

Wireless LAN Module

WYSAAVDX7
(IEEE802.11b/g/n)

User Manual

In case you adopt this module and design some appliance, please ask for the latest specifications from the local sales office.

We wish the customer to request the Specification Report when the design for the mass production begins because the content of this Data Report might change without a previous notice to the customer.

WYSAAVDX7TAIYO YUDEN
Tentative**Document constituent list**

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Rev. records

9-Mar.-2011> Ver.0.5

6-May-2011> Ver.0.6

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Control No. HD-AG-A100174	(1/2)	Control name General Items
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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. User Code: WYSAAVDX7

Digit3: Customer Code ex) S: TAIYO YUDEN Standard
 Digit8: Software Code ex) X: TAIYO YUDEN Standard
 Digit9: Hardware Code ex) 7: TAIYO YUDEN Standard

*** User Code may be modified for mass production or other cases.**

Please see "k" for more information.

2. Function: Radio frequency transfer Module. (*IEEE802.11bgn* standard conformity)

3. Application: PC peripheral, Handy terminal

4. Structure: Hybrid IC loaded with silicon monolithic and GaAs semiconductor

Ability of lead free mounting at customer's assembly (Heat resistance of this Product) : Yes

Containment of hazardous substance in this Product

*This product conforms to RoHS Directive (2002/95/EC).

5. Outline: Stacking Connector Type

6. Marking: TBD

7. Features:

-*IEEE802.11bgn* standard conformity

-Interface: SDIO

-Embedded MPU for reducing loads on host processor

-Built-in EEPROM (MAC address)

8. Security: WEP (64/128), TKIP, AES, WPA, WPA2, WAPI

9. Packing: TBD

10. Terminal: Data input-output (20pin Stacking Connector)

"Panasonic Electric Works Co., Ltd: AXK820145WG"

RF input-output (Antenna)

11. Mount: with M2 screw

12. Notes:

- Any question arising from this Specification shall be solved through mutual discussion by the parties hereof.
- This Product is not designed for radiation durable and should not be used under the circumstance of radiation.
- The operating conditions of this Product are as shown in this Specification. Please note that TAIYO YUDEN shall not be liable for a failure and/or abnormality which is caused by use under the conditions other than the operating conditions hereof.
- This Product mentioned in this Specification is manufactured for use in consumer products. Before using this Product in any special equipment (such as medical equipment, space equipment, air craft, disaster prevention equipment), where higher safety and reliability are duly required, the applicability and suitability of this Product must be fully evaluated by the customer at its sole risk to ensure correct and safety operation of those special equipments. Also, evaluation of the safety function of this Product even for use in general electronics equipment shall be thoroughly made and when necessary, a protective circuit shall be added at design stage, all at the customer's sole risk.

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Control No. HD-AG-A100174	(2/2)	Control name General Items
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- e. i) You are requested to fully check and confirm by the start of mass production of this Product that (1) no bug, defect or other failure is included in firmware incorporated in this Product (“Incorporated Software”), (2) no bug defect or other failure is caused by installation of this Product with Incorporated Software into customer’s products, and that Incorporated Software fully meets customer’s intended use, although TAIYO YUDEN sufficiently inspects or verifies quality of Incorporated Software.
ii) Please note that TAIYO YUDEN is not responsible for any failure arising out of bugs or defects in Incorporated Software.
- f. TAIYO YUDEN warrants only that this Product is in conformity with this Specification for one year after purchase and shall in no event give any other warranty.
- g. Communication between this Product and others might not be established nor maintained depending upon radio environment or operating conditions of this Product and other ISM band at 2.4GHz products.
- h. In order to take tests for getting the certification of each country’s Radio Law with a device incorporating this module, it is necessary to make the software in Host to put the module into test condition. Please contact TAIYO YUDEN for further details.
- i. This Product operates in the unlicensed ISM band at 2.4GHz. In case this Product is used around the other wireless devices which operate in same frequency band of this Product, there is a possibility that interference occurs between this Product and such other devices. If such interference occurs, please stop the operation of other devices or relocate this Product before using this Product or do not use this Product around the other wireless devices.
- j. Please evaluate adequately our module incorporated to your products before mass production.
- k. User Code Modification Notice.
User Code for sample modules or part numbers you see in this Specification are TAIYO YUDEN standard part numbers. When any modification is made to modules to meet requested specifications, the part number will carry a different part number, due to forfeit originality. Additionally, part numbers may be modified based on mass production stage or other related stages. Please contact TAIYO YUDEN to confirm whether your part number needs to be modified.
Please see the following examples for cases that part numbers are modified:
- for specific firmware version (our standard item firmware will be upgraded occasionally)
- for specific MAC address (our standard item MAC address is owned by TAIYO YUDEN)
- for other relevant cases (specific or different setting, form, sizes, or display etc..)
- m. In some cases, TAIYO YUDEN may use replacements as component parts of Products. Such replacement shall apply only to component part of Products, which TAIYO YUDEN deems it possible to replace or substitute according to (i) Scope provided in this Specification (e.g. Official Standard (Type Approvals etc.)) and (ii) Quality of Products. TAIYO YUDEN also ensures traceability of such replacement on production lot basis.
- n. Do not alter Hardware and/or Software of this Product.
Please note that TAIYO YUDEN shall not be liable for any problem if it is caused by customer's alteration of Hardware or/and Software without Taiyo Yuden's prior approvals.
- p. Caution for Export Control
This Product may be subject to governmental approvals, consents, licenses, authorizations, declarations, filings, and registrations for export or re-export of the Product, required by *Japanese Foreign Exchange and Foreign Trade Law(including related laws and regulations)* and/or any other country’s applicable laws or regulations related to export control.
In case you will export or re-export this Product, you are strongly recommended to check and confirm, before exporting or re-exporting, necessary procedures for export or re-export of this Product which is required by applicable laws and regulations, and if necessary, you have to obtain necessary and appropriate approvals or licenses from governmental authority at your own risk and expense.

