

TEST REPORT N°: KSK-ESH-P24062163B-6

EN 300 440 RF Test Report

Applicant:	K-tronics (Suzhou) Technology Co., Ltd.
Address:	No.1088, Dajing Road, Economic and Technological Development Zone, Wujiang District, Suzhou, Jiangsu Province, 215200, P.R. China
Manufacturer:	i3-TECHNOLOGIES NV
Address:	Nijverheidslaan 60, 8540 Deerlijk, BELGIUM
This document includes : 43 pages	

Product Name:	Interactive Flat Panel	
Model Number:	i3TOUCH V-ONE 75, i3TOUCH V-ONE 75xxxxxxx (x=0-9, A-Z, a-z, +, - (hyphen), /, \ or blank)	
Brand:	i3TOUCH	
Rated Voltage/Power	100-240V~, 50/60Hz, 4.3A	
Received Date:	Jul.15, 2024	
Test Date:	Jul.15 to Sep.03, 2024	
Applicable Standards:	EN 300 440 V2.1.1 (2017-03)	
Clause Examined .	All Clauses Relevant	

Test Location: Building C, No. 829, Xin Zhuan Road, Shanghai, CHINA

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Test done by:

Approved by:

Name: Yuan ZHANG
 Title: Project Engineer
 Date: Sep.05, 2024

Name: Sean YU
 Title: RF Supervisor
 Date: Sep.05, 2024

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Release Control Record

Issue No.	Description	Date Issued
KSK-ESH-P24062163B-6	Original release	Sep.05, 2024



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1 Summary of Test Results

The EUT has been tested according to the following specifications:

EN 300 440 V2.1.1		
Clause	Test Parameter	Results
4.2.2	Equivalent Isotropic Radiated Power	PASS
4.2.3	Permitted range of operating frequency	PASS
4.2.4	Unwanted emissions in the spurious domain	PASS
4.2.5.4	Duty Cycle	Not Applicable
4.2.6	Additional requirements for FHSS equipment	Not Applicable
4.2.3	Adjacent channel selectivity	PASS
4.3.5	Receiving spurious emission	PASS
4.3.4	Blocking or desensitization	PASS

Special Comments: None.

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1.1 Test Instruments

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Double Ridged Broadband Horn (30MHz-1.5GHz)	Schwarzbeck	VULB9168	E1A1012	Aug.17,23	Aug.16,25
Horn Antenna (1GHz -18GHz)	Schwarzbeck	BBHA9120D	E1A1041	Apr.11,23	Apr.10,25
Pre-Amplifier(9kHz-1GHz)	Tonscend	TAP9K3G40	E1A2012	Apr.19,23	Apr.18,25
Pre-Amplifier(1GHz-18GHz)	Tonscend	TAP01018050	E1A2013	Mar.01,24	Feb.28,25
Pre-Amplifier(18GHz-40GHz)	Tonscend	TAP18040048	E1A2014	May.24,24	May.23,25
Pre-Amplifier(9kHz-1GHz)	SONOMA	11909A(310)	E1A2007	Feb.18,24	Feb.17,25
Pre-Amplifier(1GHz-26.5GHz)	Agilent	8449B	E1A2002	Feb.18,24	Feb.17,25
Signal Generator	Keysight	N5171B	E1S9016	Feb.19,24	Feb.18,25
Signal Generator	Keysight	N5182B	E1S9017	Feb.19,24	Feb.18,25
Wireless Connectivity Tester	R&S	CMW270	E1S9021	Oct.28,22	Oct.26,24
Spectrum Analyzer	R&S	FSQ	E1S1005	Aug.12,24	Aug.11,25
Spectrum Analyzer	Keysight	N9030B	E1S1003	Sep.14,23	Sep.13,24
Spectrum Analyzer	Keysight	N9020A	E1S1004	Mar.01,24	Feb.28,25
RF Control Unit	Toscend	JS0806-2	E1C5003	NCR	NCR
DC Power supply	Chroma	62024p-80-60	S1S1009	Mar.21,24	Mar.20,25
Humidity&Temp Programmable Tester	ESPEC	SE TH-Z-042U	C1TH002	Jun.06,24	Jun.05,25
Test Software	Toscend	JS1120-3	N/A	N/A	N/A
Test Software	Toscend	JS36-RSE	N/A	N/A	N/A

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1.2 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Parameter	Uncertainty
Radio frequency	$\pm 1.06 \times 10^{-8}$
RF power (conducted)	$\pm 1,017$ dB
Radiated emission of transmitter, valid to 26,5 GHz	± 3.294 dB
Radiated emission of receiver, valid to 26,5 GHz	± 3.294 dB
Temperature	± 0.23 °C
Humidity	± 0.3 %
Voltage (dc)	± 0.1 %
Voltage (ac, < 10 kHz)	± 0.22 %

1.3 Maximum Measurement Uncertainty

For the test methods, according to EN 300 440 standard, the measurement uncertainty figures shall be calculated in accordance with ETR 100 028-1 [4] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Maximum measurement uncertainty

Parameter	Uncertainty
Radio frequency	$\pm 1 \times 10^{-7}$
RF power (conducted)	$\pm 1,5$ dB
Radiated emission of transmitter, valid to 26,5 GHz	± 6 dB
Radiated emission of receiver, valid to 26,5 GHz	± 6 dB
Temperature	± 1 °C
Humidity	± 5 %
Voltage (dc)	± 1 %
Voltage (ac, < 10 kHz)	± 2 %

1.4 Modification Record

There were no modifications required for compliance.



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2 General Information

2.1 General Description of EUT

Product	Interactive Flat Panel
Brand	i3TOUCH
Model	i3TOUCH V-ONE 75, i3TOUCH V-ONE 75xxxxxxxx (x=0-9, A-Z, a-z, +, - (hyphen), /, \ or blank)
Model difference	All models are identical to each other except for different appearance.
Nominal Voltage	100-240V~, 50/60Hz, 4.3A
Temperature Operating Range	+0deg.c to +40deg.c
Modulation Type	SRD 5.8G - OFDM
Modulation Technology	802.11a: OFDM (QPSK, BPSK, 16QAM, 64QAM) 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (QPSK, BPSK, 16QAM, 64QAM, 256QAM) for Wireless Module(WCT1DR2201D) 802.11a: OFDM (QPSK, BPSK, 16QAM, 64QAM) 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (QPSK, BPSK, 16QAM, 64QAM, 256QAM) for Wireless Module(WC0NR2201)
Operating Frequency	5725 MHz ~ 5850 MHz
Number of Channel	See section 2.2
EIRP Power (Measured Max. Average)	13.79dBm for Wireless Module(WCT1DR2201D) 13.96dBm for Wireless Module(WC0NR2201)
Antenna Type	External Antenna for Wireless Module(WCT1DR2201D, WC0NR2201)
Antenna Gain	Ant1:3.28dBi, Ant2: 3.28dBi for Wireless Module(WCT1DR2201D) Ant1: 3.28dBi, Ant2: 3.28dBi Wireless Module(WC0NR2201)
HW VERSION	N/A
SW VERSION	N/A

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
3. The EUT contains two wireless modules.

The wireless module of model WCT1DR2201D supports BT/WIFI function.

The wireless module of model WC0NR2201 supports WIFI function.

The wireless module of model WC0NR2201 works as Hotspot mode only, the wireless module of model WCT1DR2201D works as Client mode only. The two wireless modules can work at the same time.

