Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.247

Report Reference No.....:	**GTS20250709013-6-12**
FCC ID..... :	**2AYD5-I25D01**
Compiled by (position+printed name+signature)..:	File administrators Peter Xiao
Supervised by (position+printed name+signature)..:	Test Engineer Evan Ouyang
Approved by (position+printed name+signature)..:	Manager Jason Hu
Date of issue.....:	Aug.04, 2025
Representative Laboratory Name.:	**Shenzhen Global Test Service Co.,Ltd.**
Address .....:	No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong,China
Applicant's name.....:	**Imin Technology Pte Ltd**
Address .....:	11 Bishan Street 21, #03-05 Bosch Building, Singapore 573943
Test specification .....**:**	
Standard .....:	**FCC Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz**
TRF Originator.....:	Shenzhen Global Test Service Co.,Ltd.
Master TRF.....:	Dated 2014-12

Test item description .....:	**POS Device**
Trade Mark .....:	iMin
Manufacturer .....:	Imin Technology Pte Ltd
Model/Type reference .....:	I25D01
List Models .....:	N/A
Modulation Type.....:	GFSK,π/4-DQPSK,8DPSK
Operation Frequency.....:	From 2402MHz to 2480MHz
Hardware Version .....:	N/A
Software Version .....:	N/A
Rating .....:	DC 24V/1.5A by Adapter
Result .....:	**PASS**

T E S T R E P O R T

Test Report No. :	GTS20250709013-6-12	Aug.04, 2025 Date of issue

Equipment under Test	:	POS Device
Model /Type	:	I25D01
Listed model	:	N/A
Applicant	:	**Imin Technology Pte Ltd**
Address	:	11 Bishan Street 21, #03-05 Bosch Building, Singapore 573943
Manufacturer	:	**Imin Technology Pte Ltd**
Address	:	11 Bishan Street 21, #03-05 Bosch Building, Singapore 573943

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.
ANSI C63.10-2020: American National Standard for Testing Unlicensed Wireless Devices
KDB 558074 D01 15.247 Meas Guidance v05r02: Digital Transmission Systems (DTS) and Frequency Hopping measurement procedures

2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	Jul.17, 2025
Testing commenced on	:	Jul.17, 2025
Testing concluded on	:	Aug.02, 2025

2.2. Product Description

Product Name:	POS Device
Trade Mark:	iMin
Model/Type reference:	I25D01
List Model:	N/A
Model Declaration	N/A
Power supply:	DC 24V/1.5A by Adapter
Hardware Version	N/A
Software Version	N/A
Sample ID	GTS20250709013-6-S001-1#(Version A) GTS20250709013-6-S001-2#(Version B) GTS20250709013-6-S001-3#(Version C) GTS20250709013-6-S001-4#
Bluetooth	
Frequency Range	2402MHz ~ 2480MHz
Channel Number	79 channels for Bluetooth (DSS) 40 channels for Bluetooth (DTS)
Channel Spacing	1MHz for Bluetooth (DSS) 2MHz for Bluetooth (DTS)
Modulation Type	GFSK, π/4-DQPSK, 8DPSK for Bluetooth (DSS) GFSK for Bluetooth (DTS)
2.4GWLAN	
WLAN Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz IEEE 802.11n HT40:2422-2452MHz IEEE 802.11ax HE20:2412-2462MHz IEEE 802.11ax HE40:2422-2452MHz
WLAN Modulation Type	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax HE20: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax HE40: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Channel number:	11 Channel for IEEE 802.11b/g/n/ax (HT20) 7 Channel for IEEE 802.11n/ax (HT40)
Channel separation:	5MHz
WIFI(5.2G/5.3G/5.7G/5.8G Band)	

WLAN Operation frequency	5180-5240MHz/ 5260MHz to 5320MHz/ 5500MHz to 5700MHz/ 5745MHz to 5825MHz
WLAN Modulation Type	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ac VHT20: OFDM (256QAM,64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ax HE20: OFDMA (1024QAM,256QAM,64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ac VHT40: OFDM (256QAM,64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ax HE40: OFDMA (1024QAM,256QAM,64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ac VHT80: OFDM (256QAM,64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ax HE80: OFDMA (1024QAM,256QAM,64QAM, 16QAM, QPSK,BPSK)
Channel number:	4 Channels for 20MHz bandwidth(5180-5240MHz) 4 Channels for 20MHz bandwidth(5260-5320MHz) 11 Channels for 20MHz bandwidth(5500-5700MHz) 5 channels for 20MHz bandwidth(5745-5825MHz) 2 channels for 40MHz bandwidth(5190~5230MHz) 2 channels for 40MHz bandwidth(5270~5310MHz) 5 Channels for 40MHz bandwidth(5510-5670MHz) 2 channels for 40MHz bandwidth(5755~5795MHz) 1 channels for 80MHz bandwidth(5210MHz) 1 channels for 80MHz bandwidth(5290MHz) 2 Channels for 80MHz bandwidth(5530-5610MHz) 1 channels for 80MHz bandwidth(5775MHz)
Antenna Description	Internal Antenna, 3.36dBi(Max.) for 2.4G Band and 5.11dBi(Max.) for 5G Band
RFID(13.56MHz) (Optional)	
Frequency Range	13.56MHz
Channel Number	1
Modulation Type	ASK
Antenna Description	Internal Antenna, 0dBi (Max.), NFC has three optional antennas, antenna 1(Model:DS2-52) , antenna 2 (Model:DS2-51) and antenna 3 (Model:DS2-55).
Remark:The I25D01 model has 3 versions; Version A: Double large display ; Version B: One large display and one small display; Version C: Only one large display;	

2.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	○	230V / 50 Hz	○	120V / 60Hz
		○	12 V DC	●	24 V DC
		○	Other (specified in blank below)		

DC 24.0V

2.4. Short description of the Equipment under Test (EUT)

This is a POS Device.

For more details, refer to the user's manual of the EUT.

2.5. EUT operation mode

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing .There are 79 channels provided to the EUT. Channel 00/39/78 was selected to test.

Mode of Operations	Frequency Range (MHz)	Data Rate (Mbps)
(BDR/EDR)	2402	1/2/3
	2441	1/2/3
	2480	1/2/3
For Conducted Emission		
Test Mode	TX Mode	
For Radiated Emission		
Test Mode	TX Mode	

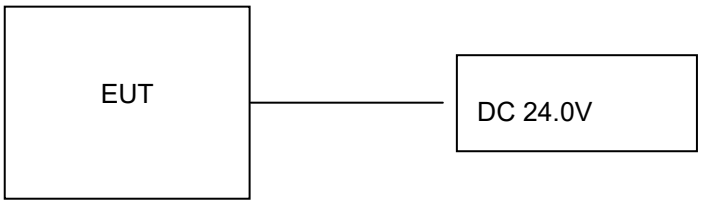
Channel	Frequency(MHz)	Channel	Frequency(MHz)
00	**2402**	40	2442
01	2403	41	2443
02	2404	42	2444
--	--	--	--
--	--	--	--
38	2440	**78**	**2480**
39	2441		

AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/50Hz modes, recorded worst case(AC 120V/60Hz).

Worst-case mode and channel used for 150 KHz-30 MHz power line conducted emissions was the mode and channel with the highest output power that was determined to be TX (1Mbps).

Worst-case mode and channel used for 9 KHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be TX(1Mbps-MCH).

2.6. Block Diagram of Test Setup



2.7. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: 2AYD5-I25D01** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.8. EUT Exercise Software

The system enters the engineering mode through the instructions provided by the application (adb model), tests under continuous transmission conditions, and changes the test channel.

2.9. Special Accessories

Manufacturer	Description	Model	Serial Number	Certificate
SHENZHEN HONOR ELECTRONIC CO.,LTD.	Adapter	ADS-65HI-19A-124036F	--	SDOC
Jiangsu Chenyang Electron Co.,Ltd.	Adapter	CYZS36-240150	--	SDOC
LENOVO	PC	DESKYOP-EUIVCNR	--	SDOC
LENOVO	Keyboard	T460S	--	SDOC
LENOVO	Mouse	Howard	--	SDOC
aigo	USB flash disk	U330	--	SDOC
SONY	Earphone	MDR-XB550AP	--	SDOC
--	Electronic Scale	--	--	SDOC
--	Cashbox	--	--	SDOC

Note: The PC, Electronic Scale, Cashbox, Keyboard, Mouse, Earphone and USB flash disk is only used for auxiliary testing.

2.10. External I/O Cable

I/O Port Description	Quantity	Cable
DC IN Port	1	Non-Shielded, 1.0m
USB Port	4	N/A
RJ11 Port	1	N/A
RJ12 Port	1	N/A
RJ45 Port	1	Non-Shielded, 10m
HDMI Port	1	N/A
Type-C Port	1	N/A
Earphone Port	1	N/A

2.11. Modifications

No modifications were implemented to meet testing criteria.

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong,China.

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS (No. CNAS L8169)
Shenzhen Global Test Service Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2019 General Requirements) for the Competence of Testing and Calibration Laboratories.
A2LA (Certificate No. 4758.01)
Shenzhen Global Test Service Co., Ltd. has been assessed by the American Association for Laboratory Accreditation (A2LA). Certificate No. 4758.01.
Industry Canada Registration Number. is 24189.
FCC Designation Number is CN1401.
FCC Registered Test Site Number is 684561.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Global Test Service Co.,Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.
Hereafter the best measurement capability for Shenzhen GTS laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

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

3.5. Summary of measurement results

Applied Standard: FCC Part 15 Subpart C				
FCC Rules	Description of Test	Test Sample	Result	Remark
§15.247(b)(1)	Maximum Conducted Output Power	GTS20250709013-6-S001-4#	Compliant	Note 1
§15.209, §15.247(d)	Radiated Spurious Emissions	GTS20250709013-6-S001-1# GTS20250709013-6-S001-2# GTS20250709013-6-S001-3#	Compliant	Note 1
§15.205	Emissions at Restricted Band	/	N/A	N/A
§15.207(a)	AC Conducted Emissions	GTS20250709013-6-S001-1# GTS20250709013-6-S001-2# GTS20250709013-6-S001-3#	Compliant	Note 1
§15.203 §15.247(c)	Antenna Requirements	GTS20250310021-1-S0001-1#	Compliant	Note 1
§15.247(i)§2.1091	RF Exposure	/	N/A	N/A

Remark:
1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed
3. Note 1 – Test results inside test report;
4. Note 2 – Test results in other test report (MPE Report).
5. We tested all test mode and recorded worst case in report.

