



Shenzhen CTL Testing Technology Co., Ltd.
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

TEST REPORT

FCC PART 15 SUBPART E 15.407

Report Reference No. : CTL2512298017-WF03

Compiled by:
(printed name+signature)

Andy Su

Reviewed by:
(printed name+signature)

Happy Guo

Approved by:
(printed name+signature)

Ivan Xie



Product Name : HHOLOVE Yuno AI Automatic Feeder

Model/Type reference : CT-CMWYN

List Model(s)..... : CT-CMWYN-XX(Each X can be 0-9, A-Z or blank, indicates for different marketing purposes and different appearance colors)

Trade Mark..... : HHOLOVE
HHOLOVE | TALIX

FCC ID..... : 2A5DZ-CT-CMWYN

Applicant's name : HHO (Hangzhou) Digital Technology Co., Ltd.

Address of applicant : Building 9, Haizhi Center, Cangqian Street, Yuhang District,
Hangzhou City, Zhejiang Province, China

Test specification..... :

Standard : 47 CFR FCC Part 15 Subpart E 15.407

TRF Originator : Shenzhen CTL Testing Technology Co., Ltd.

Master TRF..... : Dated 2011-01

Date of receipt of test item : Dec 30, 2025

Date of Test Date..... : Jan 10, 2026-Mar 23, 2026

Date of Issue : Mar 23, 2026

Result..... : Pass

Shenzhen CTL Testing Technology Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen CTL Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen CTL Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

TEST REPORT

Test Report No. :	CTL2512298017-WF03	Mar 23, 2026
		Date of issue

Equipment under Test : HHOLOVE Yuno AI Automatic Feeder

Sample No : CTL251229801006, CTL251229801007,
CTL251229801010

Model /Type : CT-CMWYN

Listed Models : CT-CMWYN-XX(Each X can be 0-9, A-Z or blank,
indicates for different marketing purposes and
different appearance colors)

Applicant : **HHO (Hangzhou) Digital Technology Co., Ltd.**

Address : Building 9, Haizhi Center, Cangqian Street, Yuhang
District, Hangzhou City, Zhejiang Province, China

Manufacturer : **HHO (Hangzhou) Digital Technology Co., Ltd.**

Address : Building 9, Haizhi Center, Cangqian Street, Yuhang
District, Hangzhou City, Zhejiang Province, China

Test result	Pass *
--------------------	---------------

* In the configuration tested, the EUT complied with the standards specified page 5.

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

** Modified History **

[illegible]

Table of Contents

Page

1. SUMMARY	5
1.1. TEST STANDARDS	5
1.2. TEST DESCRIPTION	5
1.3. TEST FACILITY	6
1.4. STATEMENT OF THE MEASUREMENT UNCERTAINTY	6
1.5. EUT CONFIGURATION	7
2. GENERAL INFORMATION	8
2.1. ENVIRONMENTAL CONDITIONS	8
2.2. GENERAL DESCRIPTION OF EUT	8
2.3. DESCRIPTION OF TEST MODES AND TEST FREQUENCY	9
2.4. EQUIPMENTS USED DURING THE TEST	11
2.5. RELATED SUBMITTAL(s) / GRANT (s)	12
2.6. MODIFICATIONS	12
3. TEST CONDITIONS AND RESULTS	13
3.1. CONDUCTED EMISSIONS TEST	13
3.2. RADIATED EMISSIONS	22
3.3. MAXIMUM CONDUCTED AVERAGE OUTPUT POWER	74
3.4. POWER SPECTRAL DENSITY	75
3.5. EMISSION BANDWIDTH (26dBm BANDWIDTH)	77
3.6. MINIMUM EMISSION BANDWIDTH (6dBm BANDWIDTH)	78
3.7. FREQUENCY STABILITY	79
3.8. ANTENNA REQUIREMENT	80
4. TEST SETUP PHOTOS OF THE EUT	81
5. PHOTOS OF THE EUT	83

1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 15 Subpart E](#)—Unlicensed National Information Infrastructure Devices

[ANSI C63.10: 2020](#): American National Standard for Testing Unlicensed Wireless Devices

[KDB789033 D02](#): General UNII Test Procedures New Rules v02r01

1.2. Test Description

FCC Requirement		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.407(a)	Emission Bandwidth(26dBm Bandwidth)	PASS ^{Note1}
FCC Part 15.407(e)	Minimum Emission Bandwidth(6dBm Bandwidth)	PASS ^{Note2}
FCC Part 15.407(a)	Maximum Conducted Output Power	PASS
FCC Part 15.407(a)	Peak Power Spectral Density	PASS
FCC Part 15.407(g)	Frequency Stability	PASS
FCC Part 15.407(b)	Undesirable emission	PASS
FCC Part 15.407(b)/15.205/15.209	Radiated Emissions	PASS
FCC Part 15.407(h)	Dynamic Frequency Selection	PASS ^{Note3}
FCC Part 15.203	Antenna requirement	PASS

Note 1: Apply to U-NII 1, U-NII 2A, and U-NII 2C band.

Note 2: Apply to U-NII 3 band only.

Note 3: Test result refer to DFS report.

1.3. Test Facility

Company Name:	Shenzhen CTL Testing Technology Co., Ltd.
Address 1:	Zone A.1/F..Warehouse 2.Baisha Technology Park, No.3011,Shahexi Road, Nanshan District,Shenzhen.518055,P.R.C.
Address 2:	Fl.A1, Bldg.A3, No.2533 GuanGuang Road, Fenghuang Community Fenghuang Street, Guangming District, Shenzhen, Guangdong, PR.C

1.3.2 Test location

All tests were performed at:

Company Name:	Shenzhen CTL Testing Technology Co., Ltd.
☐ Main location	Zone A.1/F..Warehouse 2.Baisha Technology Park, No.3011,Shahexi Road, Nanshan District,Shenzhen.518055,P.R.C.
☒ Satellite location	Fl.A1, Bldg.A3, No.2533 GuanGuang Road, Fenghuang Community Fenghuang Street, Guangming District, Shenzhen, Guangdong, PR.C

1.3.3 Laboratory accreditation

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

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology 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: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC CAB identifier: CN0041

Main Company Number :9618B

Satellite Company Number:35187

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Main Company Number:9618B and Satellite Company Number:35187.

FCC-Registration No.: 399832

Designation No.: CN1216

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation No.: CN1216. Test Firm Registration 399832.

1.4. 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 CTL Testing Technology 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 CTL laboratory is reported:

Test	Measurement Uncertainty	Notes
Conducted Emission 0.15~30MHz	$\pm 2.94\text{dB}$	(1)
Magnetic Field Emission 9KHz~30MHz	$\pm 3.24\text{dB}$	(1)
Radiated Emission 30~1000MHz	$\pm 3.64\text{dB}$	(1)
Radiated Emission Above 1GHz	$\pm 3.92\text{dB}$	(1)
Emission Bandwidth	$\pm 1.9\%$	(1)
Maximum Conduct Output Power	$\pm 1.18\text{ dB}$	(1)
Power Spectral Density	$\pm 0.98\text{ dB}$	(1)
Band Edge	$\pm 1.21\text{dB}$	(1)
Unwanted Emissions	9kHz-7GHz: $\pm 1.09\text{dB}$ 7GHz-26.5GHz: $\pm 3.27\text{dB}$ 26.5GHz-40GHz: $\pm 3.86\text{dB}$	(1)
Frequency Stability	$\pm 1.9\%$	(1)

- (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.
- (2) Decision rule for Statement of Conformity: The measurement uncertainty is not taken into account but only measured result.

1.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

○ Router	Manufacturer :	NETGEAR, Inc.
	Model No. :	RAX50
	FCC ID:	PY319400466

2. GENERAL INFORMATION

2.1. Environmental conditions

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

Normal Temperature:	18-28°C
Relative Humidity:	30-60%
Air Pressure:	965-1030hPa

2.2. General Description of EUT

Product Name:	HHOLOVE Yuno AI Automatic Feeder		
Model/Type reference:	CT-CMWYN		
Power supply:	DC 12V from adapter		
Adapter information	Mode: KA12H-1201000US Input:100-240V~50/60Hz 0.4A MAX Output:12V---1000mA		
Test Voltage:	AC 110V/60Hz		
Wi-Fi 5GHz			
Supported type:	20MHz system	40MHz system	80MHz system
	802.11a 802.11n 802.11ac	802.11n 802.11ac	N/A
Operation frequency:	5180-5240MHz 5260-5320MHz 5500-5700MHz 5745-5825MHz	5190-5230MHz 5270-5310MHz 5510-5670MHz 5755-5795MHz	N/A
Modulation:	OFDM	OFDM	N/A
Channel number:	24	11	N/A
Channel separation:	20MHz	40MHz	N/A
MIMO:	Not Support		
DFS Operational mode:	Support		
Antenna type:	FPC antenna		
Antenna gain:	5180-5240MHz: 5.02dBi 5260-5320MHz: 4.72dBi 5500-5700MHz: 5.66dBi 5745-5825MHz: 5.86dBi provided by ☒ Applicant ☐ Manufacturer		

Note1: For more details, please refer to the user's manual of the EUT.

Note2: Antenna gain provided by the applicant.

Note3: This report is only for 5G WIFI.

Note4: The model CT-CMWYN is selected as representative model for full tests

2.3. Description of Test Modes and Test Frequency

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.

All test performed at the low, middle and high of operational frequency range of each mode.

Operation Frequency List WIFI on 5G Band:

Operating band	20MHz		40MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII 1 (5150MHz-5250MHz)	36	5180	38	5190
	40	5200		
	44	5220	46	5230
	48	5240		
U-NII 2A (5250MHz-5350MHz)	52	5260	54	5270
	56	5280		
	60	5300	62	5310
	64	5320		
U-NII 2C (5470MHz-5725MHz)	100	5500	102	5510
	104	5520	110	5550
	108	5540		
	112	5560		
	116	5580	118	5590
	120	5600		
	124	5620		
	128	5640	126	5630
	132	5660	134	5670
	136	5680		
U-NII 3 (5725MHz-5850MHz)	140	5700	--	--
	149	5745	151	5755
	153	5765		
	157	5785	159	5795
	161	5805		
	165	5825	--	--

Note:

1. "--"Means no channel(s) available any more.
2. The line display in grey is those Channels/Frequencies select to test in this report for each operation mode.

RF Cable List and Details

RF Cable	RF Cable loss	RF Cable loss provided by	
RF1.13	0.5dB	☒ Applicant	☐ Manufacturer ☐ Testing Laboratory (CTL)
RG 316	0.8dB	☒ Applicant	☐ Manufacturer ☐ Testing Laboratory (CTL)

Data Rate Used:

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate
Maximum Conducted Output Power Power Spectral Density Emission Bandwidth(26dBm Bandwidth)	11a/OFDM	6 Mbps

Minimum Emission Bandwidth(6dBm Bandwidth) Undesirable emission Frequency Stability	11n(20MHz) /11ac(20MHz) /OFDM	7.2 Mbps
	11n(40MHz) /11ac(40MHz) /OFDM	15.0Mbps

2.4. Equipments Used during the Test

Conducted Emission						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	1166.5950.03	/	2026/01/05	2027/01/04
LISN	ROHDE & SCHWARZ	ESH2-Z5	860014/010	/	2026/01/05	2027/01/04
Limitator	ROHDE & SCHWARZ	ESH3-Z2	100408	/	2026/01/05	2027/01/04
Software:						
Name of Software:			Version:			
ES-K1			V1.71			

Radiated Emission						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
Active Loop Antenna	Da Ze	ZN30900A	/	/	2025/07/02	2026/07/01
ULTRA-BROADBAND ANTENNA	Sunol Sciences Corp.	JB1 Antenna	A061713	/	2025/07/02	2026/07/01
Horn Antenna	Sunol Sciences Corp	DRH-118	A062013		2026/01/05	2027/01/04
Horn Antenna	Ocean Microwave	OBH100400	26999002		2025/07/02	2026/07/01
Amplifier	Agilent	8449B	3008A02306	/	2026/01/05	2027/01/04
Amplifier	Brief&Smart	LNA-4018	2104197	/	2025/07/03	2026/07/02
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	1166.5950.03	/	2026/01/05	2027/01/04
Spectrum Analyzer	RS	FSP	1164.4391.38	/	2025/07/03	2026/07/02
9kHz-40GHz coaxial line chamber 2	/	Z108-NJ-NJ-9.5 M	21121049	/	2025/07/03	2026/07/02
Software:						
Name of Software:			Version:			
EZ EMC(Below 1GHz)			V1.1.4.2			
EZ EMC(Above 1GHz)			V1.1.4.2			

RF Conducted						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
Spectrum Analyzer	Keysight	N9020A	MY53420874	/	2025/07/03	2026/07/02
Power meter	TSTPASS	TSPS2023R	TSCB220016	/	2025/07/03	2026/07/02
Temperature/Humidity Meter	Ji Yu	MC501	/	/	2025/07/03	2026/07/02
Software:						
Name of Software:			Version:			
TST-PASS			V2.0.2			

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

This submittal(s) (test report) is intended to comply with Section 15.407 of the FCC Part 15, Subpart E Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

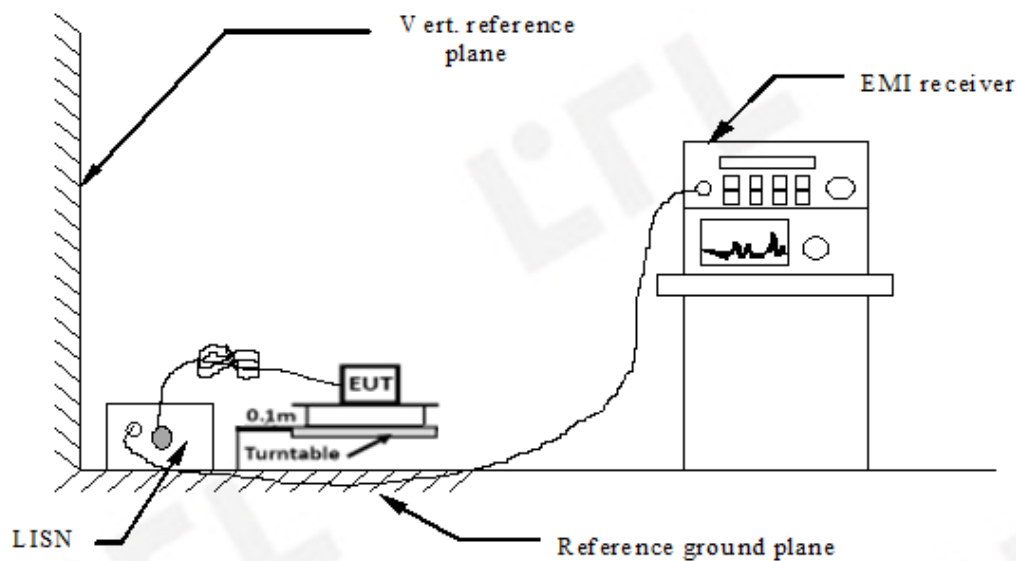
LIMIT

According to FCC CFR Title 47 Part 15 Subpart C Section 15.207, AC Power Line Conducted Emissions Limits for Licence-Exempt Radio Apparatus as below:

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.

TEST CONFIGURATION



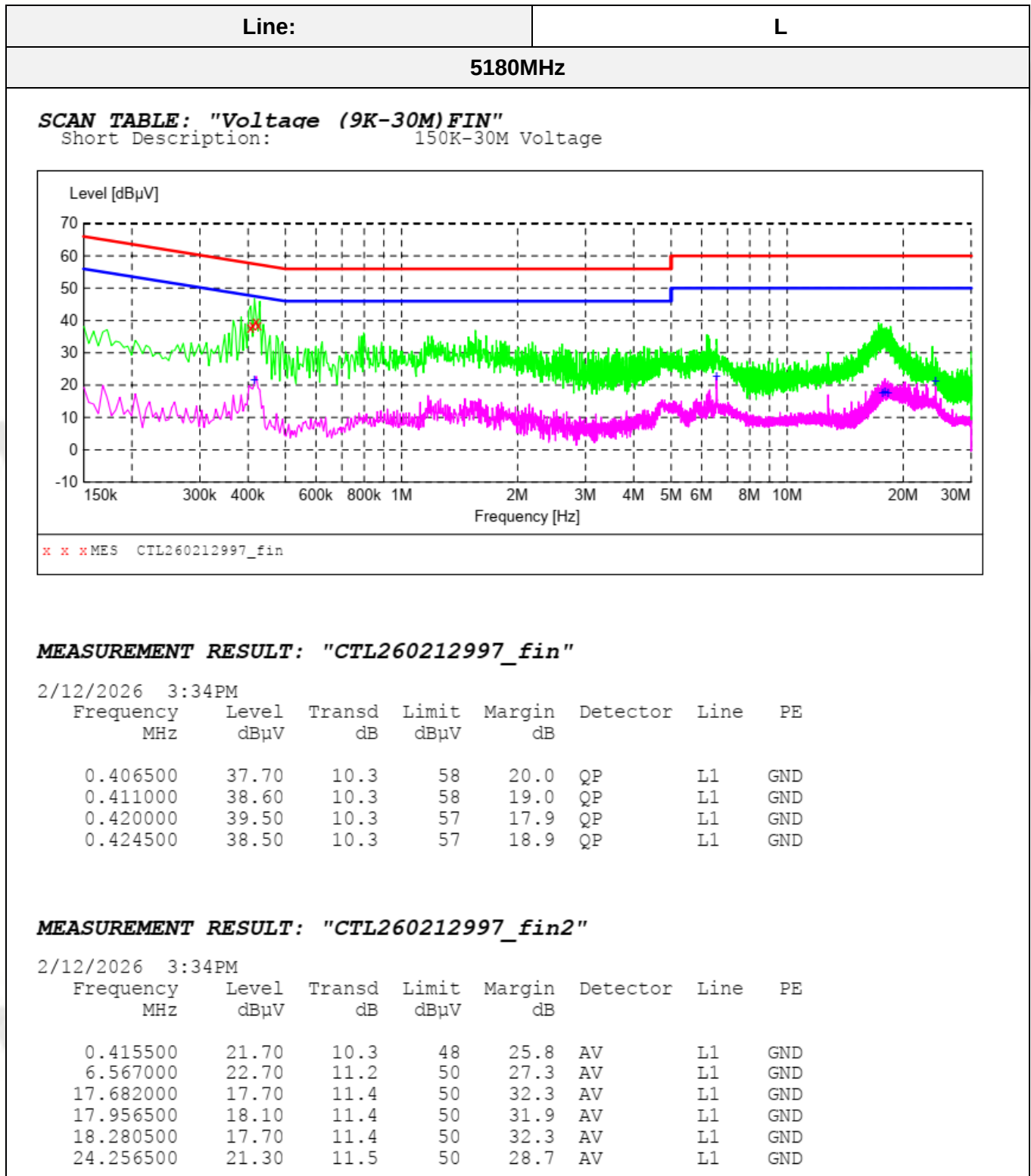
TEST PROCEDURE

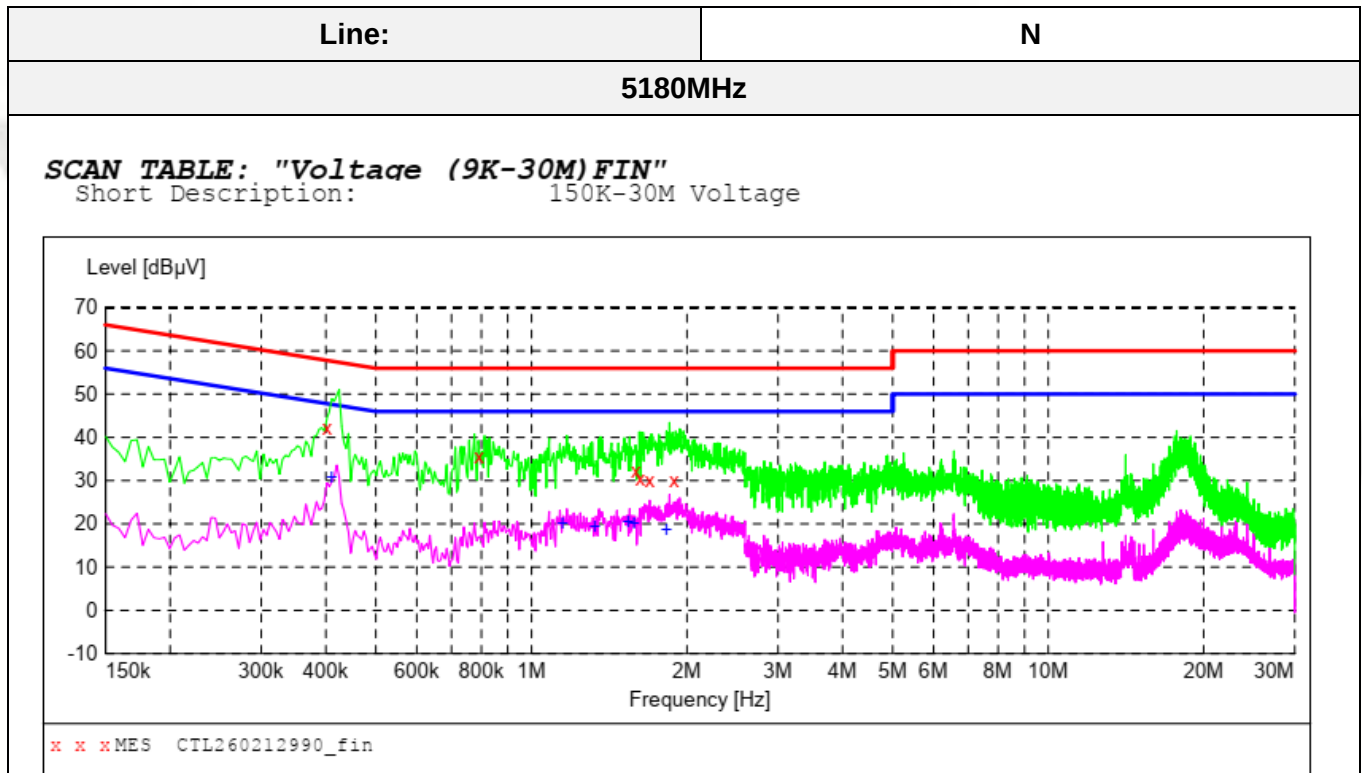
1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a Laser Projector op system; a wooden table with a height of 0.1 meters is used and is placed on the ground plane as per ANSI C63.10:2020.
2. Support equipment, if needed, was 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 adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
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.

TEST RESULTS



**MEASUREMENT RESULT: "CTL260212990_fin"**

2/12/2026 3:00PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.402000	42.10	10.3	58	15.7	QP	N	GND
0.793500	35.40	10.5	56	20.6	QP	N	GND
1.594500	32.30	10.7	56	23.7	QP	N	GND
1.626000	30.40	10.7	56	25.6	QP	N	GND
1.693500	30.10	10.7	56	25.9	QP	N	GND
1.887000	30.00	10.7	56	26.0	QP	N	GND

MEASUREMENT RESULT: "CTL260212990_fin2"

2/12/2026 3:00PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.411000	30.90	10.3	48	16.7	AV	N	GND
1.149000	20.10	10.7	46	25.9	AV	N	GND
1.329000	19.30	10.7	46	26.7	AV	N	GND
1.540500	20.50	10.7	46	25.5	AV	N	GND
1.581000	20.30	10.7	46	25.7	AV	N	GND
1.828500	18.60	10.7	46	27.4	AV	N	GND

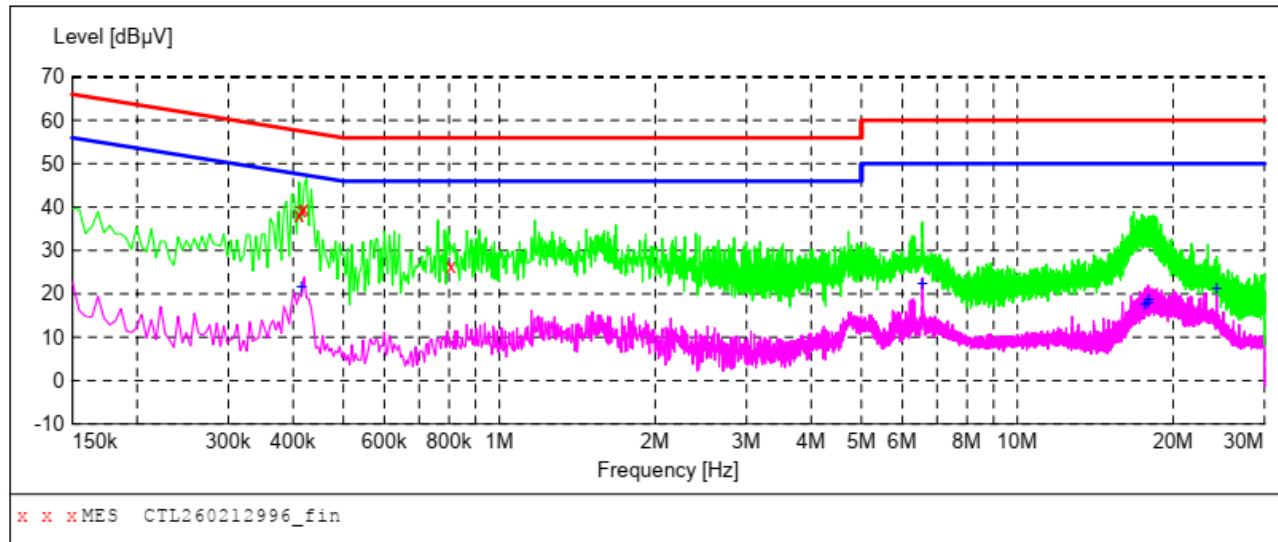
Line:

L

5260MHz

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL260212996_fin"**

2/12/2026 3:31PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.411000	38.30	10.3	58	19.3	QP	L1	GND
0.415500	39.20	10.3	58	18.3	QP	L1	GND
0.420000	39.80	10.3	57	17.6	QP	L1	GND
0.807000	26.40	10.5	56	29.6	QP	L1	GND

MEASUREMENT RESULT: "CTL260212996_fin2"

2/12/2026 3:31PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.415500	21.70	10.3	48	25.8	AV	L1	GND
6.562500	22.20	11.2	50	27.8	AV	L1	GND
17.668500	17.50	11.4	50	32.5	AV	L1	GND
17.916000	18.10	11.4	50	31.9	AV	L1	GND
17.965500	18.50	11.4	50	31.5	AV	L1	GND
24.256500	21.40	11.5	50	28.6	AV	L1	GND

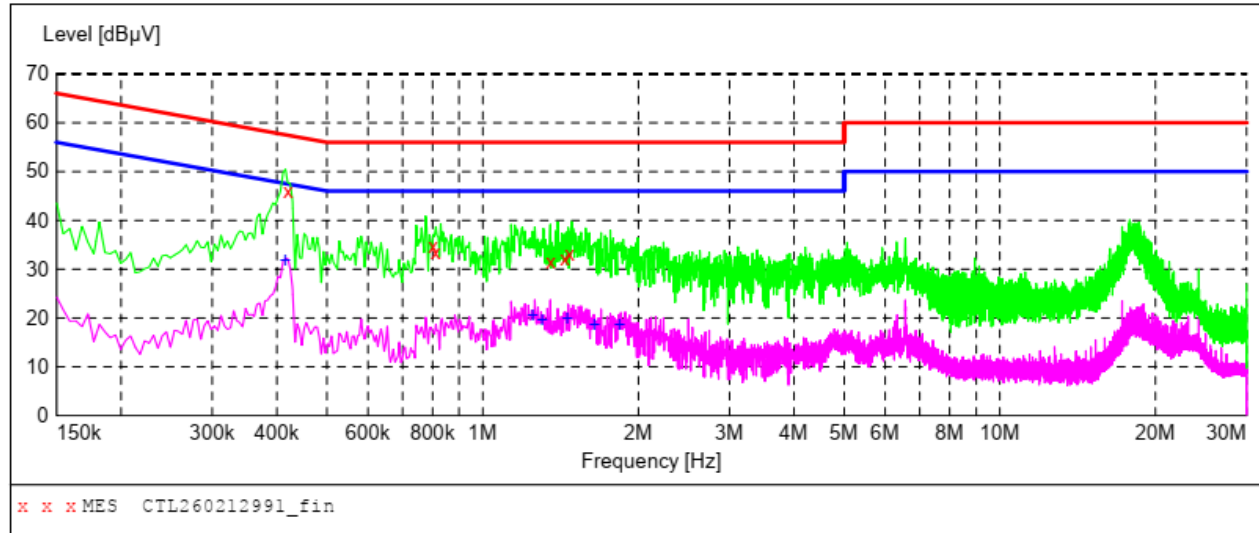
Line:

N

5260MHz

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL260212991_fin"**

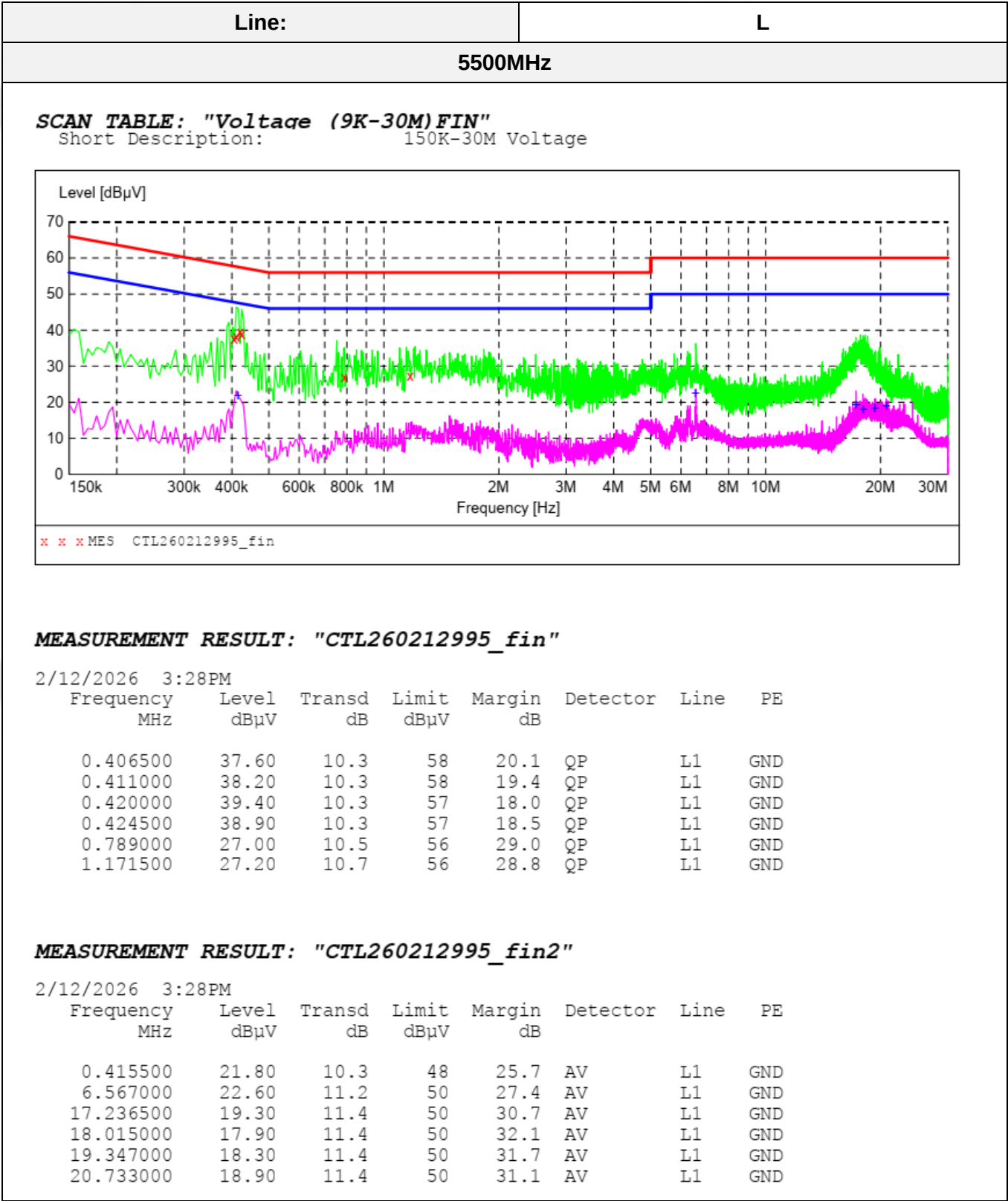
2/12/2026 3:03PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.420000	46.10	10.3	57	11.3	QP	N	GND
0.802500	34.70	10.5	56	21.3	QP	N	GND
0.811500	33.40	10.6	56	22.6	QP	N	GND
1.356000	31.60	10.7	56	24.4	QP	N	GND
1.441500	32.20	10.7	56	23.8	QP	N	GND
1.473000	33.00	10.7	56	23.0	QP	N	GND

MEASUREMENT RESULT: "CTL260212991_fin2"

2/12/2026 3:03PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.415500	32.00	10.3	48	15.5	AV	N	GND
1.252500	20.70	10.7	46	25.3	AV	N	GND
1.306500	19.60	10.7	46	26.4	AV	N	GND
1.459500	20.10	10.7	46	25.9	AV	N	GND
1.648500	18.70	10.7	46	27.3	AV	N	GND
1.842000	18.60	10.7	46	27.4	AV	N	GND



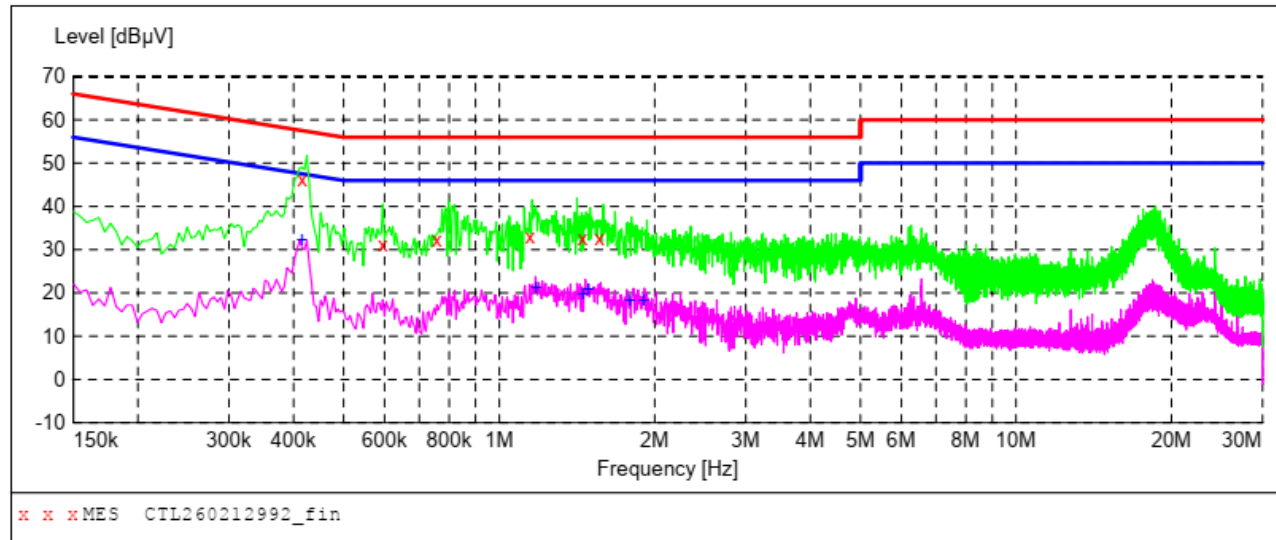
Line:

N

5500MHz

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL260212992_fin"**

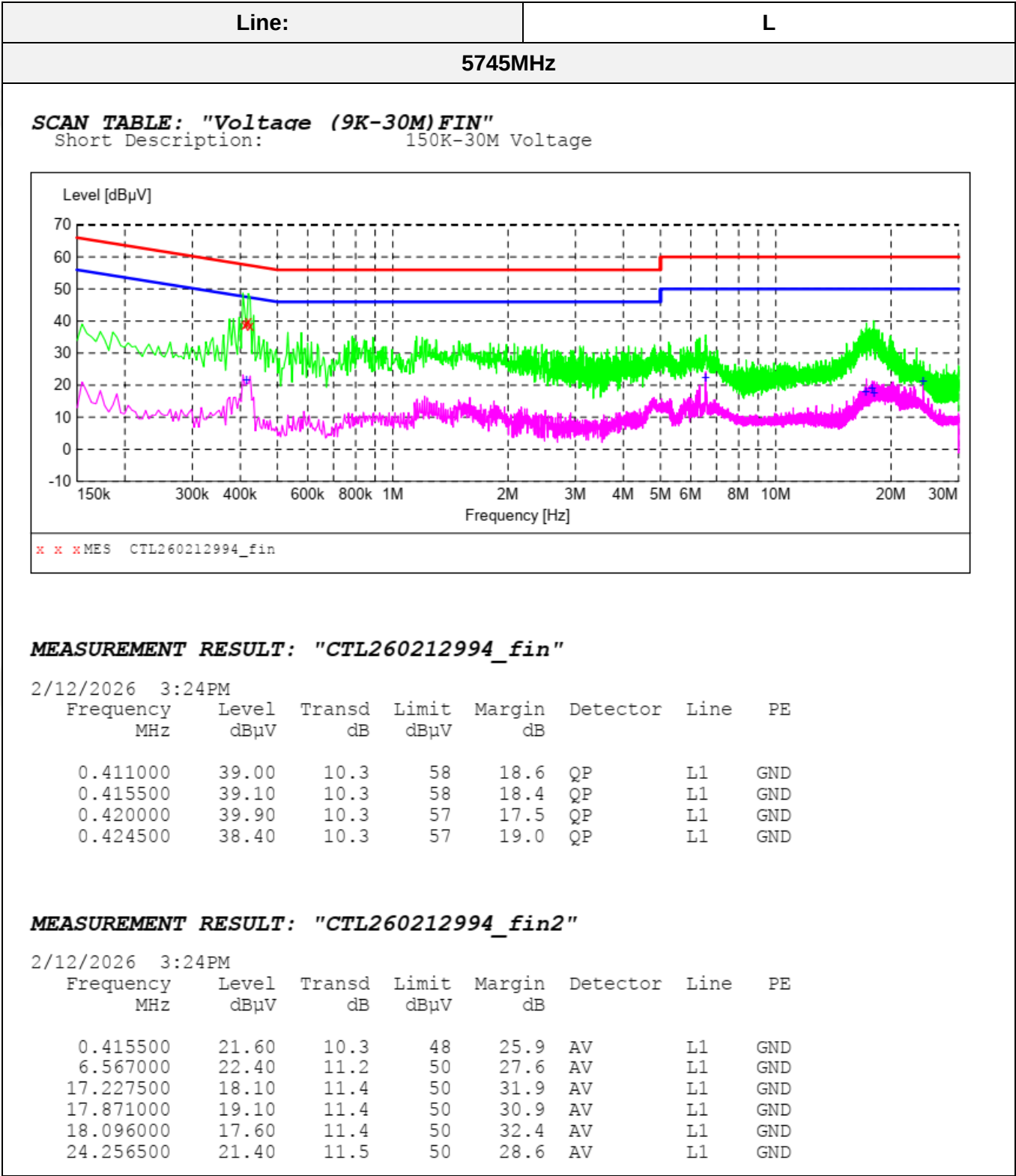
2/12/2026 3:06PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.415500	46.10	10.3	58	11.4	QP	N	GND
0.595500	31.20	10.5	56	24.8	QP	N	GND
0.757500	32.40	10.5	56	23.6	QP	N	GND
1.149000	33.10	10.7	56	22.9	QP	N	GND
1.450500	32.80	10.7	56	23.2	QP	N	GND
1.563000	32.70	10.7	56	23.3	QP	N	GND

MEASUREMENT RESULT: "CTL260212992_fin2"

2/12/2026 3:06PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.415500	32.10	10.3	48	15.4	AV	N	GND
1.180500	21.10	10.7	46	24.9	AV	N	GND
1.450500	19.90	10.7	46	26.1	AV	N	GND
1.491000	20.80	10.7	46	25.2	AV	N	GND
1.792500	18.40	10.7	46	27.6	AV	N	GND
1.905000	18.40	10.7	46	27.6	AV	N	GND



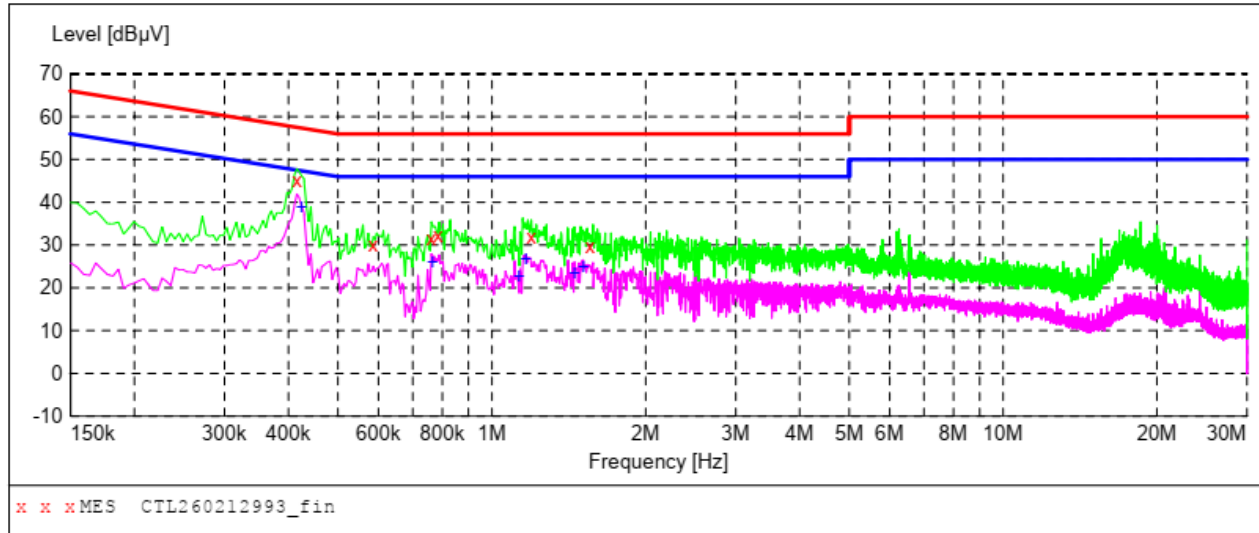
Line:

N

5745MHz

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT: "CTL260212993_fin"**

2/12/2026 3:21PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.415500	45.20	10.3	58	12.3	QP	N	GND
0.586500	30.00	10.4	56	26.0	QP	N	GND
0.762000	31.40	10.5	56	24.6	QP	N	GND
0.784500	32.10	10.5	56	23.9	QP	N	GND
1.194000	32.00	10.7	56	24.0	QP	N	GND
1.558500	29.80	10.7	56	26.2	QP	N	GND

MEASUREMENT RESULT: "CTL260212993_fin2"

2/12/2026 3:21PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.424500	38.70	10.3	47	8.7	AV	N	GND
0.766500	26.00	10.5	46	20.0	AV	N	GND
1.131000	22.90	10.7	46	23.1	AV	N	GND
1.167000	26.70	10.7	46	19.3	AV	N	GND
1.455000	23.50	10.7	46	22.5	AV	N	GND
1.513500	25.00	10.7	46	21.0	AV	N	GND

3.2. Radiated Emissions

Limit

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Undesirable emission limits

Requirement	Limit(EIRP)	Limit (Field strength at 3m) Note1
15.407(b)(1)	PK:-27(dBm/MHz)	PK:68.2(dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)		

Note1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209

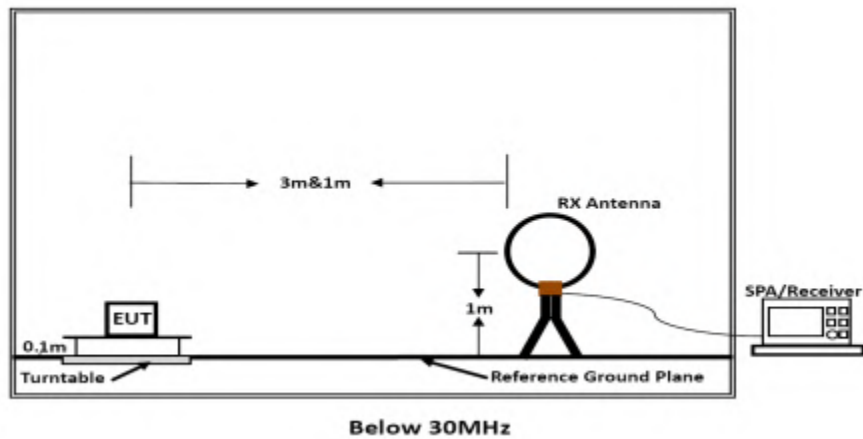
(6) In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

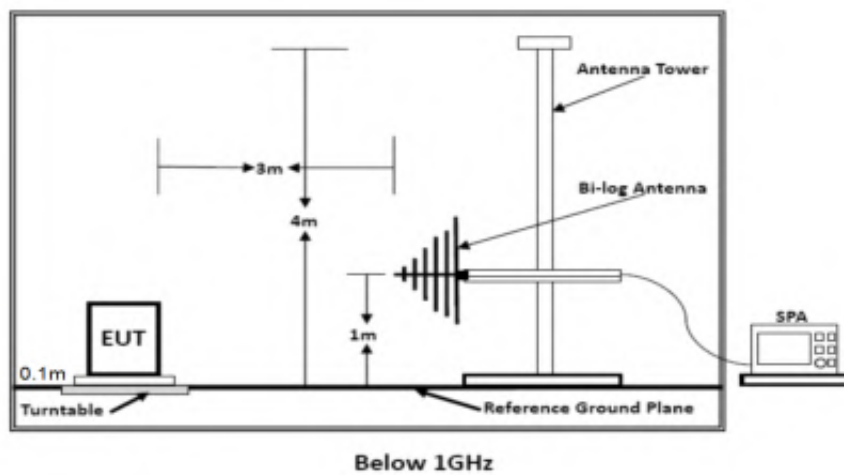
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960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

TEST CONFIGURATION

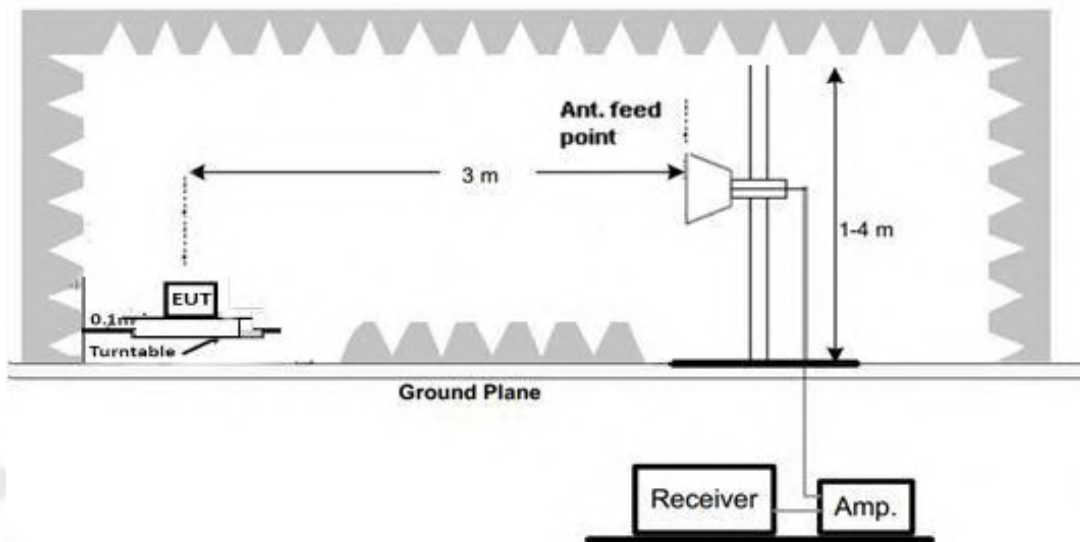
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



Test Procedure

1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C 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. Radiated emission test frequency band from 9KHz to 40GHz.
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	Bilog Antenna	3
1GHz-18GHz	Horn Antenna	3
18GHz-40GHz	Horn Antennna	1

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

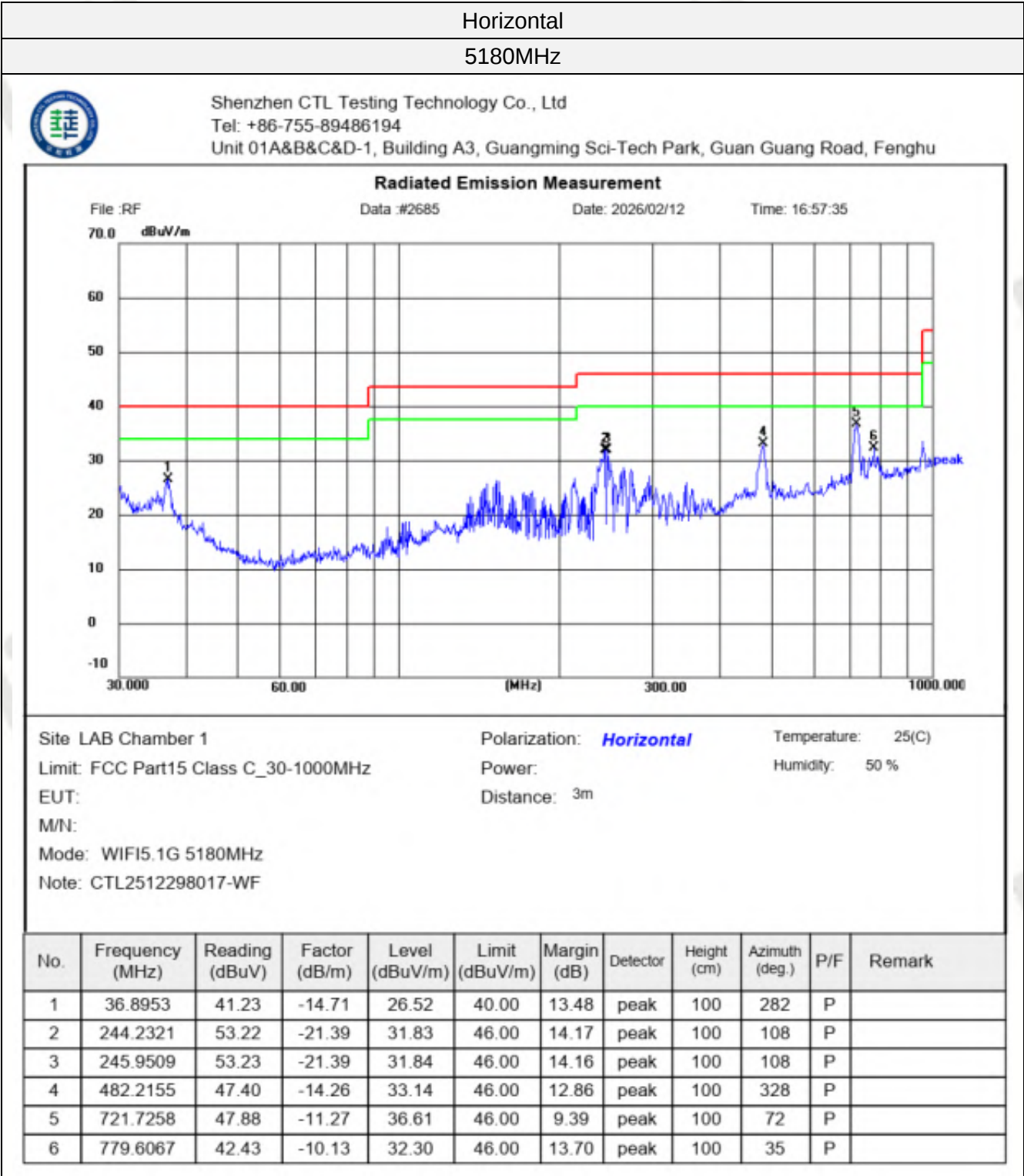
Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz, Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz, Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz, Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz,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

TEST RESULTS

Remark:

1. All 802.11a / 802.11n (20MHz)/ 802.11n (40MHz) / 802.11ac (20MHz)/ 802.11ac (40MHz) modes have been tested for below 1GHz test, only the worst case 802.11n (HT20) low channel of U-NII 1 band was recorded.
2. All 802.11a / 802.11n (20MHz)/ 802.11n (40MHz) / 802.11ac (20MHz)/ 802.11ac (40MHz) modes have been tested for above 1GHz test, only the worst case antenna 802.11n (HT20) was recorded.
3. All WIFI operation modes have been tested, only the worst case of 802.11n(HT20) mode was recorded.
4. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz



Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)

Vertical

5180MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

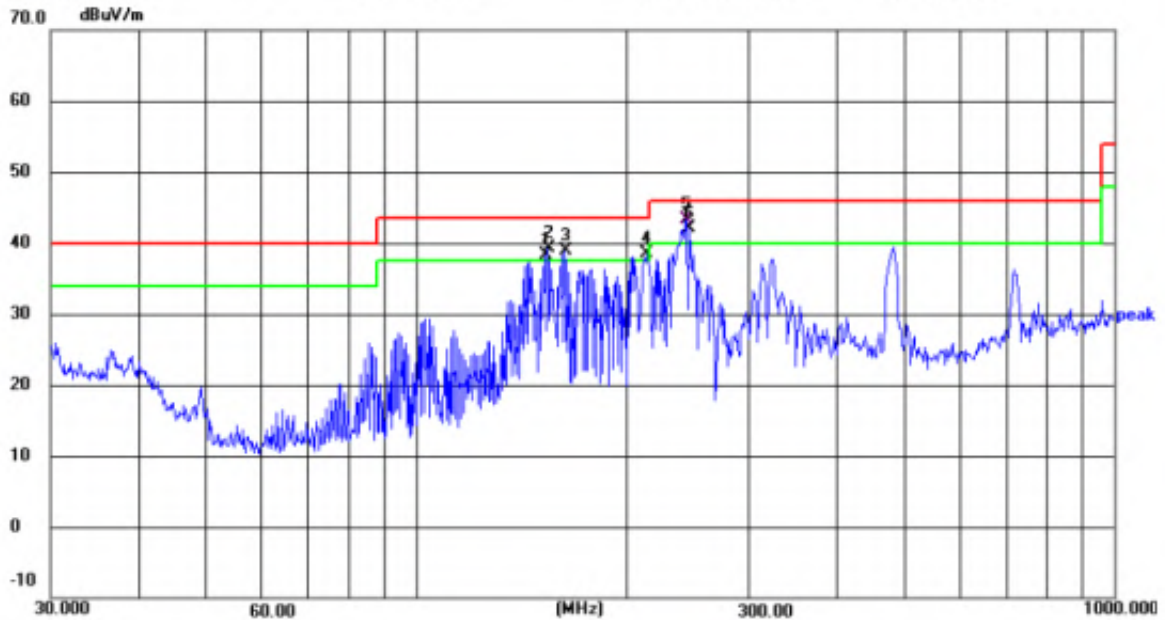
Radiated Emission Measurement

File :RF

Data :#2686

Date: 2026/02/12

Time: 16:58:21



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Class C_30-1000MHz

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.1G 5180MHz

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	153.2004	56.63	-18.23	38.40	43.50	5.10	peak	100	316	P	
2	154.2786	57.82	-18.55	39.27	43.50	4.23	peak	100	316	P	
3	163.1818	58.34	-19.50	38.84	43.50	4.66	peak	100	104	P	
4	213.7634	59.29	-20.80	38.49	43.50	5.01	peak	100	325	P	
5	244.2321	64.76	-21.39	43.37	46.00	2.63	QP	100	58	P	
6	245.9509	63.44	-21.39	42.05	46.00	3.95	peak	100	104	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)

Horizontal

5260MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

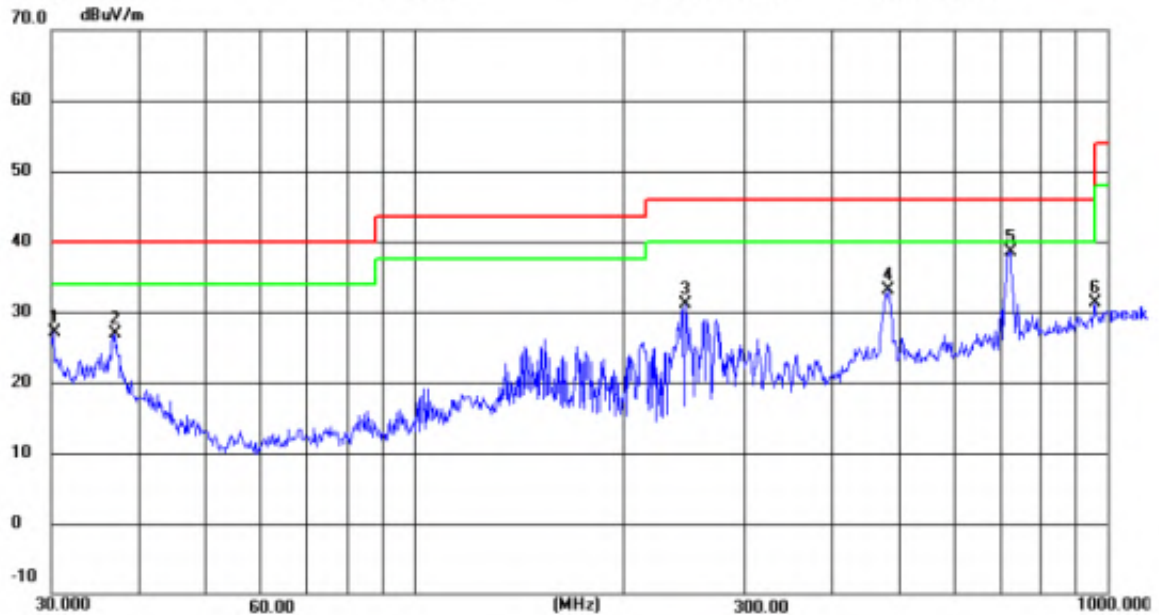
Radiated Emission Measurement

File :RF

Data :#2687

Date: 2026/02/12

Time: 16:59:56



Site LAB Chamber 1

Polarization: **Horizontal**

Temperature: 25(C)