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Control No. HD-AM-A100174	(1/1)	Control name Absolute maximum ratings
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Absolute maximum ratings

Item	Symbol	Rating			Unit	Remark
		Min.	Typ.	Max.		
Supply voltage 1	VBAT	-0.3		6.0	V	
Supply voltage 2	VIO	-		4.0	V	
Storage temperature range	Tstg	-30		100	Degrees C	
Operation temperature range	Topr	-20	25	55	Degrees C	

Recommendation operating range

Item	Symbol	Rating			Unit	Remark
		Min.	Typ.	Max.		
Supply voltage 1	VBAT	3.5	5.0	5.5	V	
Supply voltage 2	VIO	1.62/2.97	1.8/3.3	1.98/3.63	V	

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Control No. HD-AE-A100174	(1/5)	Control name Electrical characteristics
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DC Specifications

Peak Current / Power consumption

The Specification applies for Topr.= 25 degrees C, Supply voltage=Typical voltage (5.0V).

RF output power = Typ.

No.	Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit	Remark
1	Peak Current1	VIO	Ip1	-		30	mA	
2	Peak Current2	VBAT	Ip2	-		400	mA	
4	Power consumption1	Burst Tx (150Mbps)	Pc1	TBD	TBD	TBD	mW	Duty 2.4%
5	Power consumption2	Continuous Rx (150Mbps)	Pc2	TBD	TBD	TBD	mW	
6	Power consumption3	Burst Tx (72.2Mbps)	Pc3	TBD	TBD	TBD	mW	Duty 4.2%
7	Power consumption4	Continuous Rx (72.2Mbps)	Pc4	TBD	TBD	TBD	mW	
8	Power consumption5	Burst Tx (54Mbps)	Pc5	TBD	TBD	TBD	mW	Duty 25.4%
9	Power consumption6	Continuous Rx (54Mbps)	Pc6	TBD	TBD	TBD	mW	
10	Power consumption7	Burst Tx (11Mbps)	Pc7	TBD	TBD	TBD	mW	Duty 43.4%
11	Power consumption8	Continuous Rx (11Mbps)	Pc8	TBD	TBD	TBD	mW	
12	Power consumption9	Power save mode (DTIM=1, Beacon interval =100ms)	Pc9	-	TBD	-	mW	VIO=3.3V
				-	TBD	-		VIO=1.8V
13	Power consumption10	Deep Sleep	Pc10	-	TBD	-	mW	VIO=3.3V
				-	TBD	-		VIO=1.8V

Digital Pad Ratings

No.	Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit	Remark
1	Input high voltage		VIH	0.7xVIO		VIO+0.3	V	
2	Input low voltage		VIL	-0.3		0.3xVIO	V	
3	Output high voltage		VOH	VIO-0.4		-	V	
4	Output low voltage		VOL	-		0.4	V	

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Control No. HD-AE-A100174	(2/5)	Control name Electrical characteristics
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AC Specifications

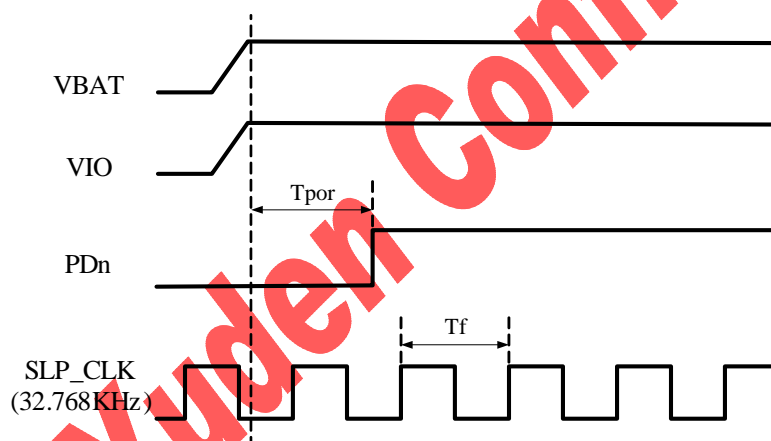
Power-on timing / External sleep clock

	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	Valid Power / RESETn / Clock to PDn de-asserted		Tpor	300			ms	
2	Input SLP_CLK frequency		Tf		32.768		KHz	
3	Input SLP_CLK high voltage		V _{IH}	0.8	1.8	1.98	V	
4	Input SLP_CLK low voltage		V _{IL}	0.0		0.25	V	
5	Input SLP_CLK phase noise requirement		PN		-125		dBc/Hz	@100KHz
6	Input SLP_CLK slew rate limit (10-90%)		SR			100	ns	
7	Input SLP_CLK duty cycle tolerance		DC	20		80	%	

<Power-on sequence>

PDn must remain asserted for minimum of Tpor after VBAT, VIO and SLP_CLK are stable.

