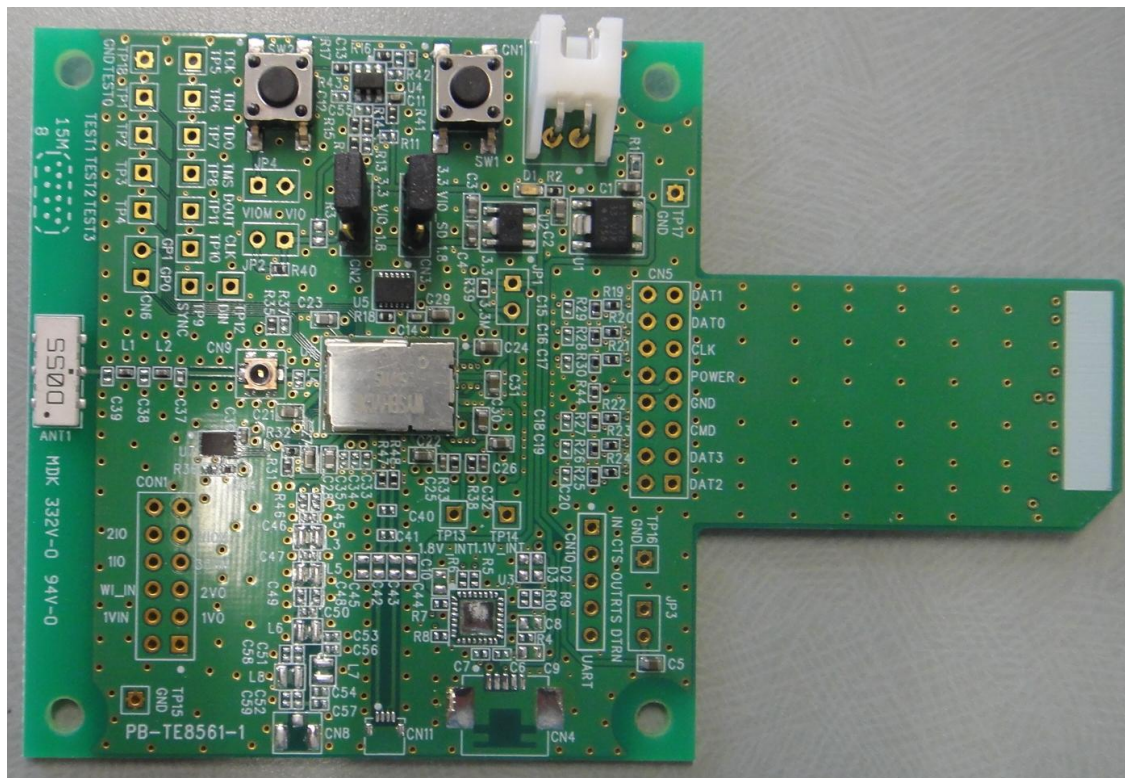


# WBSBHVXG

## Wireless LAN and Bluetooth<sup>®</sup> Module Evaluation Board

(For WYSBHVXG)

### WBSBHVXG



**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.**

# WBSBHVGXG

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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](http://www.ty-top.com).***