3.6. 6Equipments Used during the Test

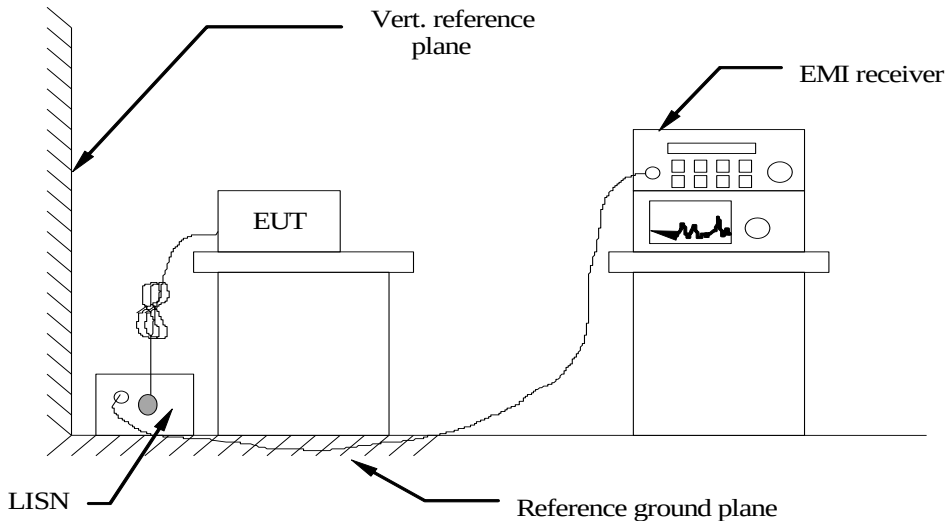
Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	CYBERTEK	EM5040A	E1850400105	2025/07/15	2026/07/14
Artificial Mains	CYBERTEK	EM5040A	E1850400205	2025/07/07	2026/07/06
LISN	R&S	ESH2-Z5	893606/008	2025/07/07	2026/07/06
EMI Test Receiver	R&S	ESPI 3	/	2025/07/04	2026/07/03
Test Receiver	R&S	ESCI 7	101102	2025/07/04	2026/07/03
Spectrum Analyzer	Agilent	N9020A	MY48010425	2025/07/04	2026/07/03
Spectrum Analyzer	R&S	FSV40-N	101800	2025/07/04	2026/07/03
Vector Signal generator	Agilent	N5181A	MY49060502	2025/07/15	2026/07/14
Signal generator	Agilent	N5182A	MY50141550	2025/07/04	2026/07/03
Climate Chamber	ESPEC	EL-10KA	A20120523	2025/07/15	2026/07/14
Controller	EM Electronics	Controller EM 1000	N/A	N/A	N/A
Horn Antenna	Schwarzbeck	BBHA 9120D	01622	2024/12/16	2025/12/15
Active Loop Antenna	Beijing Da Ze Technology Co.,Ltd.	ZN30900C	/	2025/07/04	2026/07/03
By-log Antenna	SCHWARZBECK	VULB9163	00976	2025/07/15	2026/07/14
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2025/07/15	2026/07/14
Amplifier	SKET	LAPA_30M01G-32	SK2024010400 1	2025/01/21	2026/01/20
Amplifier	EMCI	EMC012645SE	980340	2025/01/21	2026/01/20
Amplifier	Schwarzbeck	BBV9179	9719-025	2025/01/21	2026/01/20
Temperature/Humidity Meter	HUATU	HTC-1	/	2025/07/15	2026/07/14
High-Pass Filter	Stest	1	/	2025/07/04	2026/07/03
High-Pass Filter	Stest	2	/	2025/07/04	2026/07/03
RF Cable(below 1GHz)	HUBER+SUHNER	RG214	RE01	2025/07/15	2026/07/14
RF Cable(above 1GHz)	HUBER+SUHNER	RG214	RE02	2025/07/15	2026/07/14
Data acquisition card	Agilent	U2531A	TW53323507	2025/07/15	2026/07/14
Power Sensor	Keysight	E9301A	MY41495308	2025/07/04	2026/07/03
Control Unit	Tonscend	JS0806-2	/	2025/07/07	2026/07/06
Wireless Commnunication Tester	Rohde&Schwarz	CMW500	125408	2024/07/15	2025/07/14
Automated filter bank	Tonscend	JS0806-F	19F8060177	2025/07/04	2026/07/03
EMI Test Software	Tonscend	JS1120-1	Ver 2.6.8.0518	/	/
EMI Test Software	Tonscend	JS1120-3	Ver 2.5.77.0418	/	/
EMI Test Software	Tonscend	JS32-CE	Ver 2.5	/	/
EMI Test Software	Tonscend	JS32-RE	Ver 2.5.1.8	/	/

Note: The Cal.Interval was one year.

4. TEST CONDITIONS AND RESULTS

4.1. AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2020.
2 Support equipment, if needed, was placed as per ANSI C63.10-2020.
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2020.
4 The EUT received DC 24.0V power, the Adapter received AC120V/60Hz or AC 240V/50Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

DISTURBANCE Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:
CD (dBuV) = RA (dBuV) + PL (dB) + CL (dB)

Where	CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

TEST RESULTS

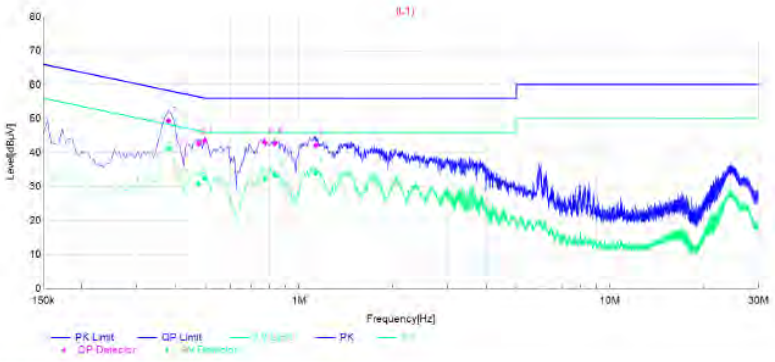
Remark: We measured Conducted Emission at GFSK, π/4-DQPSK and 8DPSK mode in AC 120V/60Hz and AC 240V/60Hz, the worst case was recorded(GFSK 1Mbps-MCH) .

Temperature	26℃	Humidity	47%
Test Engineer	Evan Ouyang	Configurations	BT

Version A:
Adapter: ADS-65HI-19A-124036F

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



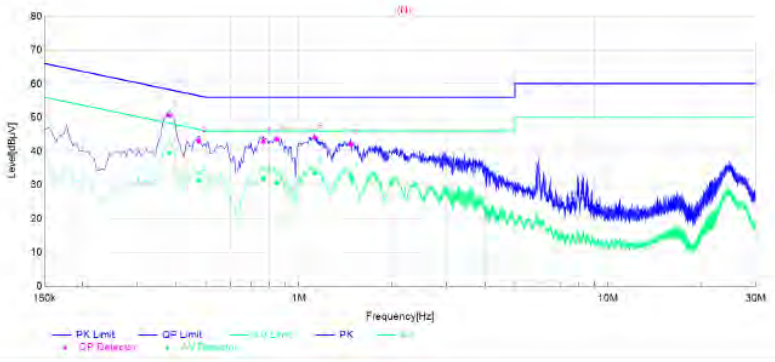
Final Data List

NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.3795	39.22	30.97	10.15	49.37	41.12	58.29	48.29	8.92	7.17	L1	PASS
2	0.474	32.43	20.68	10.24	42.67	30.92	56.44	46.44	13.77	15.52	L1	PASS
3	0.4965	33.15	22.03	10.25	43.40	32.28	56.06	46.06	12.66	13.78	L1	PASS
4	0.7755	32.66	22.08	10.25	42.91	32.33	56.00	46.00	13.09	13.67	L1	PASS
5	0.834	32.44	23.04	10.24	42.68	33.28	56.00	46.00	13.32	12.72	L1	PASS
6	1.131	32.01	23.77	10.21	42.22	33.98	56.00	46.00	13.78	12.02	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

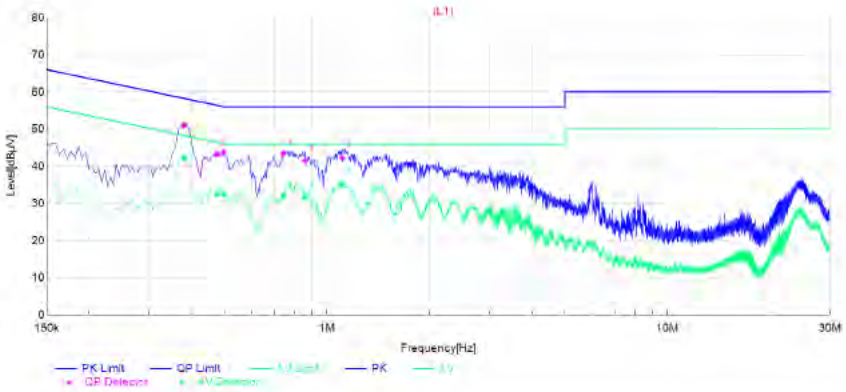
NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.3795	40.38	29.37	10.15	50.53	39.52	58.29	48.29	7.76	8.77	N	PASS
2	0.474	32.72	21.09	10.24	42.96	31.33	56.44	46.44	13.48	15.11	N	PASS
3	0.7665	32.54	21.66	10.24	42.78	31.90	56.00	46.00	13.22	14.10	N	PASS
4	0.8475	33.36	20.40	10.24	43.60	30.64	56.00	46.00	12.40	15.36	N	PASS
5	1.122	33.89	23.29	10.21	44.10	33.50	56.00	46.00	11.90	12.50	N	PASS
6	1.473	31.80	22.13	10.23	42.03	32.36	56.00	46.00	13.97	13.64	N	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Adapter: CYZS36-240150