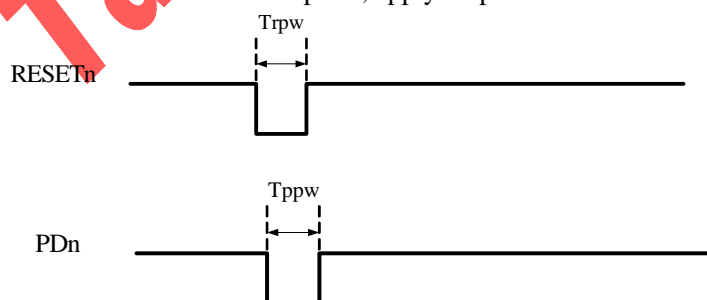
RESETn must be inactive value (asserted high) when PDn is de-asserted (high level).



External reset(RESETn), power down(PDn)

	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	RESETn pulse width	Trpw		1			ms	Note1
2	PDn pulse width	Tppw		300			ms	Notes2, 3

1. RESETn should be asserted while VBAT, VIO and SLP_CLK are stable and PDn is de-asserted (high level).
2. PDn should be asserted while VBAT, VIO and SLP_CLK are stable and RESETn is de-asserted (high level).
3. For lowest current consumption, apply all power rails to WYSAAVDX7 during the assertion of PDn pin.



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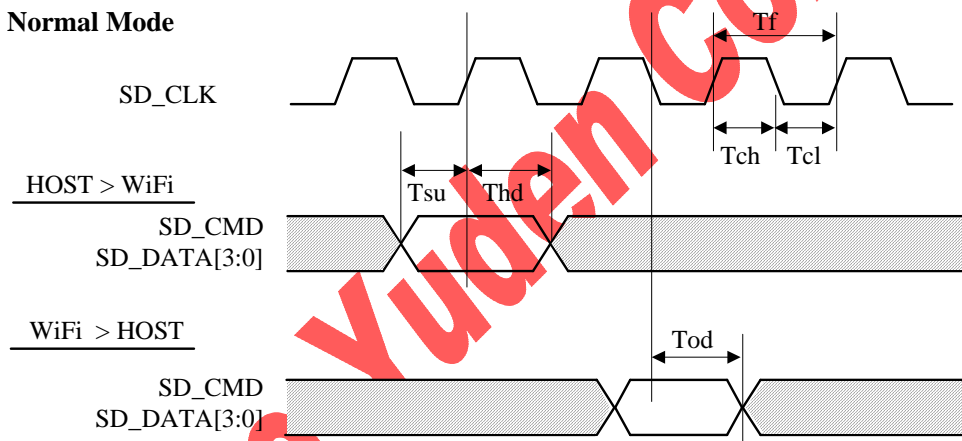
Control No. HD-AE-A100174	(3/5)	Control name Electrical characteristics
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SDIO Interface Specifications

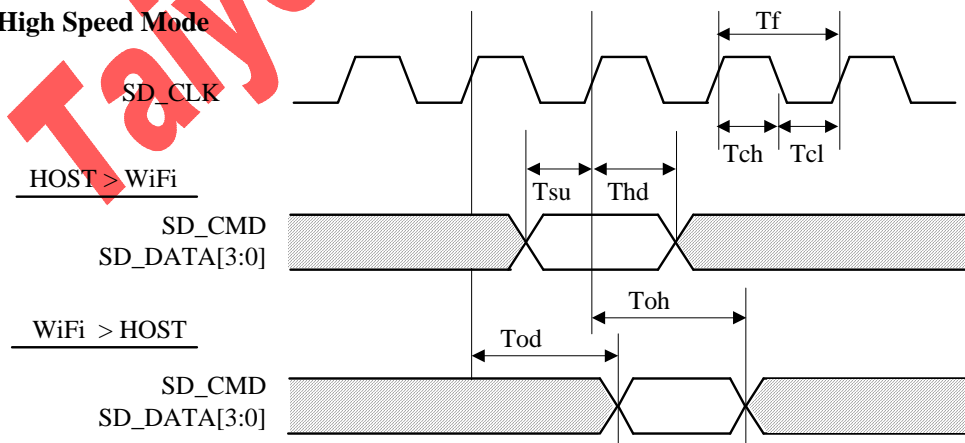
The Specification applies for Topr.= -20 to TBD degrees C , Supply voltage=Typical voltage(5.0V).

