

***Wireless LAN* Module**

IEEE802.11b/g/n

WYSBCVGX7

Brief Data Report

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WYSBCVGX7

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Control No. HD-AG-A091235	(1/1)	Control name
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Scope

This specification ("Specification") applies to the hybrid IC for use *Wireless LAN* module ("Product") manufacture by TAIYO YUDEN Co., Ltd. ("TAIYO YUDEN")

1. Part Number: WYSBCVGX7
2. Function: Radio frequency transfer Module. (*IEEE802.11b/g/n* standard conformity)
3. Application: Hand Held Device
4. RoHS Directive (2002/95/EC) comply
5. MSL : Level 3.
6. Outline: 57-pin leadless chip carrier
7. Marking: Part Number, Lot Number
8. Features:
 - IEEE802.11b/g/n* standard conformity
 - Interface: SDIO
 - Built-in EEPROM, Crystal
9. WLAN Channel Supported:
 - 1~13ch in 11bgn mode ,
- 10.WLAN Data Rate Supported:
 - 1/2/5.5/11 Mbps in 11b mode
 - 6/9/12/18/24/36/48/54 Mbps in 11g mode
 - MCS0~MCS7 (HT20/HT40) in 11n mode
- 11.Host Interface: SDIO (4bits), upto 50MHz
- 12.Security: WEP (64/128), AES, TKIP, WPA/WPA2, WAPI
13. Packing:
 - Packaging method: Tape and Reel
 - Packaging unit: 1500pcs/reel

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Control No. HD-AM-A091235 (1/1)	Control name
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Absolute maximum ratings

Item	Symbol	Rating				Remark
		Min.	Typ.	Max.	Unit	
Supply voltage 1	3.3V	-0.3		5.6	V	
Supply voltage 2	VIO	-0.3		4.0	V	
Supply voltage 3	1.8V	-0.3		1.98	V	
Supply voltage 4	1.8V_1 to 4	-0.3		1.98	V	
Storage temperature range	Tstg	-20		85	Degrees C	
Operation temperature range	Topr	-10	25	70	Degrees C	

Recommendation operating range

Item	Symbol	Rating				Remark
		Min.	Typ.	Max.	Unit	
Supply voltage 1	3.3V	3.0	3.3	3.6	V	
Supply voltage 2	VIO	1.62/2.97	1.8/3.3	1.98/3.63	V	
Supply voltage 3	1.8V	1.71	1.8	1.89	V	
Supply voltage 4	1.8V_1 to 4	1.71	1.8	1.89	V	

WLAN RF Specification

		Condition	Value	Unit
11b(11Mbps)	Tx	Power	15	dBm
	Rx	Sensitivity	-86	dBm
11g(54Mbps)	Tx	Power	12	dBm
	Rx	Sensitivity	-72	dBm

Power Consumption

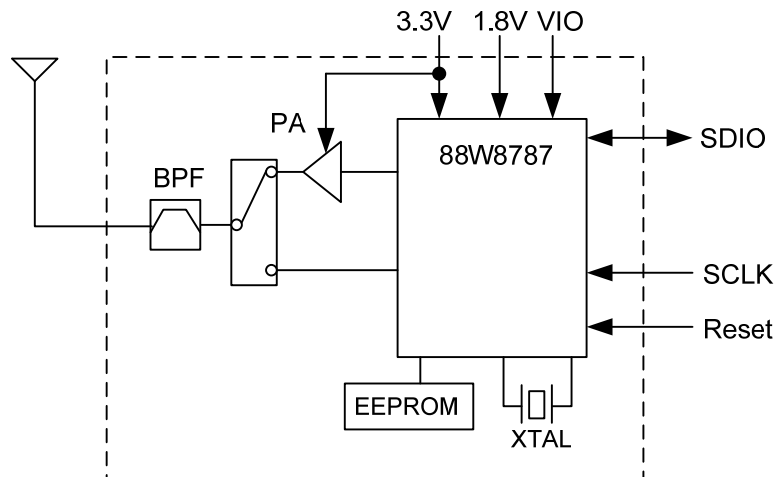
		Condition	Value	Unit
WLAN Tx		11b / 11Mbps	395	mW
WLAN Rx		11b / 11Mbps	230	mW
Low Power		Deep Sleep	0.7	mW

