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Maximum Permissible Exposure Evaluation

FCC ID: 2APPZ-V64

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)

EUT Specification

Product Name:	Prime Business Phone
Trade Mark:	Fanvil
Model/Type reference:	V64
Listed Model(s):	/
Frequency band (Operating)	BLE: 2.402GHz ~ 2.480GHz BT: 2.402GHz ~ 2.480GHz WLAN: 2.412GHz ~ 2.462GHz RLAN: 5.150GHz ~ 5.250GHz RLAN: 5.725GHz ~ 5.850GHz
Device category	☐Portable (<5mm separation) ☐Mobile (>20cm separation) ☒Fixed (>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	2.4GHz: 5.0dBi 5GHz WIFI: 5.8dBi
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*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
Pd the limit of MPE 1mW/cm^2. 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.

Measurement Result

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
GFSK	2441	5.00	6.07	6±1	7	0.00315	1.000
π/4-DQPSK	2441	5.00	5.61	6±1	7	0.00315	1.000
8-DPSK	2402	5.00	5.90	6±1	7	0.00315	1.000
GFSK (BLE)	2402	5.00	5.42	5±1	6	0.00250	1.000
WLAN 802.11b	2462	5.00	15.60	15±1	16	0.02505	1.000
WLAN 802.11g	2437	5.00	16.14	16±1	17	0.03153	1.000
WLAN 802.11n(HT20)	2437	5.00	16.87	17±1	18	0.03970	1.000
RLAN U-NII-1 802.11a	5240	5.80	16.04	16±1	17	0.03791	1.000
RLAN U-NII-1 802.11n(HT20)	5240	5.80	15.80	16±1	17	0.03791	1.000
RLAN U-NII-1 802.11n(HT40)	5230	5.80	15.41	15±1	16	0.03011	1.000
RLAN U-NII-1 802.11ac(VHT20)	5240	5.80	15.79	16±1	17	0.03791	1.000
RLAN U-NII-1 802.11ac(VHT40)	5230	5.80	8.95	9±1	10	0.00756	1.000
RLAN U-NII-1 802.11ac(VHT80)	5210	5.80	9.85	9±1	10	0.00756	1.000
RLAN U-NII-3 802.11a	5745	5.80	14.26	14±1	15	0.02392	1.000
RLAN U-NII-3 802.11n(HT20)	5745	5.80	14.07	14±1	15	0.02392	1.000
RLAN U-NII-3 802.11n(HT40)	5755	5.80	13.97	14±1	15	0.02392	1.000
RLAN U-NII-3 802.11ac(VHT20)	5745	5.80	13.95	14±1	15	0.02392	1.000
RLAN U-NII-3 802.11ac(VHT40)	5755	5.80	7.75	8±1	9	0.00601	1.000
RLAN U-NII-3 802.11ac(VHT80)	5775	5.80	10.27	10±1	11	0.00952	1.000

Note:
For a more detailed features description, Please refer to the RF Test Report.

**********THE END**********