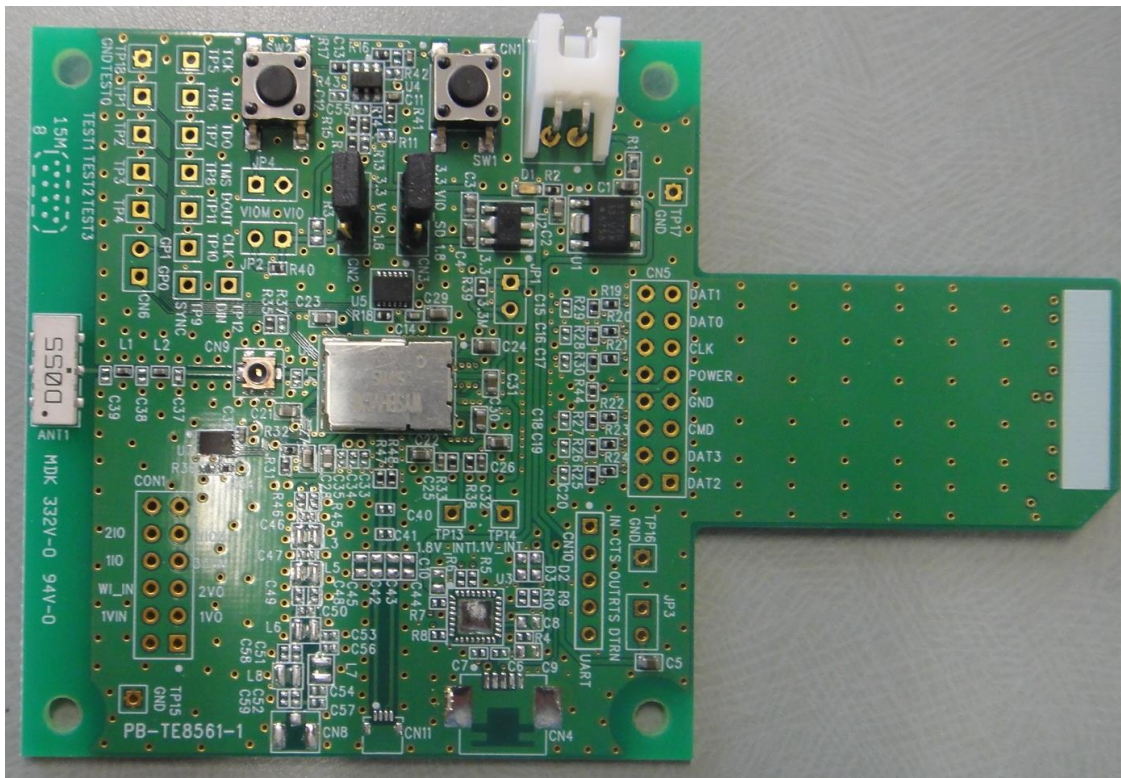


Wireless LAN and Bluetooth[®] Module Evaluation Board

WBSBHVGXG



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.

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 CO., LTD. may not be able to provide these drivers to all customers. Please contact your local TAIYO YUDEN CO., LTD. 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

8-Jan.2016> Ver.1.0 Released

17-Mar.2016>Ver.1.1 Added descriptions to the second page

18-Aug.2016>Ver.1.2 Added Schematic and correct the BOM(R42,R38,C14)