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



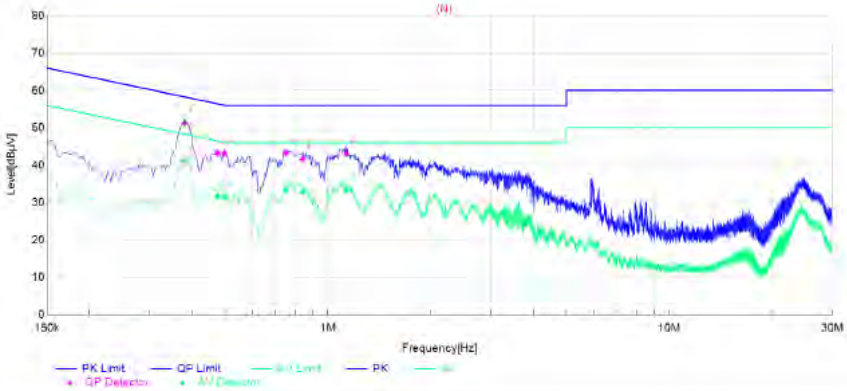
Final Data List

NO	Frequency [MHz]	QP Reading [dBµ A]	AVG Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG Result [dBµ A]	QP Limit [dBµ]	AVG Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.3795	40.85	32.12	10.15	51.00	42.27	58.29	48.29	7.29	6.02	L1	PASS
2	0.474	32.83	22.18	10.24	43.07	32.42	56.44	46.44	13.37	14.02	L1	PASS
3	0.4965	33.57	22.24	10.25	43.82	32.49	56.06	46.06	12.24	13.57	L1	PASS
4	0.744	33.18	21.66	10.24	43.42	31.90	56.00	46.00	12.58	14.10	L1	PASS
5	0.861	31.26	21.46	10.24	41.50	31.70	56.00	46.00	14.50	14.30	L1	PASS
6	1.1085	32.06	25.04	10.21	42.27	35.25	56.00	46.00	13.73	10.75	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

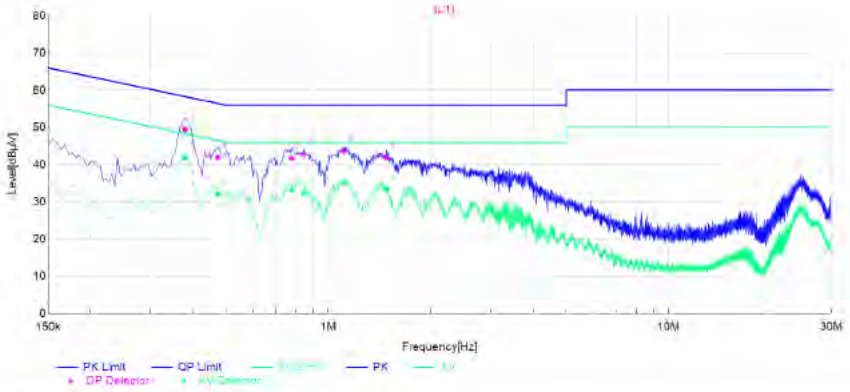
NO	Frequency [MHz]	QP Reading [dBµ A]	AVG Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG Result [dBµ A]	QP Limit [dBµ]	AVG Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.3795	41.03	31.04	10.15	51.18	41.19	58.29	48.29	7.11	7.10	N	PASS
2	0.474	32.89	21.43	10.24	43.13	31.67	56.44	46.44	13.31	14.77	N	PASS
3	0.4965	32.87	21.19	10.25	43.12	31.44	56.06	46.06	12.94	14.62	N	PASS
4	0.753	32.95	23.15	10.24	43.19	33.39	56.00	46.00	12.81	12.61	N	PASS
5	0.843	31.36	22.59	10.24	41.60	32.83	56.00	46.00	14.40	13.17	N	PASS
6	1.131	32.84	23.11	10.21	43.05	33.32	56.00	46.00	12.95	12.68	N	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Version B:
Adapter: ADS-65HI-19A-124036F

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



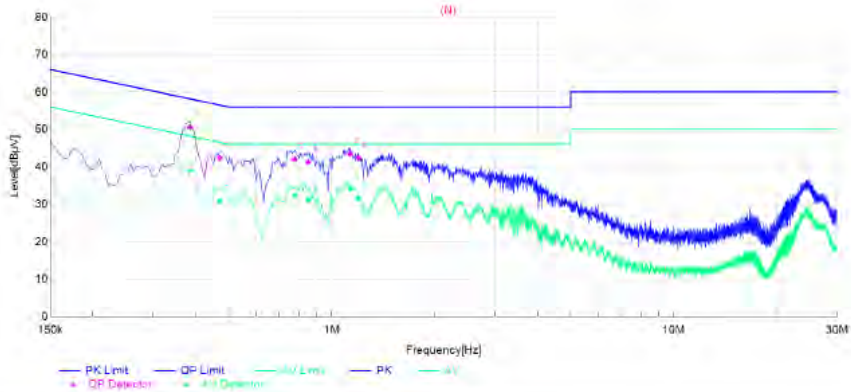
Final Data List

NO	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.3795	39.28	31.56	10.15	49.43	41.71	58.29	48.29	8.86	6.58	L1	PASS
2	0.474	31.66	21.92	10.24	41.90	32.16	56.44	46.44	14.54	14.28	L1	PASS
3	0.78	31.44	22.94	10.25	41.69	33.19	56.00	46.00	14.31	12.81	L1	PASS
4	0.8475	32.52	22.04	10.24	42.76	32.28	56.00	46.00	13.24	13.72	L1	PASS
5	1.1085	33.34	25.27	10.21	43.55	35.48	56.00	46.00	12.45	10.52	L1	PASS
6	1.482	31.65	23.12	10.23	41.88	33.35	56.00	46.00	14.12	12.65	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

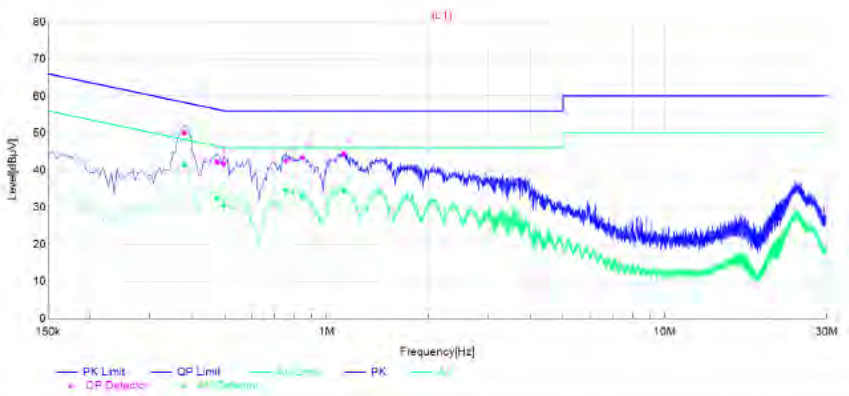
NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.384	40.39	28.81	10.15	50.54	38.96	58.19	48.19	7.65	9.23	N	PASS
2	0.4695	32.13	20.59	10.24	42.37	30.83	56.52	46.52	14.15	15.69	N	PASS
3	0.78	31.78	22.06	10.25	42.03	32.31	56.00	46.00	13.97	13.69	N	PASS
4	0.852	31.06	20.86	10.24	41.30	31.10	56.00	46.00	14.70	14.90	N	PASS
5	1.131	33.30	23.97	10.21	43.51	34.18	56.00	46.00	12.49	11.82	N	PASS
6	1.194	32.18	21.33	10.21	42.39	31.54	56.00	46.00	13.61	14.46	N	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Adapter: CYZS36-240150

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



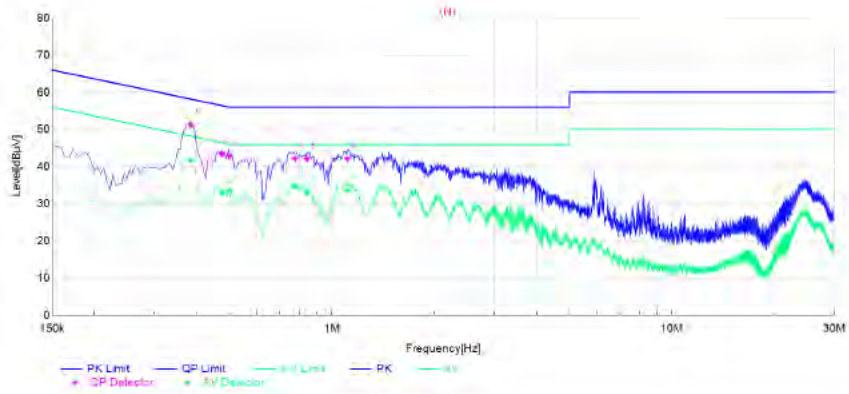
Final Data List

NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.3795	39.86	31.29	10.15	50.01	41.44	58.29	48.29	8.28	6.85	L1	PASS
2	0.474	32.02	22.08	10.24	42.26	32.32	56.44	46.44	14.18	14.12	L1	PASS
3	0.4965	31.40	20.24	10.25	41.65	30.49	56.06	46.06	14.41	15.57	L1	PASS
4	0.7575	32.26	24.29	10.24	42.50	34.53	56.00	46.00	13.50	11.47	L1	PASS
5	0.8475	33.18	22.75	10.24	43.42	32.99	56.00	46.00	12.58	13.01	L1	PASS
6	1.122	34.15	24.12	10.21	44.36	34.33	56.00	46.00	11.64	11.67	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