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2.2 Description of Test Modes

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MH	165	5825MHz
157	5785MH		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

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2.2.1 Test Mode Applicability and tested channel detail:

EUT CONFIGURE MODE	APPLICABLE TO						DESCRIPTION
	EIRP	FR	SE<1G	SE≥1G	ACS	RB	
-	√	√	√	√	√	√	Powered by AC Source

Where **EIRP**: Equivalent Isotropic Radiated Power

FR: Frequency Range

SE<1G: Spurious Emissions below 1GHz

SE≥1G: Spurious Emissions above 1GHz

ACS: Adjacent channel selectivity

RB: Receiver Blocking

EQUIVALENT ISOTROPIC RADIATED POWER:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE
802.11a	149 to 165	149, 165	SRD 5.8G - OFDM	6.0(Mbps)
802.11n/ac(20MHz)	149 to 165	149, 165	SRD 5.8G - OFDM	MCS0
802.11n/ac(40MHz)	151 to 159	151, 159	SRD 5.8G - OFDM	MCS0
802.11ac(80MHz)	155	155	SRD 5.8G - OFDM	MCS0

FREQUENCY RANGE TEST:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE
802.11a	149 to 165	149, 165	SRD 5.8G - OFDM	6.0(Mbps)
802.11n/ac(20MHz)	149 to 165	149, 165	SRD 5.8G - OFDM	MCS0
802.11n/ac(40MHz)	151 to 159	151, 159	SRD 5.8G - OFDM	MCS0
802.11ac(80MHz)	155	155	SRD 5.8G - OFDM	MCS0

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SPURIOUS EMISSIONS TEST (BELOW 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11a	149 to 165	149	SRD 5.8G - OFDM	6.0(Mbps)

SPURIOUS EMISSIONS TEST (ABOVE 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE
802.11a	149 to 165	149, 165	SRD 5.8G - OFDM	6.0(Mbps)
802.11n(20MHz)	149 to 165	149, 165	SRD 5.8G - OFDM	MCS0
802.11ac(40MHz)	151 to 159	151, 159	SRD 5.8G - OFDM	MCS0
802.11ac(80MHz)	155	155	SRD 5.8G - OFDM	MCS0

ADJACENT CHANNEL SELECTIVITY TEST:

- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11a	149 to 165	149, 165	SRD 5.8G - OFDM	6.0(Mbps)

RECEIVER BLOCKING TEST:

- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11a	149 to 165	149, 165	SRD 5.8G - OFDM	6.0(Mbps)

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2.2.2 Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS		TEST VOLTAGE	TESTED BY
SE<1G	25deg. C, 58%RH		AC 230V	Cubby HE
SE≥1G	25deg. C, 58%RH		AC 230V	Cubby HE
EIRP&FR	Normal Temperature	20°C	--	Cubby HE
	Extreme Temperature	0°C and 40°C	--	Cubby HE

2.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND/ Manufacturer	MODEL NO.
1	PC	ThinkPad	L470
2	Network Cable	--	--

2.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standard:

EN 300 440 V2.1.1 (2017-03)

All relaxed test items have been performed and recorded as per the above standard.



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3 Test Procedure and Results

3.1 Equivalent Isotropic Radiated Power

3.1.1 Limits of Equivalent Isotropic Radiated Power

Condition	Limit (e.i.r.p)
Generic use(5725MHz to 5875MHz)	25 mW e.i.r.p.(14dBm)

3.1.2 Test Procedures

Refer to chapter 7.1.2 of EN 300 440 V2.2.1.

Measurement Method	
☒ Conducted measurement	☐ Radiated measurement

3.1.3 Deviation from Test Standard

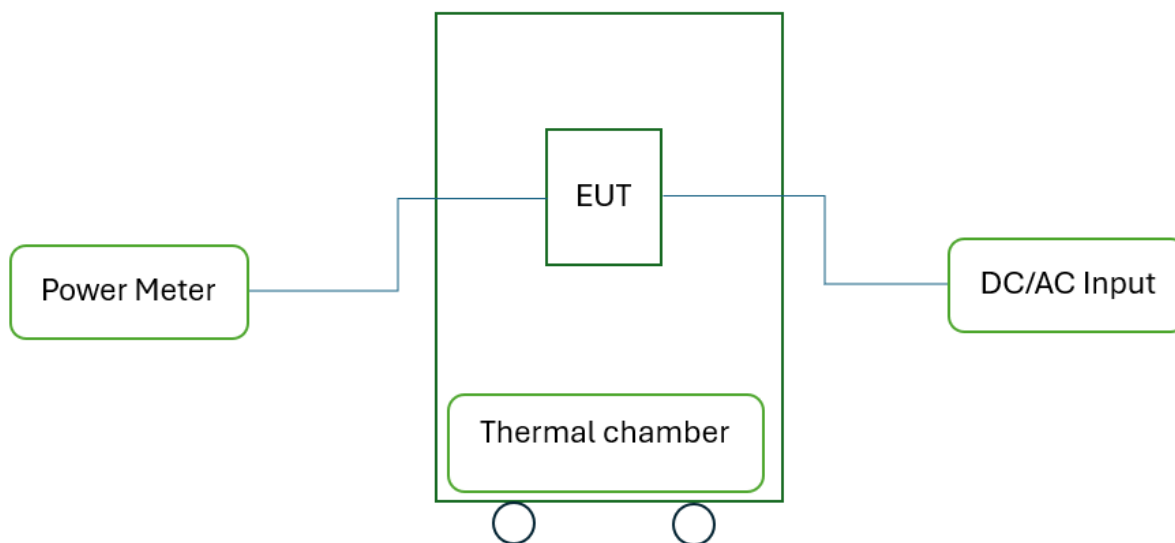
No deviation.

3.1.4 Test Setup

The measurements for RF output power was performed at both normal environmental conditions and at the extremes of the operating temperature. The measurement was performed at the lowest, the middle, and the highest channel.

The EUT was placed into the temperature oven. The EUT antenna connects has to be connected with power meter. The power source of the EUT has to be connected with the power supply for voltage change and follow next step:

1. Run a test program to control EUT transmit at specific channel
2. A power meter was used to read the response of the power sensor.
3. Record the power level.
4. EIRP = antenna gain + power level of step 3.



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3.1.5 Test Result
WCT1DR2201D

Test Condition	Test Mode	Antenna	Freq(MHz)	EIRP [dBm]	Limit [dBm]	Verdict
NTNV	11A	Ant1	5745	13.48	13.98	PASS
		Ant2	5745	13.18	13.98	PASS
		Ant1	5785	13.44	13.98	PASS
		Ant2	5785	13.43	13.98	PASS
		Ant1	5825	13.26	13.98	PASS
		Ant2	5825	13.40	13.98	PASS
	11N20 MIMO	Ant1	5745	11.23	13.98	PASS
		Ant2	5745	10.24	13.98	PASS
		total	5745	13.77	13.98	PASS
		Ant1	5785	10.14	13.98	PASS
		Ant2	5785	9.93	13.98	PASS
		total	5785	13.05	13.98	PASS
		Ant1	5825	9.50	13.98	PASS
		Ant2	5825	9.55	13.98	PASS
		total	5825	12.54	13.98	PASS
	11N40 MIMO	Ant1	5755	9.81	13.98	PASS
		Ant2	5755	9.44	13.98	PASS
		total	5755	12.64	13.98	PASS
		Ant1	5795	9.42	13.98	PASS
		Ant2	5795	9.83	13.98	PASS
		total	5795	12.64	13.98	PASS
	11AC20 MIMO	Ant1	5745	10.22	13.98	PASS
		Ant2	5745	9.59	13.98	PASS
		total	5745	12.93	13.98	PASS
		Ant1	5785	10.30	13.98	PASS
		Ant2	5785	10.33	13.98	PASS
		total	5785	13.33	13.98	PASS
		Ant1	5825	9.78	13.98	PASS
		Ant2	5825	10.03	13.98	PASS
		total	5825	12.92	13.98	PASS
	11AC40 MIMO	Ant1	5755	11.04	13.98	PASS
		Ant2	5755	10.39	13.98	PASS
		total	5755	13.74	13.98	PASS
		Ant1	5795	10.29	13.98	PASS
		Ant2	5795	10.61	13.98	PASS
		total	5795	13.46	13.98	PASS
	11AC80 MIMO	Ant1	5775	10.39	13.98	PASS
		Ant2	5775	10.39	13.98	PASS
		total	5775	13.40	13.98	PASS
LTNV	11A	Ant1	5745	13.67	13.98	PASS
		Ant2	5745	13.31	13.98	PASS
		Ant1	5785	13.53	13.98	PASS
		Ant2	5785	13.66	13.98	PASS
		Ant1	5825	13.49	13.98	PASS
		Ant2	5825	13.43	13.98	PASS
	11N20 MIMO	Ant1	5745	11.25	13.98	PASS
		Ant2	5745	10.26	13.98	PASS
		total	5745	13.79	13.98	PASS
		Ant1	5785	10.60	13.98	PASS
		Ant2	5785	10.30	13.98	PASS
		total	5785	13.40	13.98	PASS