6-Apr. 2017>Ver.1.3 Minor change

25-Aug. 2017>Ver.1.4 Update RECOMMENDATION OPERATION ENVIRONMENT

22-Jun. 2020>Ver.1.5 Update BOM and Schematic

Introduction

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

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

Conformity module

WYSBHVXG

Accessories

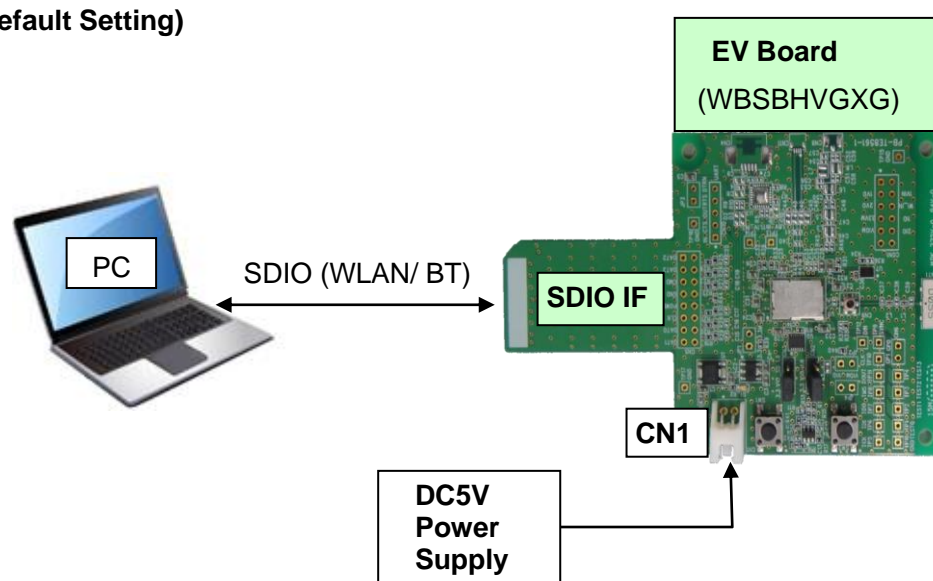
1	Evaluation Board (WBSBHVXG)	1 piece
2	DC Power Cable	1 piece

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

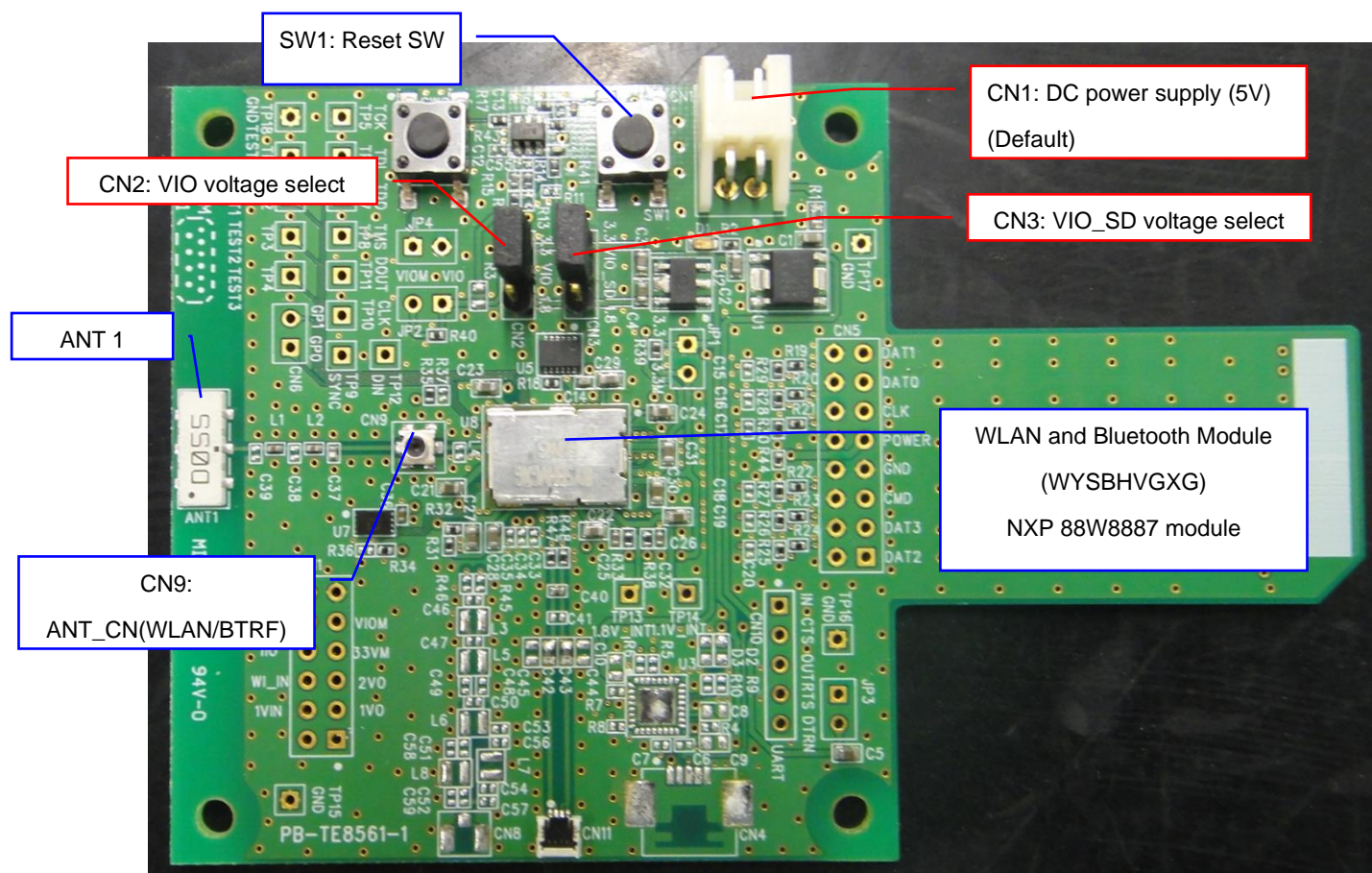
1. SDIO(Default Setting)



