

MAXIMUM PERMISSIBLE EXPOSURE

KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

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

FCC ID	2A2Z5S1PROS1ULTRAS1	
EUT	Dash cam	
Frequency band (Operating)	<input checked="" type="checkbox"/> BT: 2.402GHz ~ 2.480GH <input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input checked="" type="checkbox"/> RLAN: 5.180GHz ~ 5.240GHz <input checked="" type="checkbox"/> RLAN: 5.260GHz ~ 5.320GHz <input checked="" type="checkbox"/> RLAN: 5.500GHz ~ 5.700GHz <input checked="" type="checkbox"/> RLAN: 5.745GHz ~ 5.825GHz <input type="checkbox"/> Others:	
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others _____	
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure <input checked="" type="checkbox"/> General Population/Uncontrolled exposure	
Antenna diversity	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity	
Max. output power	BLE:	4.84dBm 0.0030W
	WIFI 2.4G:	13.55dBm 0.0226W
	WIFI 5.2G:	15.61dBm 0.0364W
	WIFI 5.3G:	15.68dBm 0.0370W
	WIFI 5.6G:	16.31dBm 0.0428W
	WIFI 5.8G:	14.49dBm 0.0281W
Antenna gain (Max)	BLE:	3.3dBi
	WiFi 2.4G:	3.3dBi
	Wi-Fi 5.2G:	3.61dBi
	Wi-Fi 5.3G:	3.7dBi
	Wi-Fi 5.6G:	3.7dBi
	Wi-Fi 5.8G:	2.61dBi
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation	

Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
 Tel: (86) 0755-26066440 Fax: (86) 0755-26014772 Email: service@anbotek.com



Hotline
 400-003-0500
 www.anbotek.com.cn



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	30
1500-100000	--	--	1	30

Friis transmission formula: $Pd=(Pout*G)/(4*pi*R^2)$

Where

Pd= Power density in mW/cm²

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. 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
	(dBm)	(dBm)	(dBm)	(dBi)	(mW/cm ²)	(mW/cm ²)
BLE	4.84	4.84 ±1	5.84	3.3	0.0016	1
WIFI 2.4G	13.55	13.55 ±1	14.55	3.3	0.0121	1
WIFI 5.2G	15.61	15.61 ±1	16.61	3.61	0.0209	1
WIFI 5.3G	15.68	15.68 ±1	16.68	3.7	0.0217	1
WIFI 5.6G	16.31	16.31 ±1	17.31	3.7	0.0251	1
WIFI 5.8G	14.49	14.49 ±1	15.49	2.61	0.0129	1

This product feature does not support simultaneous launch.

Result: No Standalone SAR test is required.