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		total	5785	13.46	13.98	PASS
		Ant1	5825	9.46	13.98	PASS
		Ant2	5825	10.27	13.98	PASS
		total	5825	12.89	13.98	PASS
	11N40 MIMO	Ant1	5755	9.82	13.98	PASS
		Ant2	5755	9.46	13.98	PASS
		total	5755	12.65	13.98	PASS
		Ant1	5795	9.48	13.98	PASS
	11AC20 MIMO	Ant2	5795	9.79	13.98	PASS
		total	5795	12.65	13.98	PASS
		Ant1	5745	10.24	13.98	PASS
		Ant2	5745	9.86	13.98	PASS
	11AC40 MIMO	total	5745	13.06	13.98	PASS
		Ant1	5785	10.35	13.98	PASS
		Ant2	5785	10.38	13.98	PASS
		total	5785	13.38	13.98	PASS
	11AC80 MIMO	Ant1	5825	9.80	13.98	PASS
		Ant2	5825	10.05	13.98	PASS
		total	5825	12.94	13.98	PASS
		Ant1	5755	11.10	13.98	PASS
	11A	Ant2	5755	10.42	13.98	PASS
		total	5755	13.78	13.98	PASS
		Ant1	5795	10.42	13.98	PASS
		Ant2	5795	10.62	13.98	PASS
	11N20 MIMO	total	5795	13.53	13.98	PASS
		Ant1	5775	10.41	13.98	PASS
		Ant2	5775	10.43	13.98	PASS
		total	5775	13.43	13.98	PASS
HTNV	11A	Ant1	5745	13.49	13.98	PASS
		Ant2	5745	13.27	13.98	PASS
		Ant1	5785	13.31	13.98	PASS
		Ant2	5785	13.16	13.98	PASS
	11N40 MIMO	Ant1	5825	13.24	13.98	PASS
		Ant2	5825	13.36	13.98	PASS
		Ant1	5745	11.22	13.98	PASS
		Ant2	5745	10.23	13.98	PASS
	11N20 MIMO	total	5745	13.76	13.98	PASS
		Ant1	5785	10.06	13.98	PASS
		Ant2	5785	10.48	13.98	PASS
		total	5785	13.29	13.98	PASS
	11AC20 MIMO	Ant1	5825	9.84	13.98	PASS
		Ant2	5825	9.83	13.98	PASS
		total	5825	12.85	13.98	PASS
		Ant1	5755	9.80	13.98	PASS
	11N40 MIMO	Ant2	5755	9.01	13.98	PASS
		total	5755	12.43	13.98	PASS
		Ant1	5795	9.38	13.98	PASS
		Ant2	5795	9.52	13.98	PASS
	11AC20 MIMO	total	5795	12.46	13.98	PASS
		Ant1	5745	9.78	13.98	PASS
		Ant2	5745	9.85	13.98	PASS
		total	5745	12.83	13.98	PASS
	11AC20 MIMO	Ant1	5785	10.13	13.98	PASS
		Ant2	5785	10.14	13.98	PASS
		total	5785	13.15	13.98	PASS
		total	5785	13.15	13.98	PASS



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		Ant1	5825	9.31	13.98	PASS
		Ant2	5825	10.04	13.98	PASS
		total	5825	12.70	13.98	PASS
	11AC40 MIMO	Ant1	5755	11.02	13.98	PASS
		Ant2	5755	10.33	13.98	PASS
		total	5755	13.70	13.98	PASS
		Ant1	5795	10.19	13.98	PASS
		Ant2	5795	10.47	13.98	PASS
		total	5795	13.34	13.98	PASS
	11AC80 MIMO	Ant1	5775	10.29	13.98	PASS
		Ant2	5775	10.31	13.98	PASS
		total	5775	13.31	13.98	PASS

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WC0NR2201

Test Condition	Test Mode	Antenna	Freq(MHz)	EIRP [dBm]	Limit [dBm]	Verdict
NTNV	11A	Ant1	5745	13.94	13.98	PASS
		Ant2	5745	11.31	13.98	PASS
		Ant1	5785	12.20	13.98	PASS
		Ant2	5785	11.99	13.98	PASS
		Ant1	5825	11.58	13.98	PASS
		Ant2	5825	11.21	13.98	PASS
	11N20 MIMO	Ant1	5745	10.10	13.98	PASS
		Ant2	5745	8.89	13.98	PASS
		total	5745	12.55	13.98	PASS
		Ant1	5785	9.57	13.98	PASS
		Ant2	5785	9.42	13.98	PASS
		total	5785	12.51	13.98	PASS
		Ant1	5825	8.37	13.98	PASS
		Ant2	5825	8.61	13.98	PASS
		total	5825	11.50	13.98	PASS
	11N40 MIMO	Ant1	5755	11.46	13.98	PASS
		Ant2	5755	9.52	13.98	PASS
		total	5755	13.61	13.98	PASS
		Ant1	5795	8.72	13.98	PASS
		Ant2	5795	8.47	13.98	PASS
		total	5795	11.61	13.98	PASS
	11AC20 MIMO	Ant1	5745	9.82	13.98	PASS
		Ant2	5745	8.11	13.98	PASS
		total	5745	12.06	13.98	PASS
		Ant1	5785	8.88	13.98	PASS
		Ant2	5785	8.82	13.98	PASS
		total	5785	11.86	13.98	PASS
		Ant1	5825	8.52	13.98	PASS
		Ant2	5825	7.89	13.98	PASS
		total	5825	11.23	13.98	PASS
	11AC40 MIMO	Ant1	5755	10.16	13.98	PASS
		Ant2	5755	8.61	13.98	PASS
		total	5755	12.46	13.98	PASS
		Ant1	5795	8.82	13.98	PASS
		Ant2	5795	8.61	13.98	PASS
		total	5795	11.73	13.98	PASS
	11AC80 MIMO	Ant1	5775	10.69	13.98	PASS
		Ant2	5775	10.59	13.98	PASS
		total	5775	13.65	13.98	PASS
LTNV	11A	Ant1	5745	13.96	13.98	PASS
		Ant2	5745	11.54	13.98	PASS
		Ant1	5785	12.12	13.98	PASS
		Ant2	5785	12.30	13.98	PASS
		Ant1	5825	11.74	13.98	PASS
		Ant2	5825	11.67	13.98	PASS
	11N20 MIMO	Ant1	5745	10.22	13.98	PASS
		Ant2	5745	8.81	13.98	PASS
		total	5745	12.58	13.98	PASS
		Ant1	5785	9.65	13.98	PASS
		Ant2	5785	9.62	13.98	PASS
		total	5785	12.65	13.98	PASS