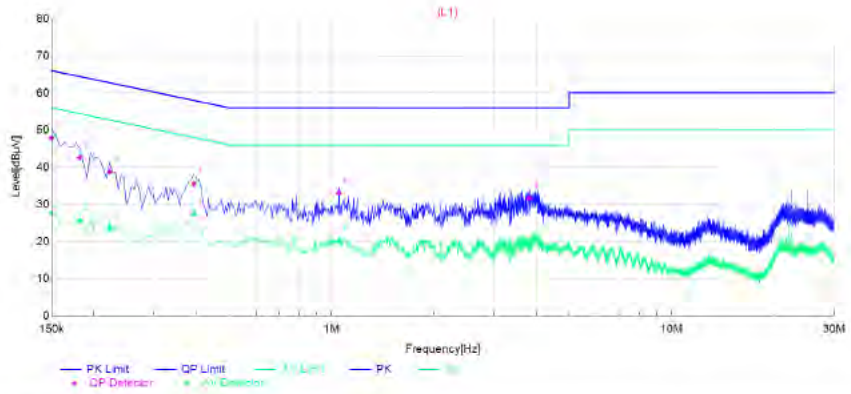
NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG. Result [dBµ A]	QP Limit [dBµ]	AVG. Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.384	41.08	31.59	10.15	51.23	41.74	58.19	48.19	6.96	6.45	N	PASS
2	0.474	33.21	22.62	10.24	43.45	32.86	56.44	46.44	12.99	13.58	N	PASS
3	0.4965	32.58	23.36	10.25	42.83	33.61	56.06	46.06	13.23	12.45	N	PASS
4	0.78	31.96	24.39	10.25	42.21	34.64	56.00	46.00	13.79	11.36	N	PASS
5	0.843	31.88	22.85	10.24	42.12	33.09	56.00	46.00	13.88	12.91	N	PASS
6	1.1085	31.96	23.42	10.21	42.17	33.63	56.00	46.00	13.83	12.37	N	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Version C:
Adapter: ADS-65HI-19A-124036F

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



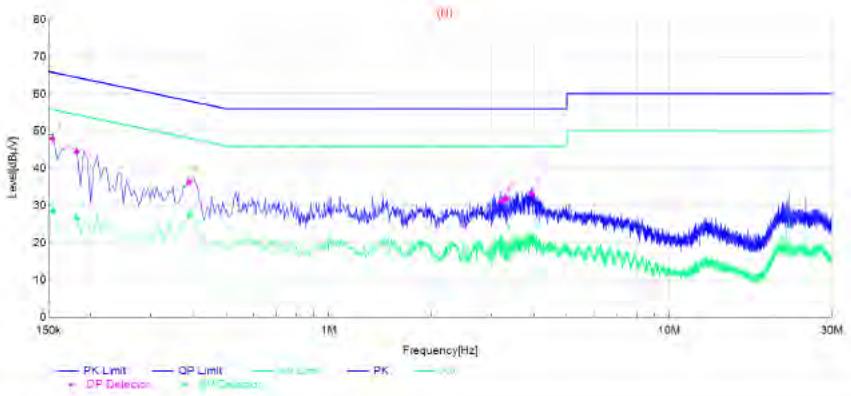
Final Data List

NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG. Reading [dBµ A]	Factor [dB]	QP Result [dBµ	AVG. Result [dBµ A]	QP Limit [dBµ	AVG. Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.15	37.51	17.21	10.35	47.86	27.56	66.00	56.00	18.14	28.44	L1	PASS
2	0.1815	32.43	15.42	10.20	42.63	25.62	64.42	54.42	21.79	28.80	L1	PASS
3	0.222	28.62	13.55	10.14	38.76	23.69	62.74	52.74	23.98	29.05	L1	PASS
4	0.393	25.31	17.15	10.16	35.47	27.31	58.00	48.00	22.53	20.69	L1	PASS
5	1.05	22.79	9.94	10.20	32.99	20.14	56.00	46.00	23.01	25.86	L1	PASS
6	3.822	21.27	8.10	10.36	31.63	18.46	56.00	46.00	24.37	27.54	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

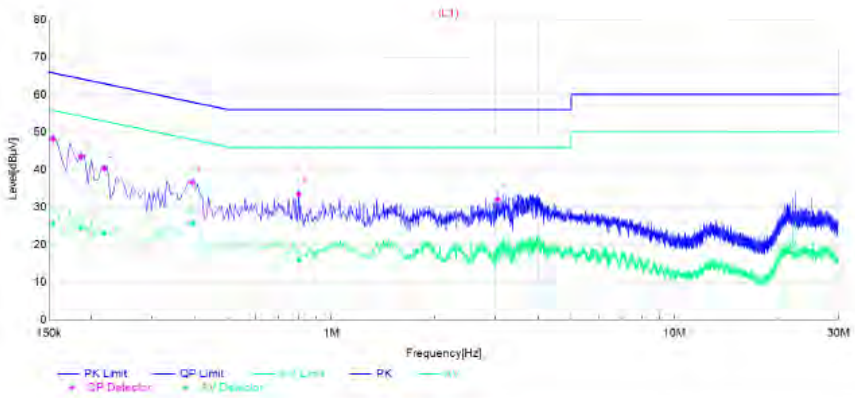
NO	Frequency [MHz]	QP Reading [dBµ A]	AVG Reading [dBµ A]	Factor [dB]	QP Result [dBµ	AVG Result [dBµ A]	QP Limit [dBµ	AVG Limit [dBµ A]	QP Margin [dB]	AVG. Margin [dB]	Line	Remark
1	0.1545	37.59	18.29	10.33	47.92	28.62	65.75	55.75	17.83	27.13	N	PASS
2	0.1815	34.24	16.32	10.20	44.44	26.52	64.42	54.42	19.98	27.90	N	PASS
3	0.3885	26.07	17.25	10.15	36.22	27.40	58.10	48.10	21.88	20.70	N	PASS
4	3.2145	20.67	10.53	10.35	31.02	20.88	56.00	46.00	24.98	25.12	N	PASS
5	3.309	21.40	5.92	10.35	31.75	16.27	56.00	46.00	24.25	29.73	N	PASS
6	3.9525	22.75	11.01	10.37	33.12	21.38	56.00	46.00	22.88	24.62	N	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Adapter: CYZS36-240150

Power supply:	AC 120V/60Hz	Polarization	L

Test Graph



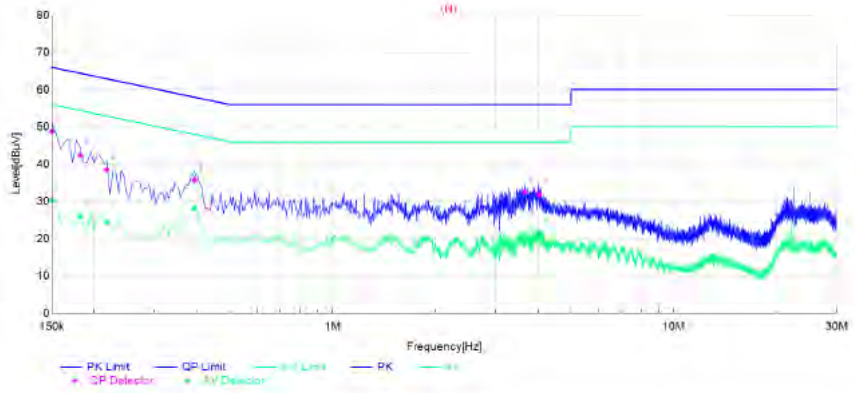
Final Data List

NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG Result [dBµ A]	QP Limit [dBµ]	AVG Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.1545	37.82	15.07	10.33	48.15	25.40	65.75	55.75	17.60	30.35	L1	PASS
2	0.186	33.30	14.41	10.18	43.48	24.59	64.21	54.21	20.73	29.62	L1	PASS
3	0.2175	30.18	12.86	10.14	40.32	23.00	62.91	52.91	22.59	29.91	L1	PASS
4	0.393	26.37	15.45	10.16	36.53	25.61	58.00	48.00	21.47	22.39	L1	PASS
5	0.8025	23.17	5.67	10.25	33.42	15.92	56.00	46.00	22.58	30.08	L1	PASS
6	3.048	21.71	7.68	10.34	32.05	18.02	56.00	46.00	23.95	27.98	L1	PASS

Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	AC 120V/60Hz	Polarization	N

Test Graph



Final Data List

NO.	Frequency [MHz]	QP Reading [dBµ A]	AVG Reading [dBµ A]	Factor [dB]	QP Result [dBµ]	AVG Result [dBµ A]	QP Limit [dBµ]	AVG Limit [dBµ A]	QP Margin [dB]	AVG Margin [dB]	Line	Remark
1	0.15	38.38	20.01	10.35	48.73	30.36	66.00	56.00	17.27	25.64	N	PASS
2	0.1815	32.17	15.71	10.20	42.37	25.91	64.42	54.42	22.05	28.51	N	PASS
3	0.2175	28.38	14.40	10.14	38.52	24.54	62.91	52.91	24.39	28.37	N	PASS
4	0.393	25.58	17.95	10.16	35.74	28.11	58.00	48.00	22.26	19.89	N	PASS
5	3.66	22.19	8.62	10.36	32.55	18.98	56.00	46.00	23.45	27.02	N	PASS
6	4.0335	21.42	11.12	10.37	31.79	21.49	56.00	46.00	24.21	24.51	N	PASS

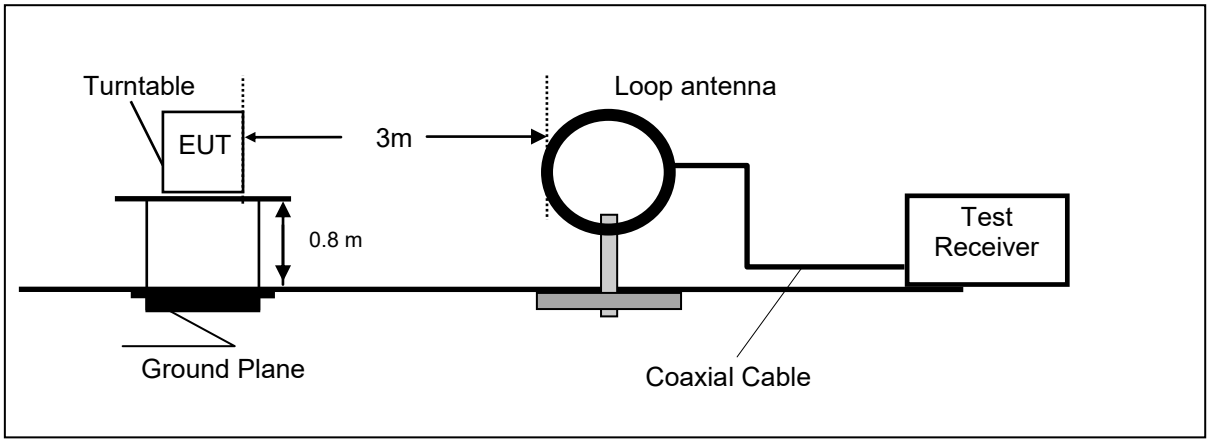
Note: 1. Result (dBµ A) = Reading (dBµ A) + Factor (dB).
2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Note: All modes have been tested and the worst mode is recorded in the report, NFC has three optional antennas, with the worst mode recorded in the report (NFC antenna Model:DS2-52).