Limit: FCC Part15 Class C_30-1000MHz

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

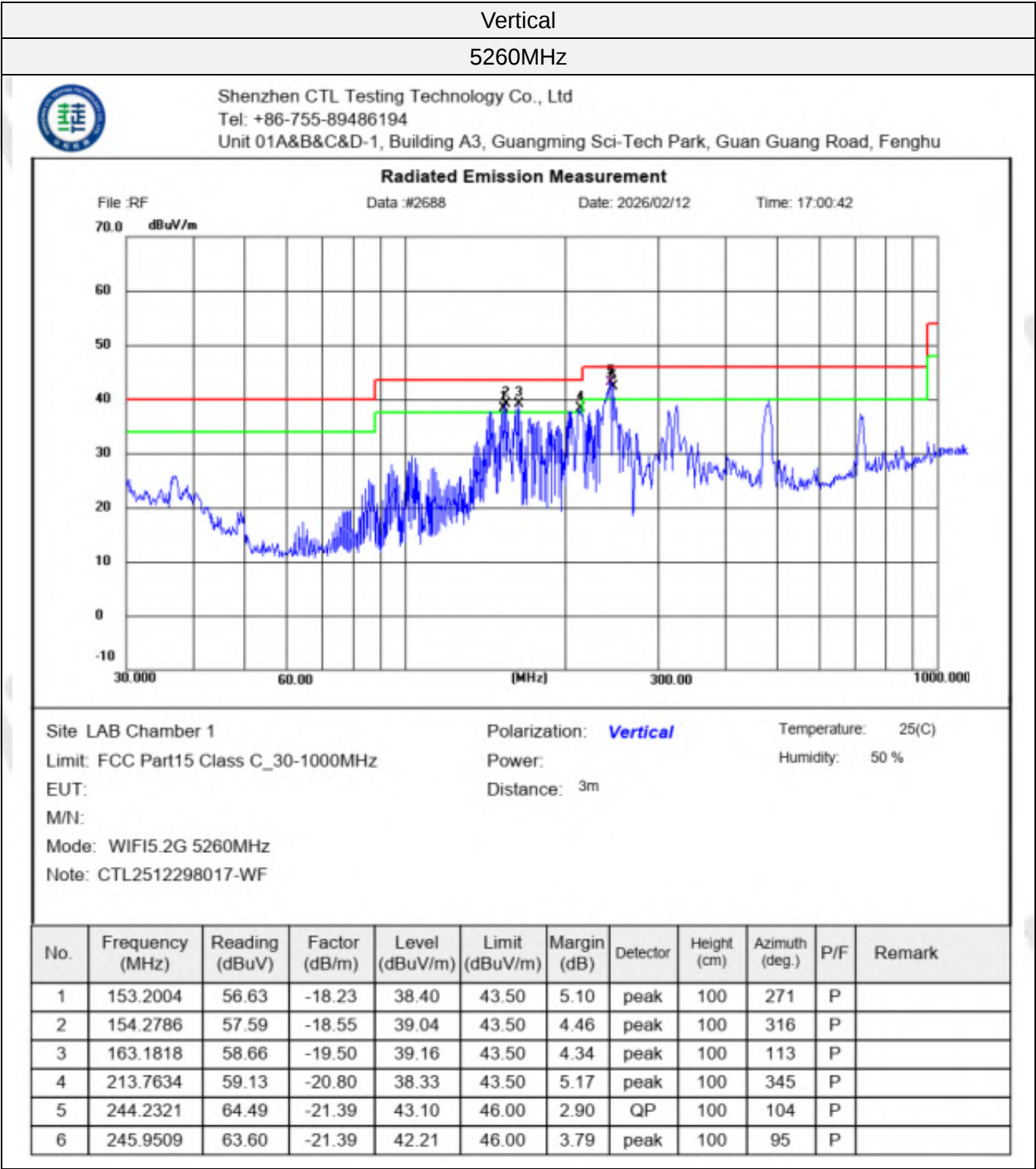
Mode: WIFI5.2G 5260MHz

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.2111	37.85	-10.78	27.07	40.00	12.93	peak	100	109	P	
2	36.8953	41.69	-14.71	26.98	40.00	13.02	peak	100	228	P	
3	245.9509	52.40	-21.39	31.01	46.00	14.99	peak	100	100	P	
4	482.2155	47.36	-14.26	33.10	46.00	12.90	peak	100	320	P	
5	724.2610	49.67	-11.20	38.47	46.00	7.53	peak	100	109	P	
6	958.7943	39.55	-8.16	31.39	46.00	14.61	peak	100	81	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)



Horizontal

5500MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

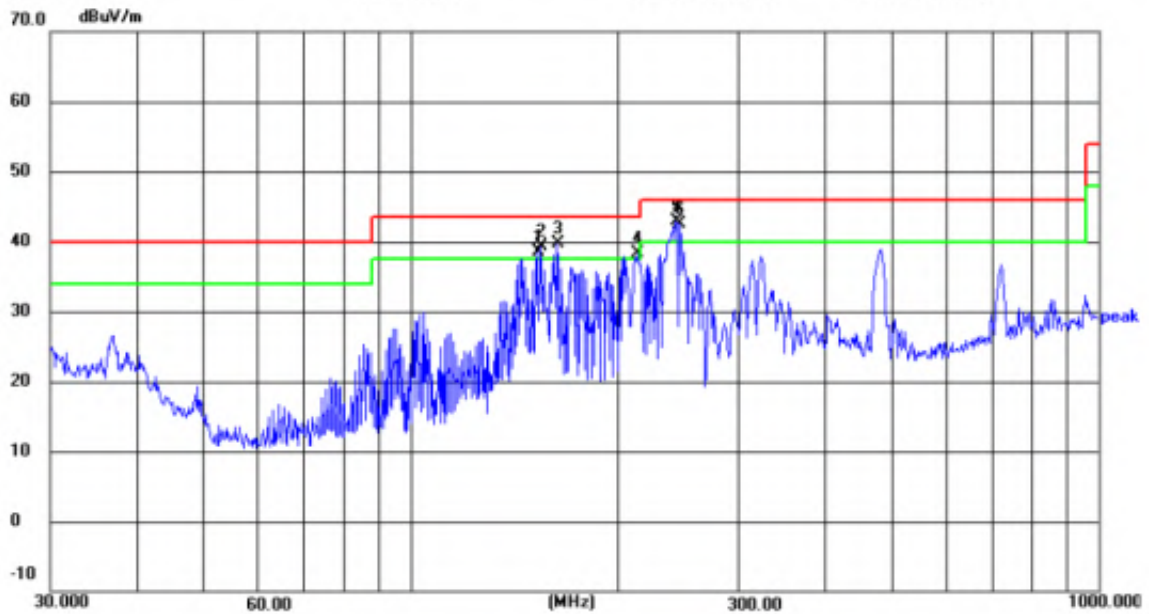
Radiated Emission Measurement

File :RF

Data :#2690

Date: 2026/02/12

Time: 17:05:59



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Class C_30-1000MHz

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.3G 5500MHz

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	153.2004	56.68	-18.23	38.45	43.50	5.05	peak	100	123	P	
2	154.2786	57.78	-18.55	39.23	43.50	4.27	peak	100	123	P	
3	163.1818	59.14	-19.50	39.64	43.50	3.86	peak	100	151	P	
4	213.7634	59.17	-20.80	38.37	43.50	5.13	peak	100	288	P	
5	243.3772	64.38	-21.39	42.99	46.00	3.01	peak	100	344	P	
6	245.9509	63.96	-21.39	42.57	46.00	3.43	peak	100	178	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)

Vertical

5500MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

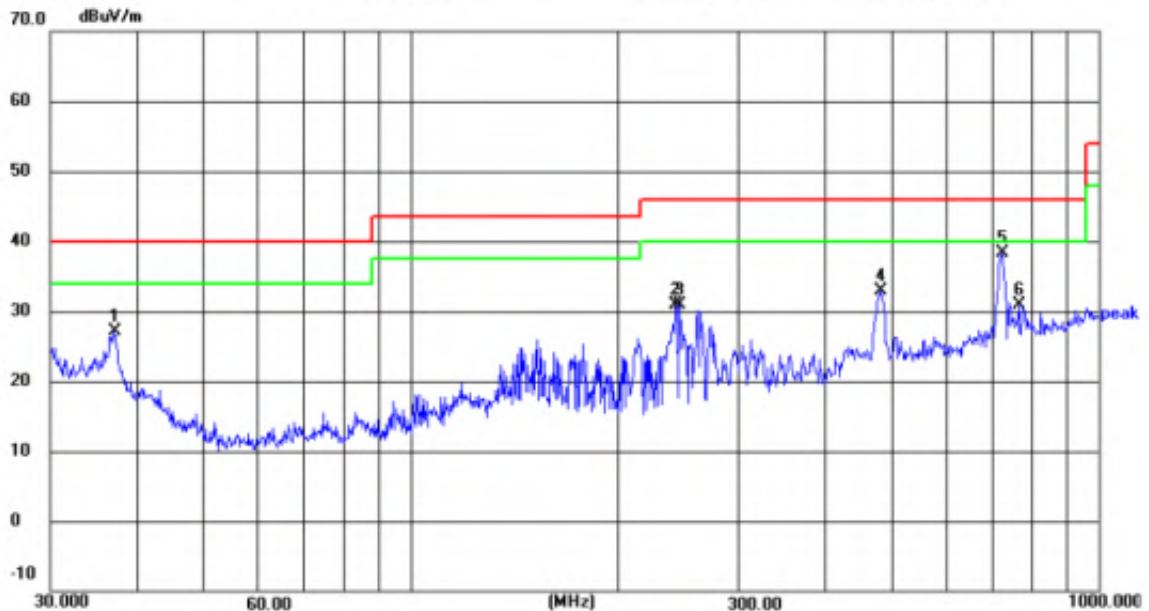
Radiated Emission Measurement

File :RF

Data :#2689

Date: 2026/02/12

Time: 17:05:13



Site LAB Chamber 1

Polarization: **Horizontal**

Temperature: 25(C)

Limit: FCC Part15 Class C_30-1000MHz

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.3G 5500MHz

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	37.1549	41.97	-14.84	27.13	40.00	12.87	peak	100	319	P	
2	243.3771	52.29	-21.39	30.90	46.00	15.10	peak	100	99	P	
3	245.9509	52.28	-21.39	30.89	46.00	15.11	peak	100	99	P	
4	482.2155	47.24	-14.26	32.98	46.00	13.02	peak	100	136	P	
5	724.2610	49.48	-11.20	38.28	46.00	7.72	peak	100	90	P	
6	766.0571	41.20	-10.26	30.94	46.00	15.06	peak	100	90	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)

Horizontal

5745MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

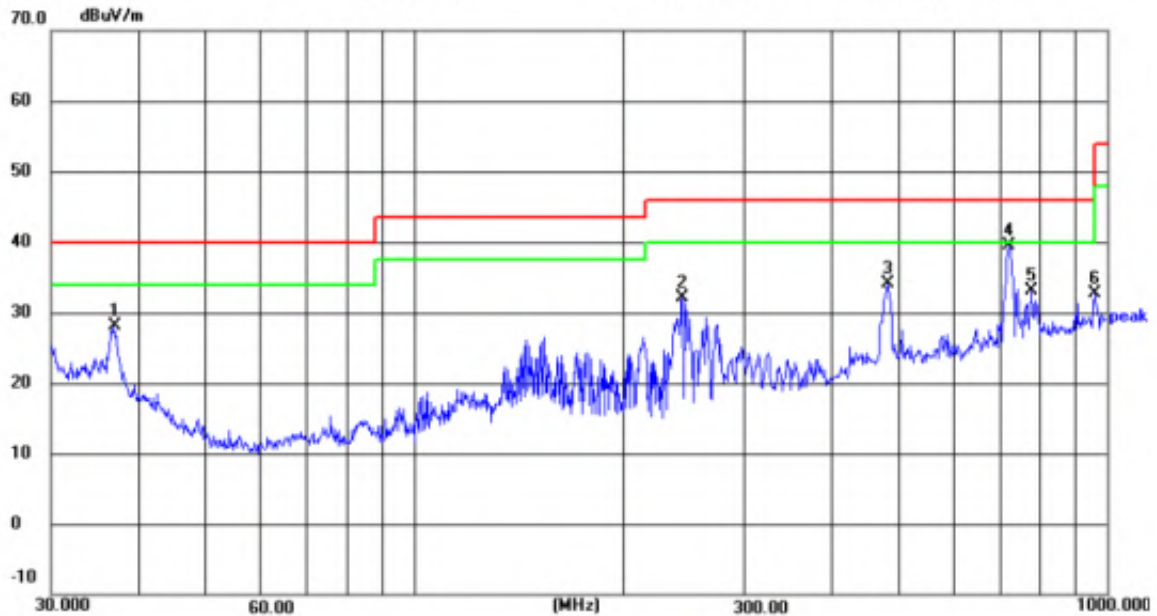
Radiated Emission Measurement

File :RF

Data :#2691

Date: 2026/02/12

Time: 17:07:36



Site LAB Chamber 1

Limit: FCC Part15 Class C_30-1000MHz

EUT:

M/N:

Mode: WIFI5.8G 5745MHz

Note: CTL2512298017-WF

Polarization: **Horizontal**

Temperature: 25(C)

Power:

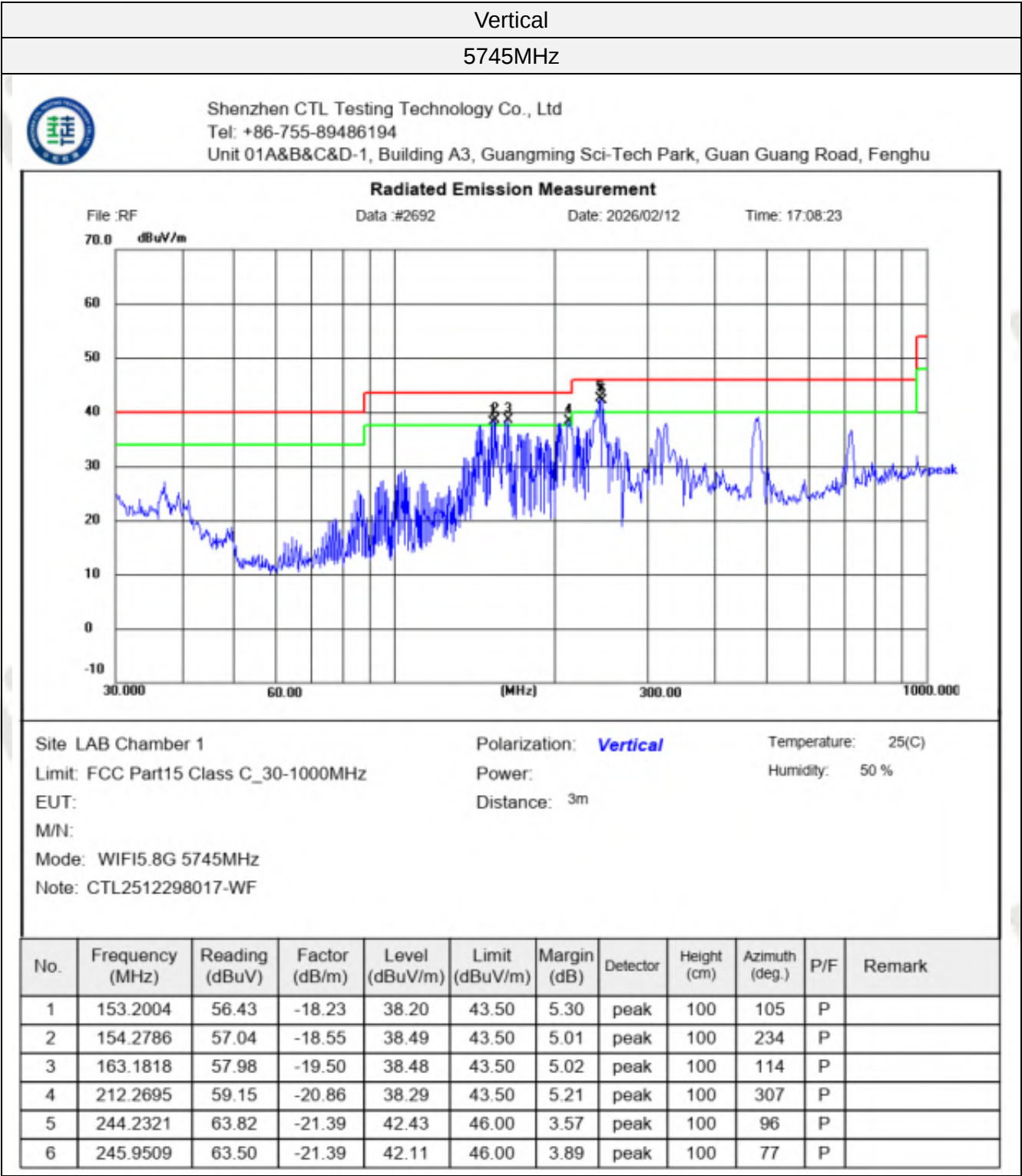
Humidity: 50 %

Distance: 3m

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	36.8953	42.87	-14.71	28.16	40.00	11.84	peak	100	355	P	
2	244.2321	53.41	-21.39	32.02	46.00	13.98	peak	100	118	P	
3	482.2155	48.28	-14.26	34.02	46.00	11.98	peak	100	145	P	
4	721.7258	50.77	-11.27	39.50	46.00	6.50	peak	100	136	P	
5	779.6067	43.15	-10.13	33.02	46.00	12.98	peak	100	127	P	
6	958.7943	40.93	-8.16	32.77	46.00	13.23	peak	100	53	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

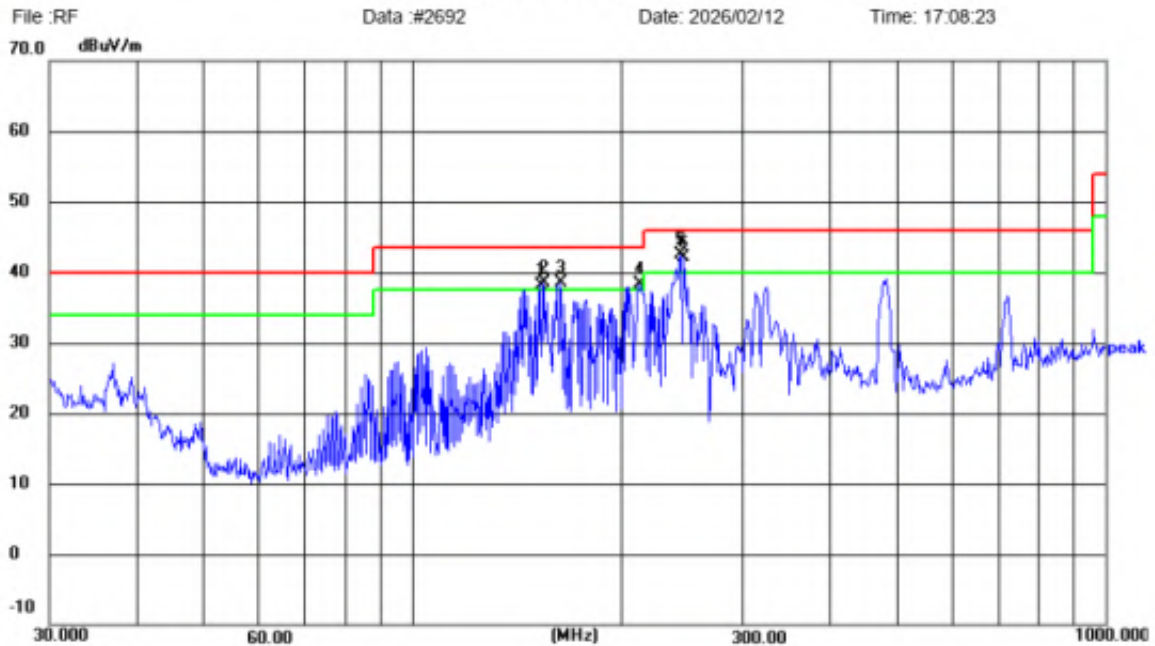
Margin= Limit(dBuV/m)- Level(dBuV/m)





Shenzhen CTL Testing Technology Co., Ltd
Tel: +86-755-89486194
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Class C_30-1000MHz

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.8G 5745MHz

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	153.2004	56.43	-18.23	38.20	43.50	5.30	peak	100	105	P	
2	154.2786	57.04	-18.55	38.49	43.50	5.01	peak	100	234	P	
3	163.1818	57.98	-19.50	38.48	43.50	5.02	peak	100	114	P	
4	212.2695	59.15	-20.86	38.29	43.50	5.21	peak	100	307	P	
5	244.2321	63.82	-21.39	42.43	46.00	3.57	peak	100	96	P	
6	245.9509	63.50	-21.39	42.11	46.00	3.89	peak	100	77	P	

Remark: Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Margin= Limit(dBuV/m)- Level(dBuV/m)

For 1GHz to 40GHz

Note: 1. All 802.11a / 802.11n (20MHz) / 802.11n (40MHz) / 802.11ac (20MHz) / 802.11ac (40MHz) modes have been tested for above 1GHz test, only the worst case 802.11n (HT20) was recorded.

Horizontal

Channel 36



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

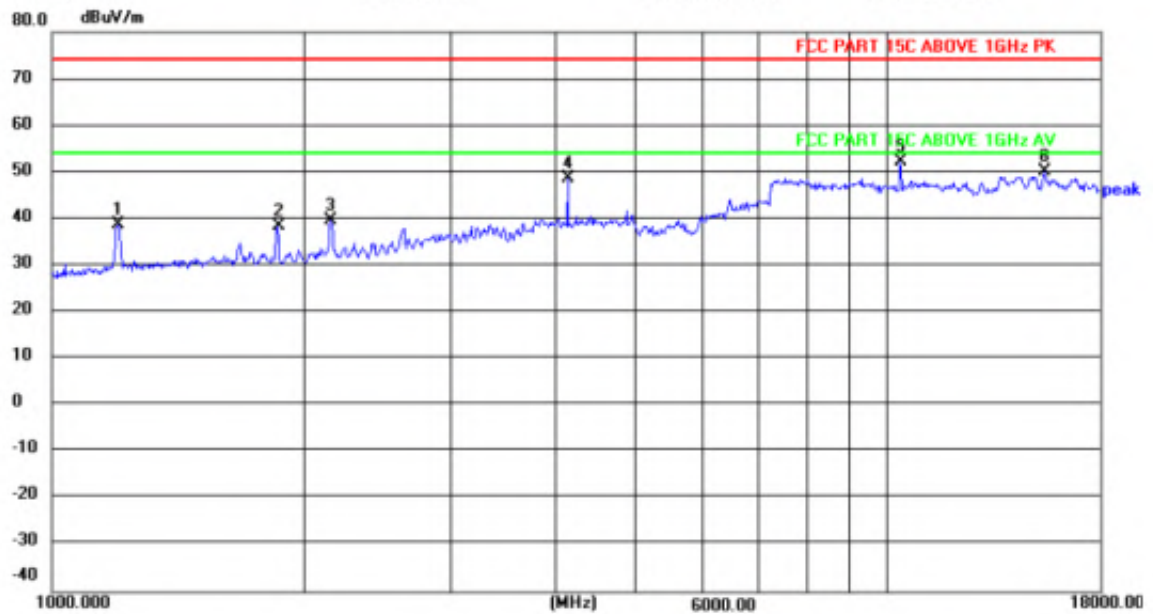
Radiated Emission Measurement

File :RF

Data :#3313

Date: 2026/03/03

Time: 17:28:06



Site LAB Chamber 1

Limit: FCC PART 15C ABOVE 1GHz PK

EUT:

M/N:

Mode: WIFI5G 5180MHZ TX

Note: CTL2512298017-WF

Polarization: **Horizontal**

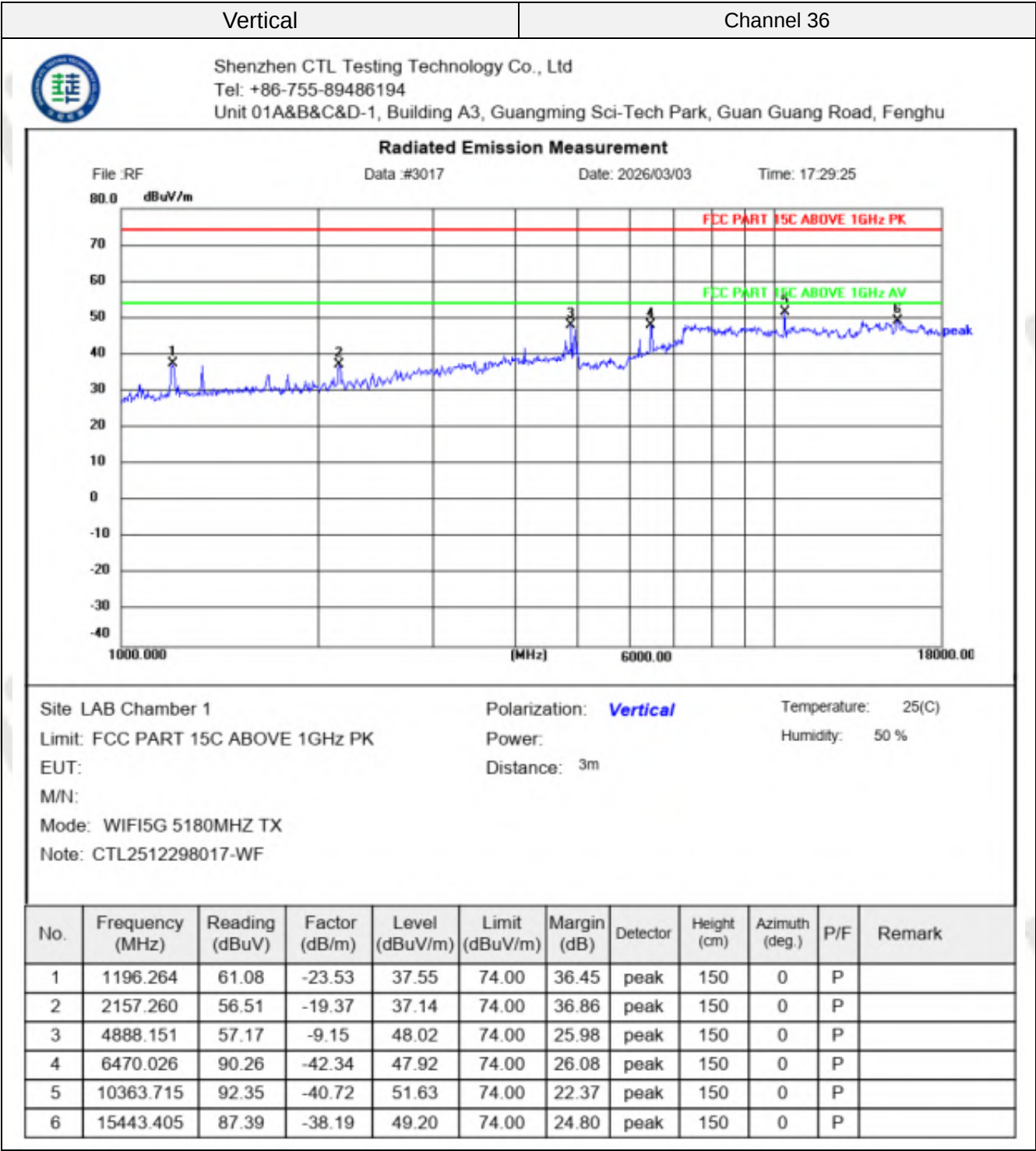
Power:

Distance: 3m

Temperature: 25(C)

Humidity: 50 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	62.30	-23.50	38.80	74.00	35.20	peak	150	360	P	
2	1861.588	58.53	-20.19	38.34	74.00	35.66	peak	150	360	P	
3	2157.260	58.27	-18.60	39.67	74.00	34.33	peak	150	360	P	
4	4145.664	57.30	-8.56	48.74	74.00	25.26	peak	150	360	P	
5	10363.715	93.02	-40.72	52.30	74.00	21.70	peak	150	360	P	
6	15443.405	88.43	-38.19	50.24	74.00	23.76	peak	150	360	P	



Horizontal

Channel 40

Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

File :RF

Data :#3019

Date: 2026/03/03

Time: 17:35:13

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	62.69	-23.50	39.19	74.00	34.81	peak	150	0	P	
2	1677.621	55.46	-21.11	34.35	74.00	39.65	peak	150	0	P	
3	2163.504	58.24	-18.55	39.69	74.00	34.31	peak	150	0	P	
4	2641.019	54.56	-15.82	38.74	74.00	35.26	peak	150	0	P	
5	4157.664	56.02	-8.56	47.46	74.00	26.54	peak	150	0	P	
6	10423.798	93.05	-40.72	52.33	74.00	21.67	peak	150	0	P	