TEST REPORT N°: KSK-ESH-P24062163B-6

		Ant1	5825	8.68	13.98	PASS
		Ant2	5825	9.05	13.98	PASS
		total	5825	11.88	13.98	PASS
	11N40 MIMO	Ant1	5755	11.54	13.98	PASS
		Ant2	5755	9.64	13.98	PASS
		total	5755	13.70	13.98	PASS
		Ant1	5795	9.35	13.98	PASS
		Ant2	5795	8.87	13.98	PASS
		total	5795	12.13	13.98	PASS
	11AC20 MIMO	Ant1	5745	10.23	13.98	PASS
		Ant2	5745	8.72	13.98	PASS
		total	5745	12.55	13.98	PASS
		Ant1	5785	9.44	13.98	PASS
		Ant2	5785	8.73	13.98	PASS
		total	5785	12.11	13.98	PASS
		Ant1	5825	8.77	13.98	PASS
		Ant2	5825	8.24	13.98	PASS
		total	5825	11.52	13.98	PASS
	11AC40 MIMO	Ant1	5755	10.49	13.98	PASS
		Ant2	5755	8.87	13.98	PASS
		total	5755	12.77	13.98	PASS
		Ant1	5795	9.25	13.98	PASS
		Ant2	5795	8.51	13.98	PASS
		total	5795	11.91	13.98	PASS
	11AC80 MIMO	Ant1	5775	10.72	13.98	PASS
		Ant2	5775	10.62	13.98	PASS
		total	5775	13.68	13.98	PASS
HTNV	11A	Ant1	5745	13.94	13.98	PASS
		Ant2	5745	11.25	13.98	PASS
		Ant1	5785	12.25	13.98	PASS
		Ant2	5785	12.06	13.98	PASS
		Ant1	5825	11.54	13.98	PASS
		Ant2	5825	11.27	13.98	PASS
	11N20 MIMO	Ant1	5745	10.14	13.98	PASS
		Ant2	5745	8.75	13.98	PASS
		total	5745	12.51	13.98	PASS
		Ant1	5785	9.63	13.98	PASS
		Ant2	5785	9.57	13.98	PASS
		total	5785	12.61	13.98	PASS
		Ant1	5825	8.43	13.98	PASS
		Ant2	5825	8.61	13.98	PASS
	11N40 MIMO	total	5825	11.53	13.98	PASS
		Ant1	5755	11.44	13.98	PASS
		Ant2	5755	9.51	13.98	PASS
		total	5755	13.59	13.98	PASS
		Ant1	5795	8.91	13.98	PASS
		Ant2	5795	8.46	13.98	PASS
	11AC20 MIMO	total	5795	11.70	13.98	PASS
		Ant1	5745	10.14	13.98	PASS
		Ant2	5745	8.25	13.98	PASS
		total	5745	12.31	13.98	PASS
		Ant1	5785	9.13	13.98	PASS
		Ant2	5785	8.64	13.98	PASS
		total	5785	11.90	13.98	PASS
		Ant1	5825	8.61	13.98	PASS



TEST REPORT N°: KSK-ESH-P24062163B-6

		Ant2	5825	7.90	13.98	PASS
		total	5825	11.28	13.98	PASS
	11AC40 MIMO	Ant1	5755	10.19	13.98	PASS
		Ant2	5755	8.62	13.98	PASS
		total	5755	12.49	13.98	PASS
		Ant1	5795	8.94	13.98	PASS
		Ant2	5795	8.52	13.98	PASS
		total	5795	11.75	13.98	PASS
	11AC80 MIMO	Ant1	5775	10.68	13.98	PASS
		Ant2	5775	10.61	13.98	PASS
		total	5775	13.66	13.98	PASS

TEST REPORT N°: KSK-ESH-P24062163B-6

3.2 Permitted Range of Operating Frequencies

3.2.1 Limits of Permitted Range of Operating Frequencies

The width of the power envelope is $f_H - f_L$ for a give operating frequency. In equipment that allow adjustment or selection of different frequencies, the power envelope take up different positions in the allowed band. The frequency range is determined by the lowest value of f_L and the highest value of f_H resulting from the adjustment of the equipment to the lowest and highest operating frequency.

CONDITION	LIMIT
Under all test conditions	$F_L > 5725\text{MHz}$ $F_H < 5850\text{MHz}$

3.2.2 Test Procedures

Refer to chapter 4.2.3.3 of EN 300 440 V2.2.1.

3.2.3 Deviation of Test Standard

No deviation.

3.2.4 Test Setup

The EUT and probe antenna were placed into the temperature oven. The probe has to be connected with spectrum analyzer. The power source of the EUT has to be connected with the power supply for voltage change. The frequency has to be recorded for the right and left end above threshold of highest and lowest channel respectively.



TEST REPORT N°: KSK-ESH-P24062163B-6

3.2.5 Test Result

WCT1DR2201D

Test Mode	Antenna	Freq(MHz)	FL [MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	5736.42	5753.54	5725 to 5875	PASS
	Ant2	5745	5736.41	5753.54	5725 to 5875	PASS
	Ant1	5785	5776.42	5793.54	5725 to 5875	PASS
	Ant2	5785	5776.40	5793.54	5725 to 5875	PASS
	Ant1	5825	5816.41	5833.51	5725 to 5875	PASS
	Ant2	5825	5816.41	5833.52	5725 to 5875	PASS
11N20MIMO	Ant1	5745	5735.78	5754.16	5725 to 5875	PASS
	Ant2	5745	5735.78	5754.15	5725 to 5875	PASS
	Ant1	5785	5775.80	5794.14	5725 to 5875	PASS
	Ant2	5785	5775.80	5794.15	5725 to 5875	PASS
	Ant1	5825	5815.81	5834.10	5725 to 5875	PASS
	Ant2	5825	5815.80	5834.12	5725 to 5875	PASS
11N40MIMO	Ant1	5755	5736.62	5773.33	5725 to 5875	PASS
	Ant2	5755	5736.63	5773.33	5725 to 5875	PASS
	Ant1	5795	5776.62	5813.33	5725 to 5875	PASS
	Ant2	5795	5776.62	5813.34	5725 to 5875	PASS
11AC20MIMO	Ant1	5745	5735.81	5754.15	5725 to 5875	PASS
	Ant2	5745	5735.83	5754.15	5725 to 5875	PASS
	Ant1	5785	5775.81	5794.14	5725 to 5875	PASS
	Ant2	5785	5775.81	5794.14	5725 to 5875	PASS
	Ant1	5825	5815.82	5834.13	5725 to 5875	PASS
	Ant2	5825	5815.82	5834.14	5725 to 5875	PASS
11AC40MIMO	Ant1	5755	5736.61	5773.48	5725 to 5875	PASS
	Ant2	5755	5736.62	5773.46	5725 to 5875	PASS
	Ant1	5795	5776.62	5813.33	5725 to 5875	PASS
	Ant2	5795	5776.62	5813.48	5725 to 5875	PASS
11AC80MIMO	Ant1	5775	5736.66	5813.29	5725 to 5875	PASS
	Ant2	5775	5736.66	5813.29	5725 to 5875	PASS



TEST REPORT N°: KSK-ESH-P24062163B-6

WC0NR2201

Test Mode	Antenna	Freq(MHz)	FL [MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	5736.40	5753.55	5725 to 5875	PASS
	Ant2	5745	5736.45	5753.52	5725 to 5875	PASS
	Ant1	5785	5776.44	5793.52	5725 to 5875	PASS
	Ant2	5785	5776.44	5793.52	5725 to 5875	PASS
	Ant1	5825	5816.46	5833.50	5725 to 5875	PASS
	Ant2	5825	5816.44	5833.50	5725 to 5875	PASS
11N20MIMO	Ant1	5745	5735.85	5754.17	5725 to 5875	PASS
	Ant2	5745	5735.86	5754.14	5725 to 5875	PASS
	Ant1	5785	5775.86	5794.13	5725 to 5875	PASS
	Ant2	5785	5775.85	5794.12	5725 to 5875	PASS
	Ant1	5825	5815.93	5834.04	5725 to 5875	PASS
	Ant2	5825	5815.89	5834.01	5725 to 5875	PASS
11N40MIMO	Ant1	5755	5736.45	5773.35	5725 to 5875	PASS
	Ant2	5755	5736.64	5773.34	5725 to 5875	PASS
	Ant1	5795	5776.67	5813.36	5725 to 5875	PASS
	Ant2	5795	5776.67	5813.36	5725 to 5875	PASS
11AC20MIMO	Ant1	5745	5735.82	5754.17	5725 to 5875	PASS
	Ant2	5745	5735.87	5754.15	5725 to 5875	PASS
	Ant1	5785	5775.86	5794.15	5725 to 5875	PASS
	Ant2	5785	5775.87	5794.15	5725 to 5875	PASS
	Ant1	5825	5815.90	5834.00	5725 to 5875	PASS
	Ant2	5825	5815.86	5833.99	5725 to 5875	PASS
11AC40MIMO	Ant1	5755	5736.50	5773.34	5725 to 5875	PASS
	Ant2	5755	5736.66	5773.34	5725 to 5875	PASS
	Ant1	5795	5776.66	5813.34	5725 to 5875	PASS
	Ant2	5795	5776.66	5813.34	5725 to 5875	PASS
11AC80MIMO	Ant1	5775	5736.68	5813.34	5725 to 5875	PASS
	Ant2	5775	5736.70	5813.34	5725 to 5875	PASS

TEST REPORT N°: KSK-ESH-P24062163B-6

3.3 Unwanted Emissions in the Spurious Domain

3.3.1 Limits of Unwanted Emissions in the Spurious Domain

Frequency Range	47MHz to 74MHz 87.5MHz to 118MHz 174MHz to 230MHz 470MHz to 862MHz	Other Frequencies Below 1GHz	>1GHz
Limit (Operating)	4nW (–54dBm)	250nW (–36dBm)	1μW (–30dBm)
Limit (Standby)	2nW (–57dBm)	2nW (–57dBm)	20μW (–47dBm)

3.3.2 Test Procedure

Refer to chapter 4.2.4.3 of EN 300 440 V2.2.1.