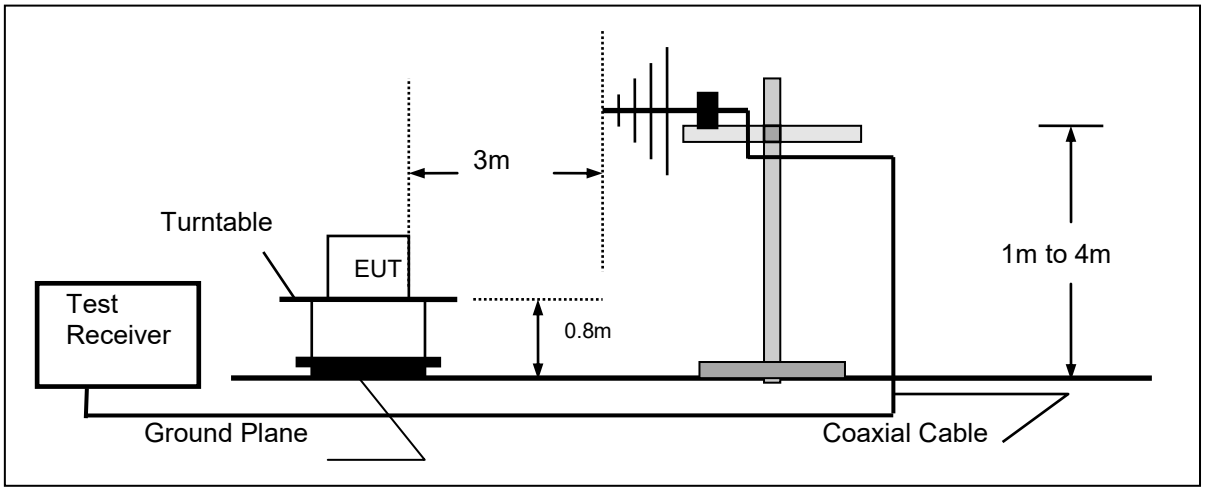
4.2. Radiated Emission

TEST CONFIGURATION

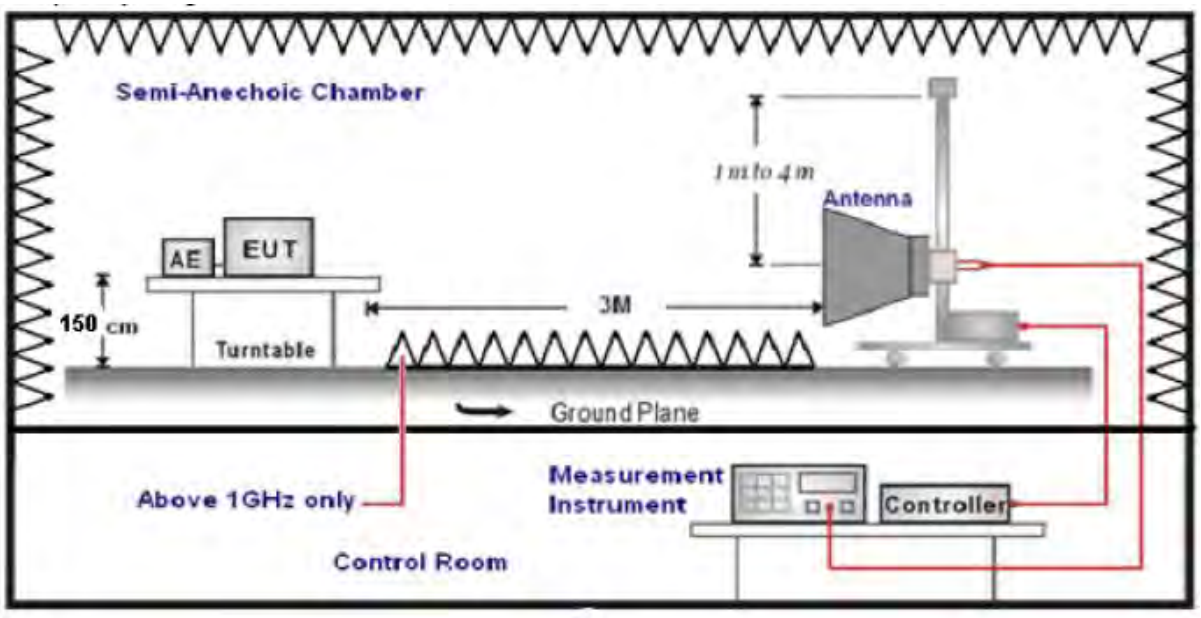
Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2480MHz.so radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Transd=AF +CL-AG

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission from intentional radiators at a distance of 3 meters shall not exceed the following table. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the100kHz bandwidth within the band that contains the highest level of desired power.
The pre-test have done for the EUT in three axes and found the worst emission at position shown in test setup photos.

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST RESULTS

Remark: We measured Radiated Emission at GFSK, π/4-DQPSK and 8DPSK mode from 9KHz to 25GHz and recorded worst case at GFSK(1Mbps-MCH) mode.

Temperature	26℃	Humidity	47%
Test Engineer	Evan Ouyang	Configurations	BT

For 9 KHz~30MHz

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Over Limit (dBuV)	Remark
-	-	-	-	See Note

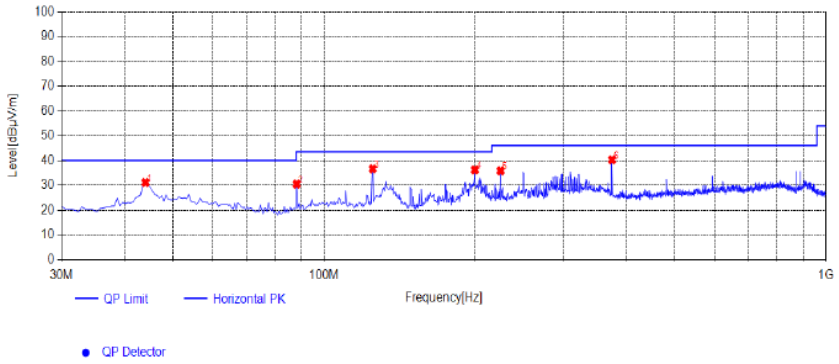
Note:
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor.

For 30MHz-1GHz
Version A:

Adapter: ADS-65HI-19A-124036F

Horizontal

Test Graph



Suspected List

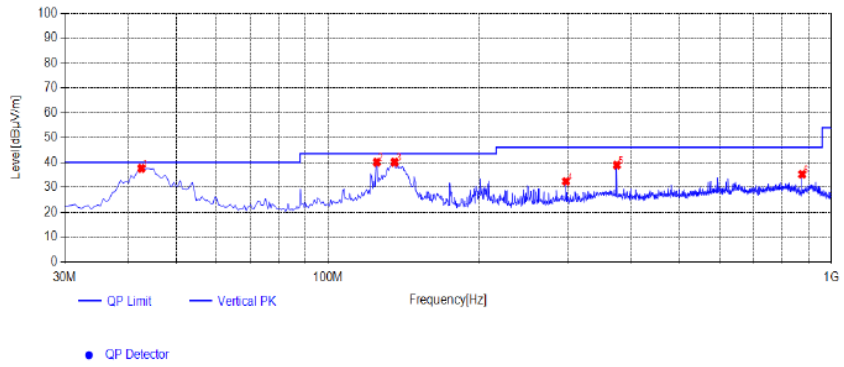
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	34.51	-3.41	31.10	40.00	8.90	100	229	PK	Horizonta	PASS
2	88.2	37.42	-6.96	30.46	43.50	13.04	100	53	PK	Horizonta	PASS
3	125.06	44.06	-7.36	36.70	43.50	6.80	100	273	PK	Horizonta	PASS
4	199.75	40.33	-4.06	36.27	43.50	7.23	100	29	PK	Horizonta	PASS
5	224.97	40.33	-4.40	35.93	46.00	10.07	100	293	PK	Horizonta	PASS
6	374.835	41.02	-0.72	40.30	46.00	5.70	100	53	PK	Horizonta	PASS

Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List

NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	42.61	41.36	-3.71	37.65	40.00	2.35	100	209	PK	Vertical	PASS
2	125.06	47.43	-7.36	40.07	43.50	3.43	100	293	PK	Vertical	PASS
3	135.73	48.17	-8.07	40.10	43.50	3.40	100	134	PK	Vertical	PASS
4	297.235	34.82	-2.45	32.37	46.00	13.63	100	73	PK	Vertical	PASS
5	374.835	39.66	-0.72	38.94	46.00	7.06	100	358	PK	Vertical	PASS
6	875.355	29.00	6.28	35.28	46.00	10.72	100	330	PK	Vertical	PASS

