER_S3 | |
| CN3 | CONNECTOR | PIN_HEADER_S3 | |
| CN4-CN8 | N.M. | N.M. | |
| JP1-JP4 | N.M. | N.M. | |
| C1 | CAPACITOR | LMK107 BJ475KA | TAIYO YUDEN |
| C2 | CAPACITOR | LMK107 BJ475KA | TAIYO YUDEN |
| C3 | CAPACITOR | LMK107 BJ475KA | TAIYO YUDEN |
| C4 | CAPACITOR | LMK107 BJ475KA | TAIYO YUDEN |
| C5 | CAPACITOR | EMK105 BJ104KV | TAIYO YUDEN |
| C6 | CAPACITOR | EMK105 BJ104KV | TAIYO YUDEN |
| C7-C8 | N.M. | N.M. | |
| C9 | CAPACITOR | EMK105 BJ104KV | TAIYO YUDEN |
| C10 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C11-C21 | N.M. | N.M. | |
| C22 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C23 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C24 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C25 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C26 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C27 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C28 | CAPACITOR | JMK107 BJ106MA | TAIYO YUDEN |
| C29 | CAPACITOR | UMK105 CH100CV-F | TAIYO YUDEN |
| R1 | RESISTOR | MCR03EZHZJ000 | ROHM or equivalent |
| R2 | RESISTOR | MCR01 MRT J 470 | ROHM or equivalent |

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| Ref Name | Description | Parts name | Supplier |
|----------|-------------|----------------|--------------------|
| R3 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R4 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R5 | N.M. | N.M. | |
| R6 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R7 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R8-R9 | N.M. | N.M. | |
| R10 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R11 | RESISTOR | MCR01 304J | ROHM or equivalent |
| R12 | RESISTOR | MCR01 MRT J104 | ROHM or equivalent |
| R13 | N.M. | N.M. | |
| R14 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R15 | N.M. | N.M. | |
| R16 | RESISTOR | MCR01 MRT J000 | ROHM or equivalent |
| R17-R23 | N.M. | N.M. | |
| R24 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R25 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R26 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R27 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R28 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R29 | RESISTOR. | MCR01 MRT J220 | ROHM or equivalent |
| R30 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R31 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R32 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R33 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R34 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R35 | RESISTOR | MCR01 MRT J102 | ROHM or equivalent |
| R36 | RESISTOR | MCR01 MRT J473 | ROHM or equivalent |
| R37-R40 | N.M. | N.M. | |
| R41 | RESISTOR | MCR01 MRT J104 | ROHM or equivalent |
| R42 | RESISTOR | MCR01 103J | ROHM or equivalent |
| D1 | LED | SML-D12M | ROHM or equivalent |
| D2-D3 | N.M. | N.M. | |
| TP1-13 | N.M. | N.M. | |
| TP15-18 | N.M. | N.M. | |

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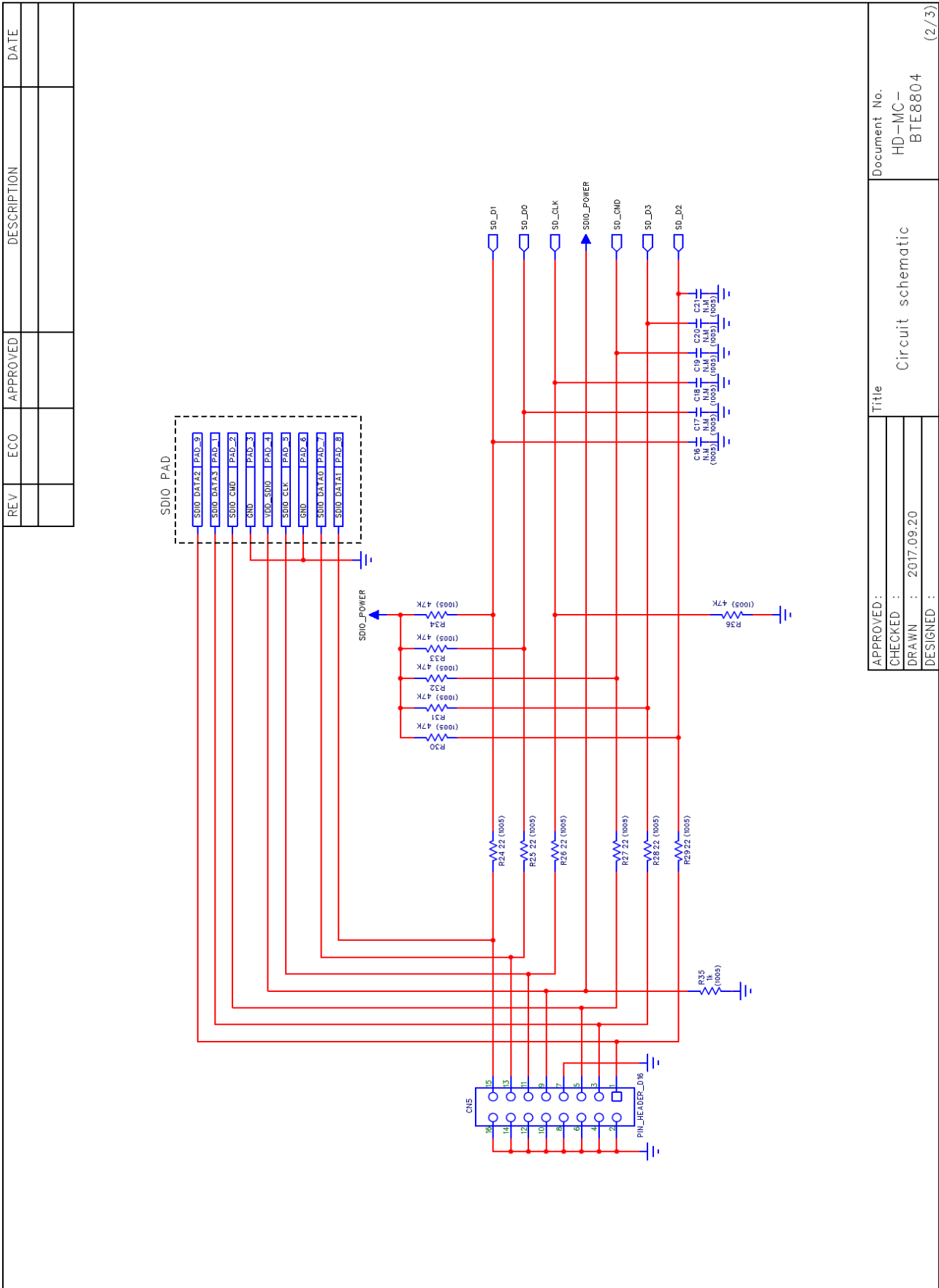