3.3.3 Deviation from Test Standard

No deviation.

3.3.4 Test Setup

- For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
- The test setup has been constructed as the normal use condition. Controlling software (provided by manufacturer) has been activated to set the EUT on specific status.

TEST REPORT N°: KSK-ESH-P24062163B-6
3.3.5 Test Result
TX BELOW 1GHz WORST-CASE DATA
WCT1DR2201D

SPURIOUS EMISSION FREQUENCY RANGE	25MHz ~ 1GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
54.57	H	-61.21	-54.00	7.21
89.12	H	-57.57	-54.00	3.57
104.44	H	-59.82	-54.00	5.82
188.74	H	-73.58	-54.00	19.58
500.20	H	-65.14	-54.00	11.14
567.55	H	-67.23	-54.00	13.23
89.74	V	-60.31	-54.00	6.31
101.95	V	-64.07	-54.00	10.07
188.16	V	-71.13	-54.00	17.13
518.23	V	-62.94	-54.00	8.94
573.54	V	-64.82	-54.00	10.82
609.76	V	-65.27	-54.00	11.27

WC0NR2201

SPURIOUS EMISSION FREQUENCY RANGE	25MHz ~ 1GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
95.85	H	-57.82	-54.00	3.82
192.60	H	-66.25	-54.00	12.25
215.43	H	-68.48	-54.00	14.48
478.08	H	-68.37	-54.00	14.37
573.45	H	-66.63	-54.00	12.63
669.28	H	-67.26	-54.00	13.26
53.62	V	-56.71	-54.00	2.71
68.57	V	-61.58	-54.00	7.58
190.75	V	-64.67	-54.00	10.67
214.95	V	-69.29	-54.00	15.29
484.26	V	-64.48	-54.00	10.48
558.55	V	-64.38	-54.00	10.38

TEST REPORT N°: KSK-ESH-P24062163B-6

ABOVE 1GHz WORST-CASE DATA:

WCT1DR2201D

802.11a

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149, 165
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	11490.00	H	-53.62	-30.00	23.62
	17235.00	H	-58.46	-30.00	28.46
	11490.00	V	-54.37	-30.00	24.37
	17235.00	V	-57.86	-30.00	27.86
165	11650.00	H	-52.95	-30.00	22.95
	17475.00	H	-54.26	-30.00	24.26
	11650.00	V	-51.99	-30.00	21.99
	17475.00	V	-53.76	-30.00	23.76

802.11n (20MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149, 165
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	11490.00	H	-53.66	-30.00	23.66
	17235.00	H	-58.45	-30.00	28.45
	11490.00	V	-54.39	-30.00	24.39
	17235.00	V	-57.75	-30.00	27.75
165	11650.00	H	-52.82	-30.00	22.82
	17475.00	H	-54.29	-30.00	24.29
	11650.00	V	-51.96	-30.00	21.96
	17475.00	V	-53.74	-30.00	23.74



TEST REPORT N°: KSK-ESH-P24062163B-6

802.11ac (40MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	151, 159
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
151	11510.00	H	-53.34	-30.00	23.34
	17265.00	H	-58.29	-30.00	28.29
	11510.00	V	-54.33	-30.00	24.33
	17265.00	V	-57.64	-30.00	27.64
159	11590.00	H	-52.73	-30.00	22.73
	17385.00	H	-54.19	-30.00	24.19
	11590.00	V	-51.76	-30.00	21.76
	17385.00	V	-53.58	-30.00	23.58

802.11ac (80MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	155
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
155	11550.00	H	-53.38	-30.00	23.38
	17325.00	H	-58.24	-30.00	28.24
	11550.00	V	-54.36	-30.00	24.36
	17325.00	V	-57.61	-30.00	27.61

TEST REPORT N°: KSK-ESH-P24062163B-6

WC0NR2201

802.11a

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149, 165
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	11490.00	H	-53.48	-30.00	23.48
	17235.00	H	-58.38	-30.00	28.38
	11490.00	V	-54.32	-30.00	24.32
	17235.00	V	-57.84	-30.00	27.84
165	11650.00	H	-52.79	-30.00	22.79
	17475.00	H	-54.28	-30.00	24.28
	11650.00	V	-51.93	-30.00	21.93
	17475.00	V	-53.75	-30.00	23.75

802.11n (20MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149, 165
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	11490.00	H	-53.46	-30.00	23.46
	17235.00	H	-58.39	-30.00	28.39
	11490.00	V	-54.31	-30.00	24.31
	17235.00	V	-57.75	-30.00	27.75
165	11650.00	H	-52.64	-30.00	22.64
	17475.00	H	-54.31	-30.00	24.31
	11650.00	V	-51.84	-30.00	21.84
	17475.00	V	-53.65	-30.00	23.65



TEST REPORT N°: KSK-ESH-P24062163B-6

802.11ac (40MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	151, 159
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
151	11510.00	H	-53.42	-30.00	23.42
	17265.00	H	-58.35	-30.00	28.35
	11510.00	V	-54.27	-30.00	24.27
	17265.00	V	-57.73	-30.00	27.73
159	11590.00	H	-52.62	-30.00	22.62
	17385.00	H	-54.19	-30.00	24.19
	11590.00	V	-51.82	-30.00	21.82
	17385.00	V	-53.63	-30.00	23.63

802.11ac (80MHz)

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	155
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
155	11550.00	H	-53.36	-30.00	23.36
	17325.00	H	-58.27	-30.00	28.27
	11550.00	V	-54.23	-30.00	24.23
	17325.00	V	-57.65	-30.00	27.65



TEST REPORT N°: KSK-ESH-P24062163B-6

3.4 Receiver spurious emissions

3.4.1 Limits of Receiver Spurious Emissions

Frequency range	Frequencies below 1GHz	Frequencies above 1GHz
Limit	2nW or -57dBm	20nW or -47dBm

3.4.2 Test procedures

Refer to chapter 4.3.5.3 of EN 300 440 V2.2.1.

3.4.3 Deviation from Test Standard

No deviation.

3.4.4 Test Setup

1. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
2. The test setup has been constructed as the normal use condition. Controlling software (provided by manufacturer) has been activated to set the EUT on specific status.