	Parameter	Symbol	Condition	Min	Typ	Max	Unit	Remark
1	Input SDIO_CLK Frequency	Tf	Normal	0	-	25	MHz	
			High Speed	0	-	50		
2	Input SDIO_CLK High Time	Tch	Normal	10	-	-	ns	
			High Speed	7	-	-		
3	Input SDIO_CLK Low Time	Tcl	Normal	10	-	-	ns	
			High Speed	7	-	-		
4	Input SDIO_CMD, DATA[3:0] Setup time	Tsu	Normal	5	-	-	ns	
			High Speed	6	-	-		
5	Input SDIO_CMD, DATA[3:0] Hold time	Thd	Normal	5	-	-	ns	
			High Speed	2	-	-		
6	Output SDIO_CMD, DATA[3:0] Delay time	Tod	-	-	7.33	ns		
7	Output SDIO_CMD, DATA[3:0] Hold time	Toh	High Speed	2.5	-	-	ns	

Normal Mode



High Speed Mode



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Control No. HD-AE-A100174	(4/5)	Control name Electrical characteristics
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RF Specifications (WLAN 11n/150Mbps, OFDM)

The Specification applies for Ta=25 degrees C, Supply voltage =Typical voltage (5.0V).

No.	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	RF frequency range		FREQ	2422		2462	MHz	
2	TX Power		Po	9	11	13	dBm	
3	Spectrum Mask	1 st Side Lobe	M1	-		-20	dBc	
		2 nd Side Lobe	M2	-		-28	dBc	
		3 rd Side Lobe	M3	-		-45	dBc	
4	Symbol clock tolerance		Ft	-25		25	ppm	
5	Frequency tolerance		Ft	-25		25	ppm	
6	EVM	Rms	EVM	-		-28	dB	
7	TX Out of band spurious1	30MHz to 1GHz	TOS1	-		-36	dBm	
8	TX Out of band spurious2	1GHz to 12.75GHz	TOS2	-		-30	dBm	
9	TX Out of band spurious3	1.8GHz to 1.9GHz 5.15GHz to 5.3GHz	TOS3	-		-47	dBm	
10	Rx sensitivity	PER<10%	SEN	-	-66	-61	dBm	
11	Maximum Input Level	PER<10%	MIL	-20		-	dBm	
12	RX Out of band spurious1	30MHz to 1GHz	ROS1	-		-57	dBm	
13	RX Out of band spurious2	1GHz to 12.75GHz	ROS2	-		-47	dBm	

RF Specifications (WLAN 11n/72.2Mbps, OFDM)

The Specification applies for Ta=25 degrees C, Supply voltage =Typical voltage (5.0V).

No.	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	RF frequency range		FREQ	2412		2472	MHz	
2	TX Power		Po	9	11	13	dBm	
3	Spectrum Mask	1 st Side Lobe	M1	-		-20	dBc	
		2 nd Side Lobe	M2	-		-28	dBc	
		3 rd Side Lobe	M3	-		-45	dBc	
4	Symbol clock tolerance		Ft	-25		25	ppm	
5	Frequency tolerance		Ft	-25		25	ppm	
6	EVM	Rms	EVM	-		-28	dB	
7	TX Out of band spurious1	30MHz to 1GHz	TOS1	-		-36	dBm	
8	TX Out of band spurious2	1GHz to 12.75GHz	TOS2	-		-30	dBm	
9	TX Out of band spurious3	1.8GHz to 1.9GHz 5.15GHz to 5.3GHz	TOS3	-		-47	dBm	
10	Rx sensitivity	PER<10%	SEN	-	-69	-64	dBm	
11	Maximum Input Level	PER<10%	MIL	-20		-	dBm	
12	RX Out of band spurious1	30MHz to 1GHz	ROS1	-		-57	dBm	
13	RX Out of band spurious2	1GHz to 12.75GHz	ROS2	-		-47	dBm	

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Control No. HD-AE-A100174	(5/5)	Control name Electrical characteristics
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RF Specifications (WLAN 11g/54Mbps, OFDM)

The Specification applies for Ta=25 degrees C, Supply voltage =Typical voltage (5.0V).

No.	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	RF frequency range		FREQ	2412		2472	MHz	
2	TX Power		Po	10	12	14	dBm	
3	Spectrum Mask	1 st Side Lobe	M1	-		-20	dBc	
		2 nd Side Lobe	M2	-		-28	dBc	
		3 rd Side Lobe	M3	-		-40	dBc	
4	Symbol clock tolerance		Ft	-25		25	ppm	
5	Frequency tolerance		Ft	-25		25	ppm	
6	EVM	Rms	EVM	-		-25	dB	
7	TX Out of band spurious1	30MHz to 1GHz	TOS1	-		-36	dBm	
8	TX Out of band spurious2	1GHz to 12.75GHz	TOS2	-		-30	dBm	
9	TX Out of band spurious3	1.8GHz to 1.9GHz 5.15GHz to 5.3GHz	TOS3	-		-47	dBm	
10	Rx sensitivity	PER<10%	SEN	-	-72	-65	dBm	
11	Maximum Input Level	PER<10%	MIL	-20		-	dBm	
12	RX Out of band spurious1	30MHz to 1GHz	ROS1	-		-57	dBm	
13	RX Out of band spurious2	1GHz to 12.75GHz	ROS2	-		-47	dBm	

RF Specifications (WLAN 11b/11Mbps, CCK)

The Specification applies for Ta=25 degrees C, Supply voltage=Typical voltage (5.0V).

