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Release control record

Issue No.	Reason for change	Date issued
201031KH11-FE	Original release	Jan. 06, 2021

1 General Information of EUT

Product	LED TV
Brand	HKC, SONIQ, OKANO, RCA, PROSCAN, SLYVANIA, WESTINGHOUSE, IMPECCA, SUPERSONIC
Test Model(s)	SC-4250GTV
Series Model(s)	42D1, RTA4202, SL421AN, RLDED4216A-C, RT4238-G, PLDED4216A-G, WD42FB1120-C, WD42FB1200, TL4200H, TL4200F
FCC ID:	2AI56-SC-4250GTV
Status of EUT	Engineering prototype
Power Supply Rating	AC100-240V~50-60Hz
Status of EUT	Engineering prototype
Modulation Type	WLAN: CCK, DQPSK, DBPSK for DSSS; 64QAM, 16QAM, QPSK, BPSK BT: GFSK, $\pi/4$ DQPSK, 8DPSK
Modulation technology	WLAN: DSSS; OFDM BT: DSSS, FHSS
Transfer Rate	WLAN: 802.11b: 11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps BT: 1/2/3 Mbps
Operating Frequency	WLAN: 802.11b, 802.11g, 802.11n (20MHz): 2412 ~ 2462MHz 802.11n (40MHz): 2422 ~ 2452MHz BT: 2402 ~ 2480 MHz
Number of Channel	WLAN: 11 channels for 802.11b, 802.11g, 802.11n (20MHz) 7channels for 802.11n (40MHz) BT EDR: 79 BT LE: 40
Maximum Output Power	WLAN: 13.30dBm BT: 5.66dBm
Antenna Type	Dipole Antenna
Max. Peak ANT Gain	3.64dBi
Antenna Connector	I-PEX

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- Please refer to the EUT photo document for detailed product photo (Reference No.: 201031KH11).
- The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitter and 2 receiver.

Support mode	Transmit and receive mode	Transmit and Receive Chain
802.11b	2412~2462MHz	MIMO
802.11g	2412~2462MHz	MIMO
802.11n HT20	2412~2462MHz	MIMO
802.11n HT40	2422~2452MHz	MIMO

- Model difference: all of these models (SC-4250GTV, 42D1, RTA4202, SL421AN, RLDED4216A-C, RT4238-G, PLDED4216A-G, WD42FB1120-C, WD42FB1200, TL4200H, TL4200F) only difference for brand name and model name for trace purpose.

2 RF exposure limit

Limits for maximum permissible exposure (MPE)

Limits for general population / uncontrolled exposure				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Average time (minutes)
300-1500	F/1500	30
1500-100,000	1.0	30

Note: F = Frequency in MHz

MPE calculation formula:

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

Where:

Pd = power density in mW/cm

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

Classification:

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

3 Calculation result of maximum conducted power

The antennas provided to the EUT, please refer to the following table:

Function	Frequency Band	Antenna Gain (dBi)	Antenna Type	Transmit and Receive Chain	Maximum AVG Power(dBm)
WLAN	2400~2483.5MHz	3.64	Dipole	2TX,2RX	13.30
BT	2400~2483.5MHz	3.64		1TX,1RX	5.66

WLAN: 2400~2483.5MHz: Directional gain = 3.64dBi + 10log (2) = 6.65dBi

Function	Max power (mW)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
WLAN	21.380	3.64	20	0.009834	1.0
BT	3.681	3.64	20	0.001693	1.0

Conclusion: WLAN& BT can operation at the same time, the total power density is **0.0115270** mW/cm², which is less than "1". This confirmed that the device compliance with FCC 1.1310 MPE limit.

Appendix – Information on the Testing Laboratories

We, [Hwa-Hsing \(Dongguan\) Co., Ltd.](#), A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values “HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT”, commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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