TEST REPORT N°: KSK-ESH-P24062163B-6
3.4.5 Test Result
BELOW 1GHz WORST-CASE DATA:
WCT1DR2201D
802.11a

SPURIOUS EMISSION FREQUENCY RANGE	25MHz ~ 1GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
120.42	H	-61.32	-57.00	4.32
143.17	H	-59.29	-57.00	2.29
166.86	H	-58.96	-57.00	1.96
259.65	H	-66.51	-57.00	9.51
325.47	H	-65.47	-57.00	8.47
453.35	H	-61.48	-57.00	4.48
103.01	V	-58.75	-57.00	1.75
120.64	V	-61.12	-57.00	4.12
249.97	V	-67.83	-57.00	10.83
313.75	V	-65.62	-57.00	8.62
447.20	V	-63.76	-57.00	6.76
500.76	V	-64.18	-57.00	7.18

WC0NR2201
802.11a

SPURIOUS EMISSION FREQUENCY RANGE	25MHz ~ 1GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
115.16	H	-66.57	-57.00	9.57
154.99	H	-67.73	-57.00	10.73
211.78	H	-67.08	-57.00	10.08
276.78	H	-66.64	-57.00	9.64
352.54	H	-61.31	-57.00	4.31
543.54	H	-60.58	-57.00	3.58
67.44	V	-62.62	-57.00	5.62
152.90	V	-66.09	-57.00	9.09
192.04	V	-63.18	-57.00	6.18
239.59	V	-65.83	-57.00	8.83
325.08	V	-64.07	-57.00	7.07
67.44	V	-62.68	-57.00	5.68

TEST REPORT N°: KSK-ESH-P24062163B-6

ABOVE 1GHz WORST-CASE DATA:

WCT1DR2201D

802.11a

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	1875.65	H	-69.34	-47.00	22.34
	2415.80	H	-65.42	-47.00	18.42
	4492.55	H	-64.65	-47.00	17.65
	6540.95	H	-60.37	-47.00	13.37
	11512.20	H	-54.19	-47.00	7.19
	12123.10	H	-54.54	-47.00	7.54
	1320.45	V	-73.73	-47.00	26.73
	2425.30	V	-65.18	-47.00	18.18
	5491.35	V	-62.64	-47.00	15.64
	8760.10	V	-57.35	-47.00	10.35
	11476.60	V	-54.39	-47.00	7.39
	14389.35	V	-54.58	-47.00	7.58

WC0NR2201

802.11a

SPURIOUS EMISSION FREQUENCY RANGE	1GHz ~ 40GHz	OPERATING CHANNEL	149
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SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
149	1879.25	H	-69.32	-47.00	22.32
	2443.60	H	-65.41	-47.00	18.41
	4499.25	H	-64.57	-47.00	17.57
	6550.75	H	-60.38	-47.00	13.38
	11542.20	H	-54.14	-47.00	7.14
	12173.60	H	-54.56	-47.00	7.56
	1360.35	V	-73.47	-47.00	26.47
	2430.70	V	-65.22	-47.00	18.22
	5493.65	V	-62.66	-47.00	15.66
	8763.80	V	-57.36	-47.00	10.36
	11473.50	V	-54.29	-47.00	7.29
	14367.65	V	-54.41	-47.00	7.41

TEST REPORT N°: KSK-ESH-P24062163B-6

3.5 Adjacent channel selectivity

3.5.1 Limits of Receiver Blocking

The adjacent channel selectivity of the equipment under specified conditions shall not be less than -30 dBm + k.

The correction factor, k, is as follows:

$$K = -20 \log f - 10 \log BW$$

Where:

- f is the frequency in GHz;
 - BW is the channel bandwidth in MHz.
- The factor k is limited within the following:
- $-40 < k < 0 \text{ dB}$.

3.5.2 Test Procedure

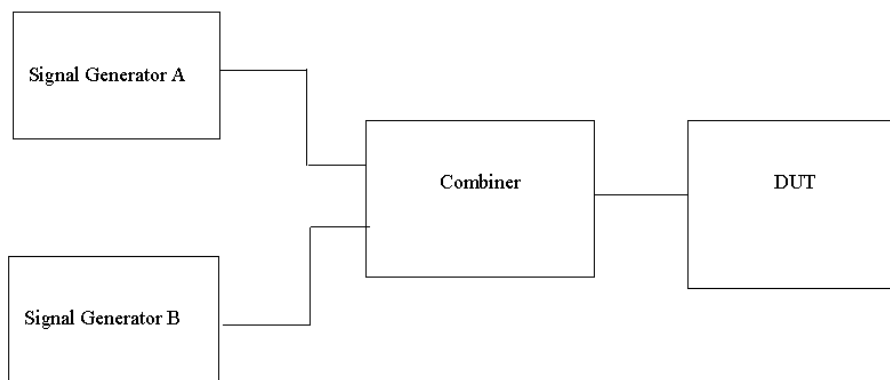
Refer to chapter 4.3.3.3 of EN 300 440 V2.2.1.

Measurement	
☒ Conducted measurement	☐ Radiated measurement

3.5.3 Deviation from Test Standard

No deviation.

3.5.4 Test Setup Configuration



TEST REPORT N°: KSK-ESH-P24062163B-6
3.5.5 Test Result

1. PER shall be less than 10% declared by the manufacturer.
2. The power of blocking signal shall not be less than -30 dBm + k. (k= -20logf-10log BW)
- 3, Test results for 802.11a Minimum rate (6Mbps)

WCT1DR2201D

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch149 (5745 MHz)
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Interference Signal:	CW signal			
Wanted signal	lower Adjacent channel frequency FC= 5725MHz		upper Adjacent channel frequency FC= 5765MHz	
	Minimum Blocking signal Power(dBm)	PER [%]	Minimum Blocking signal Power(dBm)	PER [%]
Pmin + 3dB	-58.20	2.1	-58.20	1.5
Pmin	-84.47 dBm			
Test Result	PASS			

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch165 (5825 MHz)
------------------------	-----------	----------------------------	------------------

Interference Signal:	CW signal			
Wanted signal	lower Adjacent channel frequency FC= 5805MHz		upper Adjacent channel frequency FC= 5845MHz	
	Minimum Blocking signal Power(dBm)	PER [%]	Minimum Blocking signal Power(dBm)	PER [%]
Pmin + 3dB	-58.32	1.1	-58.32	0.8
Pmin	-86.63 dBm			
Test Result	PASS			



TEST REPORT N°: KSK-ESH-P24062163B-6

WC0NR2201

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch149 (5745 MHz)
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Interference Signal:	CW signal			
Wanted signal	lower Adjacent channel frequency FC= 5725MHz		upper Adjacent channel frequency FC= 5765MHz	
	Minimum Blocking signal Power(dBm)	PER [%]	Minimum Blocking signal Power(dBm)	PER [%]
Pmin + 3dB	-58.20	1.7	-58.20	2.4
Pmin	-86.38 dBm			
Test Result	PASS			

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch165 (5825 MHz)
------------------------	-----------	----------------------------	------------------

Interference Signal:	CW signal			
Wanted signal	lower Adjacent channel frequency FC= 5805MHz		upper Adjacent channel frequency FC= 5845MHz	
	Minimum Blocking signal Power(dBm)	PER [%]	Minimum Blocking signal Power(dBm)	PER [%]
Pmin + 3dB	-58.32	1.3	-58.32	0.8
Pmin	-85.54 dBm			
Test Result	PASS			

TEST REPORT N°: KSK-ESH-P24062163B-6

3.6 Receiver Blocking

3.6.1 Limits of Receiver Blocking

The blocking level shall not be less than the values given below table, except at frequencies on which spurious responses are found.

RECEIVER CATEGORY	LIMIT
☒ 1	-30 dBm + k
☐ 2	-45 dBm + k
☐ 3	-60 dBm + k

Note: The correction factor, k , is as follows: $k = -20\log f - 10\log BW$

Where:

- f is the frequency in GHz;
- BW is the channel bandwidth in MHz.

The factor k is limited within the following:

- $-40 < k < 0$ dB.

3.6.2 Test Procedure

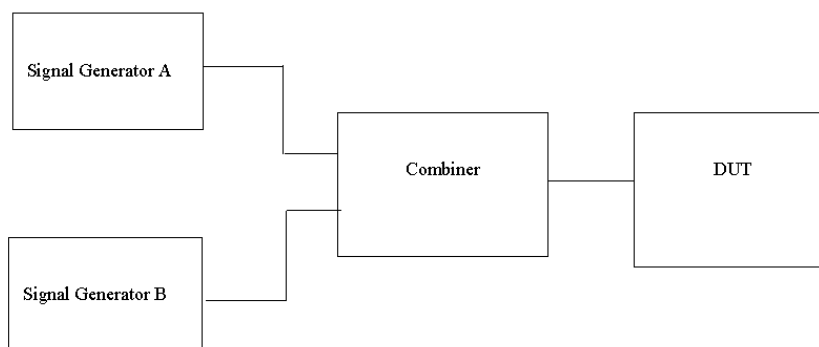
Refer to chapter 4.3.4.3 of EN 300 440 V2.2.1.