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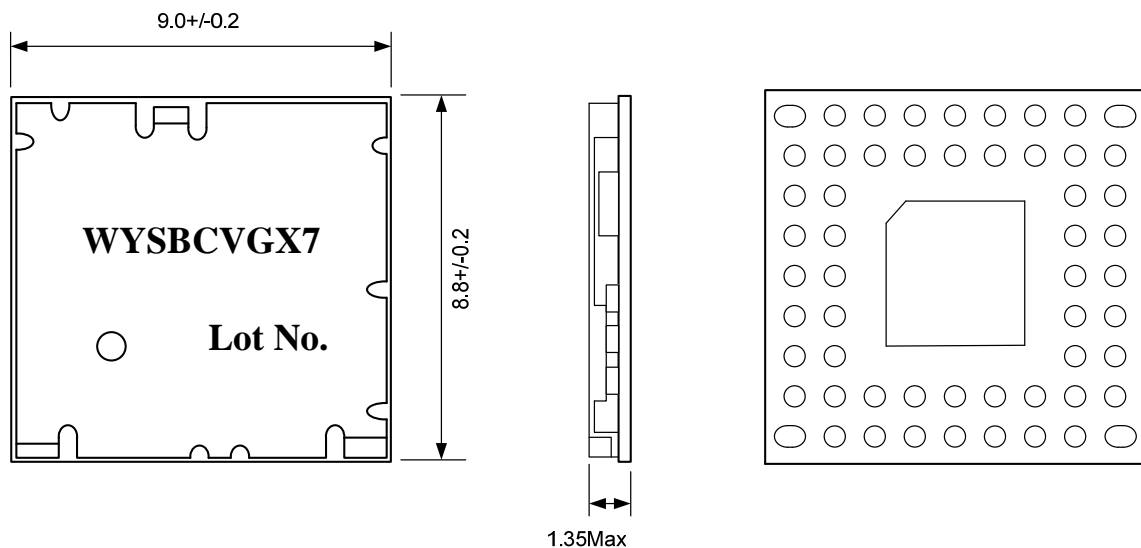
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Block Diagram



OUTLINE

Unit: mm



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Control No. HD-BA-A091235	(1/2)	Control name
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Pin Descriptions

Serial #	Pin Name	I/O	Type	Pwr Domain	Description
1	GND	P	Ground	GND	-
2	3.3V	P	Power	3.3V	3.3V Supply Voltage
3	GND	P	Ground	GND	-
4	SD_DATA3	IO		VIO	SDIO data-3
5	SD_CLK	I		VIO	SDIO clock input
6	SD_DATA1	IO		VIO	SDIO data-1
7	GND	P	Ground	GND	-
8	SLP_CLK	I		1.8V	Sleep clock input (32.768kHz)
9	GND	P	Ground	GND	-
10	VDD30	P	Power	VDD30	3.0V for decoupling
11	VIO	P	Power	VIO	Digital I/O Supply
12	1.2V_OUT	O	Power	1.2V	LDO 1.2V Voltage
13	SD_DATA2	IO		VIO	SDIO data-2
14	SD_CMD	IO		VIO	SDIO command
15	SD_DATA0	IO		VIO	SDIO data-0
16	GPIO18	IO		VIO	GPIO18
17	GND	P	Ground	GND	-
18	TCK	IO		VIO	JTAG Test Clock Input
19	1.2V	P	Power	1.2V	LDO 1.2V Voltage Input
20	VBLDO3V	O	Power	VBLDO3V	LOO 3.0V Voltage Output
21	PDN	I		VIO	Power Down
22	TMS	I		VIO	JTAG TMS
23	1.8V	P	Power	1.8V	1.8V Supply Voltage
24	GPIO15	IO		VIO	GPIO15
25	RES	-		-	(Reserved)
26	TDO	IO		VIO	JTAG TDO
27	1.8V_1	P	Power	1.8V_1	1.8V Supply Voltage
28	1.8V_4	P	Power	1.8V_4	1.8V Supply Voltage
29	GND	P	Ground	GND	-
30	RESETN	I		VIO	Reset
31	TDI	I		VIO	JTAG TDI
32	1.8V_2	P	Power	1.8V_2	1.8V Supply Voltage
33	1.8V_3	P	Power	1.8V_3	1.8V Supply Voltage
34	RES	-		-	(Reserved)
35	RES	-		-	(Reserved)
36	GPIO4	IO		VIO	GPIO4
37	GPIO0	IO		VIO	GPIO0
38	RES	-		-	(Reserved)
39	RES	-		-	(Reserved)
40	GPIO16	IO		VIO	GPIO16
41	RES	-		-	(Reserved)

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Control No. HD-BA-A091235	(2/2)	Control name Pin Layout
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Serial #	Pin Name	I/O	Type	I/O Vol-lvl	Description
42	RES	-		-	(Reserved)
43	GND	P	Ground	GND	-
44	RES	-		-	(Reserved)
45	WP	I		VIO	E2PROM data write protect
46	GND	P	Ground	GND	-
47	GND	P	Ground	GND	-
48	GND	P	Ground	GND	-
49	GND	P	Ground	GND	-
50	RES	-		-	(Reserved)
51	RES	-		-	(Reserved)
52	GND	P	Ground	GND	-
53	RES	-		-	(Reserved)
54	RES	-		-	(Reserved)
55	GND	P	Ground	GND	-
56	ANT	IO		-	WLAN Antenna
57	GND	P	Ground	GND	-

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