WBSBHVGXG

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Evaluation board layout



Pin description of evaluation board

WBSBHVGXG (TE8561-1)

CN1: DC Power Supply

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

CN2: 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.

CN3: VIO_SD Voltage Select (Default Setting: 2-3 short.)

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

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BOM of evaluation board

WBSBHVXG (TE8561-1)

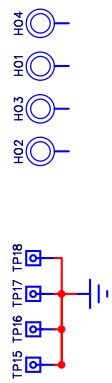
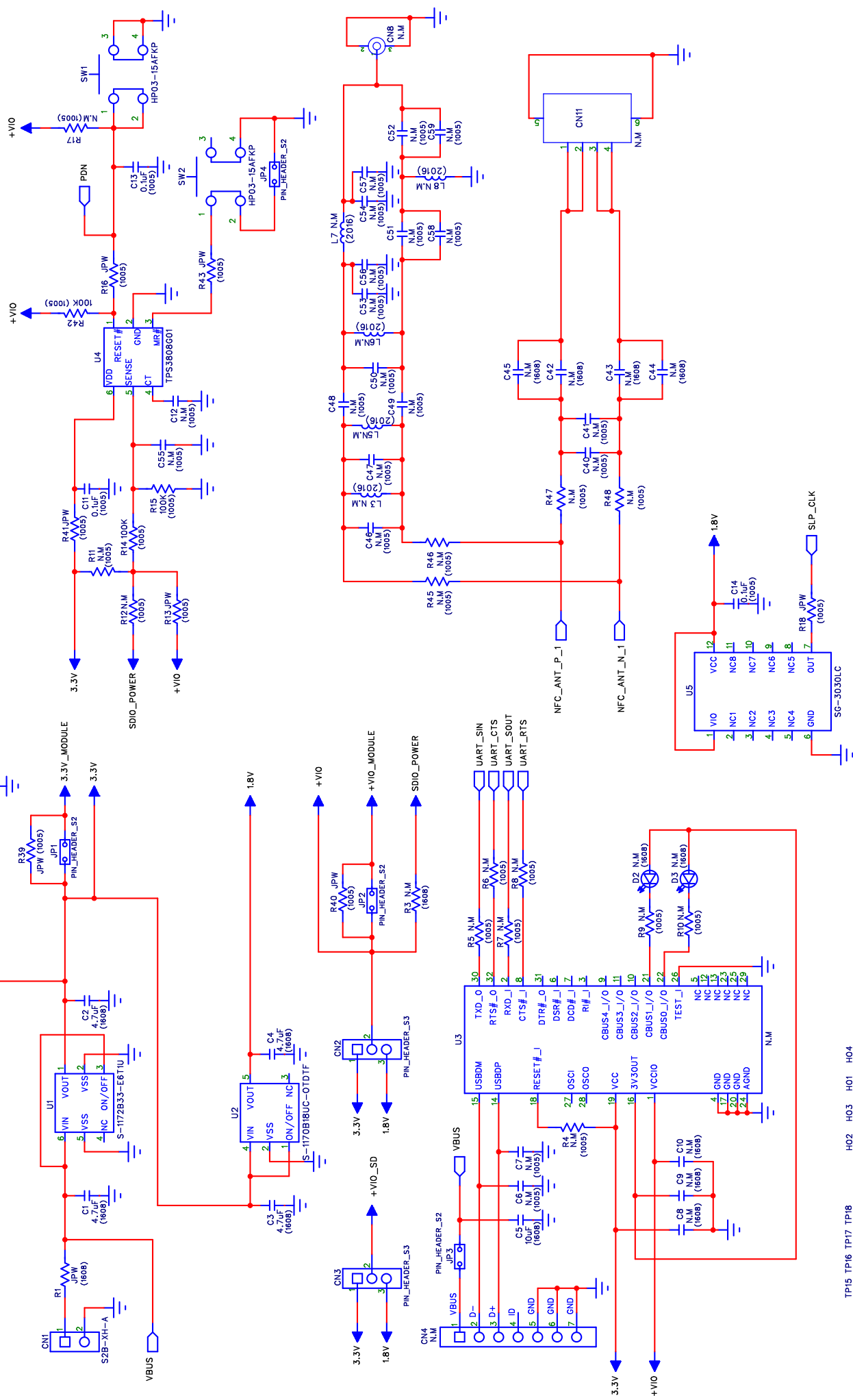
Ref Name	Description	Parts name and standard	Supplier
ANT1	Dual ANTENNA	AH104N2450D1	TAIYO YUDEN
U1	IC(LDO 3.3V)	S-1172B33-E6T1U	SII or equivalent
U2	IC(LDO1.8V)	S-1170B18UC-OTDTF	SII or equivalent
U3	N.M.	N.M.	
U4	IC (Reset voltage detector)	TPS3808G01DBVT	TI or equivalent
U5	IC(32.768kHz clock)	SG-3030LC	EPSON or equivalent
U7	N.M.	N.M.	
U8	Module	WYSBHVXG	TAIYO YUDEN
SW1	SWITCH	HP03-15AFKP2	Nikkai or equivalent
SW2	SWITCH	HP03-15AFKP2	Nikkai or equivalent
CN1	CONNECTOR	S2B-XH-A	JST or equivalent
CN2	CONNECTOR	PIN_HEADER_S3	
CN3	CONNECTOR	PIN_HEADER_S3	
CN4 - CN6	N.M.	N.M.	
CN8	N.M.	N.M.	
CN9	RF CONNECTOR	MM8430-2610	MURATA
CN10 - CN11	N.M.	N.M.	
CON1	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	JMK107 BJ106MA	TAIYO YUDEN
C6 - C10	N.M.	N.M.	