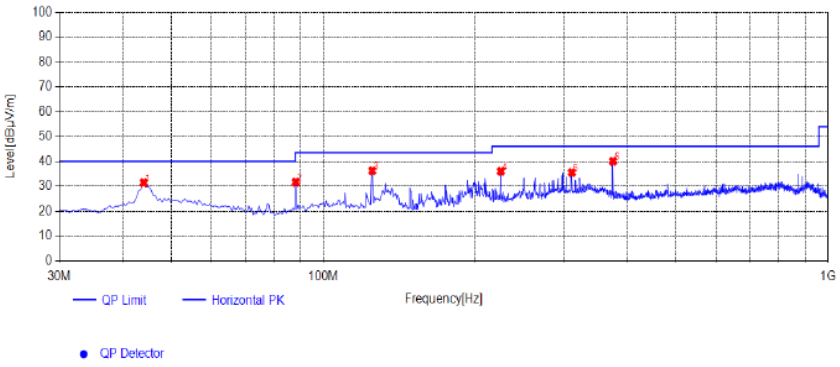
Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Adapter: CYZS36-240150

Horizontal

Test Graph



Suspected List

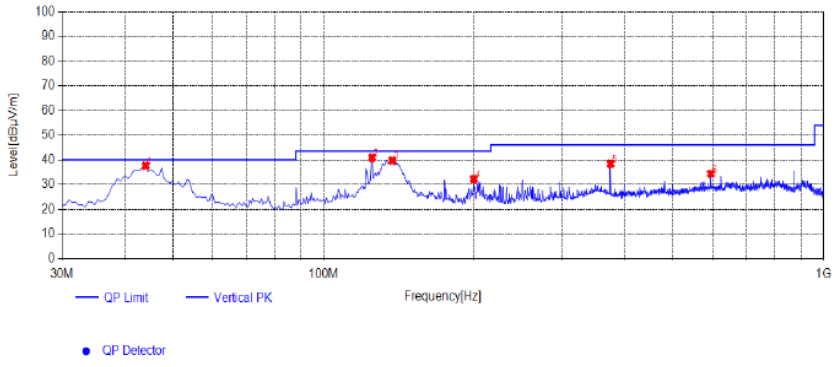
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	34.82	-3.41	31.41	40.00	8.59	100	226	PK	Horizonta	PASS
2	88.2	38.57	-6.96	31.61	43.50	11.89	100	81	PK	Horizonta	PASS
3	125.06	43.66	-7.36	36.30	43.50	7.20	100	88	PK	Horizonta	PASS
4	224.97	40.48	-4.40	36.08	46.00	9.92	100	284	PK	Horizonta	PASS
5	310.815	37.55	-1.94	35.61	46.00	10.39	100	47	PK	Horizonta	PASS
6	374.835	40.77	-0.72	40.05	46.00	5.95	100	64	PK	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List

NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	41.09	-3.41	37.68	40.00	2.32	100	293	PK	Vertical	PASS
2	125.06	48.22	-7.36	40.86	43.50	2.64	100	306	PK	Vertical	PASS
3	137.185	48.14	-8.38	39.76	43.50	3.74	100	144	PK	Vertical	PASS
4	199.75	36.25	-4.06	32.19	43.50	11.31	100	205	PK	Vertical	PASS
5	374.835	39.17	-0.72	38.45	46.00	7.55	100	347	PK	Vertical	PASS
6	595.025	29.99	4.39	34.38	46.00	11.62	100	50	PK	Vertical	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

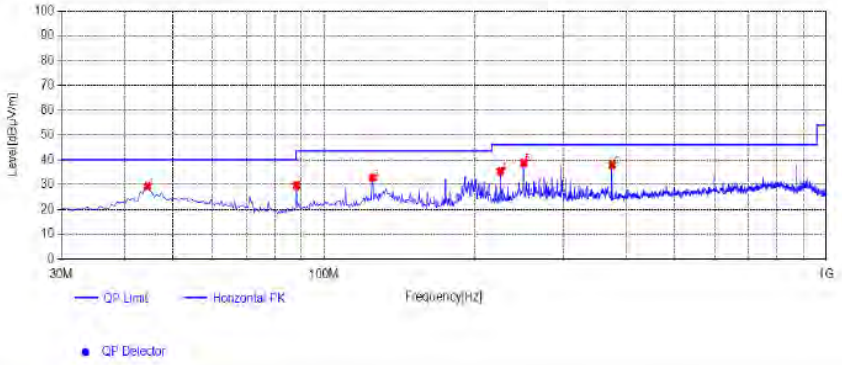
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Version B:

Adapter: ADS-65HI-19A-124036F

Horizontal

Test Graph



Suspected List

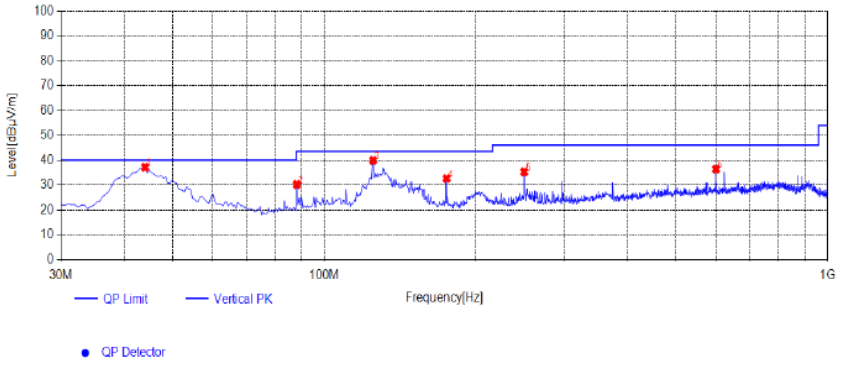
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.55	32.55	-3.36	29.19	40.00	10.81	100	203	PK	Horizonta	PASS
2	88.2	36.55	-6.96	29.59	43.50	13.91	100	67	PK	Horizonta	PASS
3	125.06	40.14	-7.36	32.78	43.50	10.72	100	74	PK	Horizonta	PASS
4	224.97	39.91	-4.40	35.51	46.00	10.49	100	305	PK	Horizonta	PASS
5	250.19	42.15	-3.33	38.82	46.00	7.18	100	329	PK	Horizonta	PASS
6	374.835	38.68	-0.72	37.96	46.00	8.04	100	47	PK	Horizonta	PASS

Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List

NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	40.59	-3.41	37.18	40.00	2.82	100	2	PK	Vertical	PASS
2	88.2	37.14	-6.96	30.18	43.50	13.32	100	293	PK	Vertical	PASS
3	125.06	47.25	-7.36	39.89	43.50	3.61	100	293	PK	Vertical	PASS
4	175.015	39.06	-6.43	32.63	43.50	10.87	100	273	PK	Vertical	PASS
5	249.705	38.70	-3.35	35.35	46.00	10.65	100	192	PK	Vertical	PASS
6	600.36	32.01	4.45	36.46	46.00	9.54	100	20	PK	Vertical	PASS

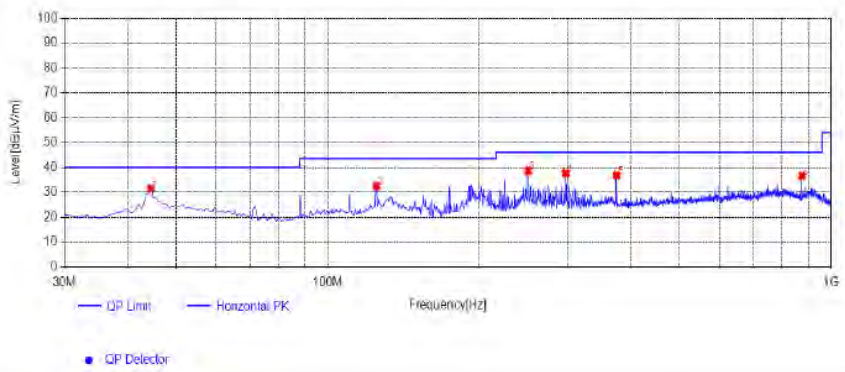
Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Adapter: CYZS36-240150

Horizontal

Test Graph



Suspected List

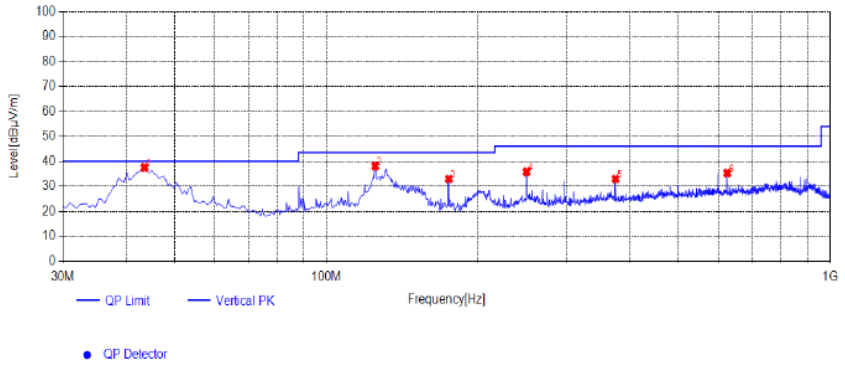
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.55	34.74	-3.36	31.38	40.00	8.62	100	232	PK	Horizonta	PASS
2	125.06	39.88	-7.36	32.52	43.50	10.98	100	53	PK	Horizonta	PASS
3	250.19	42.08	-3.33	38.75	46.00	7.25	100	330	PK	Horizonta	PASS
4	297.235	40.16	-2.45	37.71	46.00	8.29	100	70	PK	Horizonta	PASS
5	374.835	37.58	-0.72	36.86	46.00	9.14	100	36	PK	Horizonta	PASS
6	875.355	30.37	6.28	36.65	46.00	9.35	100	53	PK	Horizonta	PASS

Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List

NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	43.58	41.04	-3.49	37.55	40.00	2.45	100	243	PK	Vertical	PASS
2	125.06	45.48	-7.36	38.12	43.50	5.38	100	293	PK	Vertical	PASS
3	175.015	39.36	-6.43	32.93	43.50	10.57	100	236	PK	Vertical	PASS
4	249.705	39.21	-3.35	35.86	46.00	10.14	100	51	PK	Vertical	PASS
5	374.835	33.67	-0.72	32.95	46.00	13.05	100	64	PK	Vertical	PASS
6	625.095	30.85	4.53	35.38	46.00	10.62	100	14	PK	Vertical	PASS

Note:1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

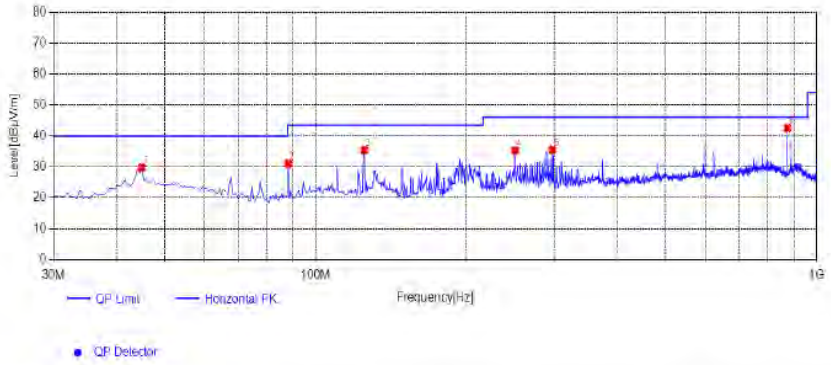
2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Version C:

Adapter: ADS-65HI-19A-124036F

Horizontal

Test Graph



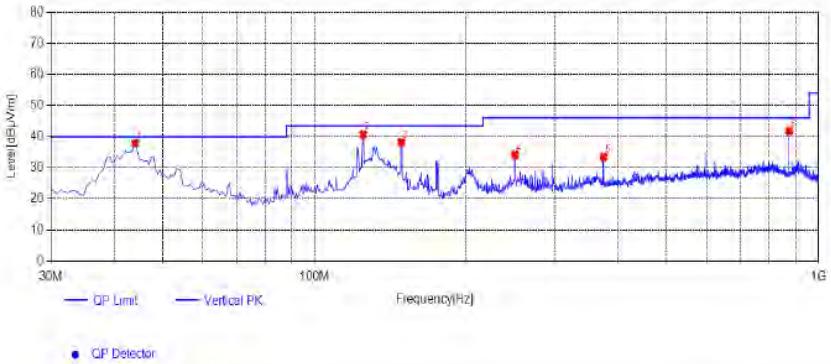
Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	45.035	33.10	-3.32	29.78	40.00	10.22	100	196	PK	Horizonta	PASS
2	88.2	38.06	-6.96	31.10	43.50	12.40	100	33	PK	Horizonta	PASS
3	125.06	42.79	-7.36	35.43	43.50	8.07	100	101	PK	Horizonta	PASS
4	250.19	38.56	-3.33	35.23	46.00	10.77	100	254	PK	Horizonta	PASS
5	297.235	37.93	-2.45	35.48	46.00	10.52	100	84	PK	Horizonta	PASS
6	875.355	36.30	6.28	42.58	46.00	3.42	100	53	PK	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	41.25	-3.41	37.84	40.00	2.16	100	123	PK	Vertical	PASS
2	125.06	48.09	-7.36	40.73	43.50	2.77	100	83	PK	Vertical	PASS
3	148.825	46.65	-8.44	38.21	43.50	5.29	100	11	PK	Vertical	PASS
4	250.19	37.48	-3.33	34.15	46.00	11.85	100	174	PK	Vertical	PASS
5	374.835	34.21	-0.72	33.49	46.00	12.51	100	279	PK	Vertical	PASS
6	875.355	35.55	6.28	41.83	46.00	4.17	100	2	PK	Vertical	PASS

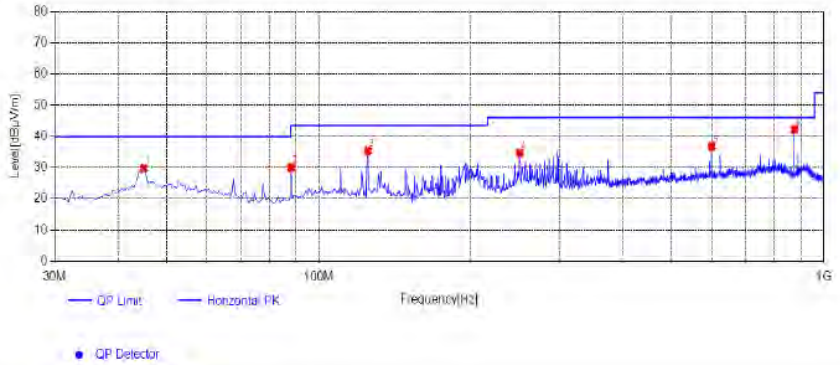
Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Adapter: CYZS36-240150

Horizontal

Test Graph



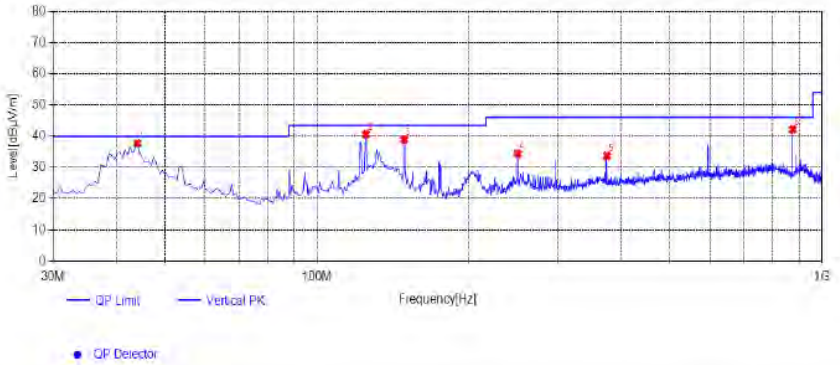
Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	45.035	33.14	-3.32	29.82	40.00	10.18	100	232	PK	Horizonta	PASS
2	88.2	37.01	-6.96	30.05	43.50	13.45	100	48	PK	Horizonta	PASS
3	125.06	42.69	-7.36	35.33	43.50	8.17	100	113	PK	Horizonta	PASS
4	250.19	38.01	-3.33	34.68	46.00	11.32	100	252	PK	Horizonta	PASS
5	599.875	32.28	4.46	36.74	46.00	9.26	100	0	PK	Horizonta	PASS
6	875.355	36.01	6.28	42.29	46.00	3.71	100	48	PK	Horizonta	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Vertical

Test Graph



Suspected List											
NO.	Frequency [MHz]	Reading [dBµV/m]	Factor [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity	Remark
1	44.065	41.05	-3.41	37.64	40.00	2.36	100	254	PK	Vertical	PASS
2	125.06	48.04	-7.36	40.68	43.50	2.82	100	115	PK	Vertical	PASS
3	148.825	47.37	-8.44	38.93	43.50	4.57	100	352	PK	Vertical	PASS
4	249.705	37.72	-3.35	34.37	46.00	11.63	100	169	PK	Vertical	PASS
5	374.835	34.38	-0.72	33.66	46.00	12.34	100	291	PK	Vertical	PASS
6	875.355	35.91	6.28	42.19	46.00	3.81	100	23	PK	Vertical	PASS

Note: 1. Result (dBµV/m) = Reading(dBµV/m) + Factor (dB) .

2. Factor (dB) = Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB).

Note: All modes have been tested and the worst mode is recorded in the report, NFC has three optional antennas, with the worst mode recorded in the report (NFC antenna Model:DS2-52).

For 1GHz to 25GHz

GFSK /Channel 0 / 2402 MHz(Worst Case)

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4804.00	49.91	32.44	30.25	7.95	60.05	74.00	-13.95	Peak	Horizontal
4804.00	35.88	32.44	30.25	7.95	46.02	54.00	-7.98	Average	Horizontal
4804.00	54.56	32.44	30.25	7.95	64.70	74.00	-9.30	Peak	Vertical
4804.00	34.68	32.44	30.25	7.95	44.82	54.00	-9.18	Average	Vertical

Channel 39 / 2441 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4882.00	49.87	32.52	30.31	8.12	60.20	74.00	-13.80	Peak	Horizontal
4882.00	36.44	32.52	30.31	8.12	46.77	54.00	-7.23	Average	Horizontal
4882.00	52.47	32.52	30.31	8.12	62.80	74.00	-11.20	Peak	Vertical
4882.00	35.92	32.52	30.31	8.12	46.25	54.00	-7.75	Average	Vertical

Channel 78 / 2480 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4960.00	50.44	32.68	30.27	7.88	60.73	74.00	-13.27	Peak	Horizontal
4960.00	35.80	32.68	30.27	7.88	46.09	54.00	-7.91	Average	Horizontal
4960.00	49.12	32.68	30.27	7.88	59.41	74.00	-14.59	Peak	Vertical
4960.00	31.18	32.68	30.27	7.88	41.47	54.00	-12.53	Average	Vertical

Note: All modes were tested and the worst mode was recorded in the report (version A_Adapter: ADS-65HI-19A-124036F_NFC antenna Model:DS2-52).

