

Ref. No. 14056-FCC-004

29 July 2015

To Whom It May Concern:

**Re: FCC Exposure Evaluation for Simultaneous transmission**

We, TAIYO YUDEN CO., LTD., hereby declare the following product complies with exposure limit specified in ANSI/IEEE Std. C95.1 as simultaneous transmission operation.

**1. Product information**

**<Transmitter Module 1>**

Model Number: WYSAAVDXB-E (installed to Smart Headset; H725A)  
Manufacturer: TAIYO YUDEN CO., LTD.  
Trade Name: EPSON  
Product Description: Wireless Module  
FCC ID: RYYWYSAAVDXB-E

**<Transmitter Module 2>**

Model Number: EYSFCN (installed to Smart Headset; H725A)  
Manufacturer: TAIYO YUDEN CO., LTD.  
Trade Name: TAIYO YUDEN  
Product Description: Bluetooth Low Energy module  
FCC ID: RYYEYSFCN

**2. Summary of Calculations of Simultaneous transmission SAR test exclusion**

No	Combination	Sum of all simultaneous transmitting antennas	Limit (1-g SAR)	SAR test Exclusion (Simultaneous transmission)
1	BLE + Bluetooth	0.12	1.6	APPLIED
2	BLE + W-LAN(2.4GHz)	0.234	1.6	APPLIED
3	BLE + W-LAN(5GHz)	0.748	1.6	APPLIED

WYSAAVDXB-E is operated as time-division, thus, each function (Bluetooth, W-LAN (2.4GHz) and W-LAN (5GHz)) doesn't transmit simultaneously. However, each function of WYSAAVDXB-E and EYSFCN are capable to transmit simultaneously.

**3. Simultaneous Test Exclusion Considerations (KDB447498\_D01)**

According to 4.3.2 of KDB447498, simultaneous SAR test exclusion thresholds at test separation distance ≤50mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})} / x]$$

(x=7.5 for 1-g SAR)

**3-1) Simultaneous transmission**

**(BLE of EYSFCN and Bluetooth of WYSAAVDXB-E):**

Band	Frequency (MHz)	Reported 1-g SAR (W/kg)	Max. power		Min. separation distance (mm)	Threshold	Simultaneous SAR test exclusion
			(mW)	(dBm)			
Bluetooth (WYSAAV DXB-E)	2480	N/A	0.94	-0.27	5	1.6	Applied*1
BLE (EYSFCN)	2480	N/A	1.96	2.92	5	1.6	Applied*1

\*1: Bluetooth (WYSAAVDXB-E):  $(0.94/5) * (\sqrt{2.48/7.5}) = \mathbf{0.04}$

BLE (EYSFCN):  $(1.96/5) * (\sqrt{2.48/7.5}) = \mathbf{0.08}$

**Sum = 0.04 + 0.08 = 0.12**

As the sum of 1-g of all simultaneous transmitting antennas is  $\leq 1.6$ , this configuration is applicable to SAR simultaneous test exclusion.

**3-2) Simultaneous transmission @ 2.4GHz**

**(BLE of EYSFCN and 2.4 GHz W-LAN of WYSAAVDXB-E):**

Band	Frequency (MHz)	Reported 1-g SAR (W/kg)	Max. power		Min. separation distance (mm)	Threshold	Simultaneous SAR test exclusion
			(mW)	(dBm)			
W-LAN (WYSAAV DXB-E)	2462	0.154	N/A	N/A	5	1.6	Applied*2
BLE (EYSFCN)	2480	N/A	1.96	2.92	5	1.6	Applied*2

\*2: W-LAN (WYSAAVDXB-E): **0.154** (Reported)

BLE (EYSFCN):  $(1.96/5) * (1.57/7.5) = \mathbf{0.08}$

**0.154 + 0.08 = 0.234**

As the sum of 1-g of all simultaneous transmitting antennas is  $\leq 1.6$ , this configuration is applicable to SAR simultaneous test exclusion.

**3-3) Simultaneous transmission @ 5GHz and 2.4GHz**  
**(BLE of EYSFCN and 5 GHz W-LAN of WYSAAVDXB-E):**

Band	Frequency (MHz)	Reported 1-g SAR (W/kg)	Max. power		Min. separation distance (mm)	Threshold	Simultaneous SAR test exclusion
			(mW)	(dBm)			
W-LAN (WYSAAV DXB-E)	5825	0.668	N/A	N/A	5	1.6	Applied*3
BLE (EYSFCN)	2480	N/A	1.96	2.92	5	1.6	Applied*3

\*3: W-LAN (WYSAAVDXB-E): 0.668 (Reported)

BLE (EYSFCN):  $(1.96/5) * (1.57/7.5) = \underline{0.08}$

**0.668 + 0.08 = 0.748**

As the sum of 1-g of all simultaneous transmitting antennas is  $\leq 1.6$ , this configuration is applicable to SAR simultaneous test exclusion.

Sincerely,




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Manabu Satomi, Deputy Manager  
 INTEGRATED MODULE & DEVICE BUSINESS DIV.