No.	Parameter	Condition	Symbol	Min	Typ	Max	Unit	Remark
1	RF frequency range		FREQ	2412		2472	MHz	
2	TX Power		Po	13	15	17	dBm	
3	Spectrum Mask	1 st Side Lobe	M1	-		-30	dBc	
		2 nd Side Lobe	M2	-		-50	dBc	
4	Power up-down rump	Power up	TU	-		2	us	
		Power down	TD	-		2	us	
5	Frequency tolerance		Ft	-25		25	ppm	
6	EVM	Peak	EVM	-		35	%	
7	TX Out of band spurious1	30MHz to 1GHz	TOS1	-		-36	dBm	
8	TX Out of band spurious2	1GHz to 12.75GHz	TOS2	-		-30	dBm	
9	TX Out of band spurious3	1.8GHz to 1.9GHz 5.15GHz to 5.3GHz	TOS3	-		-47	dBm	
10	Rx sensitivity	PER<8%	SEN	-	-86	-76	dBm	
11	Maximum Input Level	PER<8%	MIL	-10		-	dBm	
12	RX Out of band spurious1	30MHz to 1GHz	ROS1	-		-57	dBm	
13	RX Out of band spurious2	1GHz to 12.75GHz	ROS2	-		-47	dBm	

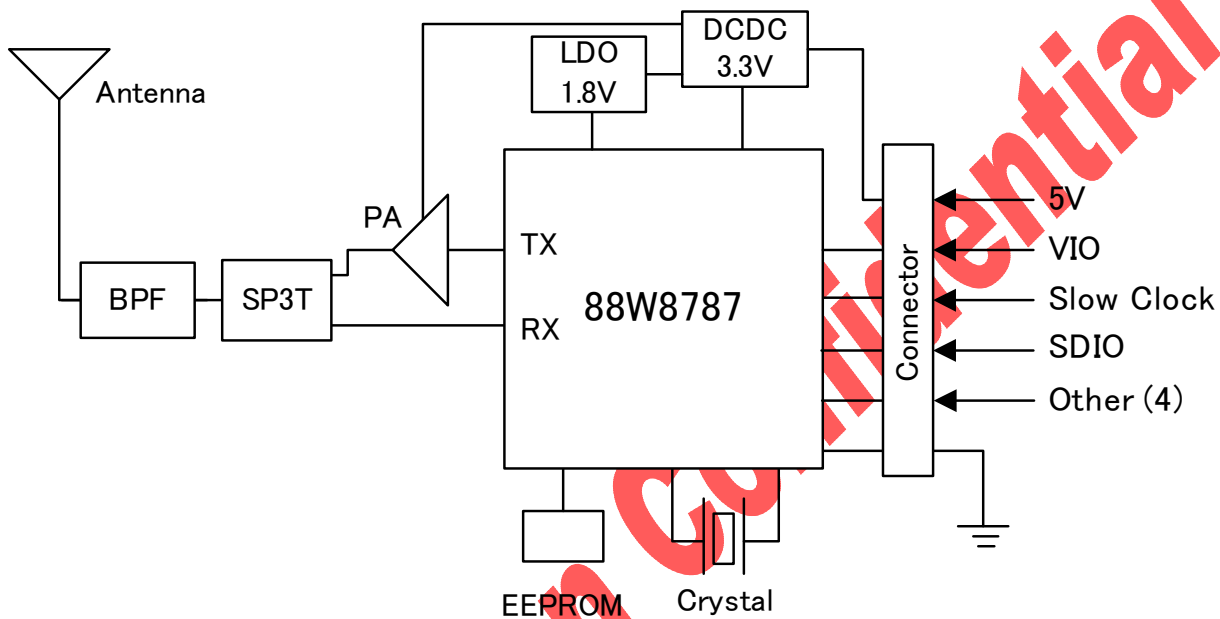
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Control No. HD-MC-A100174	(1/1)	Control name Circuit Schematic
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Block Diagram