Site LAB Chamber 1

Polarization: Horizontal

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

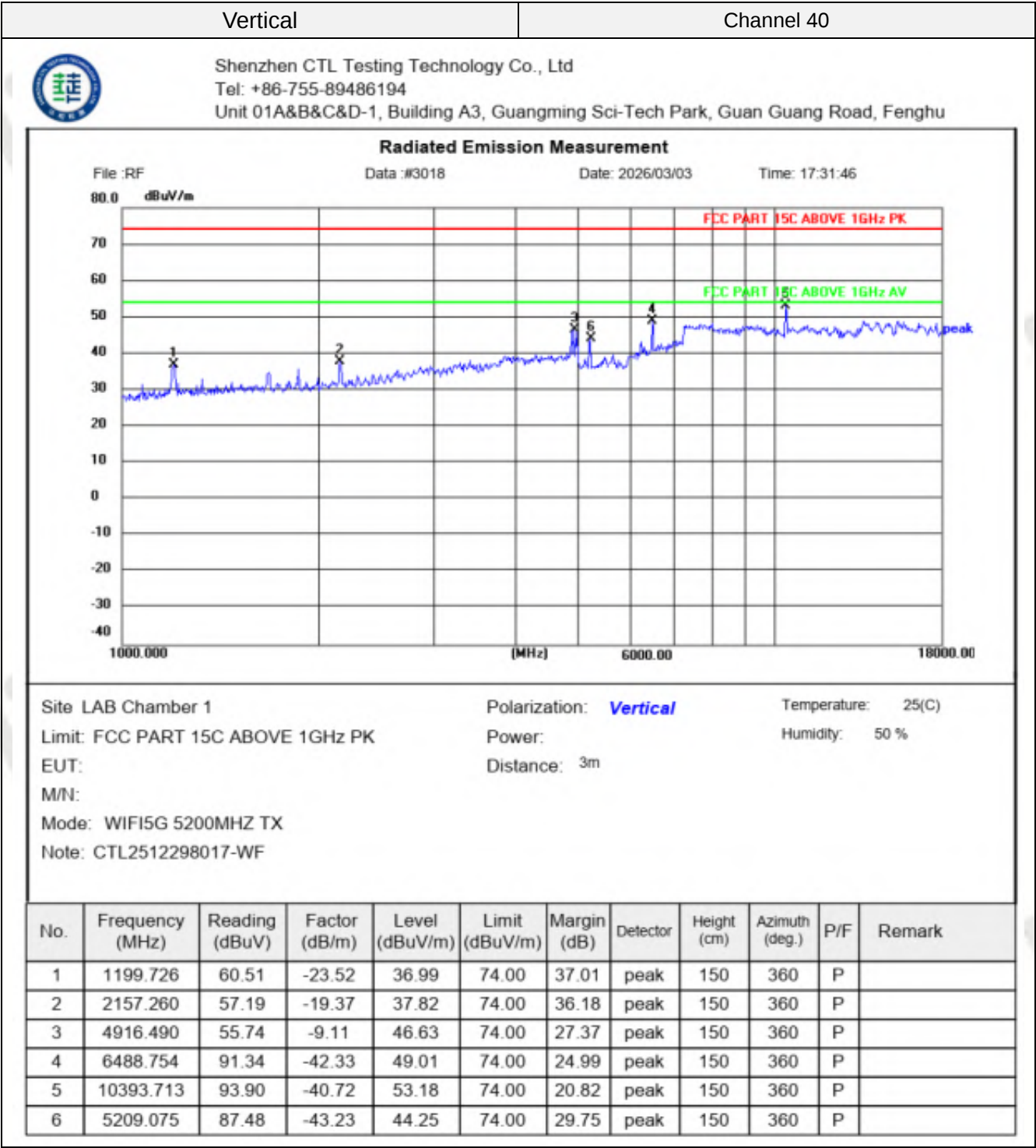
Distance: 3m

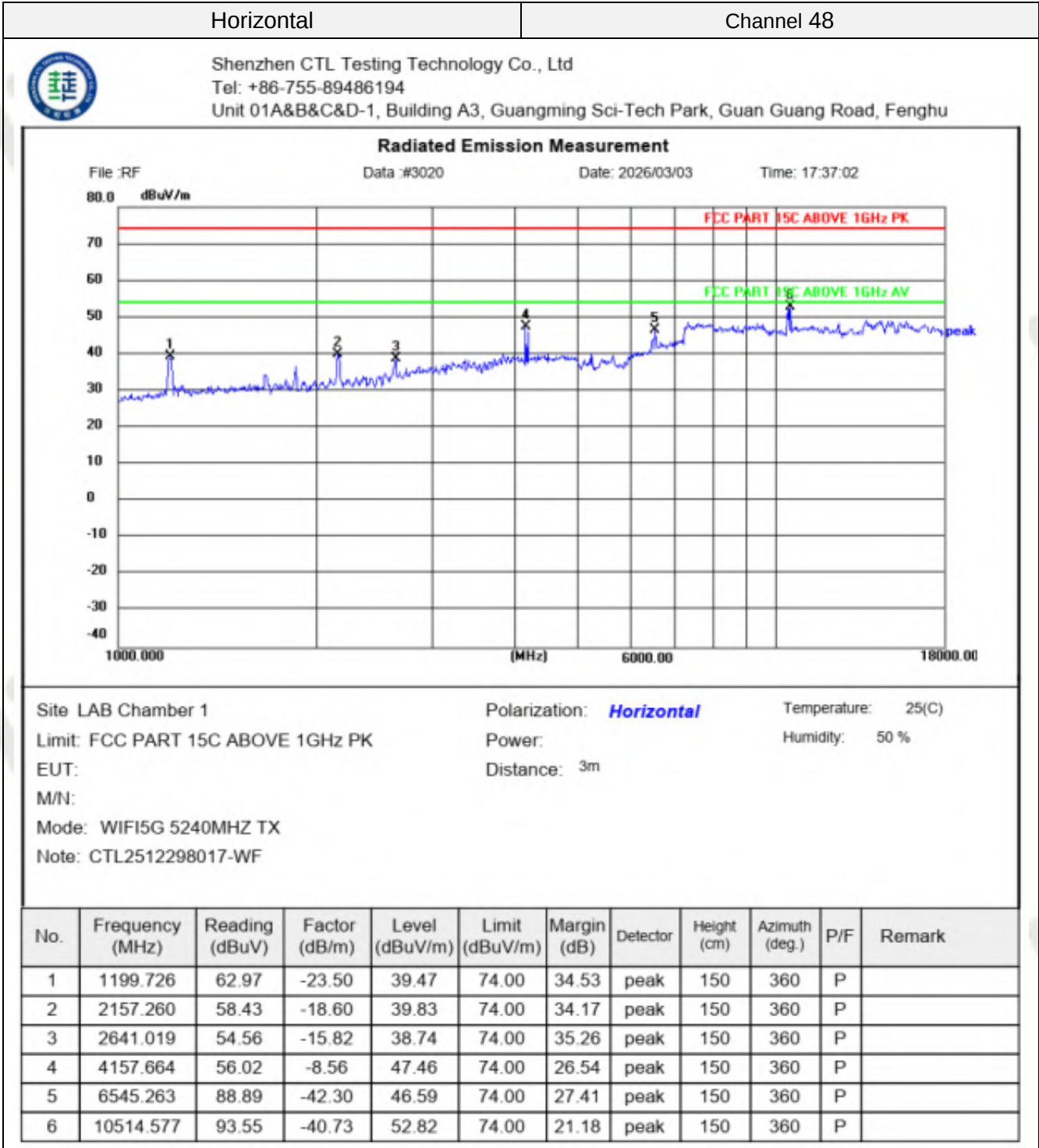
M/N:

Mode: WIFI5G 5200MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	62.69	-23.50	39.19	74.00	34.81	peak	150	0	P	
2	1677.621	55.46	-21.11	34.35	74.00	39.65	peak	150	0	P	
3	2163.504	58.24	-18.55	39.69	74.00	34.31	peak	150	0	P	
4	2641.019	54.56	-15.82	38.74	74.00	35.26	peak	150	0	P	
5	4157.664	56.02	-8.56	47.46	74.00	26.54	peak	150	0	P	
6	10423.798	93.05	-40.72	52.33	74.00	21.67	peak	150	0	P	





Vertical

Channel 48



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

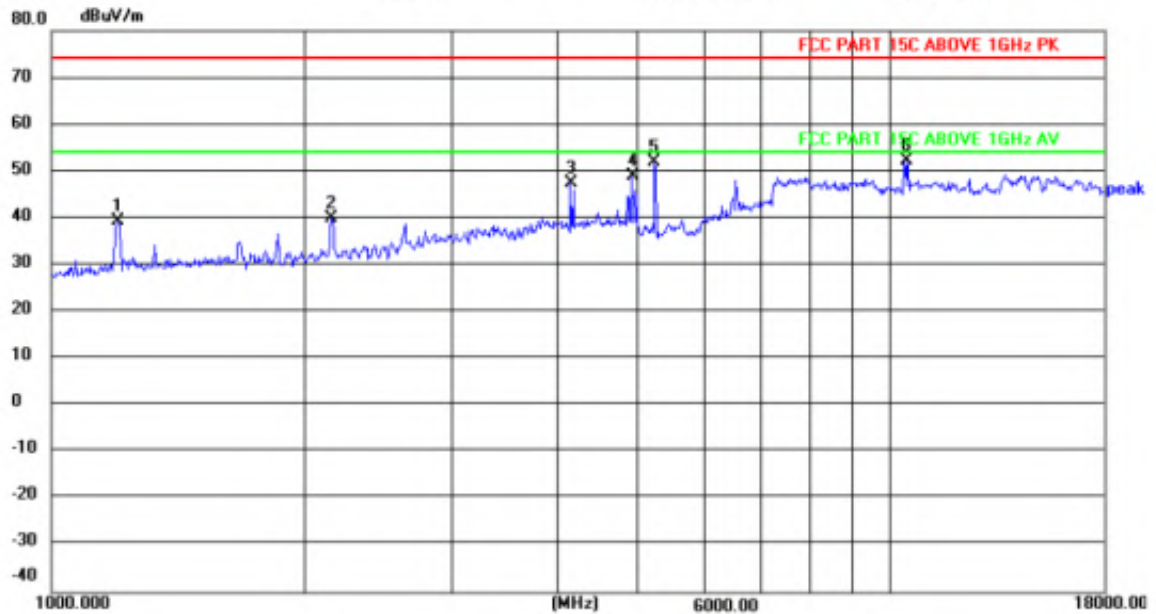
Radiated Emission Measurement

File :RF

Data :#3021

Date: 2026/03/03

Time: 17:37:53



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

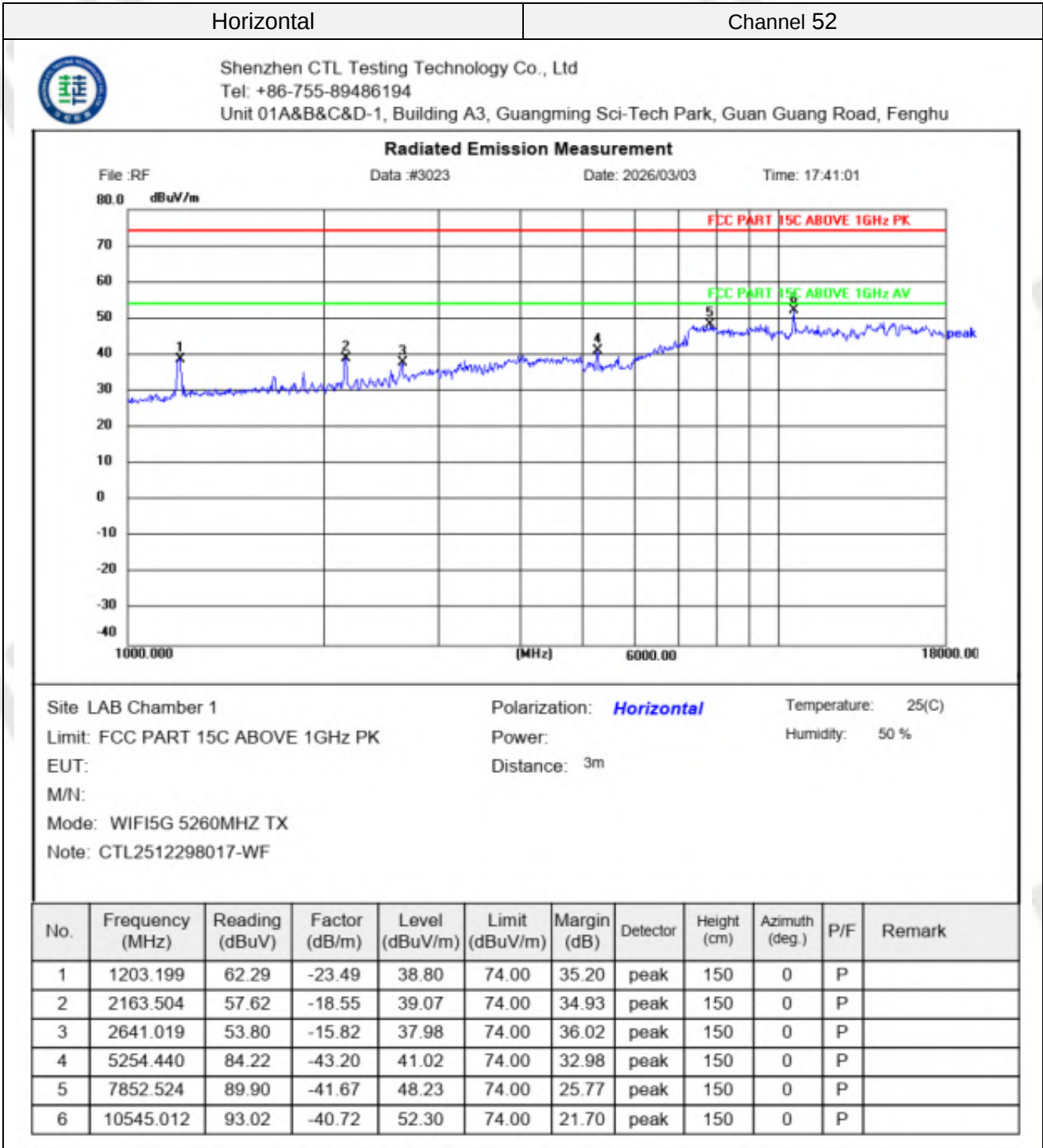
Mode: WIFI5G 5240MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	62.99	-23.52	39.47	74.00	34.53	peak	150	0	P	
2	2157.260	59.20	-19.37	39.83	74.00	34.17	peak	150	0	P	
3	4157.664	57.55	-10.09	47.46	74.00	26.54	peak	150	0	P	
4	4916.490	57.99	-9.11	48.88	74.00	25.12	peak	150	0	P	
5	5239.274	95.28	-43.21	52.07	74.00	21.93	peak	150	0	P	
6	10484.230	92.97	-40.72	52.25	74.00	21.75	peak	150	0	P	

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
6. Other emissions are attenuated 20dB below the limits from 9 kHz to 30MHz, so it does not recorded in report.
7. 18GHz-40GHz not recorded for no spurious point have a margin of less than 6 dB with respect to the limits.



Vertical

Channel 52



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

File :RF

Data :#3022

Date: 2026/03/03

Time: 17:40:09



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

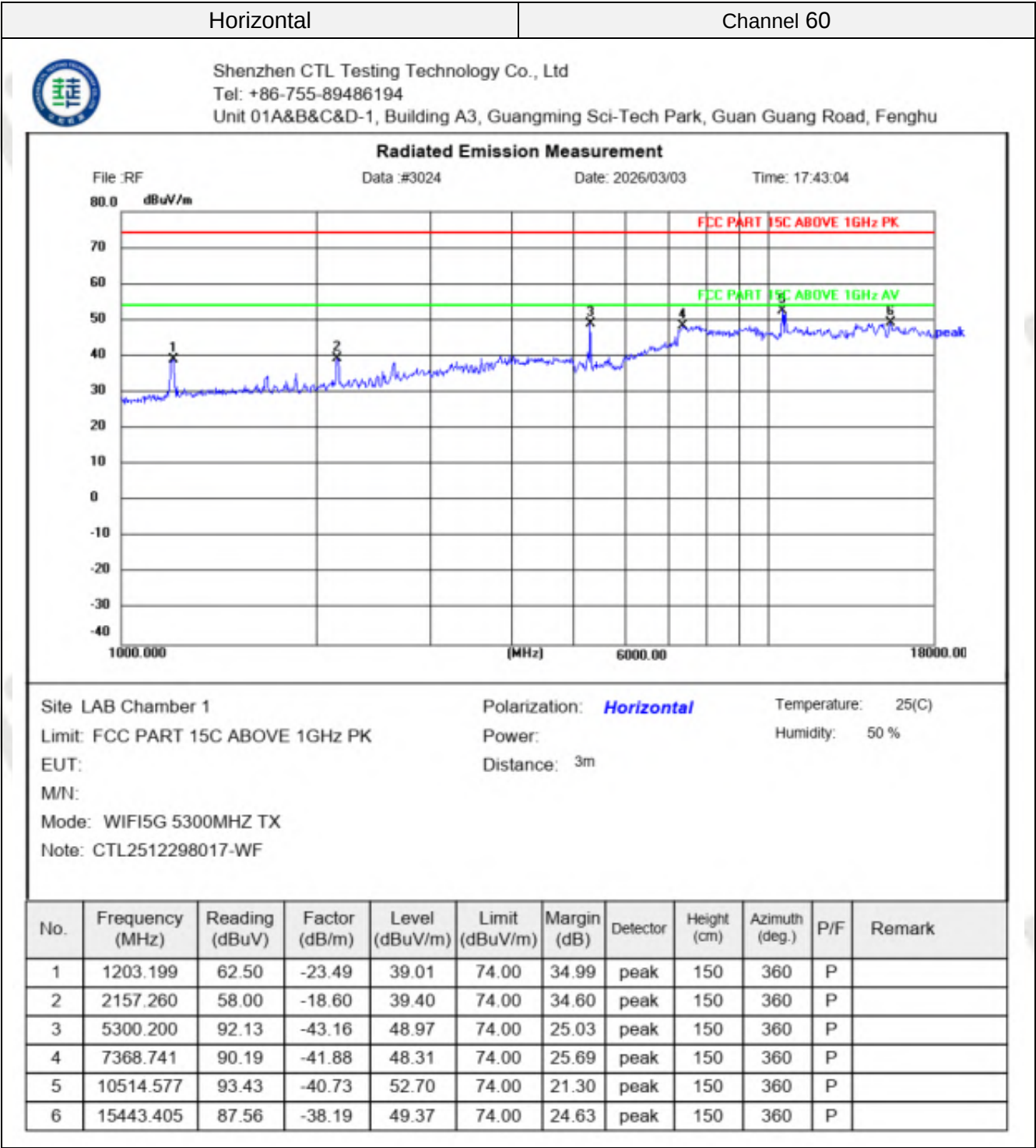
Distance: 3m

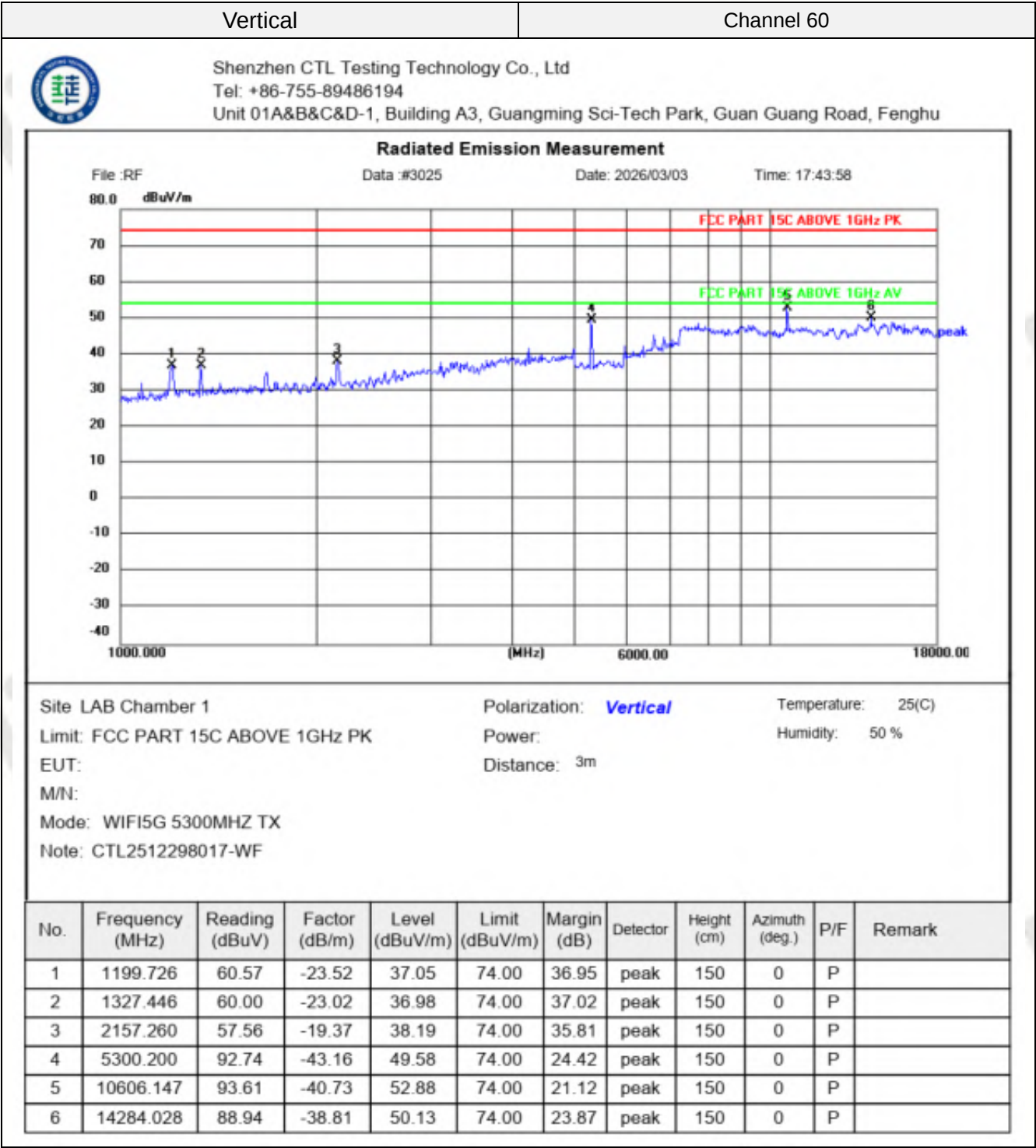
M/N:

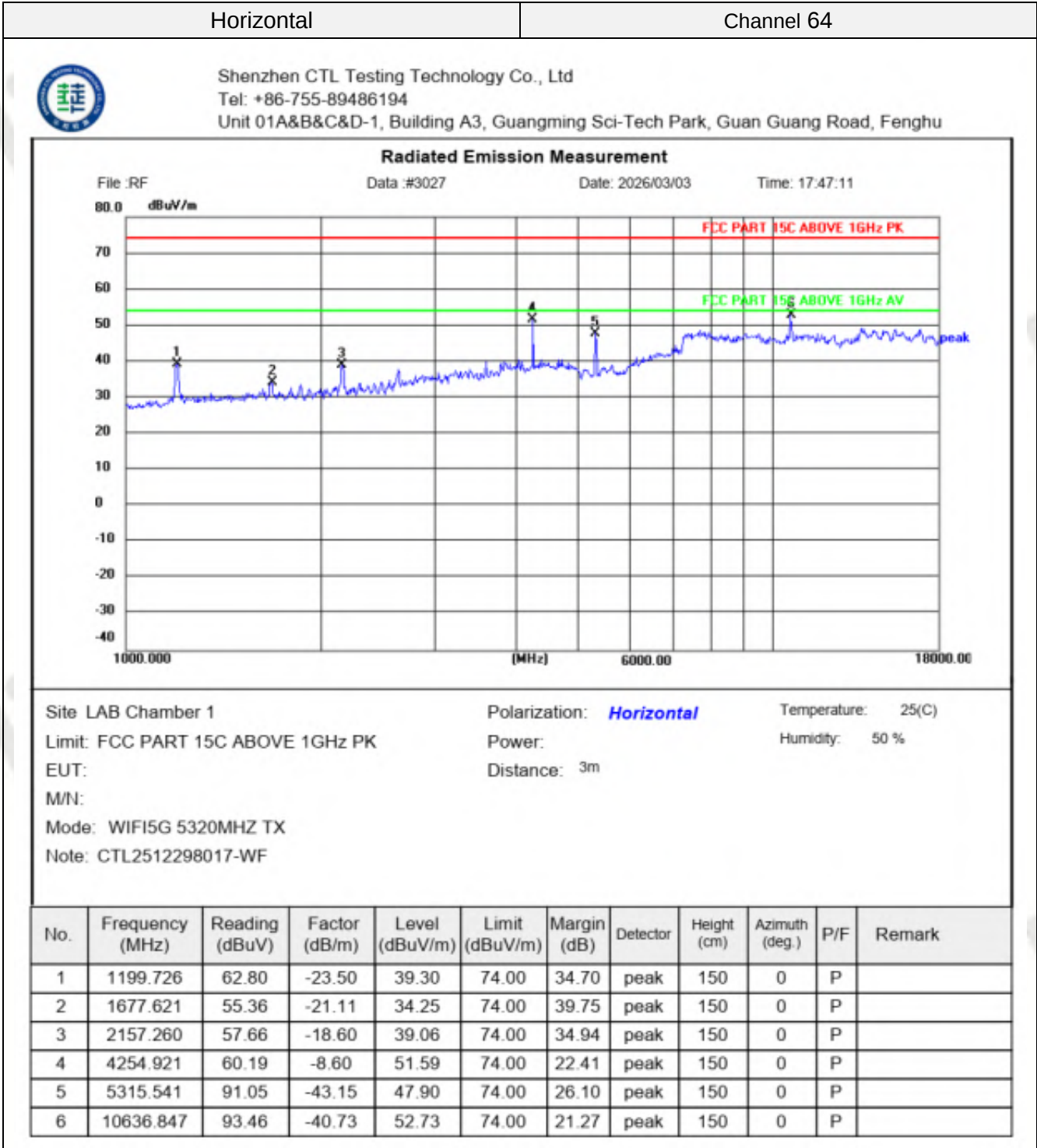
Mode: WIFI5G 5260MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	62.99	-23.52	39.47	74.00	34.53	peak	150	360	P	
2	1866.977	61.57	-20.91	40.66	74.00	33.34	peak	150	360	P	
3	4157.664	57.55	-10.09	47.46	74.00	26.54	peak	150	360	P	
4	4916.490	57.99	-9.11	48.88	74.00	25.12	peak	150	360	P	
5	5239.274	95.28	-43.21	52.07	74.00	21.93	peak	150	360	P	
6	10393.713	93.20	-40.72	52.48	74.00	21.52	peak	150	360	P	







