RF Exposure Report

Report No.:	SABHBQ-WTW-P21080521
FCC ID:	2AH7L-UPSA
Test Model:	PAS800, PAS800L, PAS800P
Received Date:	Aug. 12, 2021
Test Date:	Aug. 31 ~ Oct. 27, 2021
Issued Date:	Jan. 14, 2022
Applicant:	Schneider Electric Industries SAS
Address:	Electropole Site - 38EQ1, 31 rue Pierre Mendes France, Eybens - 38050 Grenoble cedex 9
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
SABHBQ-WTW-P21080521	Original release.	Jan. 14, 2022

1 Certificate of Conformity

Product:	EcoStruxure™ Panel Server Advanced
Brand:	Schneider Electric
Test Model:	PAS800, PAS800L, PAS800P
Sample Status:	Engineering sample
Applicant:	Schneider Electric Industries SAS
Test Date:	Aug. 31 ~ Oct. 27, 2021
Standards:	FCC Part 2 (Section 2.1091)
References Test Guidance:	KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Polly Chien , **Date:** Jan. 14, 2022

Polly Chien / Specialist

Approved by : Jeremy Lin , **Date:** Jan. 14, 2022

Jeremy Lin / Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	…	…	f/1500	30
1500-100,000	…	…	1.0	30

f = Frequency in MHz; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
pi = 3.1416
r = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Radio	Frequency Band (MHz)	Max. AV Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
Internal antenna						
2.4GHz	2412-2462	12.17	3.8	20	0.008	1
5GHz	5180-5240	6.69	2.1	20	0.002	1
	5745-5825	7.08	2.1	20	0.002	1
BT LE	2402-2480	4.98	3.8	20	0.002	1
Zigbee	2405-2480	4.35	5.1	20	0.002	1
External antenna						
2.4GHz	2412-2462	11.08	2.54	20	0.005	1
5GHz	5180-5240	6.68	3	20	0.002	1
	5745-5825	6.13	3	20	0.002	1
BT LE	2402-2480	3.63	2.54	20	0.001	1
Zigbee	2405-2480	6.90	2.54	20	0.002	1

Note:

1. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
3. The WLAN 2.4GHz, 5GHz, Zigbee and BT of the device can transmit simultaneously but not WLAN 2.4GHz and 5GHz at the same time.

Conclusion:

Both of the WLAN, Zigbee and BT can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

Internal antenna

1. WLAN 2.4GHz + BLE + Zigbee = 0.008 / 1 + 0.002 / 1 + 0.002 / 1 = 0.012
2. WLAN 5GHz + BLE + Zigbee = 0.002 / 1 + 0.002 / 1 + 0.002 / 1 = 0.006

External antenna

1. WLAN 2.4GHz + BLE + Zigbee = 0.005 / 1 + 0.001 / 1 + 0.002 / 1 = 0.008
2. WLAN 5GHz + BLE + Zigbee = 0.002 / 1 + 0.001 / 1 + 0.002 / 1 = 0.005

Therefore the maximum calculations of above situations are less than the “1” limit.

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