GFSK /Channel 0 / 2402 MHz(Worst Case)

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4804.00	49.43	32.44	30.25	7.95	59.57	74.00	-14.43	Peak	Horizontal
4804.00	36.09	32.44	30.25	7.95	46.23	54.00	-7.77	Average	Horizontal
4804.00	53.51	32.44	30.25	7.95	63.65	74.00	-10.35	Peak	Vertical
4804.00	36.01	32.44	30.25	7.95	46.15	54.00	-7.85	Average	Vertical

Channel 39 / 2441 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4882.00	49.16	32.52	30.31	8.12	59.49	74.00	-14.51	Peak	Horizontal
4882.00	36.03	32.52	30.31	8.12	46.36	54.00	-7.64	Average	Horizontal
4882.00	52.76	32.52	30.31	8.12	63.09	74.00	-10.91	Peak	Vertical
4882.00	35.15	32.52	30.31	8.12	45.48	54.00	-8.52	Average	Vertical

Channel 78 / 2480 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4960.00	50.37	32.68	30.27	7.88	60.66	74.00	-13.34	Peak	Horizontal
4960.00	35.97	32.68	30.27	7.88	46.26	54.00	-7.74	Average	Horizontal
4960.00	49.84	32.68	30.27	7.88	60.13	74.00	-13.87	Peak	Vertical
4960.00	31.63	32.68	30.27	7.88	41.92	54.00	-12.08	Average	Vertical

Note: All modes were tested and the worst mode was recorded in the report (version B_Adapter: ADS-65HI-19A-124036F_NFC antenna Model:DS2-52).

GFSK /Channel 0 / 2402 MHz(Worst Case)

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4804.00	51.27	32.44	30.25	7.95	61.41	74.00	-12.59	Peak	Horizontal
4804.00	34.94	32.44	30.25	7.95	45.08	54.00	-8.92	Average	Horizontal
4804.00	54.16	32.44	30.25	7.95	64.30	74.00	-9.70	Peak	Vertical
4804.00	35.42	32.44	30.25	7.95	45.56	54.00	-8.44	Average	Vertical

Channel 39 / 2441 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4882.00	50.53	32.52	30.31	8.12	60.86	74.00	-13.14	Peak	Horizontal
4882.00	37.10	32.52	30.31	8.12	47.43	54.00	-6.57	Average	Horizontal
4882.00	51.56	32.52	30.31	8.12	61.89	74.00	-12.11	Peak	Vertical
4882.00	35.44	32.52	30.31	8.12	45.77	54.00	-8.23	Average	Vertical

Channel 78 / 2480 MHz

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4960.00	50.29	32.68	30.27	7.88	60.58	74.00	-13.42	Peak	Horizontal
4960.00	36.00	32.68	30.27	7.88	46.29	54.00	-7.71	Average	Horizontal
4960.00	48.77	32.68	30.27	7.88	59.06	74.00	-14.94	Peak	Vertical
4960.00	31.10	32.68	30.27	7.88	41.39	54.00	-12.61	Average	Vertical

Note: All modes were tested and the worst mode was recorded in the report (version C_Adapter: ADS-65HI-19A-124036F_NFC antenna Model:DS2-52).

Notes:

1). Measuring frequencies from 9 KHz~10^{th} harmonic or 26.5GHz (which is less), No emission found between lowest internal used/generated frequency to 30MHz.

2). Radiated emissions measured in frequency range from 9 KHz~10^{th} harmonic or 26.5GHz (which is less) were made with an instrument using Peak detector mode.

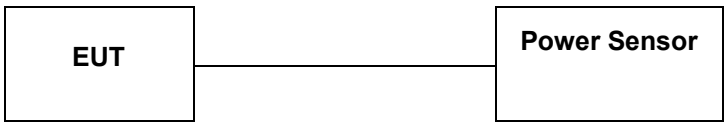
3). Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

4). Measured= Reading- Pre. Fac.+ Ant. Fac.+ Cab. Loss

5). Margin = Measured- Limit

4.3. Maximum Peak Output Power

TEST CONFIGURATION



TEST PROCEDURE

According to ANSI C63.10:2013 Maximum peak conducted output power for HFSS devices:
The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the HFSS bandwidth and shall utilize a fast-responding diode detector.
The maximum Average conducted output power may be measured using a wideband RF power meter with a thermocouple derector or equivalent. The power meter shall have a video bandwidth that is greater than or equal to the HFSS bandwidth and shall utilize a fast-responding diode detector.

LIMIT

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

TEST RESULTS

Pass

Test Mode	Antenna	Freq(MHz)	Original	New	Conducted Limit[dBm]	Verdict
			Conducted Peak Powert[dBm]	Conducted Peak Powert[dBm]		
DH1	Ant1	2402	9.97	9.05	≤20.97	PASS
		2441	10.05	9.84	≤20.97	PASS
		2480	10.12	9.63	≤20.97	PASS
2DH1	Ant1	2402	9.27	8.72	≤20.97	PASS
		2441	9.45	8.89	≤20.97	PASS
		2480	9.57	9.02	≤20.97	PASS
3DH1	Ant1	2402	9.53	8.99	≤20.97	PASS
		2441	9.56	8.96	≤20.97	PASS
		2480	9.73	9.25	≤20.97	PASS

4.4. Pseudorandom Frequency Hopping Sequence

TEST APPLICABLE

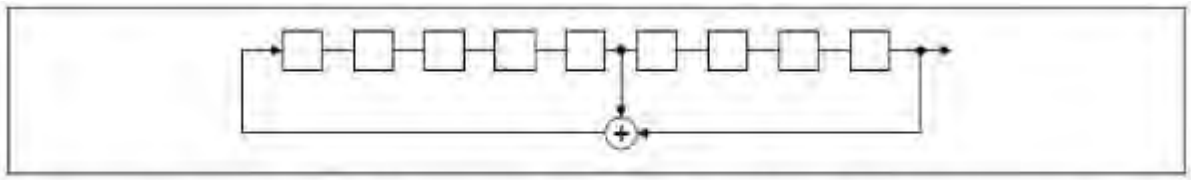
For 47 CFR Part 15C section 15.247 (a)(1) requirement:

Frequency hopping systems shall have hopping channel carrier fre-quencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hop-ping channel, whichever is greater. Al-ternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier fre-quencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to chan-nel frequencies that are selected at the system hopping rate from a pseudo ran-domly ordered list of hopping fre-quencies. Each frequency must be used equally on the average by each trans-mitter. The system receivers shall have input bandwidths that match the hop-ping channel bandwidths of their cor-responding transmitters and shall shift frequencies in synchronization with the transmitted signals.

EUT Pseudorandom Frequency Hopping Sequence Requirement

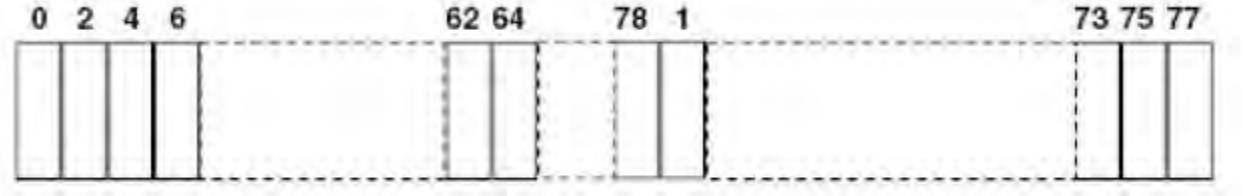
The pseudorandom frequency hopping sequence may be generated in a nice-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage.And the result is fed back to the input of the frist stage.The sequence begins with the frist one of 9 consecutive ones,for example:the shift register is initialized with nine ones.

- Number of shift register stages:9
- Length of pseudo-random sequence:29-1=511 bits
- Longest sequence of zeros:8(non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An explame of pseudorandom frequency hopping sequence as follows:



Each frequency used equally one the average by each transmitter.
The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitter and shift frequencies in synchronization with the transmitted signals.

4.5. Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The antenna used for this product is Internal Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 3.36dBi.

Reference to the **Internal photos.**

5. TEST SETUP PHOTOS OF THE EUT

Photo of Radiated Emissions Measurement

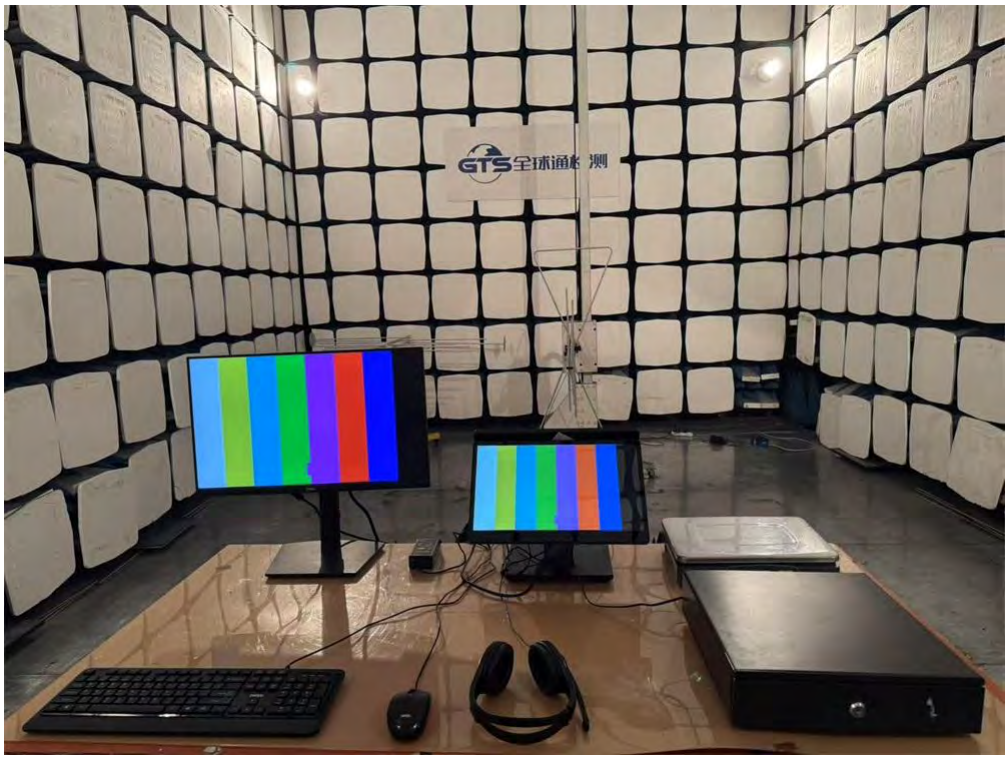


Fig. 1

Fig. 2

Photo of Conducted Emission Measurement

Fig. 3