RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

FCC ID: 2A96S-VEZO360

EUT Specification

EUT	Wifi Digital Photo Frame
Frequency band (Operating)	☒ WLAN: 5.15GHz ~ 5.25GHz ☒ WLAN: 5.25GHz ~ 5.35GHz ☒ WLAN: 5.47GHz ~ 5.725GHz ☒ WLAN: 5.725GHz ~ 5.825GHz ☒ Others: FDD Band II: 1852.40MHz~1907.60MHz FDD Band V: 826.40MHz~846.60MHz FDD Band IV: 1712.40MHz~1752.60MHz FDD Band 2: 1850.7 MHz – 1909.3 MHz FDD Band 4: 1710.7 MHz – 1754.3 MHz FDD Band 5: 824.7 MHz – 848.3 MHz FDD Band 7: 2502.5 MHz – 2567.5 MHz FDD Band 12: 699.7 MHz – 715.3 MHz FDD Band 13: 779.5 MHz – 784.5 MHz FDD Band 14: 790.5 MHz – 795.5 MHz FDD Band 17: 706.5 MHz – 713.5 MHz FDD Band 25: 1850.7 MHz – 1914.3 MHz FDD Band 26: 814.7 MHz – 848.3 MHz TDD Band 41: 2498.5 MHz – 2687.5 MHz FDD Band 66: 1710.7 MHz-1779.3 MHz FDD Band 71: 665.5 MHz – 695.5 MHz
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others ___
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm2) ☒ General Population/Uncontrolled exposure (S=1mW/cm2)
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Antenna gain (Max)	Wi-Fi 5.2G:2.6dBi (Provided by customer) Wi-Fi 5.3G:3.0dBi (Provided by customer) Wi-Fi 5.6G:4.0dBi (Provided by customer) Wi-Fi 5.8G:4.1dBi (Provided by customer) FDD Band II: -3.1 dBi (Provided by customer) FDD Band V: 1.8 dBi (Provided by customer) FDD Band IV: -12.6 dBi (Provided by customer) FDD Band 2:-3.1dBi (Provided by customer)

	FDD Band 4:-12.6dBi (Provided by customer) FDD Band 5: 2.5dBi (Provided by customer) FDD Band 7: -3.5dBi (Provided by customer) FDD Band 12: 3.1dBi (Provided by customer) FDD Band 13: 3.1dBi (Provided by customer) FDD Band 14: 3.1dBi (Provided by customer) FDD Band 17: 3.1dBi (Provided by customer) FDD Band 25: -3.1dBi (Provided by customer) FDD Band 26: 2.5dBi (Provided by customer) TDD Band 41: -1.5dBi (Provided by customer) FDD Band 66: -12.6dBi (Provided by customer) FDD Band 71: 3.1dBi (Provided by customer)
Evaluation applied	☒ MPE Evaluation ☐ SAR Evaluation

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
(A) Limits for Occupational/Control Exposures				
300-1500	**--**	**--**	**F/300**	**6**
1500-100000	**--**	**--**	**5**	**6**
(B) Limits for General Population/Uncontrol Exposures				
300-1500	**--**	**--**	**F/1500**	**6**
1500-100000	**--**	**--**	**1**	**30**

Friis transmission formula: Pd=(Pout*G)\(4*pi*R2)

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
Pd the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Max Measurement Result

Operating Mode	Measured Power	Tune up tolerance	Max. Tune up Power	Antenna Gain	Power density at 20cm	Power density Limits (mW/cm2)
	(dBm)	(dBm)	(dBm)	(dBi)	(mW/ cm2)	
WIFI5G	17.66	17.66 ±1	18.66	4	0.0367	1
FDD Band II	22.98	22.98 ±1	23.98	-3.1	0.0244	1
FDD Band V	22.9	22.9 ±1	23.9	1.8	0.0739	0.55
FDD Band IV	23.79	23.79 ±1	24.79	-12.6	0.0033	1
FDD Band 2	23.05	23.05 ±1	24.05	-3.1	0.0248	1
FDD Band 4	22.18	22.18 ±1	23.18	-12.6	0.0023	1
FDD Band 5	23.7	23.7 ±1	24.7	2.5	0.1044	0.55
FDD Band 7	22.45	22.45 ±1	23.45	-3.5	0.0197	1
FDD Band 12	24.15	24.15 ±1	25.15	3.1	0.1330	0.47
FDD Band 13	23.72	23.72 ±1	24.72	3.1	0.1204	0.53
FDD Band 14	23.4	23.4 ±1	24.4	3.1	0.1119	0.53
FDD Band 17	24.04	24.04 ±1	25.04	3.1	0.1296	0.471

FDD Band 25	22.82	22.82 ±1	23.82	-3.1	0.0235	1
FDD Band 26	24.07	24.07 ±1	25.07	2.5	0.1137	0.54
FDD Band 41	22.39	22.39 ±1	23.39	-1.5	0.0307	1
FDD Band 66	22.58	22.58 ±1	23.58	-12.6	0.0025	1
FDD Band 71	24.39	24.39 ±1	25.39	3.1	0.1405	0.44

The WLAN 5G and WCDMA can transmit simultaneously:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$=S_{WIFI\ 5G}/S_{limit\text{-}5}+ S_{WCDMA}/S_{limit\text{-}WCDMA}$

=0.0367/1+0.0739 /0.55

=0.1711

< 1.0

The WLAN 5G and LTE can transmit simultaneously:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$=S_{WIFI\ 5G}/S_{limit\text{-}5}+ S_{WCDMA}/S_{limit\text{-}WCDMA}$

=0.0367/1+0.1405 /0.44

=0.3560

< 1.0