Vertical

Channel 64



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

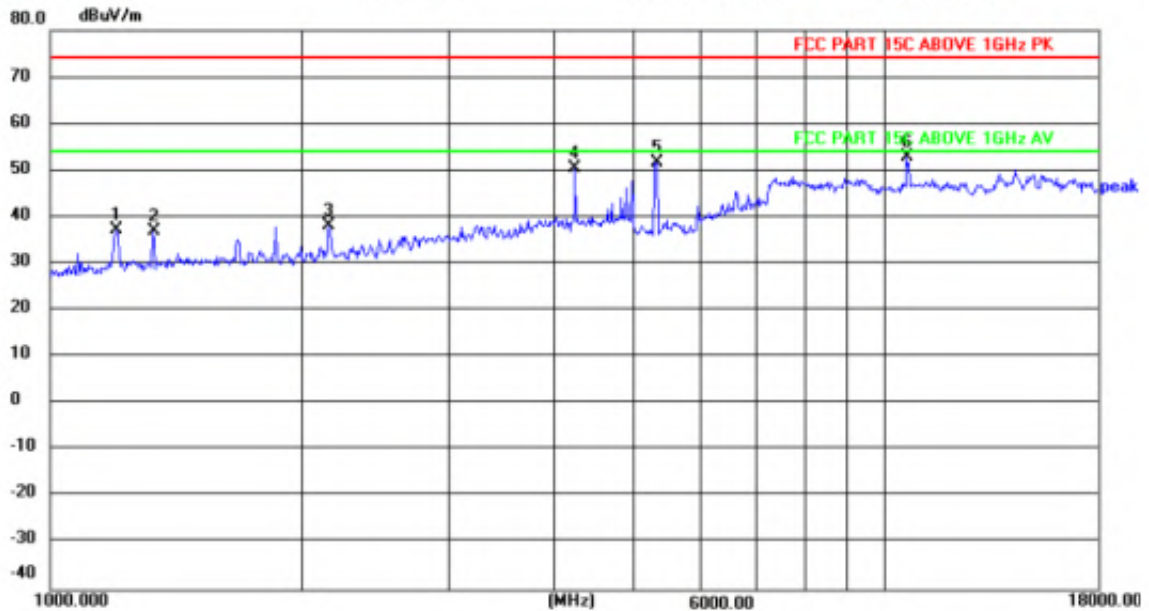
Radiated Emission Measurement

File :RF

Data :#3026

Date: 2026/03/03

Time: 17:45:55



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

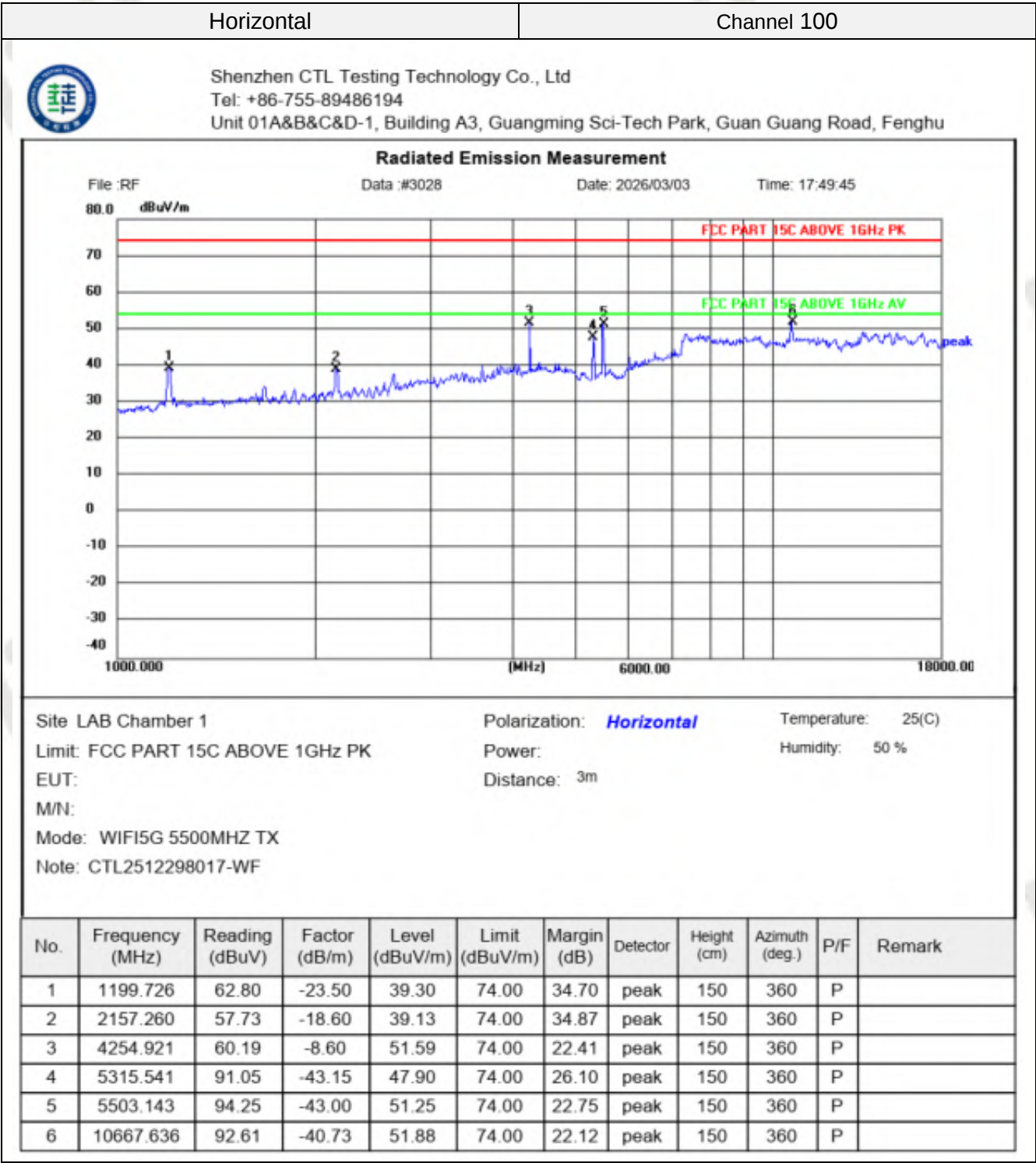
Mode: WIFI5G 5320MHZ TX

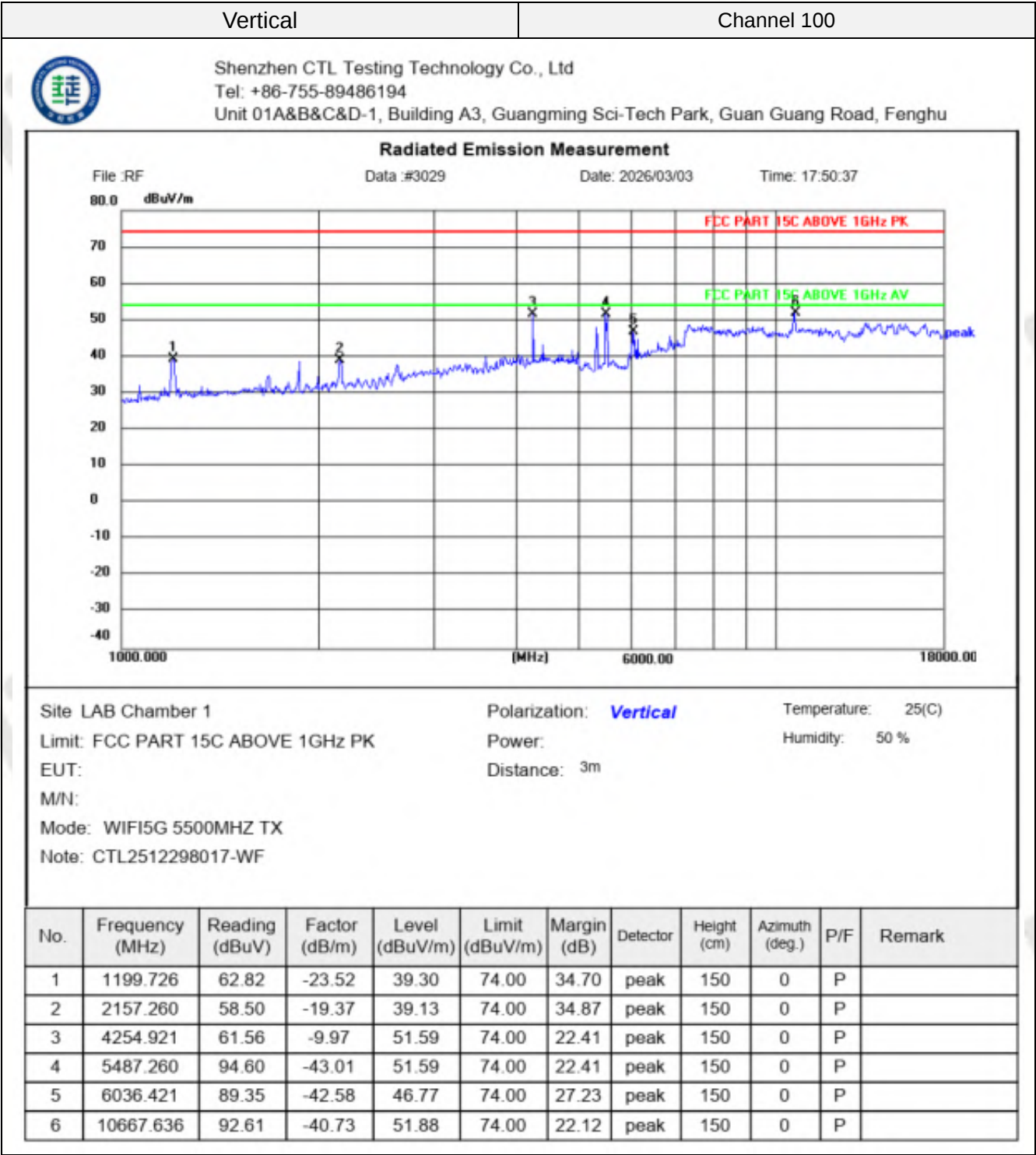
Note: CTL2512298017-WF

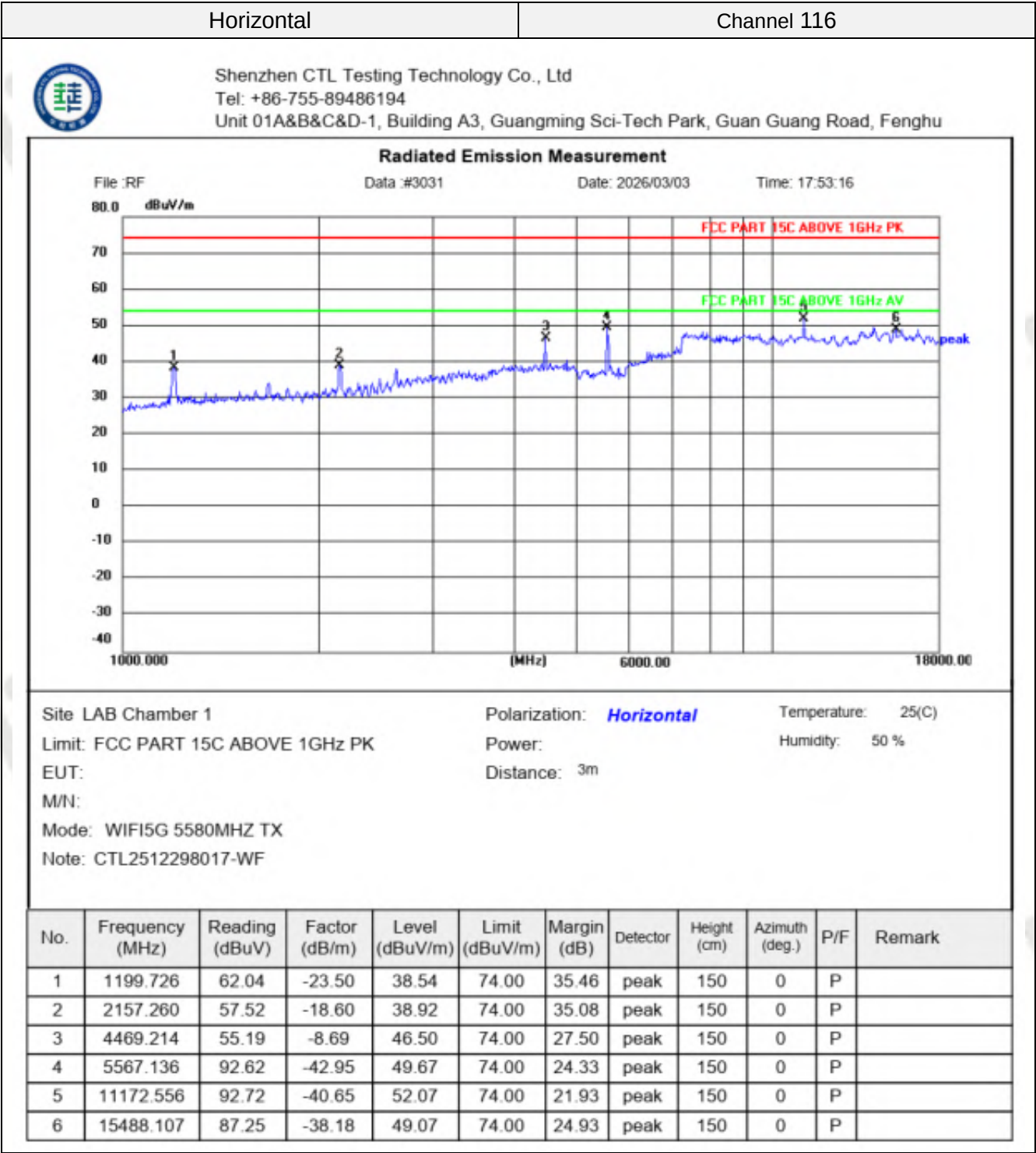
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	60.75	-23.52	37.23	74.00	36.77	peak	150	360	P	
2	1327.446	60.00	-23.02	36.98	74.00	37.02	peak	150	360	P	
3	2157.260	57.56	-19.37	38.19	74.00	35.81	peak	150	360	P	
4	4254.921	60.32	-9.97	50.35	74.00	23.65	peak	150	360	P	
5	5330.927	94.80	-43.14	51.66	74.00	22.34	peak	150	360	P	
6	10606.147	93.61	-40.73	52.88	74.00	21.12	peak	150	360	P	

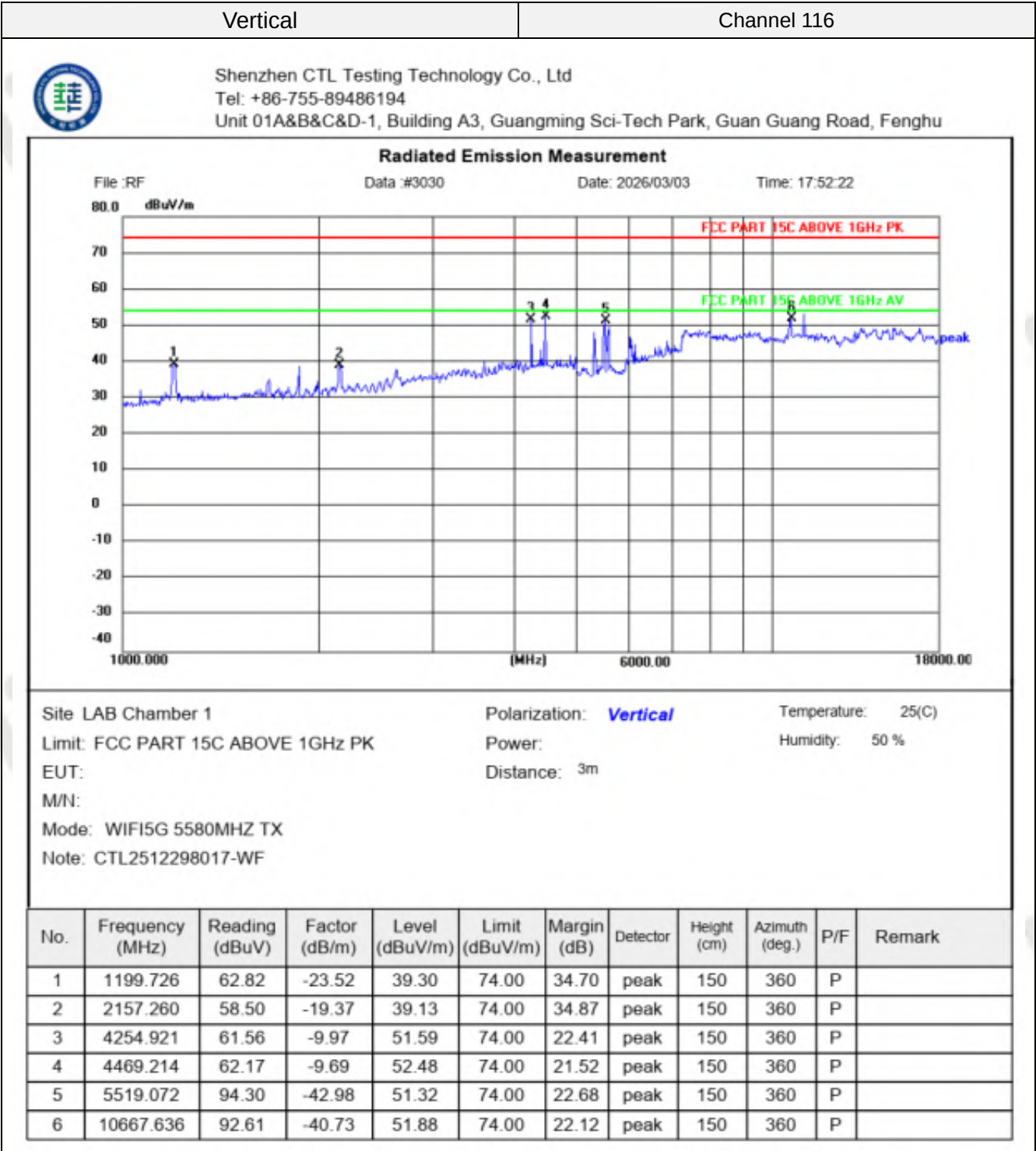
REMARKS:

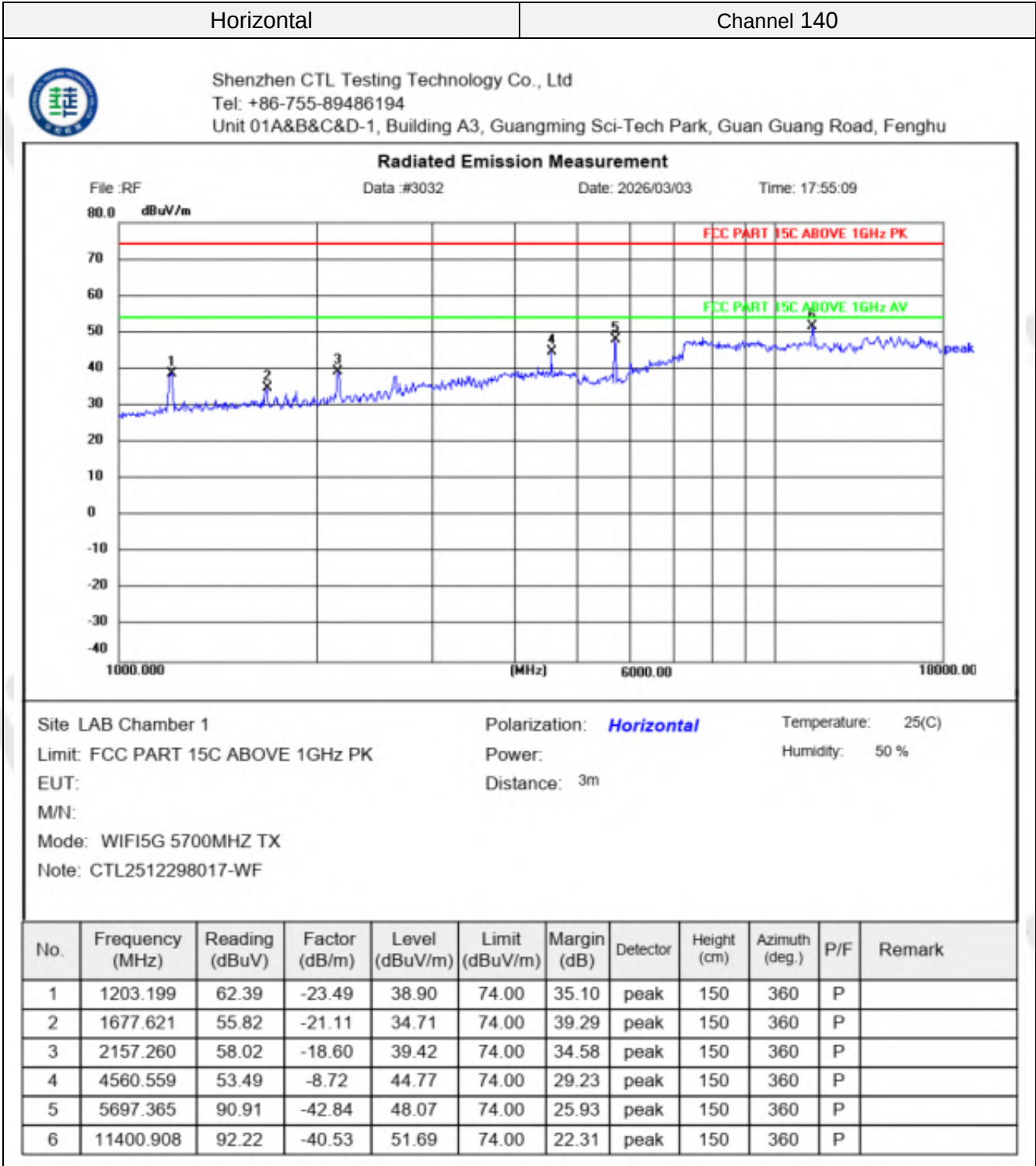
1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
5. Other emissions are attenuated 20dB below the limits from 9 kHz to 30MHz, so it does not recorded in report.
6. 18GHz-40GHz not recorded for no spurious point have a margin of less than 6 dB with respect to the limits.











Vertical

Channel 140



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

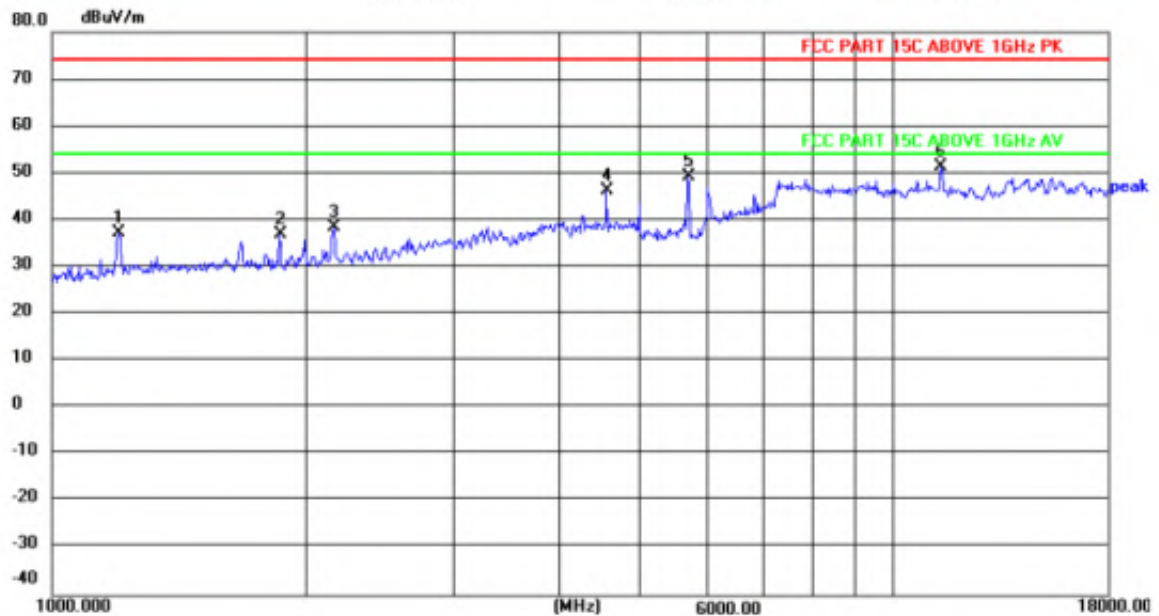
Radiated Emission Measurement

File :RF

Data :#3033

Date: 2026/03/03

Time: 17:56:04



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

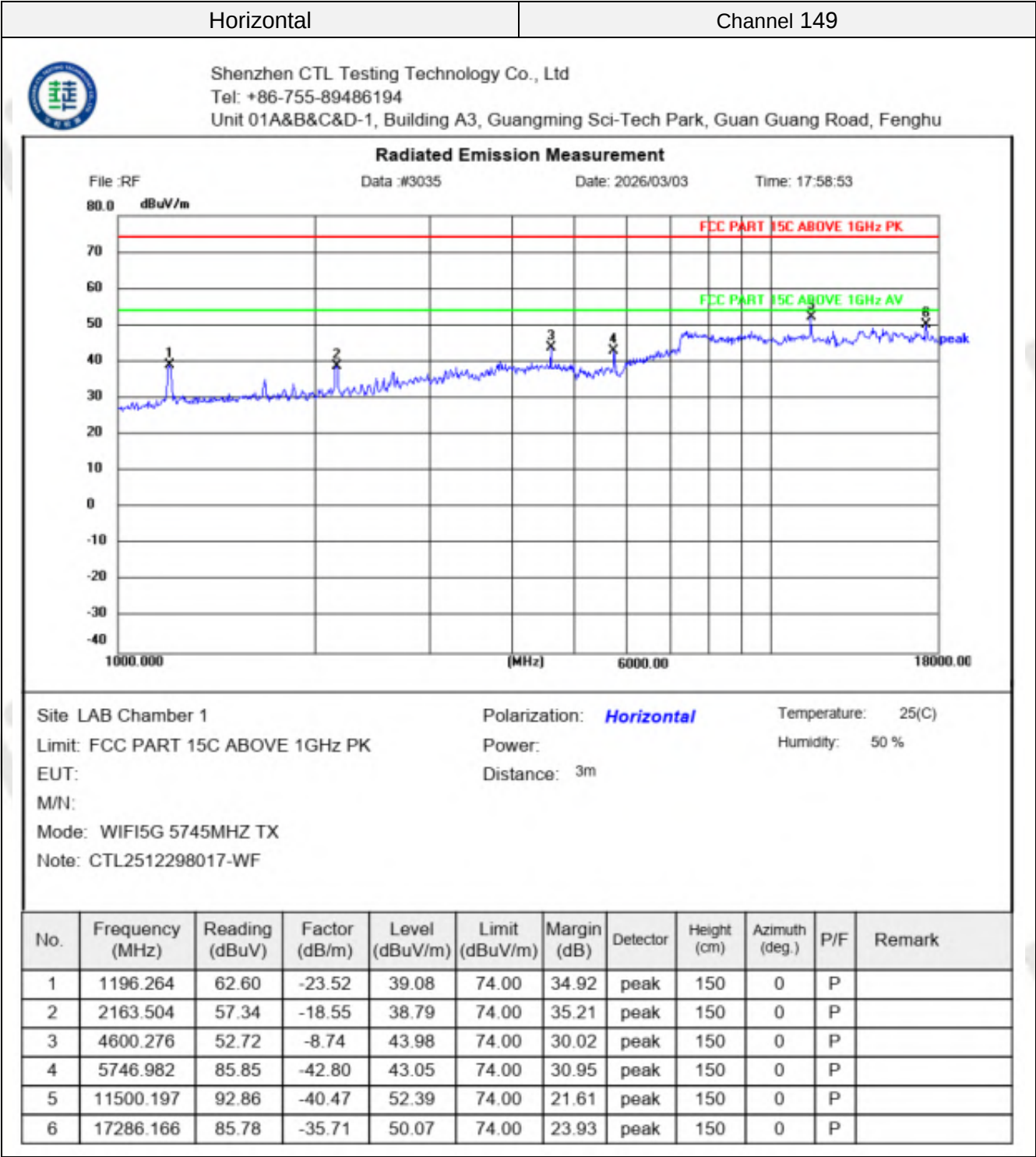
Mode: WIFI5G 5700MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	60.66	-23.52	37.14	74.00	36.86	peak	150	0	P	
2	1861.588	57.99	-20.94	37.05	74.00	36.95	peak	150	0	P	
3	2163.504	57.71	-19.32	38.39	74.00	35.61	peak	150	0	P	
4	4560.559	55.95	-9.57	46.38	74.00	27.62	peak	150	0	P	
5	5697.365	92.12	-42.84	49.28	74.00	24.72	peak	150	0	P	
6	11400.908	91.78	-40.53	51.25	74.00	22.75	peak	150	0	P	

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
5. Other emissions are attenuated 20dB below the limits from 9 kHz to 30MHz, so it does not recorded in report.
6. 18GHz-40GHz not recorded for no spurious point have a margin of less than 6 dB with respect to the limits.