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 DRAWN : 2017.09.20
 DESIGNED :

Title : Circuit schematic

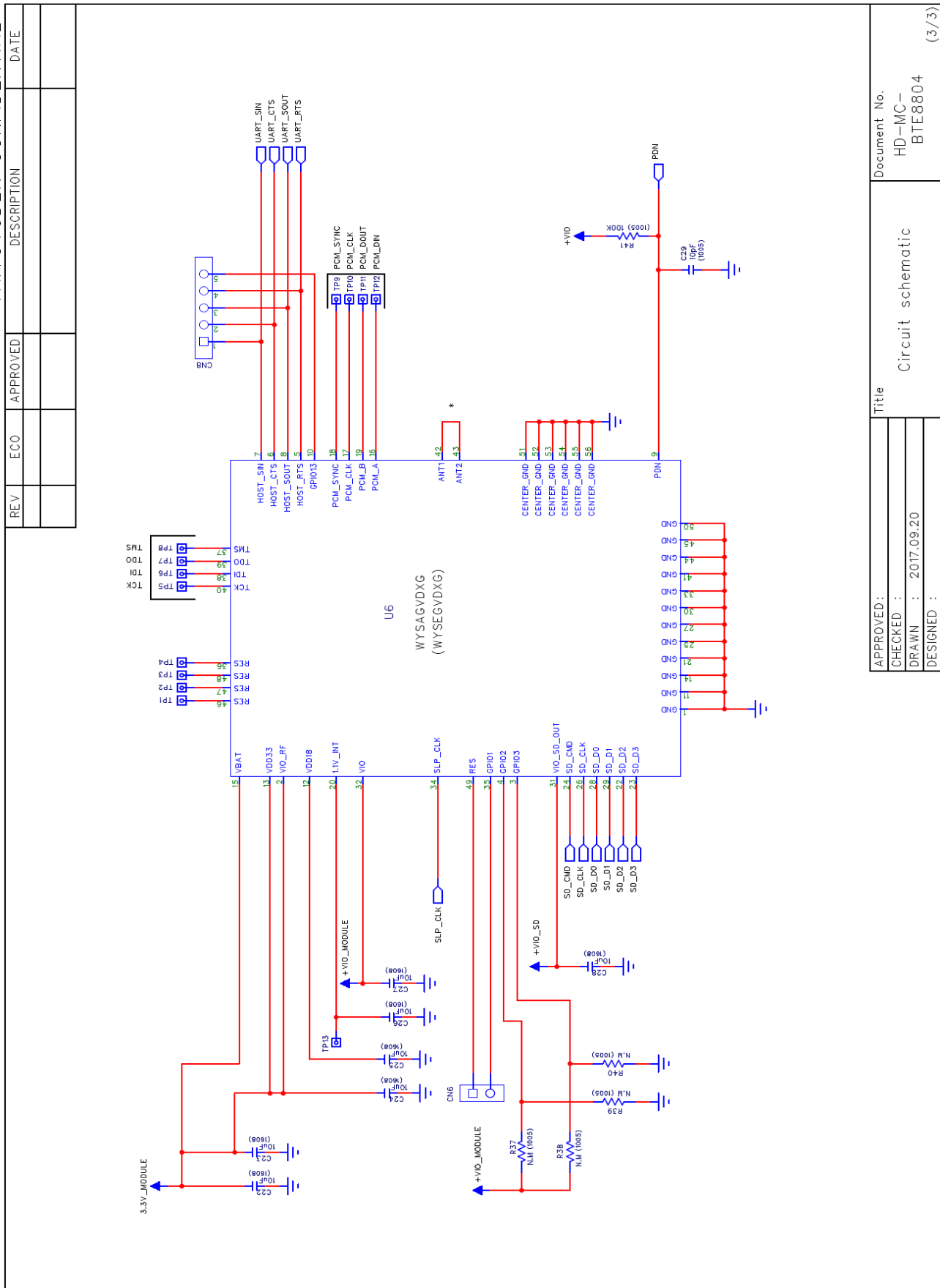
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| CHECKED : | BTE8804 |
| DRAWN : 2017.09.20 | (2/3) |
| DESIGNED : | |

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|--------------------|----------------------------|
| APPROVED : | Title |
| CHECKED : | Circuit schematic |
| DRAWN : 2017.09.20 | Document No. HD-MC-BTE8804 |
| DESIGNED : | (3/3) |