# WBSBHVGXG

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### Rev. Records

Jan.08.2016> Ver.1.0 Released

Mar.17.2016>Ver.1.01 Added descriptions to the second page

# WBSBHVGXG

## 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

WYSBHVGXG

## Accessories

1	Evaluation Board (TE8561-1)	1 piece
2	DC Power Cable	1 piece

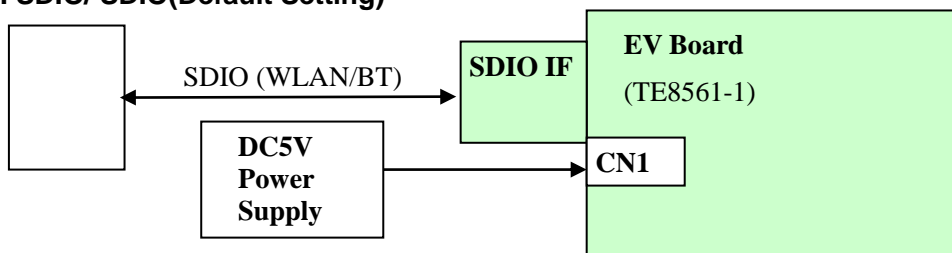
## Recommendation operation environment

CPU: 1000MHz or higher

I/F: SDIO Interface

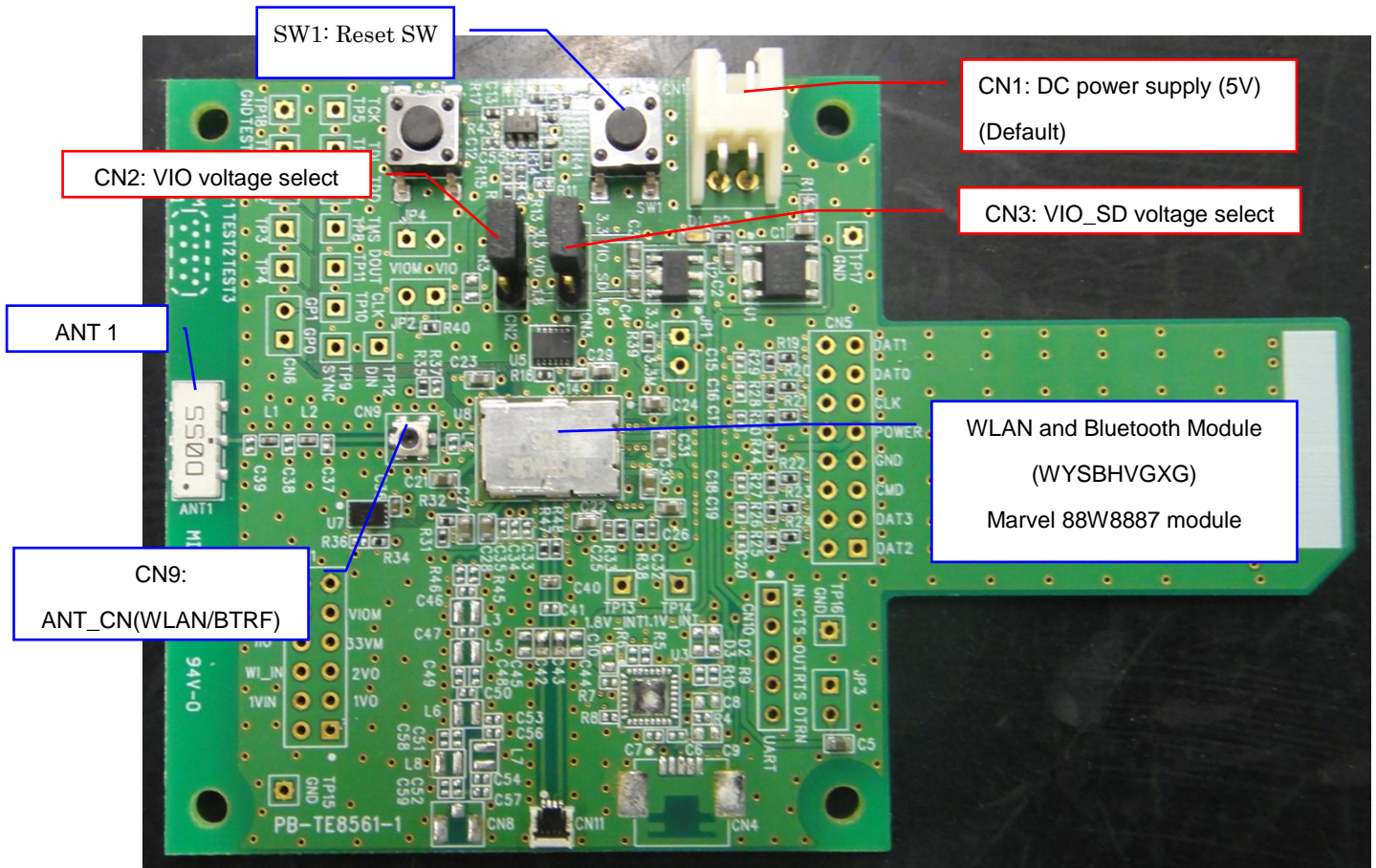
## The example of connection

### 1. SDIO/ SDIO(Default Setting)



# WBSBHVXG

## Evaluation board layout



## Pin description of evaluation board

### 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: 1-2 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.

**WBSBHVXG**

## BOM of evaluation board

**TE8561-1**

Ref Name	Description	Value	Parts name and standard	Supplier
ANT1	Dual ANTENNA	2.4/5GHz	AH104N2450D1	TAIYO YUDEN
U1	IC(LDO 3.3V)		S-1172B33-E6T1G	SII or equivalent
U2	IC(LDO1.8V)		S-1170B18UC-OTDTF	SII or equivalent
U3	N.M.			
U4	IC (Reset voltage detector)		TPS3808G01	TI or equivalent
U5	IC(32.768kHz clock)		SG-3030LC	EPSON or equivalent
U7	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	N.M.			
CN5	N.M.			
CN6	N.M.			
CN8	N.M.			
CN9	RF CONNECTOR		MM8430-2610	MURATA
CN10	N.M.			
CN11	N.M.			
CON1	N.M.			
JP1	N.M.			
JP2	N.M.			
JP3	N.M.			
JP4	N.M.			
C1	CAPACITOR	4.7uF	LMK107 BJ475KA	TAIYO YUDEN
C2	CAPACITOR	4.7uF	LMK107 BJ475KA	TAIYO YUDEN
C3	CAPACITOR	4.7uF	LMK107 BJ475KA	TAIYO YUDEN
C4	CAPACITOR	4.7uF	LMK107 BJ475KA	TAIYO YUDEN
C5	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C6	N.M.			
C7	N.M.			
C8	N.M.			
C9	N.M.			
C10	N.M.			
C11	CAPACITOR	0.1uF	EMK105 BJ104KV	TAIYO YUDEN
C12	N.M.	-		
C13	CAPACITOR	0.1uF	EMK105 BJ104KV	TAIYO YUDEN
C14	CAPACITOR	0.1uF	EMK105 BJ104KV	TAIYO YUDEN
C15	N.M.			
C16	N.M.			
C17	N.M.			
C18	N.M.			
C19	N.M.			
C20	N.M.			
C21	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C22	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C23	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN

**WBSBHVXG**

Ref Name	Description	Value	Parts name and standard	Supplier
C24	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C25	CAPACITOR.	10pF	EMK105 CH100J	TAIYO YUDEN
C26	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C27	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C28	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C29	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C30	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C31	CAPACITOR	10uF	JMK107 BJ106MA	TAIYO YUDEN