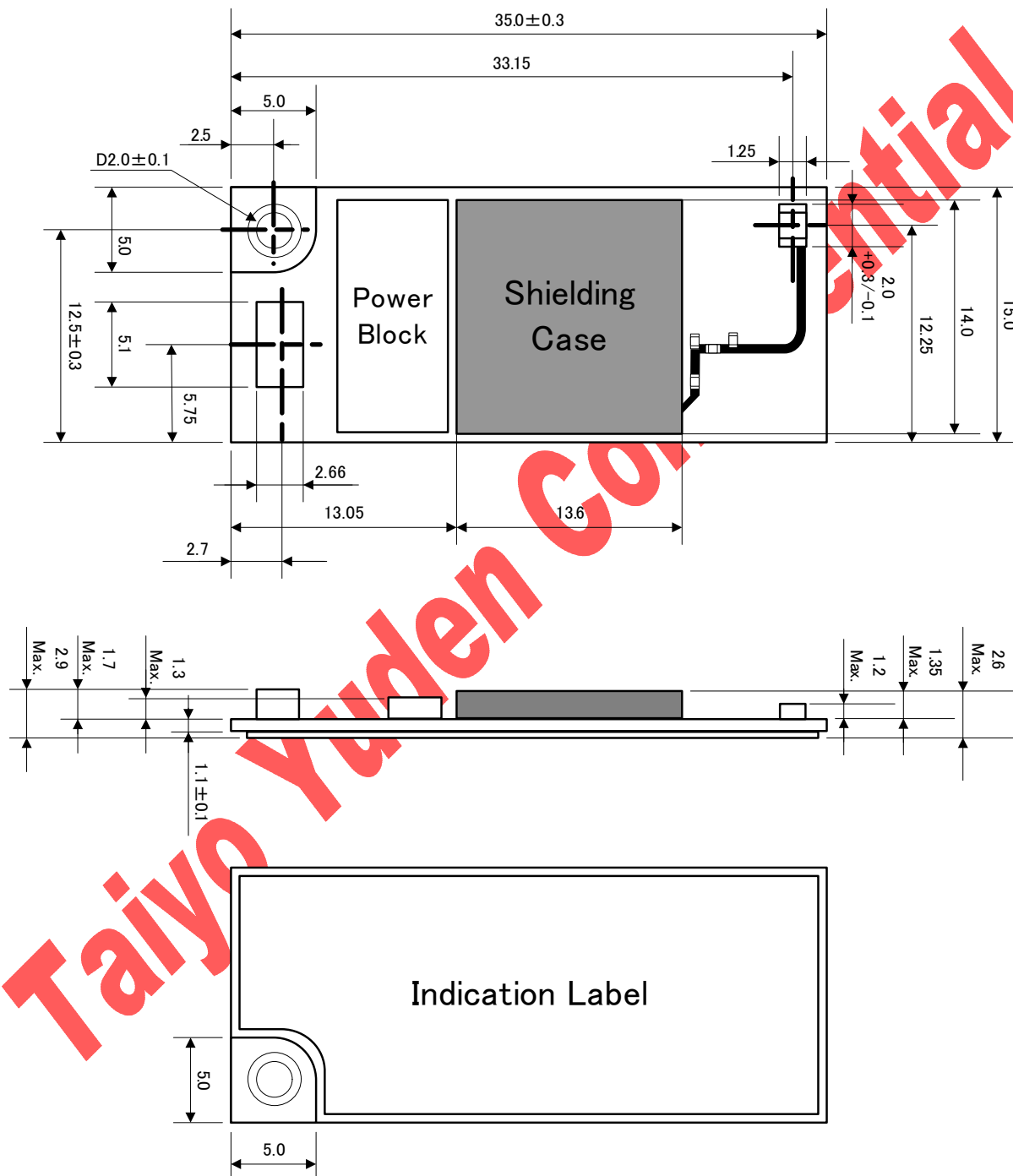
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Control No. HD-AD-A100174	(1/1)	Control name Outline/Appearance
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Unit: mm, Tolerances unless otherwise specified: $\pm 0.2\text{mm}$



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Control No. HD-BA-A100174	(1/1)	Control name Pin Layout
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Pin Descriptions