C11	CAPACITOR	TMK105BJ104KV	TAIYO YUDEN
C12	N.M.	N.M.	
C13	CAPACITOR	TMK105BJ104KV	TAIYO YUDEN
C14	CAPACITOR	TMK105BJ104KV	TAIYO YUDEN
C15 - C20	N.M.	N.M.	
C21	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C22	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C23	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C24	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C25	CAPACITOR.	UMK105 CH100DV	TAIYO YUDEN
C26	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C27	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C28	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C29	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C30	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C31	CAPACITOR	JMK107 BJ106MA	TAIYO YUDEN
C32	CAPACITOR.	UMK105 CH100DV	TAIYO YUDEN
C33 - C35	N.M.	N.M.	
C36	CAPACITOR	EMK105 BJ103KV	TAIYO YUDEN
C37	INDUCTOR	HK 1005 2N2S	TAIYO YUDEN
C38 - C59	N.M.	N.M.	
L1	CAPACITOR	EVK105 CH0R6BW	TAIYO YUDEN
L2	RESISTOR	MCR01 MRT J000	ROHM or equivalent
L3-L8	N.M.	N.M.	
R1	RESISTOR	MCR03 EZP J000	ROHM or equivalent
R2	RESISTOR	MCR01 MZP J470	ROHM or equivalent
R3 - R12	N.M.	N.M.	
R13	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R14	RESISTOR	MCR01 MZP J104	ROHM or equivalent
R15	RESISTOR	MCR01 MZP J104	ROHM or equivalent
R16	RESISTOR	MCR01 MRT J000	ROHM or equivalent

