



SPOT CHECK EVALUATION

FCC ID : UZ7PS30JB
Equipment : Personal Shopper
Brand Name : ZEBRA
Model Name : PS30JB
Applicant : Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742
Manufacturer : Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742
Standard : FCC Part 15 Subpart C §15.247
FCC Part 15 Subpart E §15.407

The product was received on Dec. 22, 2023 and testing was performed from Jan. 29, 2024 to Feb. 07, 2024. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this spot check data report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Version	Description	Issue Date
01	Initial issue of report	Feb. 22, 2024

1. General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Personal Shopper
Brand Name	ZEBRA
Model Name	PS30JB
FCC ID	UZ7PS30JB
HW Version	EV2
SW Version	13-13-11.00-TG-U00-PRD-NEM-04
FW Version	FUSION_QA_6_1.1.0.004_T
MFD	13DEC23
EUT Stage	Identical Prototype

Remark: Remark: The EUT's information above is declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Specification of Accessory				
Battery 1	Brand Name	Zebra	Part Number	BT-000355-0020
Battery 2	Brand Name	Zebra	Part Number	BT-000355-5020

Supported Unit used in test configuration and system				
1-slot cradle	Brand Name	Zebra	Part Number	CRD-MC18-1SLOT-01
Adapter	Brand Name	Zebra	Part Number	PWR-BGA12V108W0WW
Programming USB cable	Brand Name	Zebra	Part Number	CBL-PS30-USBCHG-01
Soft Holster	Brand Name	Zebra	Part Number	SG-PS20-SFTHLT-01

1.2 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory			
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855			
Test Site No.	Sporton Site No. TH05-HY, 03CH11-HY , 03CH12-HY			

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786



2. Re-use of Measured Data

2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: PS30JB, FCC ID: UZ7PS30JB) is electrically identical to the reference device (Model: PS30JP, FCC ID: UZ7PS30JP) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS) and FCC Part 15E (equipment class: NII) reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 v02r02.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: UZ7PS30JB).



3. Difference Section

The main difference between FCC ID: UZ7PS30JP and FCC ID: UZ7PS30JB is as below:

- Remove NFC function.

Other differences and all the details of similarity and difference can be found in the confidential documents (PS30JB_Operational Description of Product Equality Declaration).

4. Spot Check Verification Data Section

Conducted power test and radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

Spot-check measurements, while being always compliant with the applicable rule part(s) for the test under consideration, show a deviation d_{dB} from the reference data no larger than 3 dB:

$$d_{dB} = |V_{dB} - R_{dB}| \leq 3 \text{ dB} \quad (1)$$

V_{dB} , the variant spot-check level

R_{dB} , the corresponding measurement level for the reference model

An alternative to the limit of eq. (1) is available, and is based on considering how far the reference data R_{dB} is from the compliance threshold C_{dB} (also expressed in dB), for the particular test under consideration. In this case, if $M_{dB} = |C_{dB} - R_{dB}|$ is the margin in dB from the compliance limit, a spot check may be considered acceptable when the deviation d_{dB} from the reference data satisfies the following condition:

$$d_{dB} = |V_{dB} - R_{dB}| \leq (3 + M_{dB} / 20) \text{ dB}, \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \quad (2)$$

$$d_{dB} = |V_{dB} - R_{dB}| = 6 \text{ dB}, \text{ for } M_{dB} > 60 \text{ dB}$$

where “| |” is the absolute value of the measured quantity.

When using the option in eq. (2), d_{dB} increases linearly from 3 dB to 6 dB.



Summary for power and RSE spot check for each rule entry and technology is listed as below:

Test Item	Mode	UZ7PS30JP Worst Result	UZ7PS30JB Worst Result	Difference (dB)
Average Conducted Power (dBm)	BT	3.99	4.44	-0.45
	BLE	4.9	4.9	0.00
	WLAN 2.4G	25.31	25.56	-0.25
	WLAN 5G UNII-1	23.64	23.91	-0.27
	WLAN 5G UNII-2a	23.74	23.97	-0.23
	WLAN 5G UNII-2c	23.96	23.96	0.00
	WLAN 5G UNII-3	24.41	24.64	-0.23
Radiated Spurious Emission (dBuV/m)	BT	47.87	48.41	-0.54
	BLE	42.77	42.99	-0.22
	WLAN 2.4G	52.32	52.29	0.03
	WLAN 5G UNII-1~ UNII-2	52.71	52.4	0.31
	WLAN 5G UNII-3	58.37	59.17	-0.8

Conclusion:

Radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. The power level and RSE spot check are shown within expected level compliant to limit line.

We are using power and ERP/EIRP measurements from the original parent model reports to list on the grant.

UNII DFS detection mechanism/software of variant model is the same as original model, thus the original DFS report is being reused and no spot check is done on the variant model.

We confirm that the test data reuse policy of FCC KDB 484596 D01 v02r02. Referencing Test Data has been followed and take full responsibility that the test data as referenced from the parent model report represents compliance for the new FCC ID.



5. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Original FCC ID	Original Report	Variant Model FCC ID
15C	DTS	Bluetooth – LE Wii-Fi	2400~2483.5	UZ7PS30JP	Part 15C (FR3D0512B, FR3D0512C)	UZ7PS30JB
	DSS	Bluetooth	2400~2483.5	UZ7PS30JP	Part 15C (FR3D0512A)	UZ7PS30JB
15E	NII	Wi-Fi	5150~5250 5250~5350 5470~5725 5725~5850	UZ7PS30JP	Part 15E (FR3D0512E) (FR3D0512F)	UZ7PS30JB
15E	NII	DFS	5470~5725	UZ7PS30JP	Part 15E (FZ3D0512)	UZ7PS30JB



6. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Feb. 01, 2024~ Feb. 07, 2024	Nov. 06, 2024	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	17100015SNO36	10MHz~6GHz	Aug. 23, 2023	Feb. 01, 2024~ Feb. 07, 2024	Aug. 22, 2024	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 23, 2023	Feb. 01, 2024~ Feb. 07, 2024	Aug. 22, 2024	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101564	10Hz ~ 40GHz	Sep. 12, 2023	Feb. 01, 2024~ Feb. 07, 2024	Sep. 11, 2024	Conducted (TH05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Feb. 01, 2024~ Feb. 07, 2024	Nov. 06, 2024	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1036004	N/A	Jul. 27, 2023	Feb. 01, 2024~ Feb. 07, 2024	Jul. 26, 2024	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Jul. 27, 2023	Feb. 01, 2024~ Feb. 07, 2024	Jul. 26, 2024	Conducted (TH05-HY)
BT Base Station (Measure)	Rohde & Schwarz	CBT	101136	BT 3.0	Oct. 22, 2023	Feb. 01, 2024~ Feb. 07, 2024	Oct. 21, 2024	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 07, 2023	Jan. 31, 2024~ Feb. 01, 2024	Oct. 06, 2024	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Jan. 31, 2024~ Feb. 02, 2024	Sep. 11, 2024	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Aug. 17, 2023	Jan. 31, 2024~ Feb. 02, 2024	Aug. 16, 2024	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1223	18GHz~40GHz	Jul. 10, 2023	Jan. 31, 2024~ Feb. 02, 2024	Jul. 09, 2024	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 08, 2023	Jan. 31, 2024~ Feb. 02, 2024	Dec. 07, 2024	Radiation (03CH11-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-10M-7000-MR	EC1900245	10MHz-7GHz	Jan. 09, 2024	Jan. 31, 2024~ Feb. 02, 2024	Jan. 08, 2025	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055007	1GHz~18GHz	Jun. 14, 2023	Jan. 31, 2024~ Feb. 02, 2024	Jun. 13, 2024	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 27, 2023	Jan. 31, 2024~ Feb. 02, 2024	Jun. 26, 2024	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 05, 2023	Jan. 31, 2024~ Feb. 02, 2024	Oct. 04, 2024	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 31, 2024~ Feb. 02, 2024	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jan. 31, 2024~ Feb. 02, 2024	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jan. 31, 2024~ Feb. 02, 2024	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Jan. 31, 2024~ Feb. 02, 2024	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY1595/2	30MHz~40GHz	Mar. 07, 2023	Jan. 31, 2024~ Feb. 02, 2024	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz~40GHz	Mar. 07, 2023	Jan. 31, 2024~ Feb. 02, 2024	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 07, 2023	Jan. 31, 2024~ Feb. 02, 2024	Mar. 06, 2024	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	30M~40G	Mar. 07, 2023	Jan. 31, 2024~ Feb. 02, 2024	Mar. 06, 2024	Radiation (03CH11-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1.53G Low Pass	Sep. 11, 2023	Jan. 31, 2024~Feb. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700-3000-1800-60SS	SN3	3GHz High Pass Filter	Sep. 11, 2023	Jan. 31, 2024~Feb. 02, 2024	Sep. 10, 2024	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Jan. 29, 2024~Feb. 07, 2024	Sep. 11, 2024	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	37059 & 01	30MHz~1GHz	Nov. 03, 2023	Jan. 29, 2024~Feb. 07, 2024	Nov. 02, 2024	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02114	1GHz~18GHz	Jul. 31, 2023	Jan. 29, 2024~Feb. 07, 2024	Jul. 30, 2024	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz~40GHz	Nov. 24, 2023	Jan. 29, 2024~Feb. 07, 2024	Nov. 23, 2024	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 21, 2023	Jan. 29, 2024~Feb. 07, 2024	Mar. 20, 2024	Radiation (03CH12-HY)
Preamplifier	Agilent	8449B	3008A02375	1GHz~26.5GHz	May 23, 2023	Jan. 29, 2024~Feb. 07, 2024	May 22, 2024	Radiation (03CH12-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-100M-18G-56-01-A70	EC1900249	1GHz-18GHz	Dec. 20, 2023	Jan. 29, 2024~Feb. 07, 2024	Dec. 19, 2024	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 07, 2023	Jan. 29, 2024~Feb. 07, 2024	Dec. 06, 2024	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 10, 2024	Jan. 29, 2024~Feb. 07, 2024	Jan. 09, 2025	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 14, 2023	Jan. 29, 2024~Feb. 07, 2024	Mar. 13, 2024	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-1800-60ST	SN2	3GHz High Pass Filter	Mar. 14, 2023	Jan. 29, 2024~Feb. 07, 2024	Mar. 13, 2024	Radiation (03CH12-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN2	6.75GHz High Pass Filter	Mar. 14, 2023	Jan. 29, 2024~Feb. 07, 2024	Mar. 13, 2024	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 18, 2023	Jan. 29, 2024~Feb. 07, 2024	Dec. 17, 2024	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Dec. 18, 2023	Jan. 29, 2024~Feb. 07, 2024	Dec. 17, 2024	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803953/2	30MHz~40GHz	Dec. 18, 2023	Jan. 29, 2024~Feb. 07, 2024	Dec. 17, 2024	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP210090	N/A	Sep. 08, 2023	Jan. 29, 2024~Feb. 07, 2024	Sep. 07, 2024	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 29, 2024~Feb. 07, 2024	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jan. 29, 2024~Feb. 07, 2024	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 29, 2024~Feb. 07, 2024	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Jan. 29, 2024~Feb. 07, 2024	N/A	Radiation (03CH12-HY)