Vertical

Channel 149



Shenzhen CTL Testing Technology Co., Ltd

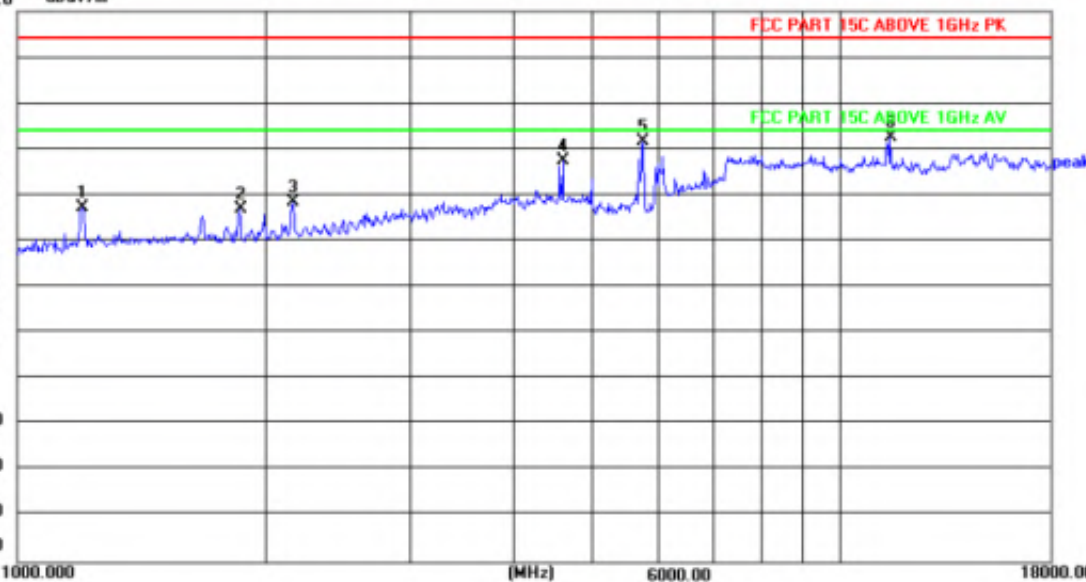
Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

File :RF Data :#3034 Date: 2026/03/03 Time: 17:57:58

80.0 dBuV/m



1000.000 (MHz) 6000.00 18000.00

Site LAB Chamber 1 Polarization: **Vertical** Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK Power: Humidity: 50 %

EUT: Distance: 3m

M/N:

Mode: WIFI5G 5745MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	60.80	-23.52	37.28	74.00	36.72	peak	150	360	P	
2	1861.588	57.99	-20.94	37.05	74.00	36.95	peak	150	360	P	
3	2163.504	57.71	-19.32	38.39	74.00	35.61	peak	150	360	P	
4	4600.276	56.91	-9.52	47.39	74.00	26.61	peak	150	360	P	
5	5763.617	94.38	-42.79	51.59	74.00	22.41	peak	150	360	P	
6	11500.197	93.09	-40.47	52.62	74.00	21.38	peak	150	360	P	

Horizontal

Channel 157

Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

File :RF

Data :#3037

Date: 2026/03/03

Time: 18:00:32

80.0 dBuV/m

(MHz)

1000.0006000.0018000.00

Site LAB Chamber 1

Limit: FCC PART 15C ABOVE 1GHz PK

EUT:

M/N:

Mode: WIFI5G 5785MHZ TX

Note: CTL2512298017-WF

Polarization: Horizontal

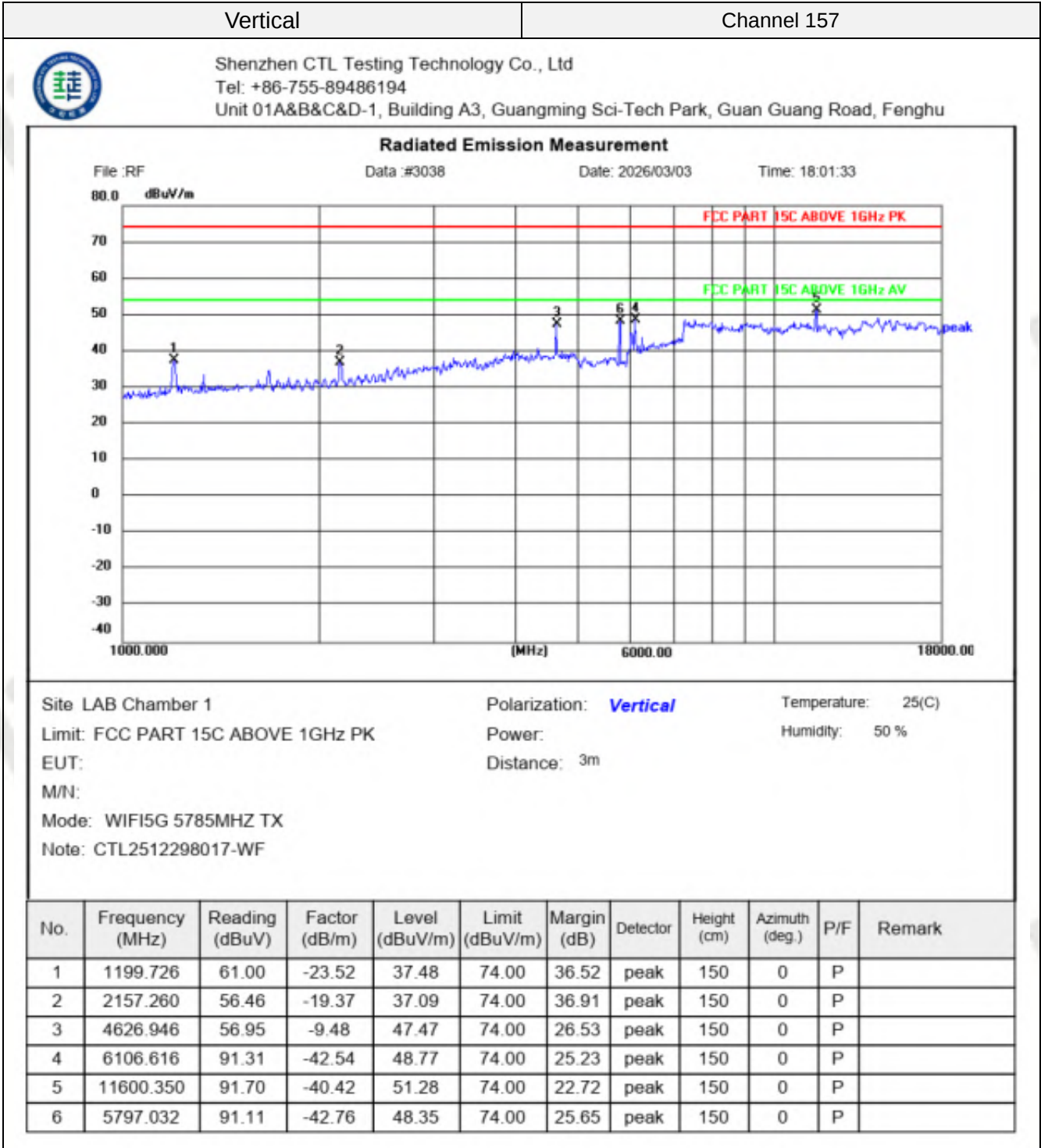
Temperature: 25(C)

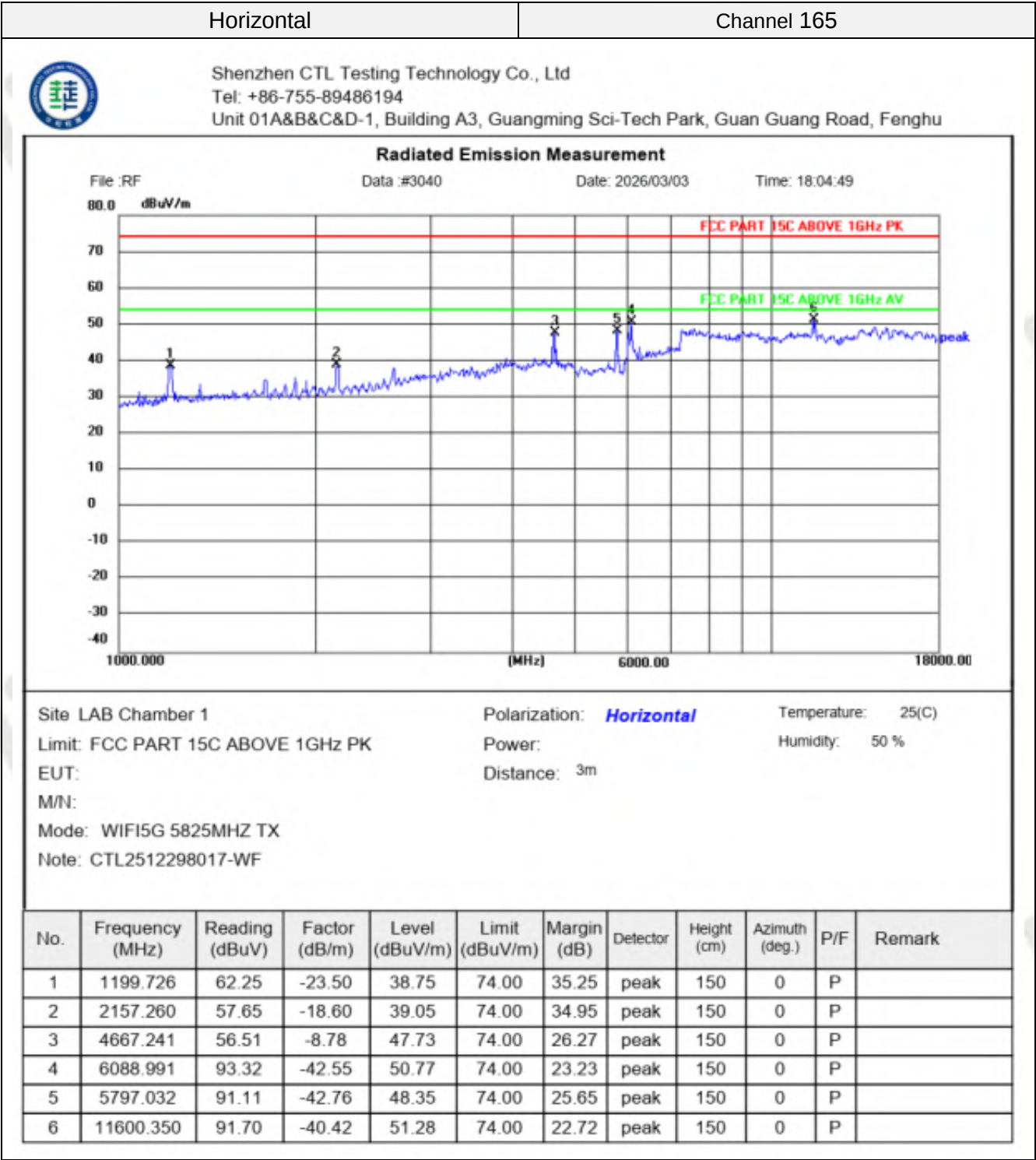
Power:

Humidity: 50 %

Distance: 3m

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1196.264	62.45	-23.52	38.93	74.00	35.07	peak	150	360	P	
2	2157.260	57.56	-18.60	38.96	74.00	35.04	peak	150	360	P	
3	2641.019	53.98	-15.82	38.16	74.00	35.84	peak	150	360	P	
4	6053.893	89.58	-42.57	47.01	74.00	26.99	peak	150	360	P	
5	11566.869	91.39	-40.43	50.96	74.00	23.04	peak	150	360	P	
6	3289.821	51.07	-12.22	38.85	74.00	35.15	peak	150	360	P	





Vertical

Channel 165



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

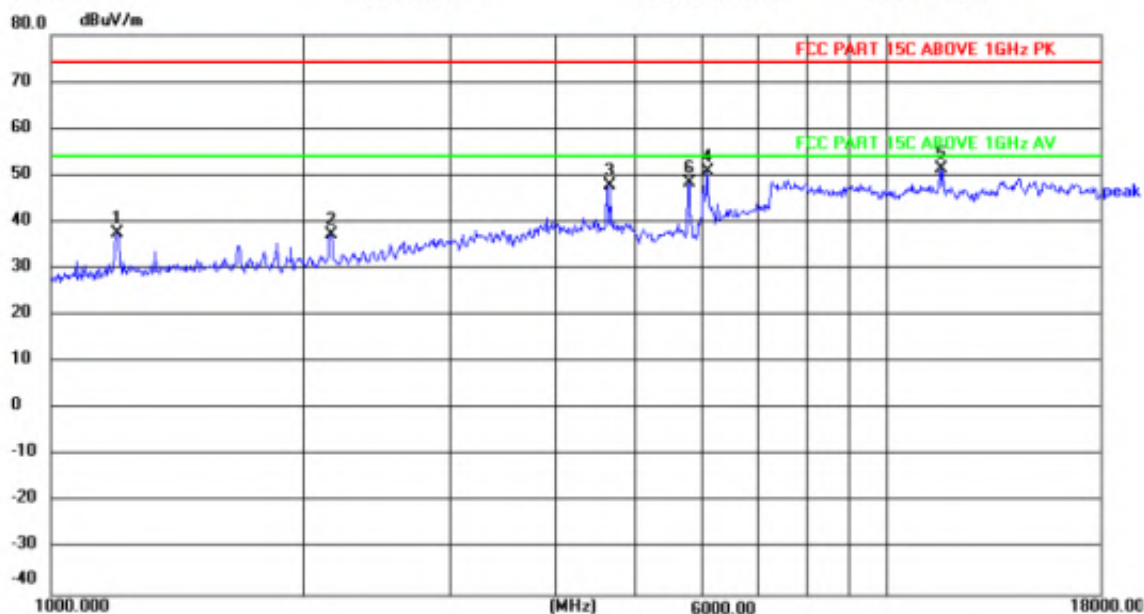
Radiated Emission Measurement

File : RF

Data : #3039

Date: 2026/03/03

Time: 18:03:27



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC PART 15C ABOVE 1GHz PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5G 5825MHZ TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1199.726	61.00	-23.52	37.48	74.00	36.52	peak	150	360	P	
2	2163.504	56.71	-19.32	37.39	74.00	36.61	peak	150	360	P	
3	4667.241	57.17	-9.44	47.73	74.00	26.27	peak	150	360	P	
4	6088.991	93.32	-42.55	50.77	74.00	23.23	peak	150	360	P	
5	11600.350	91.70	-40.42	51.28	74.00	22.72	peak	150	360	P	
6	5797.032	91.11	-42.76	48.35	74.00	25.65	peak	150	360	P	

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) - Pre-amplifier Factor
3. Margin value = Limit value - Emission level.
4. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
5. Other emissions are attenuated 20dB below the limits from 9 kHz to 30MHz, so it does not recorded in report.
6. 18GHz-40GHz not recorded for no spurious point have a margin of less than 6 dB with respect to the limits.

Band Edge Test Plots of U-NII 1

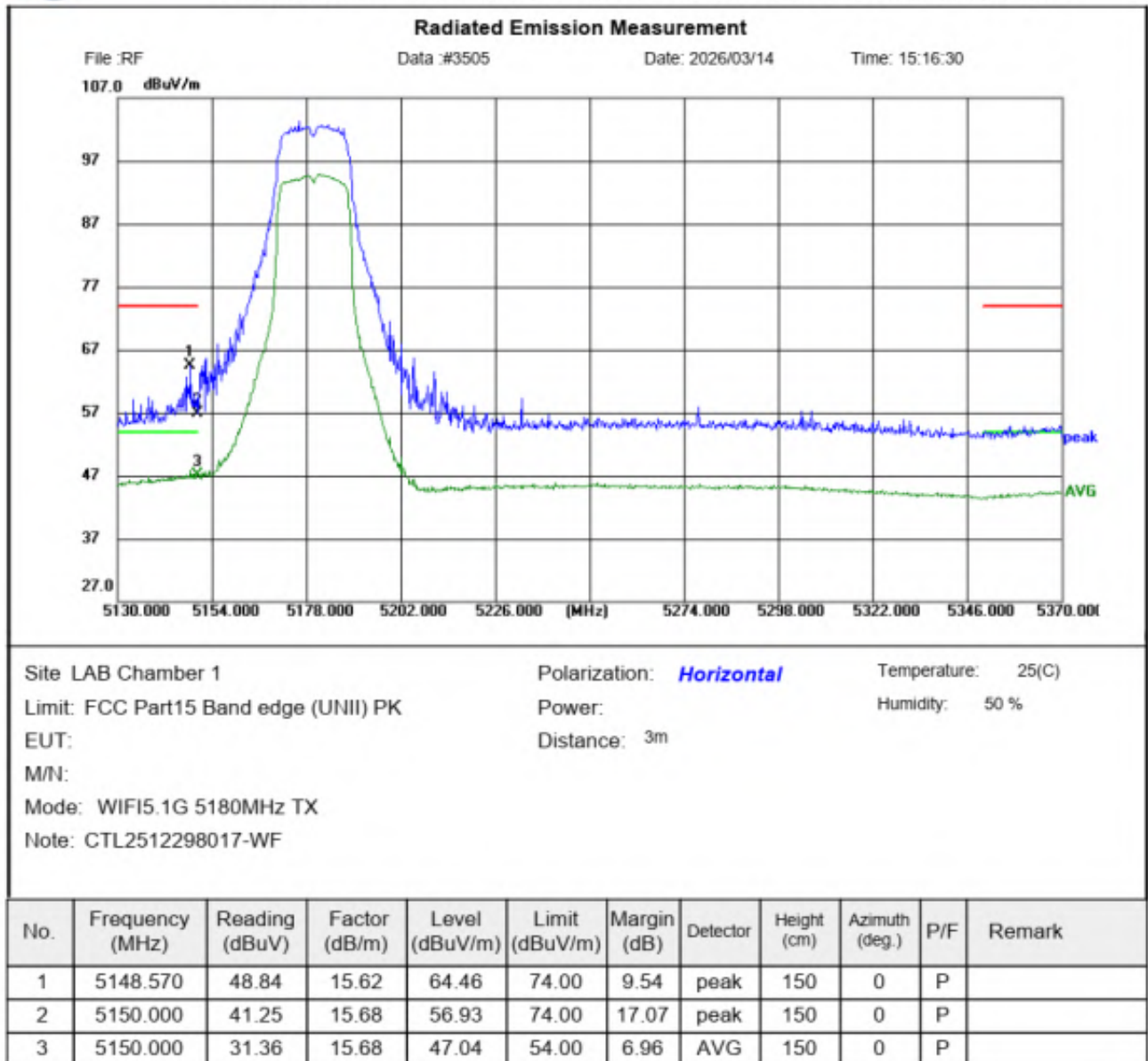
802.11n (HT20) mode@ Ch36_5180MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

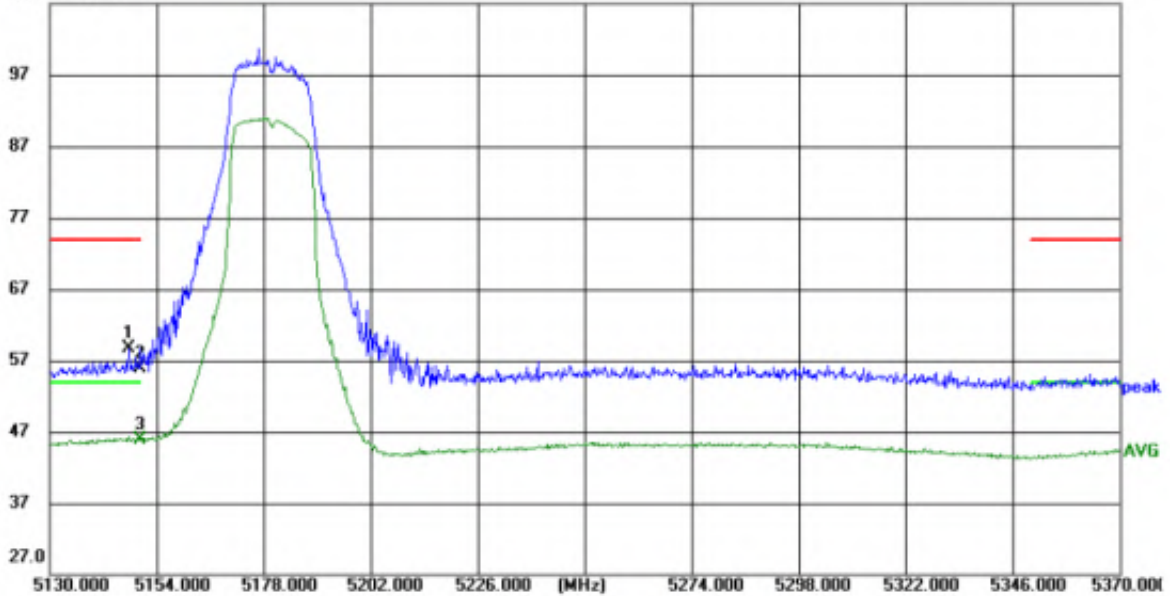
File :RF

Data :#3504

Date: 2026/03/14

Time: 15:15:00

107.0 dBuV/m



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Band edge (UNII) PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.1G 5180MHz TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5147.970	43.07	15.60	58.67	74.00	15.33	peak	150	360	P	
2	5150.000	40.13	15.68	55.81	74.00	18.19	peak	150	360	P	
3	5150.000	30.24	15.68	45.92	54.00	8.08	AVG	150	360	P	

Band Edge Test Plots of U-NII 1

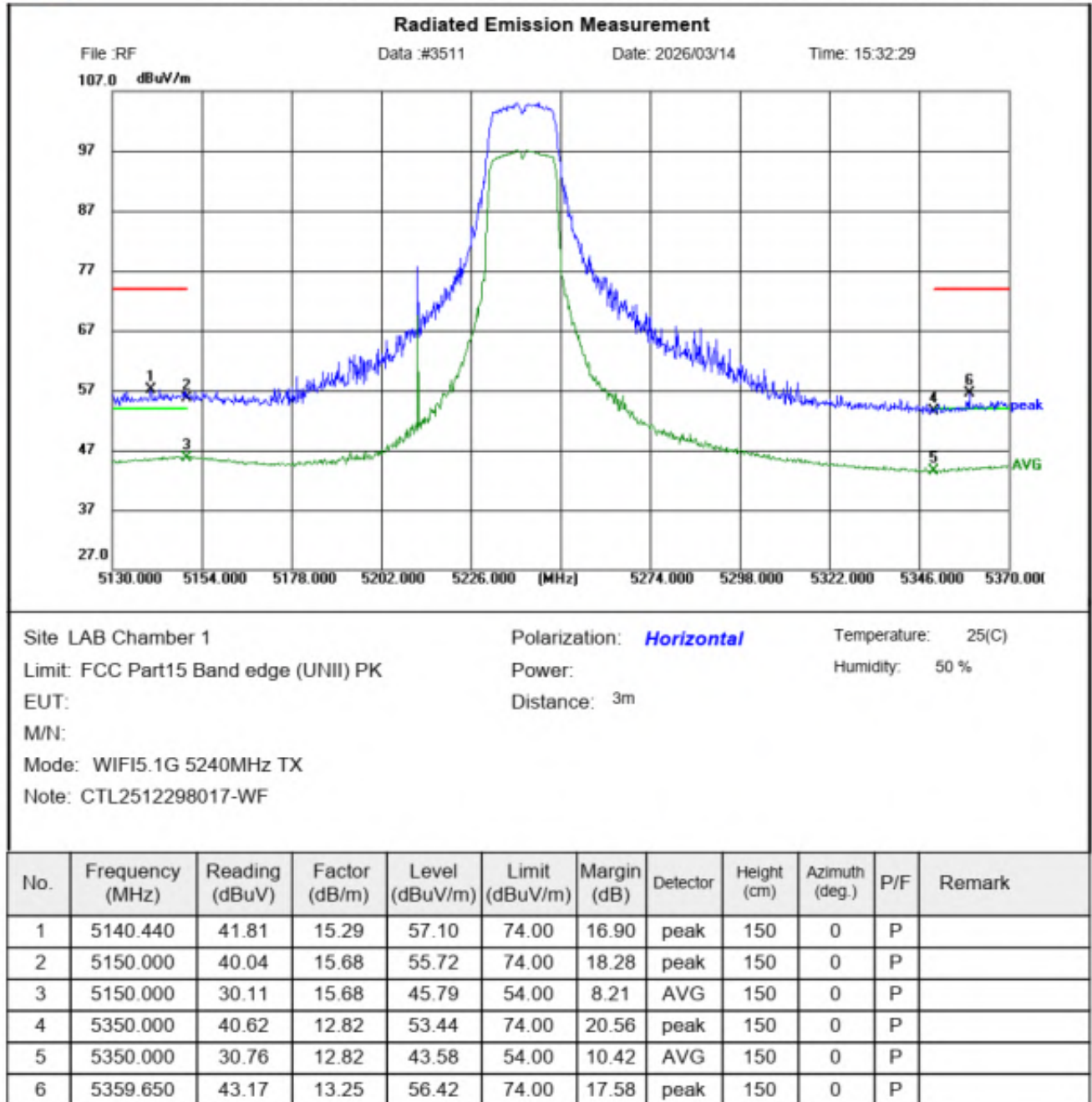
802.11n (HT20) mode@ Ch48_5240MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

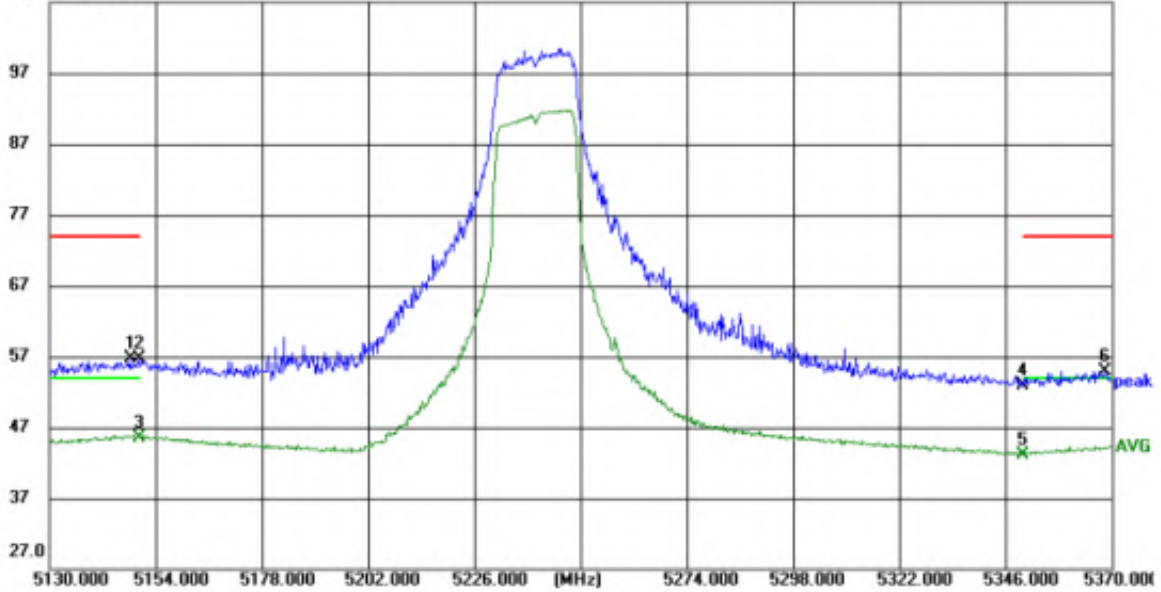
File :RF

Data :#3510

Date: 2026/03/14

Time: 15:27:06

107.0 dBuV/m



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Band edge (UNII) PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.1G 5240MHz TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5148.450	41.03	15.62	56.65	74.00	17.35	peak	150	360	P	
2	5150.000	41.01	15.68	56.69	74.00	17.31	peak	150	360	P	
3	5150.000	29.92	15.68	45.60	54.00	8.40	AVG	150	360	P	
4	5350.000	40.00	12.82	52.82	74.00	21.18	peak	150	360	P	
5	5350.000	30.34	12.82	43.16	54.00	10.84	AVG	150	360	P	
6	5368.770	41.26	13.67	54.93	74.00	19.07	peak	150	360	P	

Band Edge Test Plots of U-NII 1

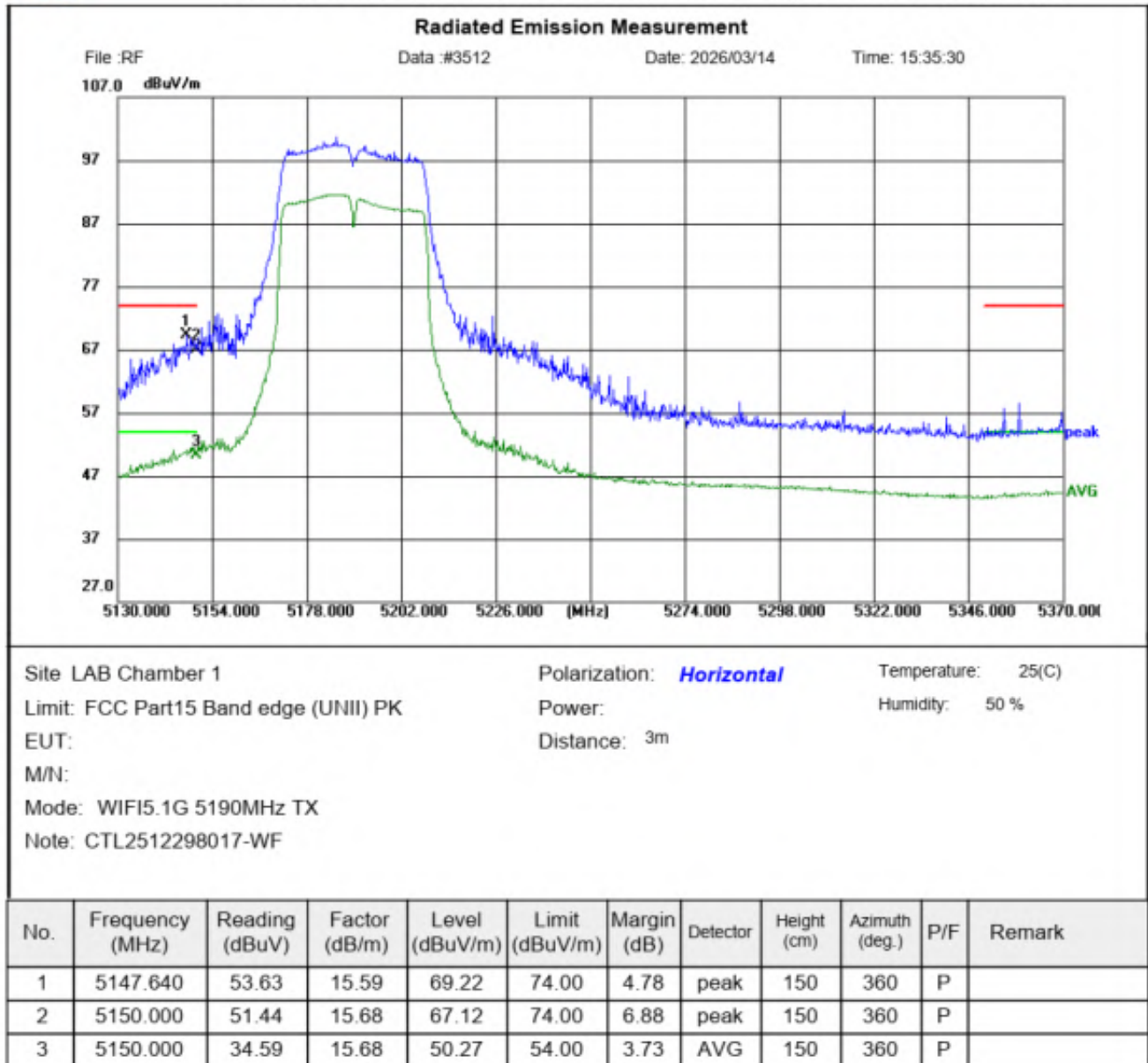
802.11n (HT40) mode@ Ch38_5190MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu



Band Edge Test Plots of U-NII 1

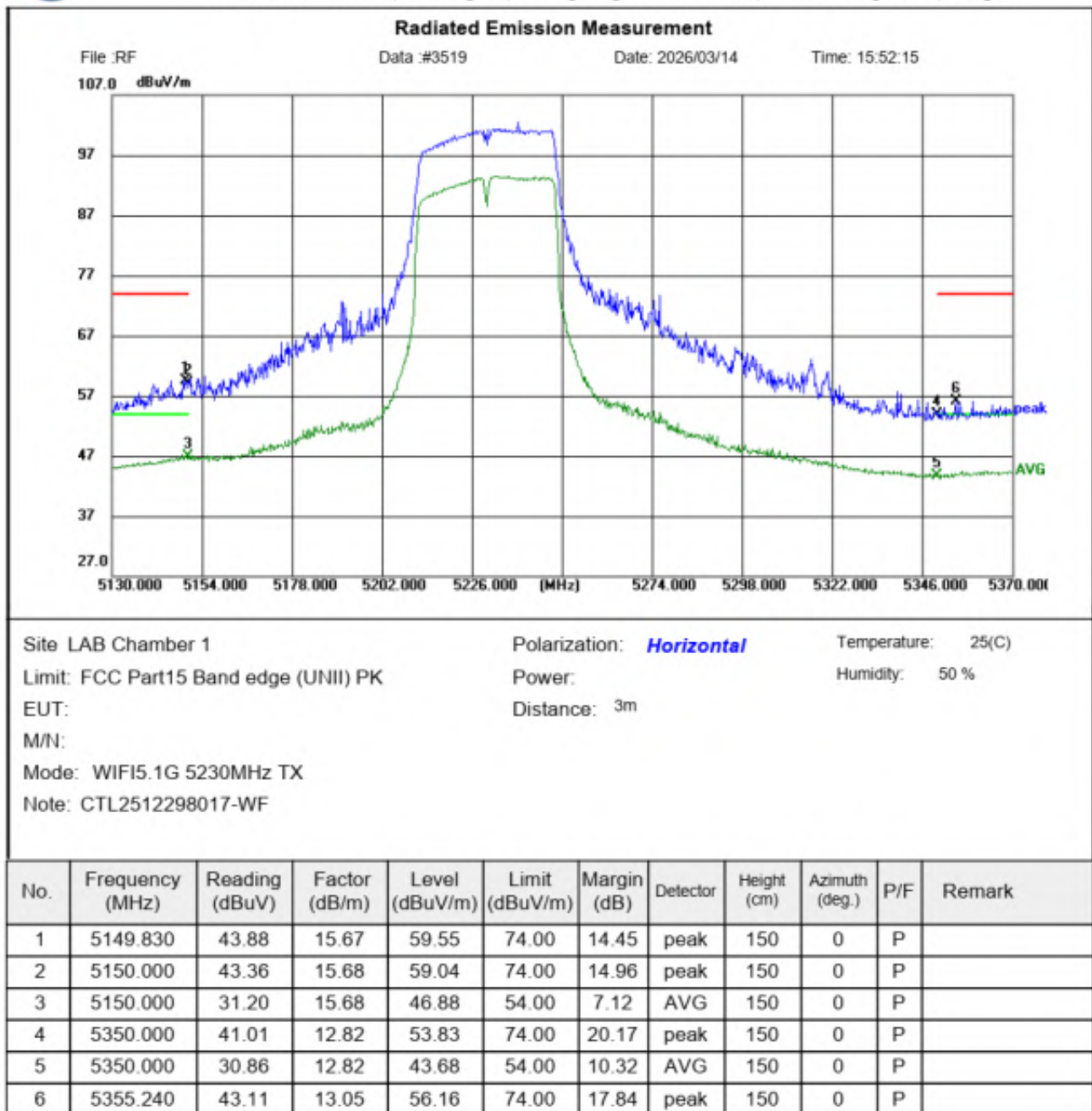
802.11n (HT40) mode@ Ch46_5230MHz



Shenzhen CTL Testing Technology Co., Ltd

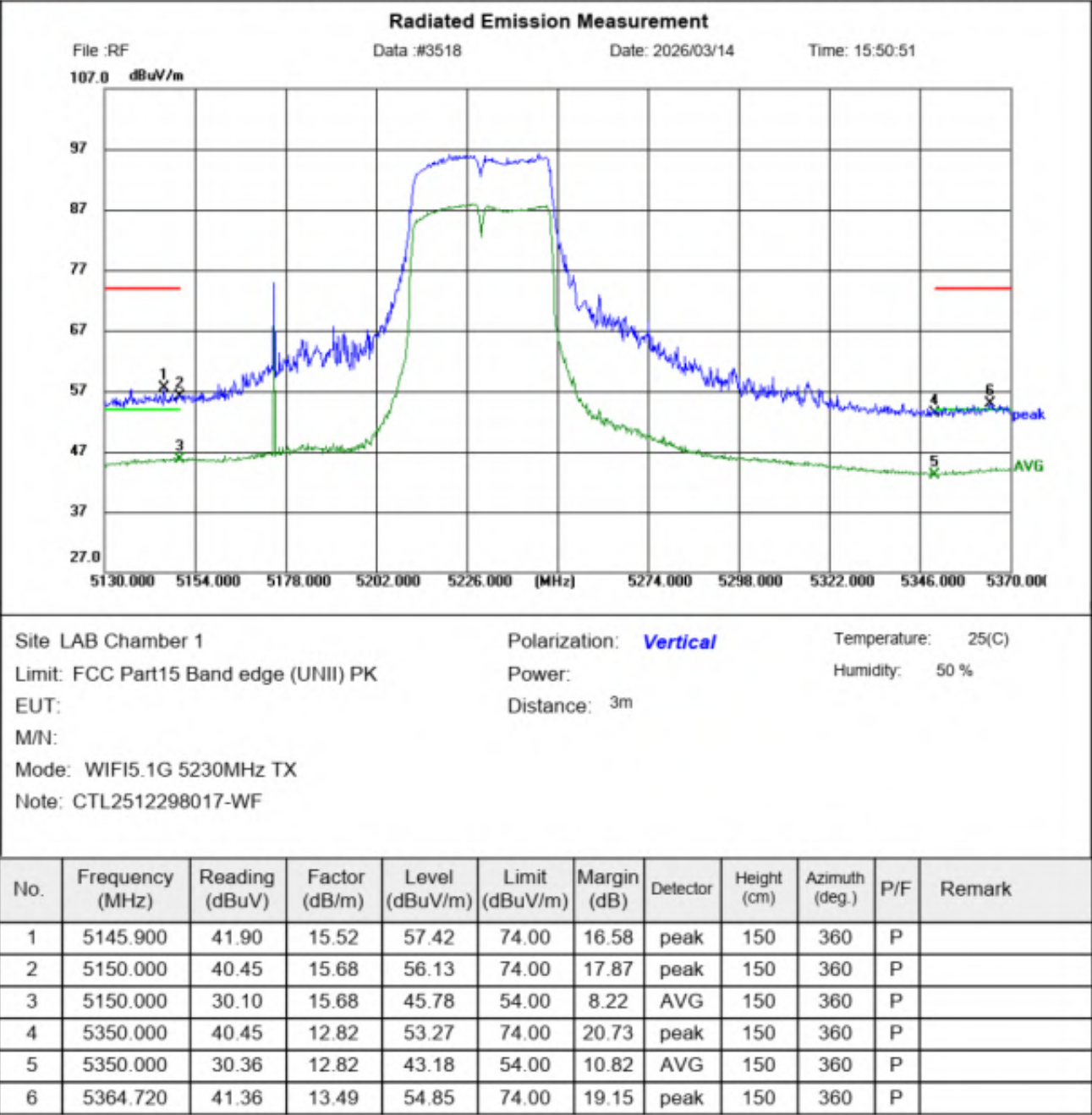
Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd
Tel: +86-755-89486194
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

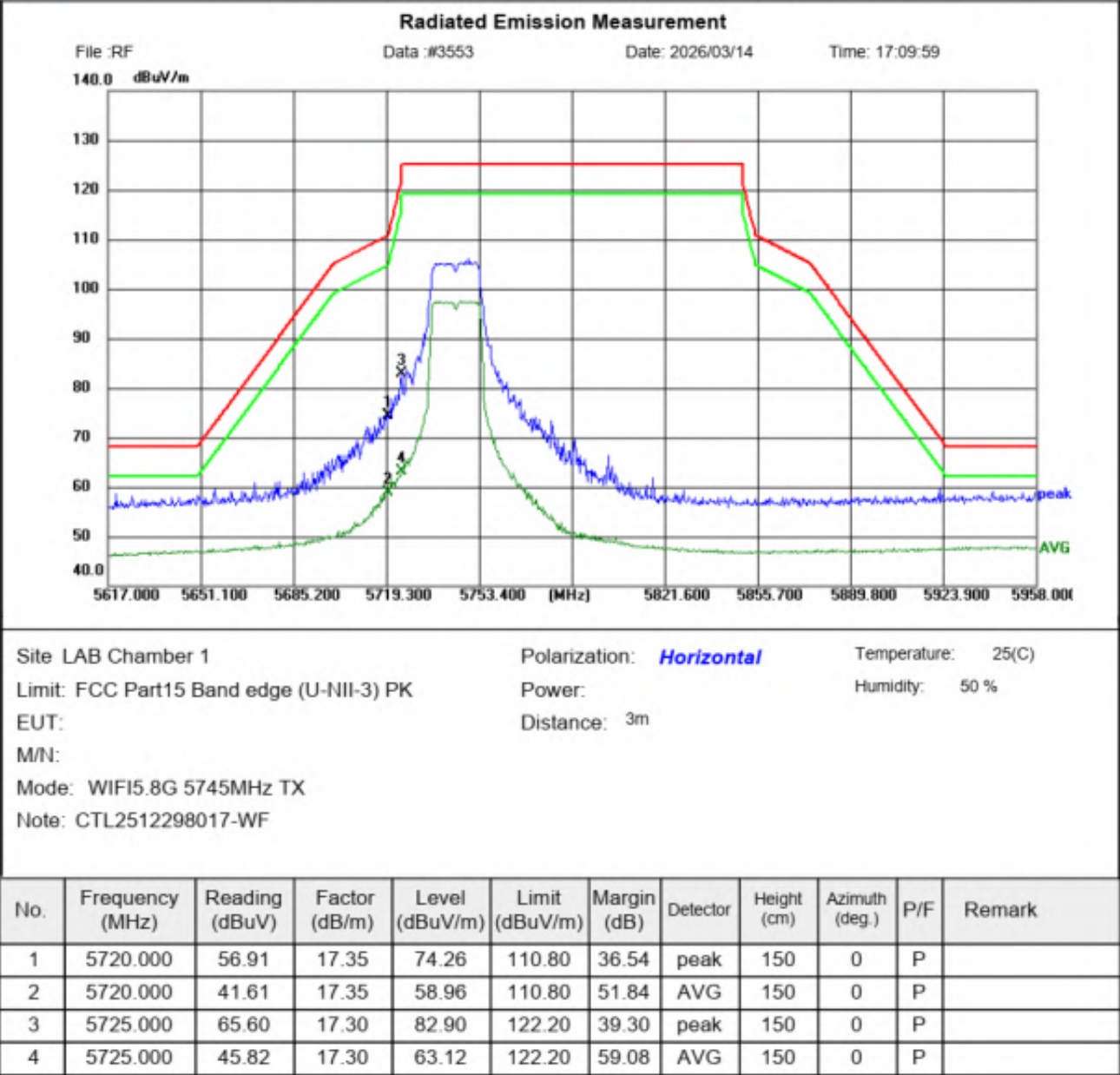


Band Edge Test Plots of U-NII 3

802.11n (HT20) mode@ Ch149_5745MHz



Shenzhen CTL Testing Technology Co., Ltd
Tel: +86-755-89486194
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

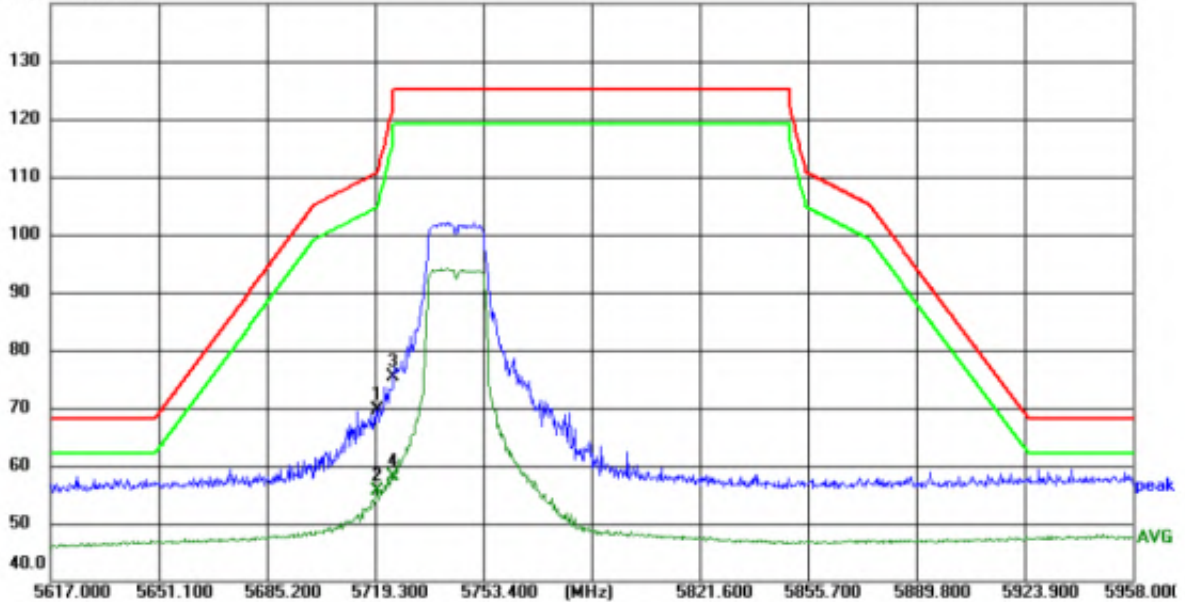
File :RF

Data :#3552

Date: 2026/03/14

Time: 17:08:48

140.0 dBuV/m



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Band edge (U-NII-3) PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.8G 5745MHz TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5720.000	52.18	17.35	69.53	110.80	41.27	peak	150	360	P	
2	5720.000	38.21	17.35	55.56	110.80	55.24	AVG	150	360	P	
3	5725.000	57.99	17.30	75.29	122.20	46.91	peak	150	360	P	
4	5725.000	40.78	17.30	58.08	122.20	64.12	AVG	150	360	P	

Band Edge Test Plots of U-NII 3

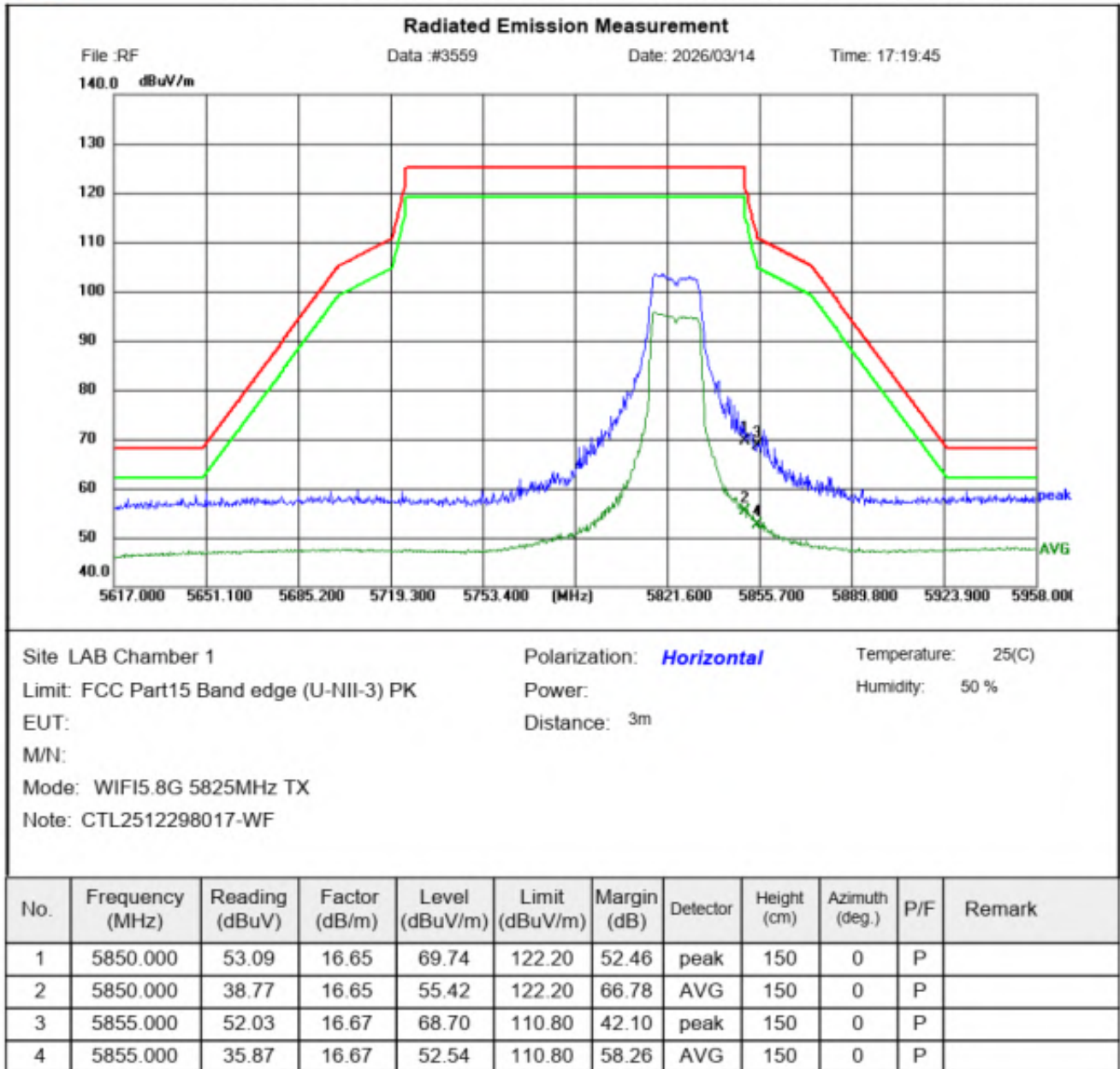
802.11n (HT20) mode@ Ch165_5825MHz



Shenzhen CTL Testing Technology Co., Ltd

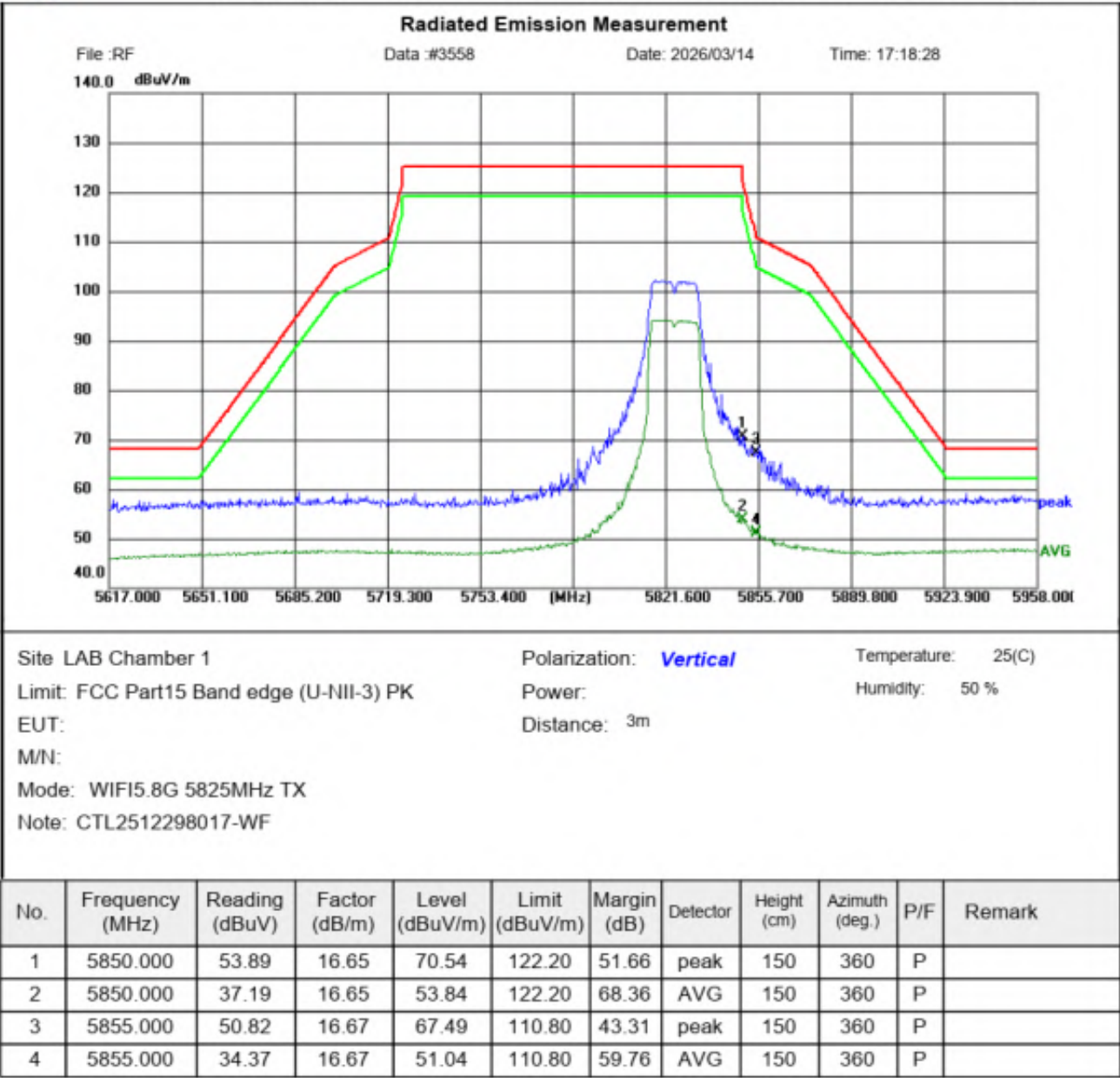
Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd
Tel: +86-755-89486194
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu



Band Edge Test Plots of U-NII 3

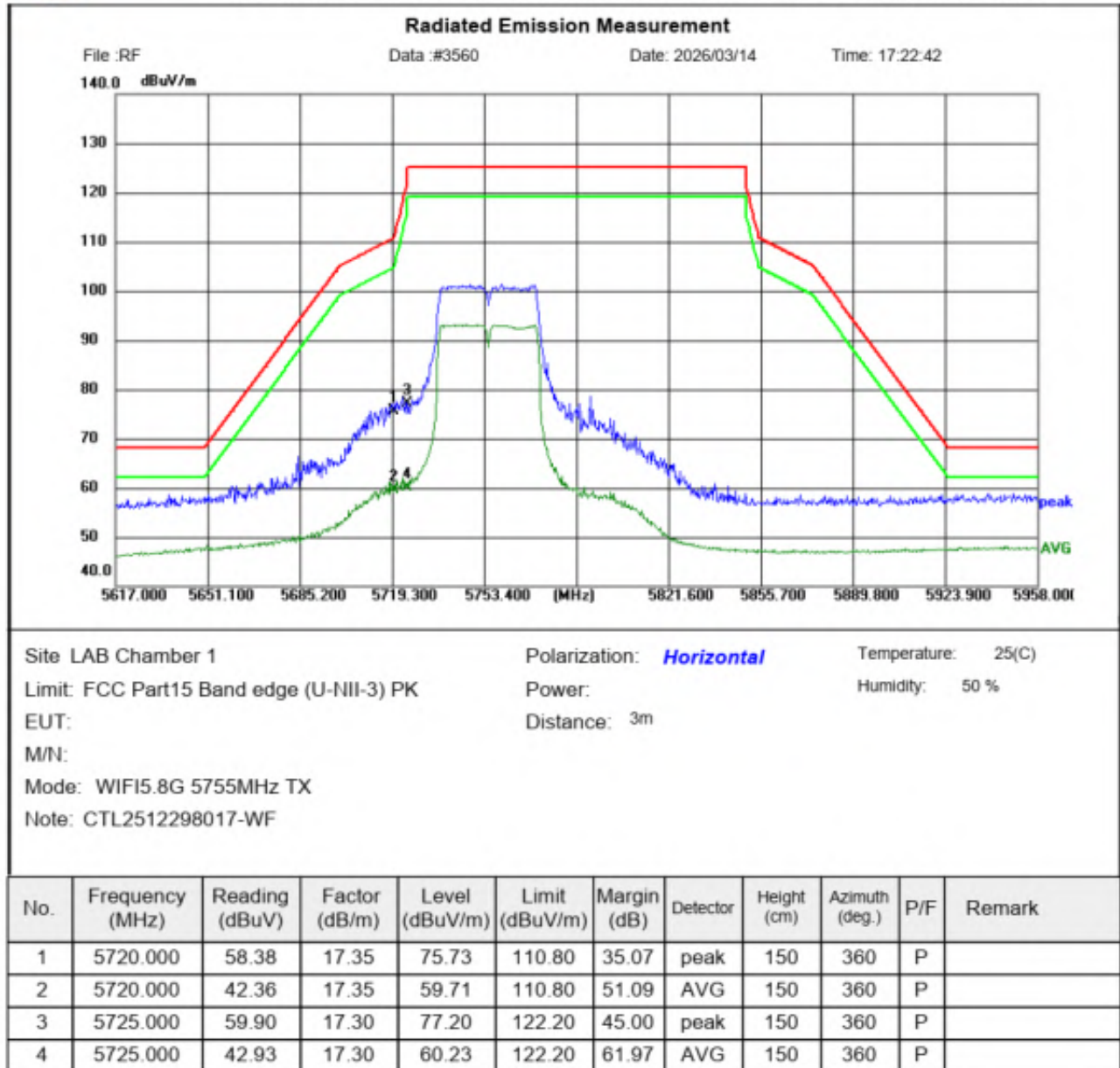
802.11n (HT40) mode@ Ch151_5755MHz



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

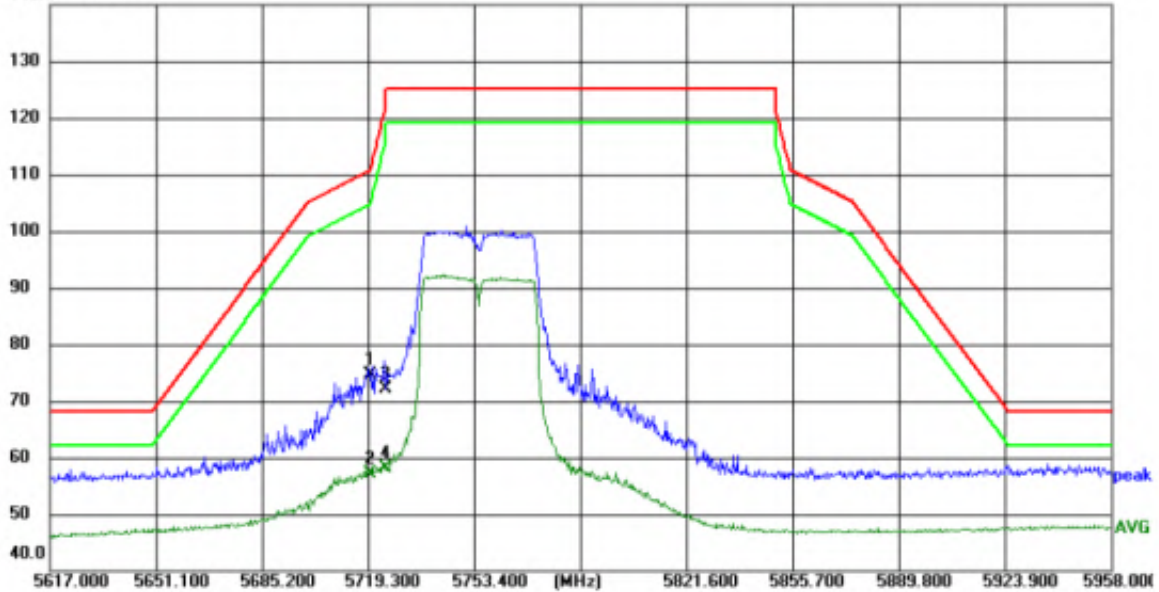
File :RF

Data :#3561

Date: 2026/03/14

Time: 17:23:54

140.0 dBuV/m



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Band edge (U-NII-3) PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.8G 5755MHz TX