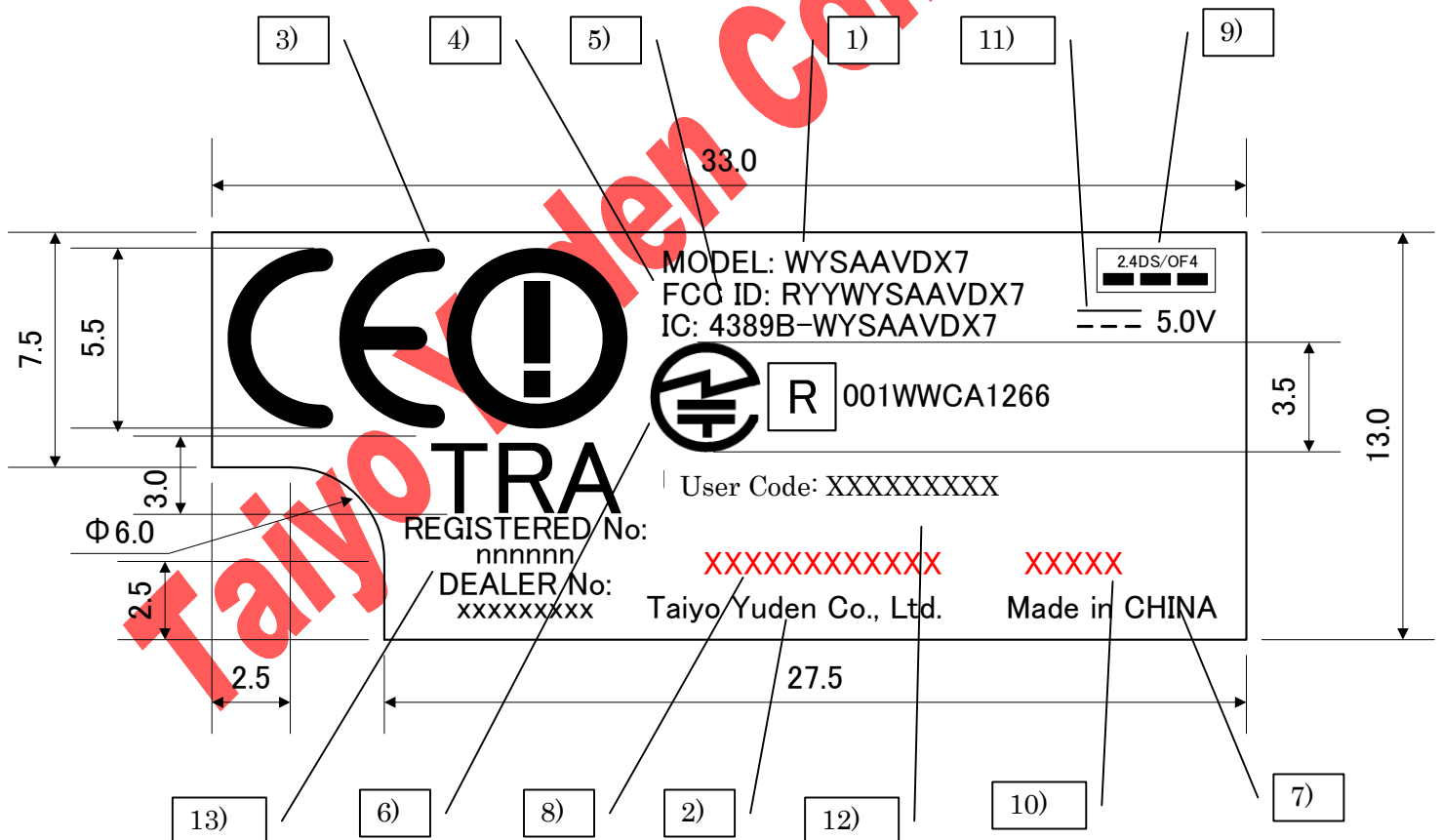
Terminal No.	Terminal Name	Input/ Output	Pwr Domain	Description	Function
1	GND	-	GND	Ground	Power
2	SD_DATA1	Input/Output	VIO	SDIO Data-1	SDIO
3	SD_DATA0	Input/Output	VIO	SDIO Data-0	SDIO
4	GND	-	GND	Ground	Power
5	SD_CLK	Input	VIO	SDIO Clock	SDIO
6	VIO	Input	VIO	1.8V/3.3V Digital I/O Power Supply	Power
7	SD_CMD	Input/Output	VIO	SDIO Command	SDIO
8	SD_DATA3	Input/Output	VIO	SDIO data-3	SDIO
9	SD_DATA2	Input/Output	VIO	SDIO data-2	SDIO
10	GND	-	GND	Ground	Power
11	GND	-	GND	Ground	Power
12	SLP_CLK	Input	1.8V	Sleep Clock (32.768kHz) Used for WLAN low-power modes.	System
13	GND	-	GND	Ground	Power
14	PDn	Input	VIO	Power Down (active low) with internal pull-up.	System
15	RESETn	Input	VIO	Reset (active low) with internal pull-up.	System
16	WL_HOST_WKUP	Input	VIO	WLAN wakeup	System
17	HOST_WL_WKUP	Output	VIO	HOST wakeup	System
18	GND	-	GND	Ground	Power
19	VBAT	Input	VBAT	5.0V Power Supply	Power
20	VBAT	Input	VBAT	5.0V Power Supply	Power

WYSAAVDX7

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Control No. HD-CA-A100174	(1/1)	Control name Label Information
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- 1) Type : WYSAAVDX7
- 2) Manufacturer : Taiyo Yuden Co.,Ltd.
- 3) R&TTE CE mark : Specified CE mark
- 4) FCC ID : RYYWYSAAVDX7
- 5) IC ID : 4389B-WYSAAVDX7
- 6) Japan logo mark and ID : Specified logo mark and XXXXXXXXXXXX
- 7) Country of Origin : China
- 8) MAC Address : XXXXXXXXXXXX
- 9) ARIB Actual Indication : Indicates that this device is "Second Generation Low Power Data Communication System"
- 10) Lot Number : XXXX
- 11) DC mark and Operating Input Voltage : DC mark and 5.0V
- 12) User Code : XXXXXXXXXXXX
- 13) UAE ID : TRA Logo and REGISTERED No and DEALER No



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Control No. HD-CB-A100174	(1/6)	Control name Regulatory Information
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Regulatory Information

1) Japan Regulatory Information

This product with a specific antenna is a radio system approved for Type Approval.
Please follow the instructions below on designing your product.

a) Please notify clearly below sentences in the product manual.

This product has a radio system which was approved as a radio station in a low power data communication system based on the Radio Law and the Telecommunication Business Law.