C32	CAPACITOR.	10pF	EMK105 CH100J	TAIYO YUDEN
C33	N.M.			
C34	N.M.			
C35	N.M.			
C36	CAPACITOR	0.01uF	EMK105 BJ103KV	TAIYO YUDEN t
C37	INDUCTOR	2.2nH	HK 1005 2N2S	TAIYO YUDEN
C38-C39	N.M.			
C40	N.M.			
C41	N.M.			
C42	N.M.			
C43	N.M.			
C44-C59	N.M.			
L1	CAPACITOR	0.6pF	EVK105 CH0R6BW	TAIYO YUDEN
L2	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
L3-L8	N.M.			
R1	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R2	RESISTOR	47ohm	MCR01 MZS J 470	ROHM or equivalent
R3	N.M.			
R4	N.M.			
R5	N.M.			
R6	N.M.			
R7	N.M.			
R8	N.M.			
R9	N.M.			
R10	N.M.			
R11	N.M.			
R12	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R13	N.M.			
R14	RESISTOR	300kohm	MCR01 MZS J 304	ROHM or equivalent
R15	RESISTOR	100kohm	MCR01 MZS J 104	ROHM or equivalent
R16	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R17	N.M.			
R18	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R19	RESISTOR.	22ohm	MCR01 MZS J 220	ROHM or equivalent
R20	RESISTOR.	22ohm	MCR01 MZS J 220	ROHM or equivalent
R21	RESISTOR.	22ohm	MCR01 MZS J 220	ROHM or equivalent
R22	RESISTOR.	22ohm	MCR01 MZS J 220	ROHM or equivalent
R23	RESISTOR.	22ohm	MCR01 MZS J 220	ROHM or equivalent
R24	RESISTOR	22ohm	MCR01 MZS J 220	ROHM or equivalent
R25	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent
R26	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent
R27	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent
R28	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent
R29	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent

**WBSBHVXG**

Ref Name	Description	Value	Parts name and standard	Supplier
R30	RESISTOR	47kohm	MCR01 MZS J 473	ROHM or equivalent
R31	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R32	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R33	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R34	RESISTOR	100kohm	MCR01 MZS J 104	ROHM or equivalent
R35	RESISTOR	100kohm	MCR01 MZS J 104	ROHM or equivalent
R36	N.M.			
R37	N.M.			
R38	RESISTOR	100kohm	MCR01 MZS J 104	ROHM or equivalent
R39	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R40	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R41	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R42	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R43	RESISTOR	0ohm	MCR01 MZS J 000	ROHM or equivalent
R44	RESISTOR	1kohm	MCR01 MZS J 102	ROHM or equivalent
R45	N.M.			
R46	N.M.			
R47	N.M.			
R48	N.M.			
D1	LED		SML-310	ROHM or equivalent
D2	N.M.			
D3	N.M.			
PCB	PCB		PB-TE8561-1	