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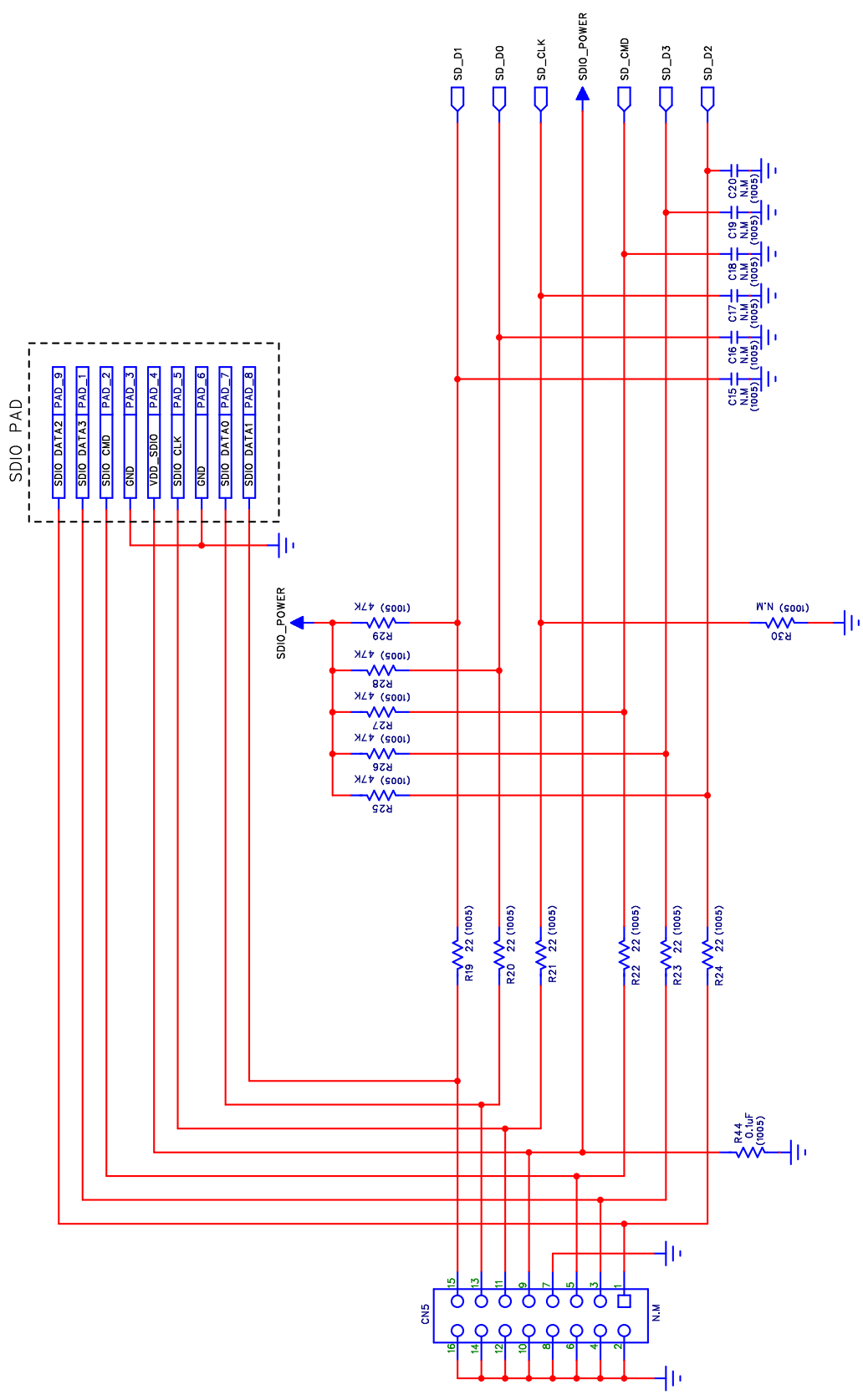
Ref Name	Description	Parts name and standard	Supplier
R17	N.M.	N.M.	
R18	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R19	RESISTOR.	MCR01 MZP J220	ROHM or equivalent
R20	RESISTOR.	MCR01 MZP J220	ROHM or equivalent
R21	RESISTOR.	MCR01 MZP J220	ROHM or equivalent
R22	RESISTOR.	MCR01 MZP J220	ROHM or equivalent
R23	RESISTOR.	MCR01 MZP J220	ROHM or equivalent
R24	RESISTOR	MCR01 MZP J220	ROHM or equivalent
R25	RESISTOR	MCR01 MRT J473	ROHM or equivalent
R26	RESISTOR	MCR01 MRT J473	ROHM or equivalent
R27	RESISTOR	MCR01 MRT J473	ROHM or equivalent
R28	RESISTOR	MCR01 MRT J473	ROHM or equivalent
R29	RESISTOR	MCR01 MRT J473	ROHM or equivalent
R30	N.M.	N.M.	
R31	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R32	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R33	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R34 - R38	N.M.	N.M.	
R39	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R40	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R41	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R42	RESISTOR	MCR01 MZP J104	ROHM or equivalent
R43	RESISTOR	MCR01 MRT J000	ROHM or equivalent
R44	CAPACITOR	TMK105BJ104KV	TAIYO YUDEN
R45 - R48	N.M.	N.M.	
D1	LED	SML-310	ROHM or equivalent
D2 - D3	N.M.	N.M.	