Measurement	
☒ Conducted measurement	☐ Radiated measurement

3.6.3 Deviation from Test Standard

No deviation.

3.6.4 Test Setup



TEST REPORT N°: KSK-ESH-P24062163B-6

3.6.5 Test Result

WCT1DR2201D

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch149 (5745 MHz)
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Interference Signal:	CW signal			
Wanted signal	lower channel frequency FL = 5736.81MHz		upper channel frequency FH = 5753.19MHz	
	Blocking signal Frequency(MHz)	Minimum Blocking signal Power(dBm)	PER [%]	Test Result (Pass/Fail)
Pmin + 3dB	4918.08	-57.33	1.6	PASS
Pmin + 3dB	5409.27	-57.33	1.2	PASS
Pmin + 3dB	5573.00	-57.33	2.4	PASS
Pmin + 3dB	5916.88	-57.33	2.1	PASS
Pmin + 3dB	6080.61	-57.33	1.7	PASS
Pmin + 3dB	6571.80	-57.33	1.4	PASS
Pmin	-84.47 dBm			
OBW	16.384 MHz			

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch165 (5825 MHz)
------------------------	-----------	----------------------------	------------------

Interference Signal:	CW signal			
Wanted signal	lower channel frequency FL = 5816.81MHz		upper channel frequency FH= 5833.19MHz	
	Blocking signal Frequency(MHz)	Minimum Blocking signal Power(dBm)	PER [%]	Test Result (Pass/Fail)
Pmin + 3dB	4997.63	-57.45	1.8	PASS
Pmin + 3dB	5489.09	-57.45	2.4	PASS
Pmin + 3dB	5652.91	-57.45	2.1	PASS
Pmin + 3dB	5997.01	-57.45	1.9	PASS
Pmin + 3dB	6160.83	-57.45	1.2	PASS
Pmin + 3dB	6652.29	-57.45	1.3	PASS
Pmin	-86.63dBm			
OBW	16.418 MHz			



TEST REPORT N°: KSK-ESH-P24062163B-6

WC0NR2201

OPERATING STATE	Receiving	OPERATING FREQUENCY	ch149 (5745 MHz)
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Interference Signal:	CW signal			
Wanted signal	lower channel frequency FL = 5736.81 MHz		upper channel frequency FH= 5753.19 MHz	
	Blocking signal Frequency(MHz)	Minimum Blocking signal Power(dBm)	PER [%]	Test Result (Pass/Fail)
Pmin + 3dB	4917.96	-57.33	1.4	PASS
Pmin + 3dB	5409.27	-57.33	1.8	PASS
Pmin + 3dB	5573.04	-57.33	2.1	PASS
Pmin + 3dB	5916.96	-57.33	1.6	PASS
Pmin + 3dB	6080.73	-57.33	1.3	PASS
Pmin + 3dB	6572.04	-57.33	0.9	PASS
Pmin	-86.38 dBm			
OBW	16.377 MHz			

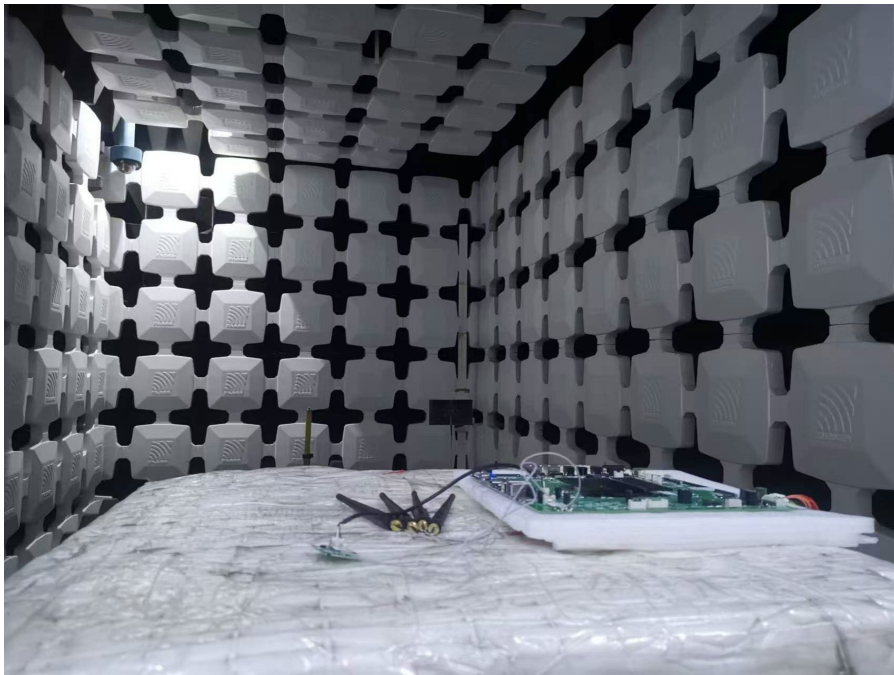
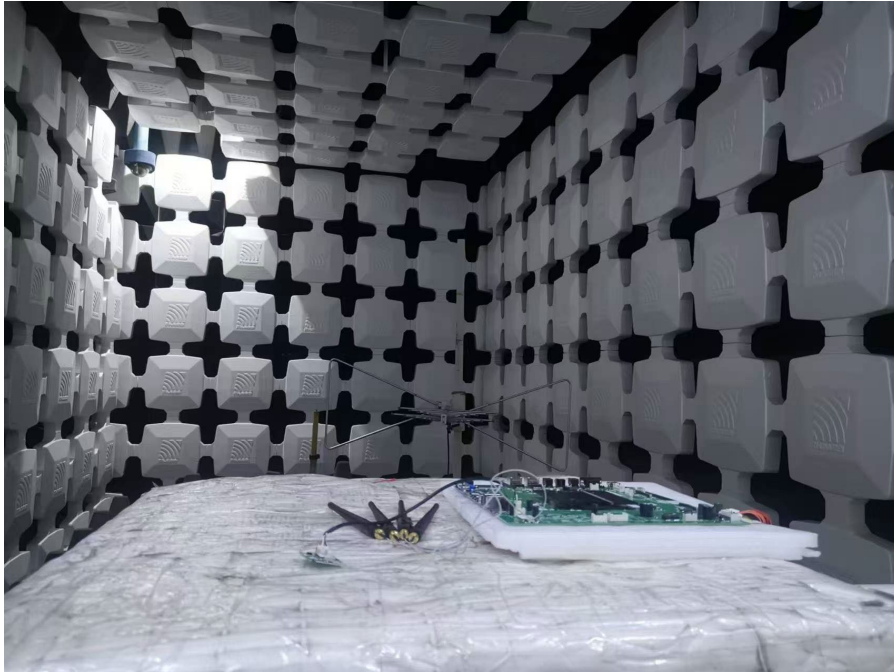
OPERATING STATE	Receiving	OPERATING FREQUENCY	ch165 (5825 MHz)
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Interference Signal:	CW signal			
Wanted signal	lower channel frequency FL = 5816.80 MHz		upper channel frequency FH= 5833.20 MHz	
	Blocking signal Frequency(MHz)	Minimum Blocking signal Power(dBm)	PER [%]	Test Result (Pass/Fail)
Pmin + 3dB	4996.98	-57.45	1.7	PASS
Pmin + 3dB	5488.83	-57.45	1.5	PASS
Pmin + 3dB	5652.78	-57.45	2.6	PASS
Pmin + 3dB	5997.14	-57.45	2.4	PASS
Pmin + 3dB	6161.09	-57.45	1.3	PASS
Pmin + 3dB	6652.94	-57.45	1.6	PASS
Pmin	-85.54 dBm			
OBW	16.395 MHz			

