



RF Exposure Requirements

1.1 General Information

Client Information

Applicant : Zhuhai Invitop Technology Co.,Ltd.
Address of applicant : 4th Block, No.625 Xinshawu Road, Tangjiawan Town, High-Tech District, Zhuhai City, Guangdong, China
Manufacturer..... : The same as above
Address of manufacturer..... : The same as above

General Description of E.U.T

FCC ID..... : 2BMKS-PR6
Product Name : CAR FRIDGE
Model No. : PR1-RCZ45(C)-N8-3-01, PR4-RCZ45(C)-N8-3-01
PR4-RCZ45(C)-N8-3-03, PR2-RCZ35(C)-N8-3-01
PR5-RCZ35(C)-N8-3-01, PR5-RCZ35(C)-N8-3-03
PR3-RCZ55(C)-N8-3-01, PR6-RCZ55(C)-N8-3-01
PR6-RCZ55(C)-N8-3-03, PR1-RCZ45(C)-N8-3-02
PR4-RCZ45(C)-N8-3-02, PR4-RCZ45(C)-N8-3-04
PR2-RCZ35(C)-N8-3-02, PR5-RCZ35(C)-N8-3-02
PR5-RCZ35(C)-N8-3-04, PR3-RCZ55(C)-N8-3-02
PR6-RCZ55(C)-N8-3-02, PR6-RCZ55(C)-N8-3-04
Model Description : All models are identical except for the appearance and capacity.
Rated Voltage..... : DC 12/24V
Battery Capacity : ---
Power Adapter : HCX6003-1454100M
Input: 100-240V~, 50-60Hz, 1.8A;
Output: DC 14.5V, 4.1A, 59.45W

Technical Characteristics of EUT

Bluetooth Version..... : Bluetooth LE
Frequency Range : 2402-2480MHz
RF Output Power : 3.21dBm (Conducted) @2Mbps
Modulation : GFSK
Data Rate..... : 1Mbps, 2Mbps
Quantity of Channels : 40
Channel Separation..... : 2MHz
Type of Antenna : PCB Antenna
Antenna Gain : 2.54dBi



2 Applicable Standard

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

(a) Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

Note: f = frequency in MHz: * = Plane-wave equivalents power density

3 Calculation Method

$$S = (30 \cdot P \cdot G) / (377 \cdot R^2)$$

S = power density (in appropriate units, e.g., mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm), R=20cm.

4 MPE Calculation Result

Frequency (MHz)	Antenna Gain (dBi)	Numeric gain	Conducted Power (dBm)	Maximum Tune-up output power		PD (mW/cm ²)	Limit (mW/cm ²)
				(dBm)	(mW)		
2480	2.54	1.79	3.21	4.00	2.51	0.00090	1.0

Result: Pass

=====End of Report=====