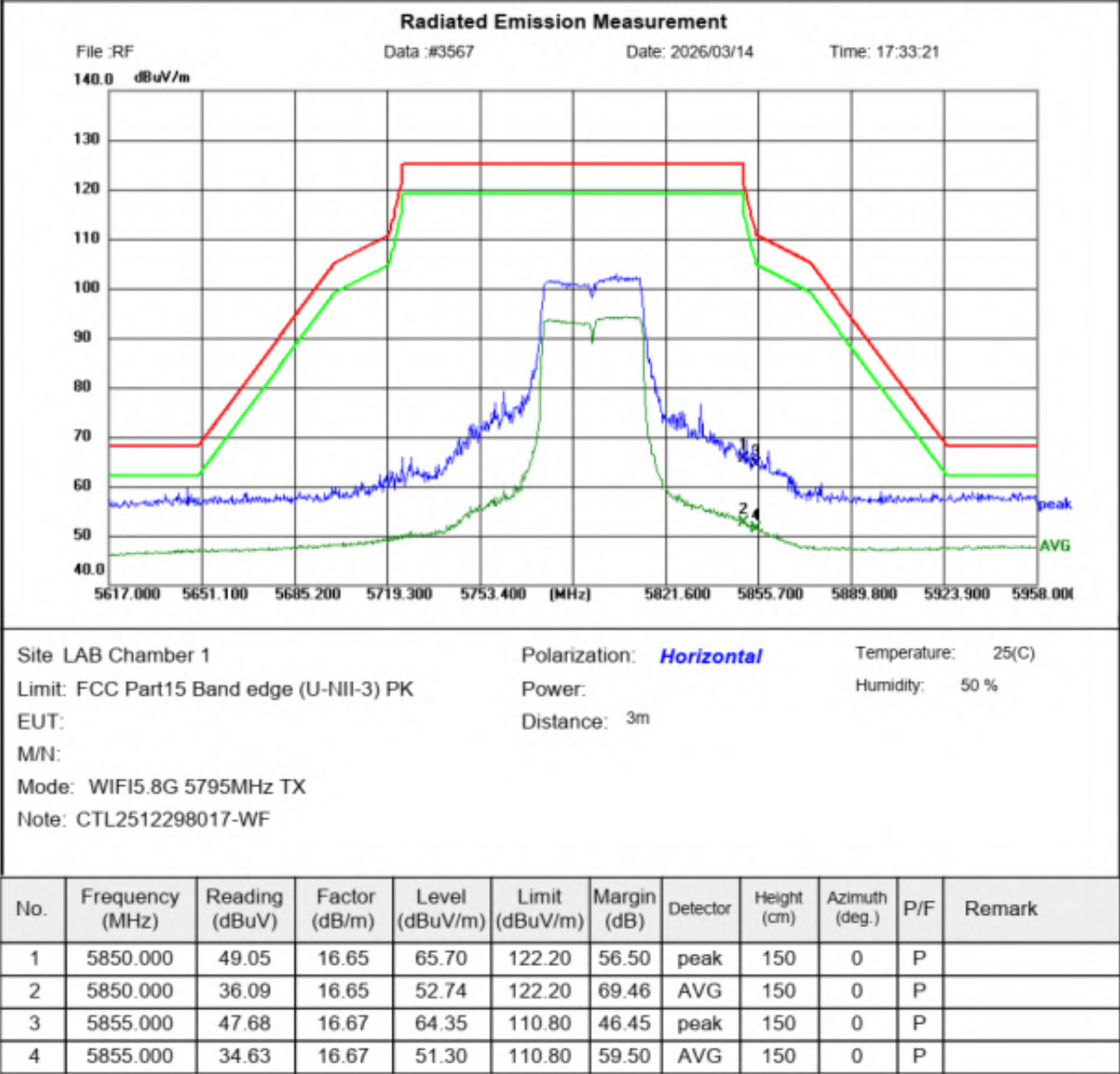
Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5720.000	57.21	17.35	74.56	110.80	36.24	peak	150	0	P	
2	5720.000	39.74	17.35	57.09	110.80	53.71	AVG	150	0	P	
3	5725.000	54.79	17.30	72.09	122.20	50.11	peak	150	0	P	
4	5725.000	40.93	17.30	58.23	122.20	63.97	AVG	150	0	P	

Band Edge Test Plots of U-NII 3
802.11n (HT40) mode@ Ch159_5795MHz



Shenzhen CTL Testing Technology Co., Ltd
Tel: +86-755-89486194
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu





Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

Radiated Emission Measurement

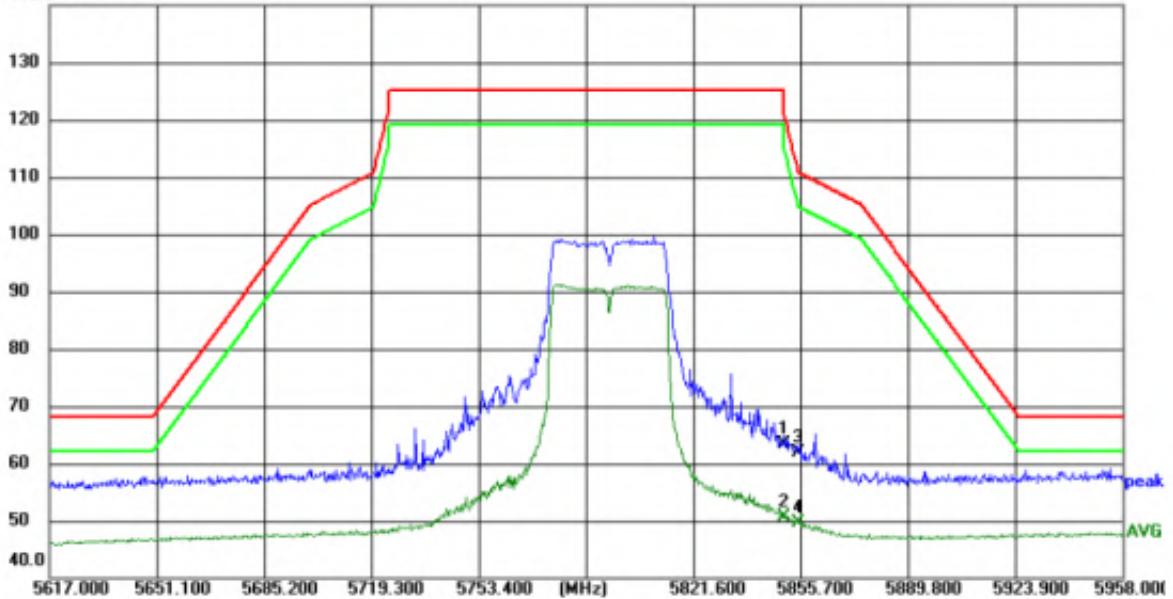
File :RF

Data :#3566

Date: 2026/03/14

Time: 17:32:06

140.0 dBuV/m



Site LAB Chamber 1

Polarization: **Vertical**

Temperature: 25(C)

Limit: FCC Part15 Band edge (U-NII-3) PK

Power:

Humidity: 50 %

EUT:

Distance: 3m

M/N:

Mode: WIFI5.8G 5795MHz TX

Note: CTL2512298017-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5850.000	46.73	16.65	63.38	122.20	58.82	peak	150	360	P	
2	5850.000	33.92	16.65	50.57	122.20	71.63	AVG	150	360	P	
3	5855.000	45.31	16.67	61.98	110.80	48.82	peak	150	360	P	
4	5855.000	33.01	16.67	49.68	110.80	61.12	AVG	150	360	P	

3.3. Maximum Conducted Average Output Power

Limit

FCC requirement:

For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6dBi.

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6dBi.

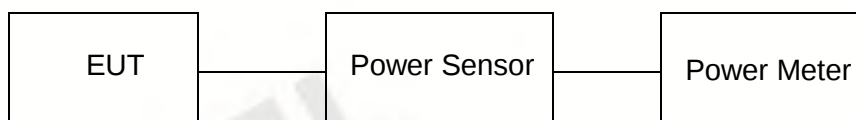
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250mW or $11\text{dBm} + 10\log B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum.

Test Configuration



Test Results

Raw data reference to CTL2512298017-WF03_5G_Band_1_UNII_Appendix section 2.

Raw data reference to CTL2512298017-WF03_5G_Band_2A_UNII_Appendix section 2.

Raw data reference to CTL2512298017-WF03_5G_Band_2C_UNII_Appendix section 2.

Raw data reference to CTL2512298017-WF03_5G_Band_3_UNII_Appendix section 2.

3.4. Power Spectral Density

Limit

FCC requirement:

For the band 5.15-5.25 GHz.

- (i) For an outdoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17dBm in any 1 MHz band.^{note1}
- (ii) For an indoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17dBm in any 1 MHz band.^{note1}
- (iii) For fixed point-to-point access points operating in the band 5.15 - 5.25 GHz, transmitters that employ a directional antenna gain greater than 23dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23dBi.
- (iv) For mobile and portable client devices in the 5.15 - 5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 MHz band.^{note1}

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

The maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

IC requirement:

For the band 5.15-5.25 GHz.

The e.i.r.p. spectral density shall not exceed 10dBm in any 1.0 MHz band.

Frequency band 5250-5350 MHz

The power spectral density shall not exceed 11dBm in any 1.0 MHz band

Frequency bands 5470-5600 MHz and 5650-5725 MHz

The power spectral density shall not exceed 11dBm in any 1.0 MHz band.

For the band 5.725 - 5.85 GHz

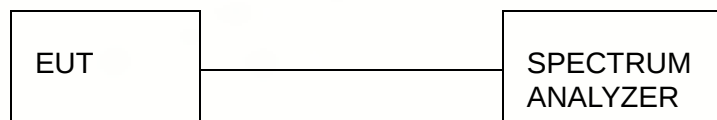
The maximum power spectral density shall not exceed 30dBm in any 500 kHz band.^{note1, note2}

Note1: If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Note2: Fixed point - to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 1MHz for U-NII 1, U-NII 2A, U-NII C band and 510KHz for U-NII 3 band.
3. Set the VBW $\geq 3 \times$ RBW.
4. Set the span to encompass the entire EBW.
5. Detector = Average.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level.

Test Configuration**Test Results**

Raw data reference to CTL2512298017-WF03_5G_Band_1_UNII_Appendix section 3.
Raw data reference to CTL2512298017-WF03_5G_Band_2A_UNII_Appendix section 3.
Raw data reference to CTL2512298017-WF03_5G_Band_2C_UNII_Appendix section 3.
Raw data reference to CTL2512298017-WF03_5G_Band_3_UNII_Appendix section 3.

3.5. Emission Bandwidth (26dBm Bandwidth)

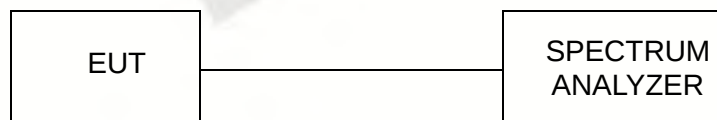
Limit

N/A

Test Procedure

1. Set resolution bandwidth (RBW) = approximately 1 % of the EBW.
2. Set the video bandwidth (VBW) > RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW / EBW ratio is approximately 1 %.

Test Configuration



Test Results

Raw data reference to CTL2512298017-WF03_5G_Band_1_UNII_Appendix section 1.

Raw data reference to CTL2512298017-WF03_5G_Band_2A_UNII_Appendix section 1.

Raw data reference to CTL2512298017-WF03_5G_Band_2C_UNII_Appendix section 1.

3.6. Minimum Emission Bandwidth (6dBm Bandwidth)

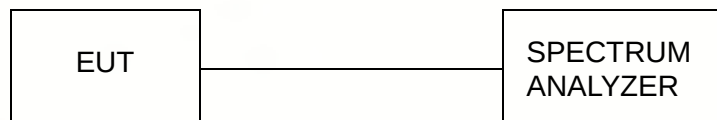
Limit

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725-5.85 GHz

Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth 3 x RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Configuration



Test Results

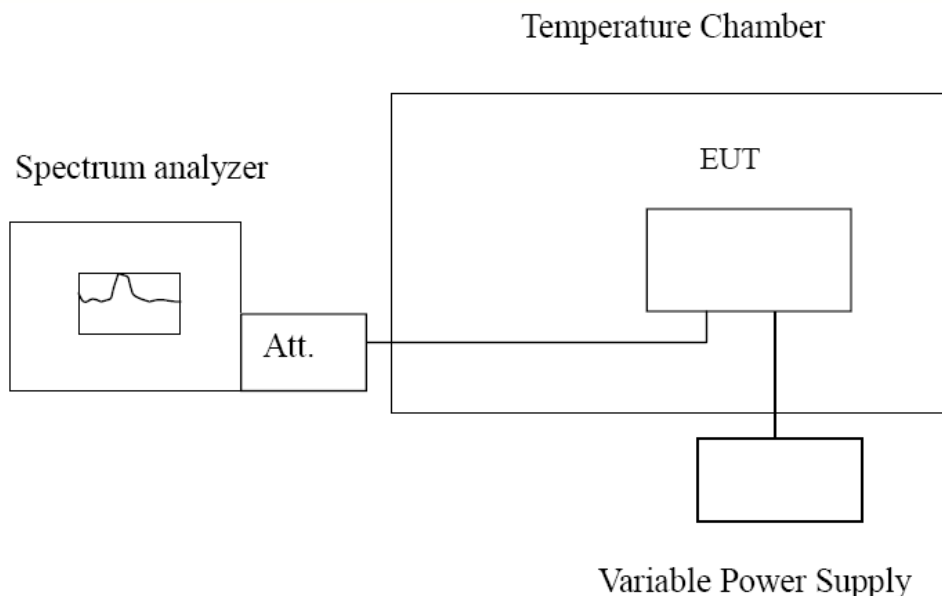
Raw data reference to CTL2512298017-WF03_5G_Band_3_UNII_Appendix section 1.

3.7. Frequency Stability

LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

TEST CONFIGURATION



TEST PROCEDURE

Frequency Stability under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +85°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

TEST RESULTS

Raw data reference to CTL2512298017-WF03_5G_Band_1_UNII_Appendix section 4.
Raw data reference to CTL2512298017-WF03_5G_Band_2A_UNII_Appendix section 4.
Raw data reference to CTL2512298017-WF03_5G_Band_2C_UNII_Appendix section 4.
Raw data reference to CTL2512298017-WF03_5G_Band_3_UNII_Appendix section 4.

3.8. 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited

And according to FCC 47 CFR Section 15.407 (a), 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.

Refer to statement below for compliance

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

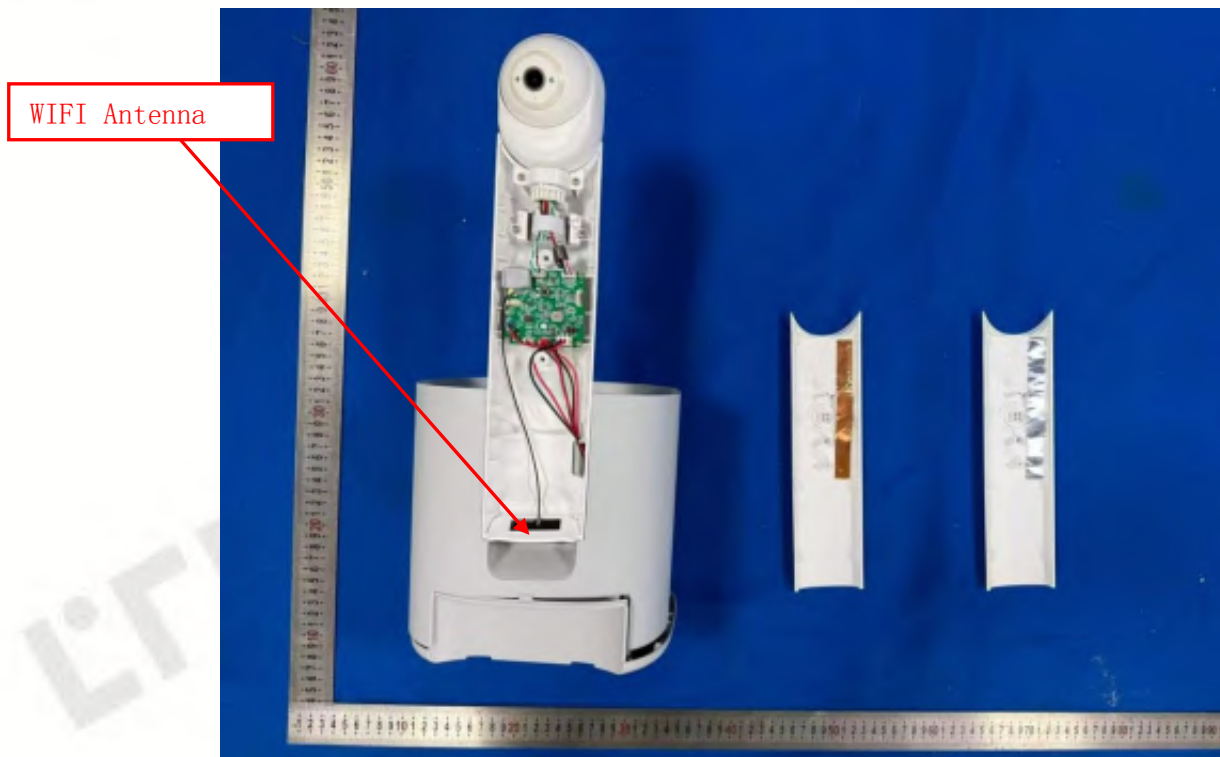
The maximum gain of antenna was:

5180-5240MHz: 5.02dBi

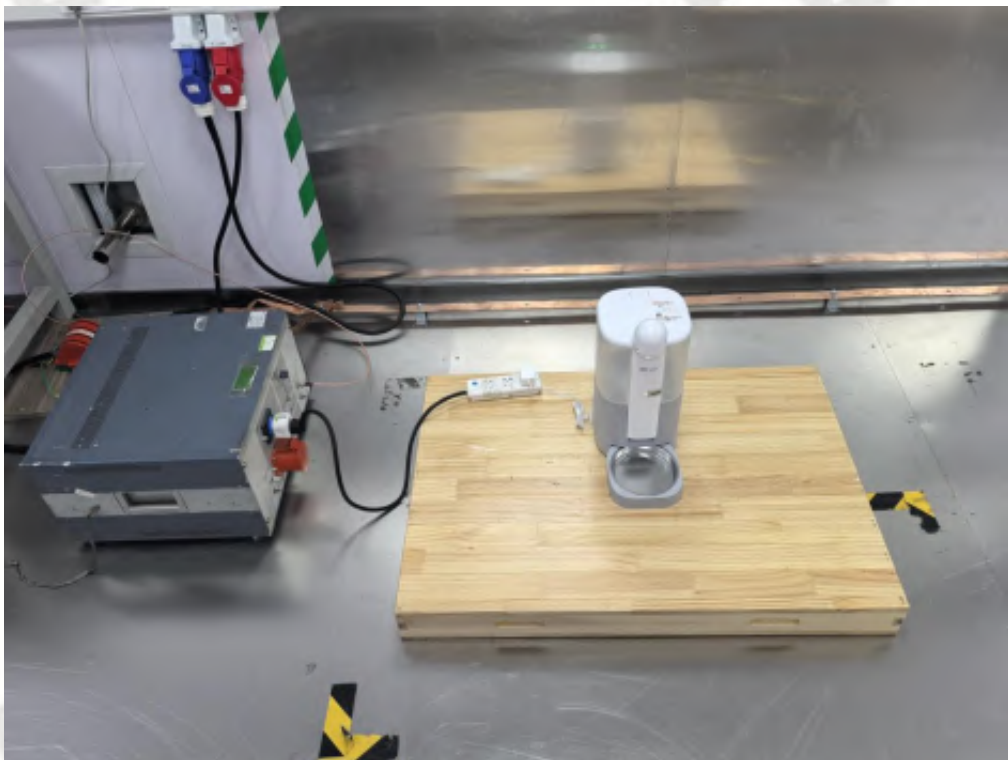
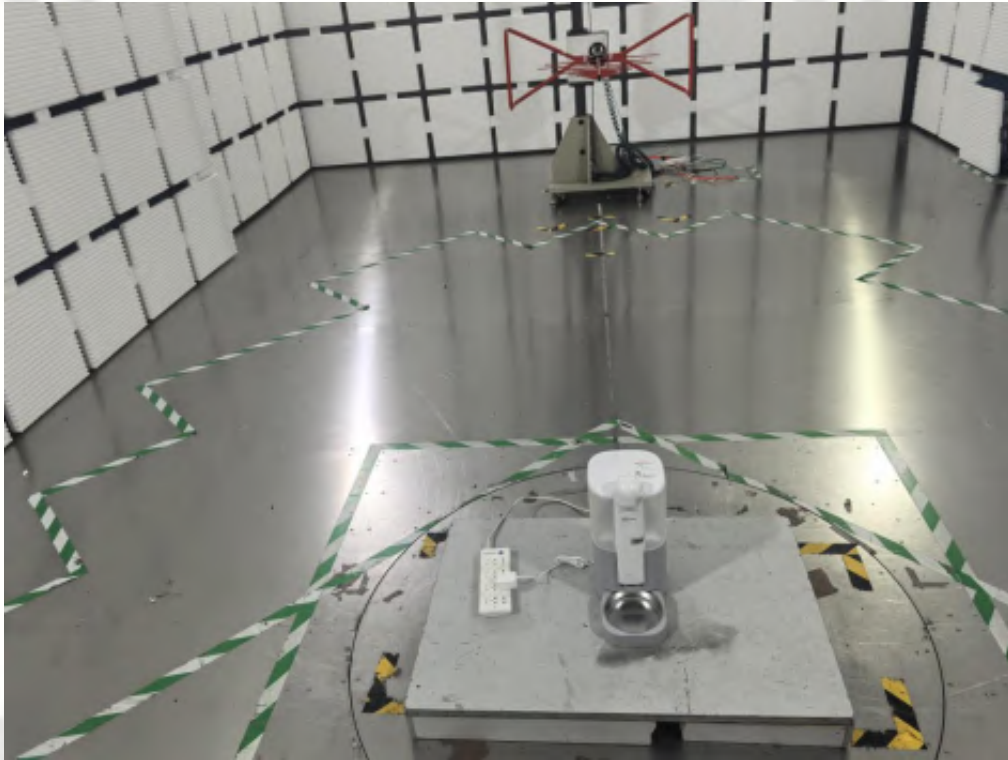
5260-5320MHz: 4.72dBi

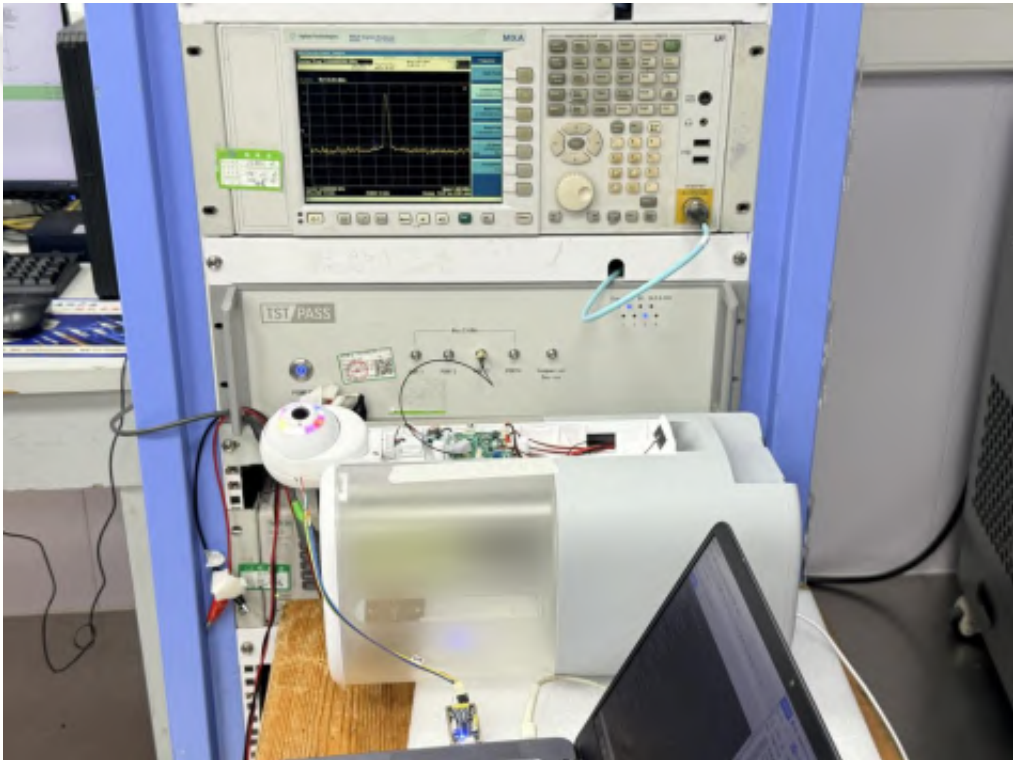
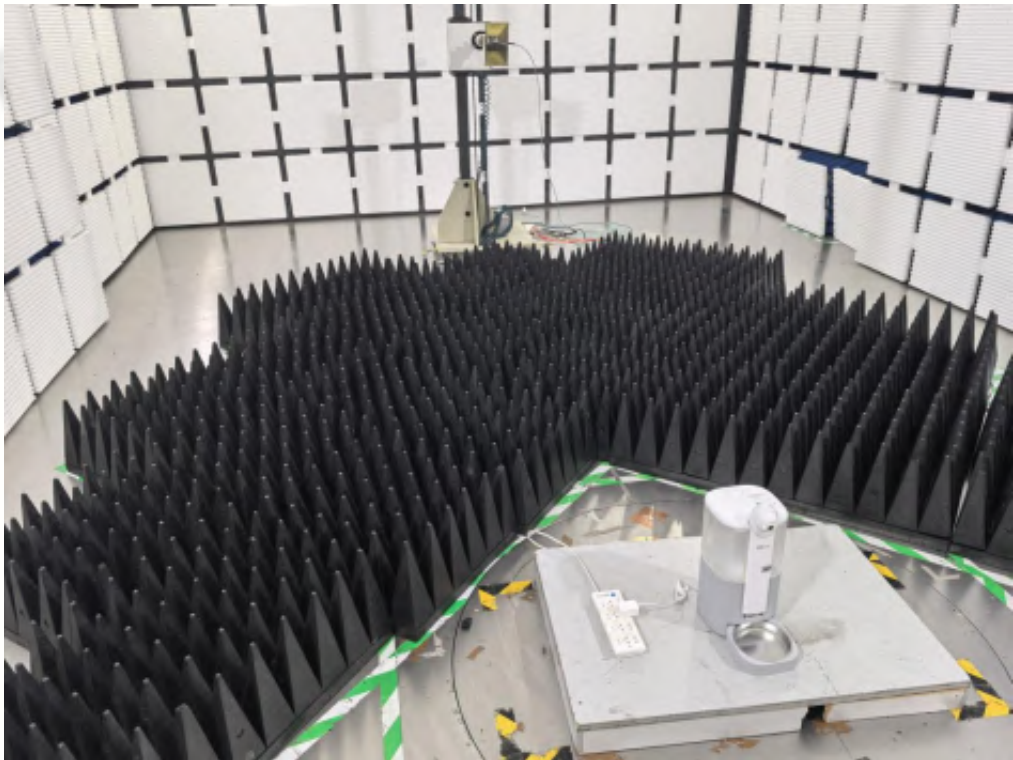
5500-5700MHz: 5.66dBi

5745-5825MHz: 5.86dBi



4. Test Setup Photos of the EUT





5. Photos of the EUT

Reference to the test report No.CTL2512298017-WF01.

***** End of Report *****