Name of the radio system: XXXXXXXXXXXX

b) Please design your set structure in which this module can be easily attached and taken off by end users (consumer public).

c) This module is certified by Type Approval as the device which has SDIO Interface.

Please do not use other purposes except that of certified.

Please contact Taiyo Yuden for more details of purposes of this product.

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Control No. HD-CB-A100174	(2/6)	Control name Regulatory Information
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2) Canada Regulatory Information

License-exempt low-power radiocommunication devices are required to describe following or equivalent sentences in user manuals in section 7.1.5 User Manual of Canadian regulations RSS-GEN. Therefore TAIYO YUDEN recommends describing an appropriate comment in your product manual.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Your product has been applied to requests of ICES. In some applied regulations, there are mention requirements. Therefore please confirm applied regulations.

In the case of ICES-003:

Example 1

Canadian Radio Interference Regulations

This digital apparatus does not exceed Class B limits for radio noise emissions from a digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry Canada.

Cet appareil numérique respecte les limites de bruits radio électriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par l'Industrie Canada.

Example 2

This Class [*] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [] est conforme à la norme NMB-003 du Canada.*

[*] Insert either "A" or "B" but not both as appropriate for the equipment requirements.

The following sentence has to be displayed on the outside of the device in which the module is installed: "Contains Transmitter Module IC : 4389B-WTSAAVDX7", or "Contains IC : 4389B-WYSAAVDX7".

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Control No. HD-CB-A100174	(3/6)	Control name Regulatory Information
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3) FCC Regulatory Information

Please describe contents mentioned below in users manual of your company.

CAUTION: To maintain compliance with FCC's RF exposure guidelines, use only the supplied antenna.

Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The following sentence has to be displayed on the outside of the device in which the module is installed: "Contains Transmitter Module FCC ID: RYYWYSAAVDX7", or "Contains FCC ID: RYYWYSAAVDX7".

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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4) CE

EN 300 328 V1.7.1: (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems;

Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

EN 301 489-1 V1.8.1: (2008)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

EN 301 489-17 V2.1.1 (2009)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment














This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This module does not intend to use it with cables more than 3m.

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 Český [Czech]	<i>[Taiyo Yuden]</i> tímto prohlašuje, že tento <i>[WYSAAVDX7]</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
 Dansk [Danish]	Undertegnede <i>[Taiyo Yuden]</i> erklærer herved, at følgende udstyr <i>[WYSAAVDX7]</i> overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
 Deutsch [German]	Hiermit erklärt <i>[Taiyo Yuden]</i> , dass sich das Gerät <i>[WYSAAVDX7]</i> in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
 Eesti [Estonian]	Käesolevaga kinnitab <i>[Taiyo Yuden]</i> seadme <i>[WYSAAVDX7]</i> vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
 English	Hereby, <i>[Taiyo Yuden]</i> , declares that this <i>[WYSAAVDX7]</i> is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
 Español [Spanish]	Por medio de la presente <i>[Taiyo Yuden]</i> declara que el <i>[WYSAAVDX7]</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
 Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ <i>[Taiyo Yuden]</i> ΔΗΛΩΝΕΙ ΟΤΙ <i>[WYSAAVDX7]</i> ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
 Français [French]	Par la présente <i>[Taiyo Yuden]</i> déclare que l'appareil <i>[WYSAAVDX7]</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
 Italiano [Italian]	Con la presente <i>[Taiyo Yuden]</i> dichiara che questo <i>[WYSAAVDX7]</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo <i>[Taiyo Yuden]</i> deklarē, ka <i>[WYSAAVDX7]</i> atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo <i>[Taiyo Yuden]</i> deklaruoja, kad šis <i>[WYSAAVDX7]</i> atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
 Nederlands [Dutch]	Hierbij verklaart <i>[Taiyo Yuden]</i> dat het toestel <i>[WYSAAVDX7]</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
 Malti [Maltese]	Hawnhekk, <i>[Taiyo Yuden]</i> , jiddikjara li dan <i>[WYSAAVDX7]</i> jikkonforma mal-htigijiet essenzzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
 Magyar [Hungarian]	Alulírott, <i>[Taiyo Yuden]</i> nyilatkozom, hogy a <i>[WYSAAVDX7]</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
 Polski [Polish]	Niniejszym <i>[Taiyo Yuden]</i> oświadcza, że <i>[WYSAAVDX7]</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

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<input checked="" type="checkbox"/> Portuguese [Portuguese]	<i>[Taiyo Yuden]</i> declara que este <i>[WYSAAVDX7]</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
<input checked="" type="checkbox"/> Slovensko [Slovenian]	<i>[Taiyo Yuden]</i> izjavlja, da je ta <i>[WYSAAVDX7]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>[Taiyo Yuden]</i> týmto vyhlasuje, že <i>[WYSAAVDX7]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
<input checked="" type="checkbox"/> Suomi [Finnish]	<i>[Taiyo Yuden]</i> vakuuttaa täten että <i>[WYSAAVDX7]</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
<input checked="" type="checkbox"/> Svenska [Swedish]	Härmed intygar <i>[Taiyo Yuden]</i> att denna <i>[WYSAAVDX7]</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

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