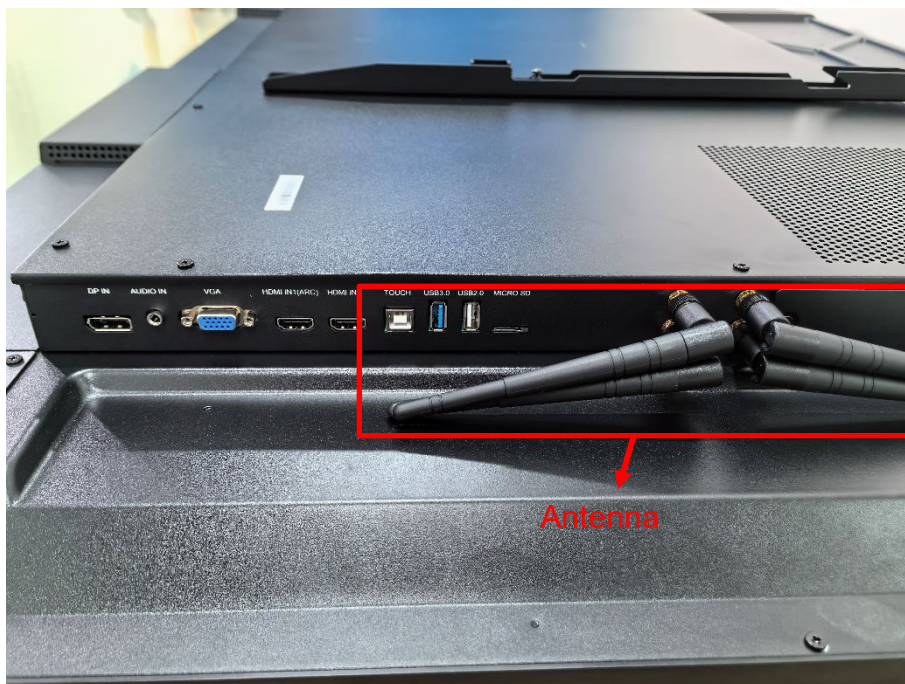
TEST REPORT N°: KSK-ESH-P24062163B-6

4 Photographs of the Test Configuration

TX / RX SPURIOUS EMISSION TEST



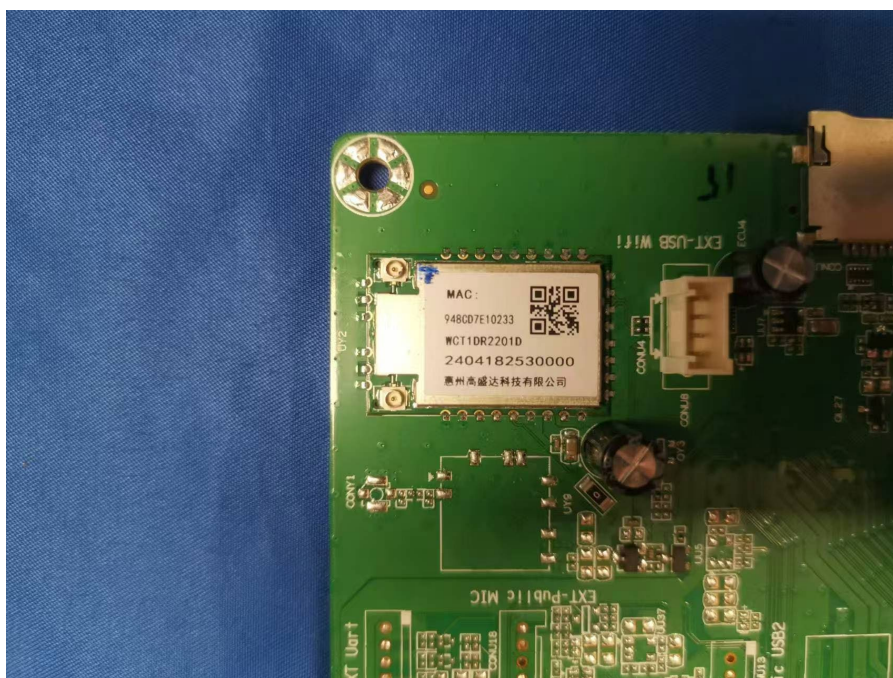
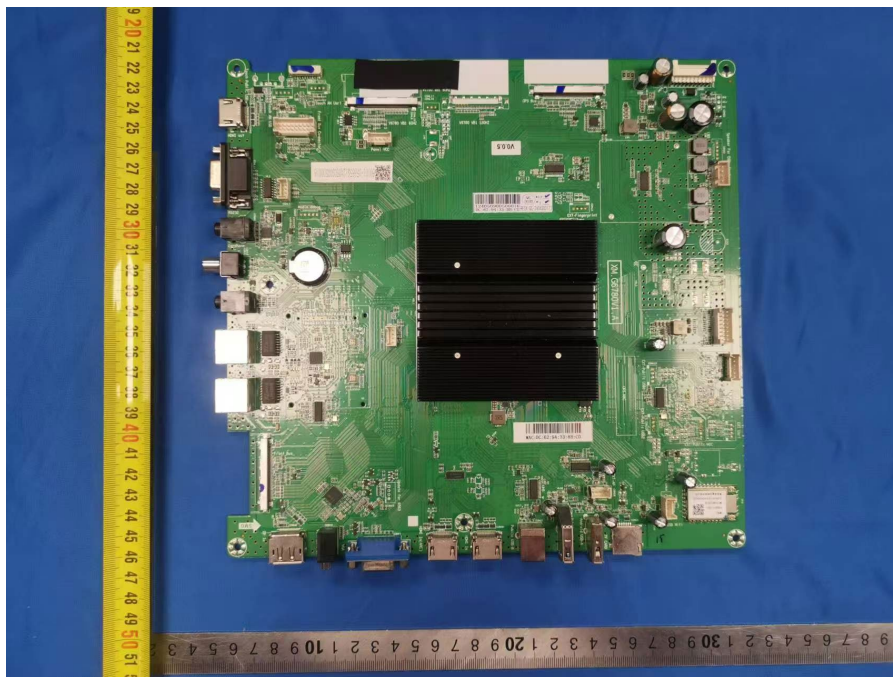
5 Photographs of the EUT



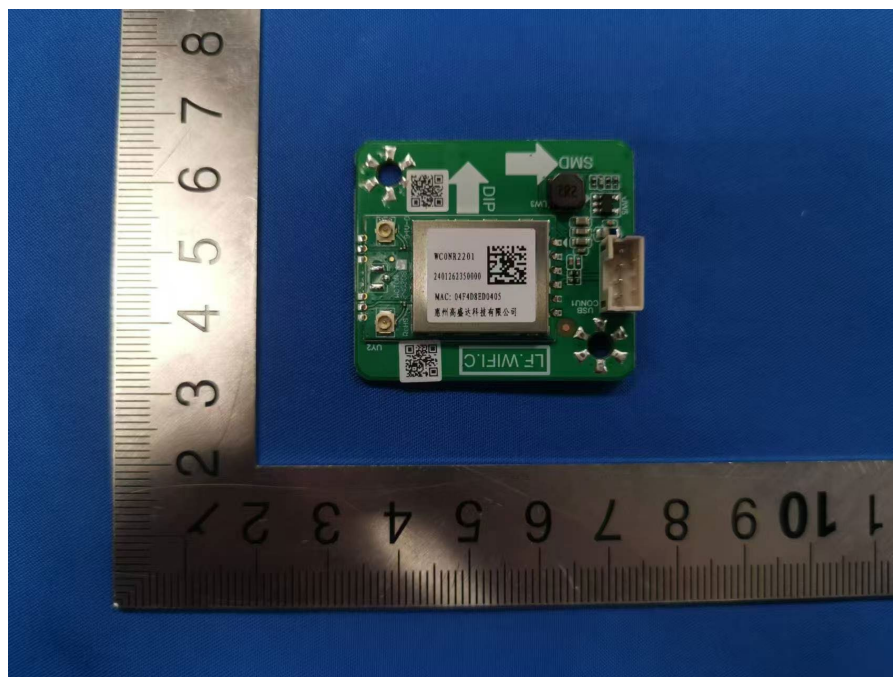


BUREAU
VERITAS

TEST REPORT N°: KSK-ESH-P24062163B-6



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APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

----- **END** -----