REV	ECO	APPROVED	DESCRIPTION	DATE



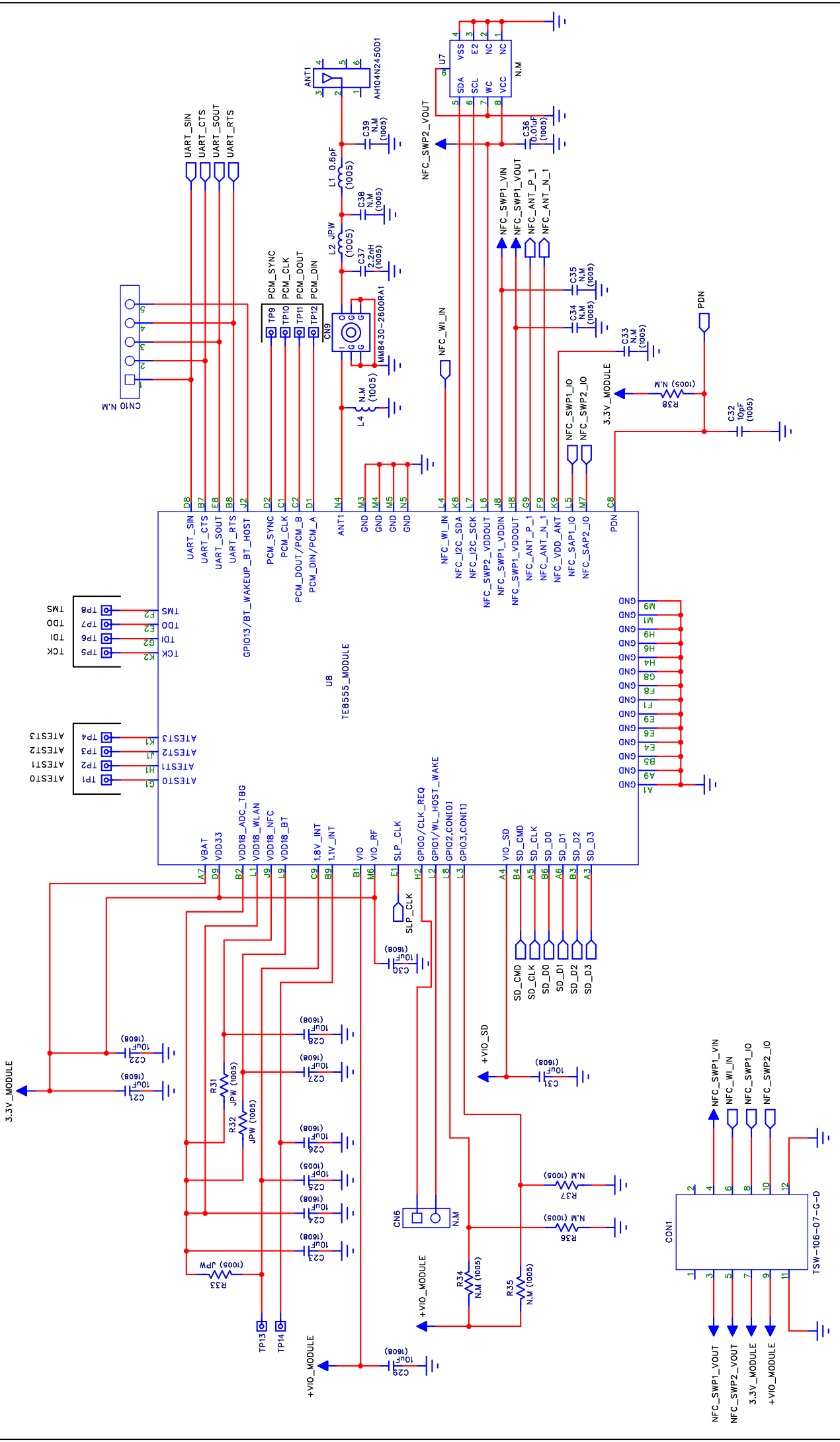
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DESIGNED :	(1/3)
Title	
Circuit schematic	

REV	ECO	APPROVED	DESCRIPTION	DATE



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DESIGNED :		(3/3)

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