Website: www.cblueasia.com
Tel: +86-755-23059481
Email: marketing@cblueasia.com

RF Exposure

Applicant	:	KONKA GROUP CO., LTD.
Address	:	15-24F, Konka R&D Building, No. 28 Keji South 12th Road, Science and Technology Park, Yuehai Subdistrict, Nanshan District, Shenzhen, Guangdong, China
Product Name	:	27" SMART TV
Brand Mark	:	KONKA, RCA
Model	:	KDL27BK270UN
Series model	:	P1FG2700BL, P1FG2700GR, P1FG2700BK, P1FG2700WH, P1FG2700PI, P1FG2700YE, P1FG2700GY, P1FG2700RE, P1FG2700PP, KDG27BK270UN,P1FG2700WT
FCC ID	:	2AQX727BK270UN00
Report Number	:	BLA-EMC-202510-A1307
Date of Receipt	:	Oct. 13, 2025
Date of Test	:	Oct. 13, 2025 to Dec. 16, 2025
Test Standard	:	KDB447498D04 General RF Exposure Guidance v01
Test Result	:	Pass

Compiled by: Hugh **Review by:** Xavier **Approved by:** Blue Zheng

Issued Date: Dec. 16, 2025

BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

Address: Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

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Revise Record

Version No.	Date	Description
01	Dec. 16, 2025	Original

1 General information

1.1 General information

Applicant	KONKA GROUP CO., LTD.
Address	15-24F, Konka R&D Building, No. 28 Keji South 12th Road, Science and Technology Park, Yuehai Subdistrict, Nanshan District, Shenzhen , Guangdong, China
Manufacturer	KONKA GROUP CO., LTD.
Address	15-24F, Konka R&D Building, No. 28 Keji South 12th Road, Science and Technology Park, Yuehai Subdistrict, Nanshan District, Shenzhen , Guangdong, China
Factory[1]	Dongguan Konka Electronic Co.,Ltd
Address	Konka Road, Fenggang Town Dongguan City Guangdong China
Factory[2]	AMTEC ELECTRONICS CORPORATION
Address	Plot A, Number 10A, Street 1, Hiep Phuoc Industrial Park, Hiep Phuoc Commune, Ho Chi Minh City
Factory[3]	Anhui Konka Electronic Co., Ltd
Address	NO.186 and 188,Zhenjiang Road,CHUZHOU, AnHui Province _ 239000 China
Factory[4]	BOE VISION-ELECTRONIC (VIETNAM) COMPANY LIMITED
Address	Lot M1, D2 Road, Phu My 3 Specialized Industrial Park, Phuoc Hoa Ward, Phu My Town, Ba Ria - Vung Tau Province, Vietnam

1.2 General description of EUT

Product name	27" SMART TV
Model no.	KDL27BK270UN
Series model	P1FG2700BL, P1FG2700GR, P1FG2700BK, P1FG2700WH, P1FG2700PI, P1FG2700YE, P1FG2700GY, P1FG2700RE, P1FG2700PP, KDG27BK270UN,P1FG2700WT
Differences of Series model	The differences between models are trademarks, customers, housing color and pre-installed apps in the software.
Power supply or adapter information	AC adapter: Model:GM95-190473-D INPUT: AC 100~240V~50/60Hz 2.5A OUTPUT: 19.0V ⎓4.73A, 89.87W Battery: DC14.4V
Hardware version	N/A
Software version	N/A

Engineer sample no.	BLA-EMC-202510-A13
Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.	

BT:

Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Channel Spacing:	1MHz
Number of Channels:	79
Antenna Type:	Built-in antenna
Antenna Gain:	2dBi(Provided by customer)

BLE:

Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Rate data:	1Mbps; 2Mbps
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	Built-in antenna
Antenna Gain:	2dBi(Provided by customer)

2.4G WIFI:

Operation Frequency:	2412MHz-2462MHz
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing:	5MHz
Number of Channels:	802.11b/g/n(HT20): 11 802.11n(HT40): 7
Antenna Type:	Built-in antenna
Antenna Gain:	2.47dBi (Provided by customer)

5G WIFI:

Operation Frequency	Band 1: 5180MHz-5240MHz; Band 2: 5260MHz~5320MHz; Band 3: 5500MHz~5700MHz; Band 4: 5745MHz-5825MHz.
Channel numbers	Band 1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40): 2, 802.11n(HT80)/802.11ac(HT80): 1
	Band 2: 802.11a/802.11n(HT20): 4, 802.11n(HT40)/802.11ac(HT40): 2, 802.11n(HT80)/802.11ac(HT80): 1
	Band 3: 802.11a/802.11n(HT20): 11, 802.11n(HT40)/802.11ac(HT40): 5, 802.11n(HT80)/802.11ac(HT80): 1
	Band 4: 802.11a/802.11(HT20) 5, 802.11n(HT40)/802.11ac(HT40): 2, 802.11n(HT80)/802.11ac(HT80): 1
Modulation Type	802.11a/802.11n: BPSK, QPSK,16-QAM, 64-QAM 802.11ac: BPSK, QPSK,16-QAM, 64-QAM, 256QAM
Channel Spacing	802.11a/n/ac: 20MHz, 802.11n/ac: 40MHz, 80MHz
Data speed	6Mbps, 9Mbps,12Mbps,18Mbps, 24Mbps,36Mbps,48Mbps, 54Mbps, Up to 867bps
DFS type	Slave
Antenna Type:	Built-in antenna
Antenna Gain:	Band1: 2.52dBi, Band2: 3.51 dBi Band3: 5.57dBi, Band4: 4.61 dBi (Provided by customer)

2 RF Exposure Compliance Requirement

2.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.2 Limits

$$P_{\text{th}}\,(\text{mW}) = \begin{cases} ERP_{20\,\text{cm}}(d/20\,\text{cm})^{x} & d \le 20\,\text{cm} \\ ERP_{20\,\text{cm}} & 20\,\text{cm} < d \le 40\,\text{cm} \end{cases} \quad \text{(B.2)}$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\,\text{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20\text{cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

$$P_{\text{th}}\,(\text{mW}) = ERP_{20\,\text{cm}}\,(\text{mW}) = \begin{cases} 2040f & 0.3\,\text{GHz} \le f < 1.5\,\text{GHz} \\ 3060 & 1.5\,\text{GHz} \le f \le 6\,\text{GHz} \end{cases} \quad \text{(B.1)}$$

2.3 Result

EIRP = pt x gt = (E X d)^2/30
Where:
pt = transmitter output power in watts,
gt = numeric gain of the transmitting antenna (unitless),
E = electric field strength in V/m, --- 10((dBuV/m)/20)/10^6
d = measurement distance in meters (m) ---3m
Spot = (EXd)^2/30 x gt

Calculated Result and Limit (WORSE CASE IS AS BELOW)

BT

Directional antennaGain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
2.00dBi(1.585)	3.389	2.182 (GFSK 2441)	3060	Compiles

ERP=3.389+2-2.15=2.108 mW

BLE

Directional antennaGain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
2.00dBi(1.585)	5.49	3.540 (2480 BLE 1M)	3060	Compiles

ERP=5.49+2-2.15=3.420 mW

2.4G WIFI

Directional antennaGain (Numeric)	Total Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
2.47dBi(1.766)	21.417	138.580 (802.11n20 2412 sum)	3060	Compiles

ERP=21.417+2.47-2.15=149.176 mW

5.1G WIFI

Directional antennaGain (Numeric)	Total Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
2.52dBi(1.786)	17.623	57.850 (802.11n20 5240 sum)	3060	Compiles

ERP=17.623+2.52-2.15=62.994 mW

5.2G WIFI

Directional antennaGain (Numeric)	Total Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
3.51dBi(2.244)	17.077	51.015 (802.11n20 5280 sum)	3060	Compiles

ERP=17.077+3.51-2.15=69.775 mW

5.3G WIFI

Directional antennaGain (Numeric)	Total Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
5.57dBi(3.606)	21.347	136.364 (802.11ac80 5530 sum)	3060	Compiles

ERP=21.347+5.57-2.15=299.709 mW

5.8G WIFI

Directional antennaGain (Numeric)	Total Power (dBm)	Peak Output Power (mW)	Limit (mW/cm²)	Test Result
4.61dBi(2.891	17.681	58.627 (802.11n20 5825 sum)	3060	Compiles

ERP=17.681+4.61-2.15=103.300 mW

$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}}$ =(2.182+3.54+138.58+57.85+51.015+136.364+58.627)/3060=0.146456863 <1

$\sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,j}}$

=(2.108+3.42+149.176+62.994+69.775+299.709+103.3)/3060 =0.225647712<1

Comply with RF exposure exemption limit.

----END OF REPORT----