



Page 1 of 55

	TES	5	T REPORT	
	Product	:	Universal Power Bank	
-	Trade mark	:	N/A	
	Model/Type reference	:	A01	
	Serial Number	:	N/A	
I	Report Number	:	EED32Q80738001	
100	FCC ID	:	2BK7FFADIAN2024	
6	Date of Issue	:	Oct. 30, 2024	
Q.	Test Standards	:	47 CFR Part 15 Subpart C	
-	Test result	:	PASS	
			Prepared for:	
	Chaoxuan tec	hn	ology (ShenZhen) Co., Ltd.	

1222-2, Block B, Tianxia Jinniu Plaza, No.8 Taoyuan Road, Dawangshan Community, NanTou Street, Shenzhen, China

> Prepared by: Centre Testing International Group Co., Ltd. Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China TEL: +86-755-3368 3668 FAX: +86-755-3368 3385

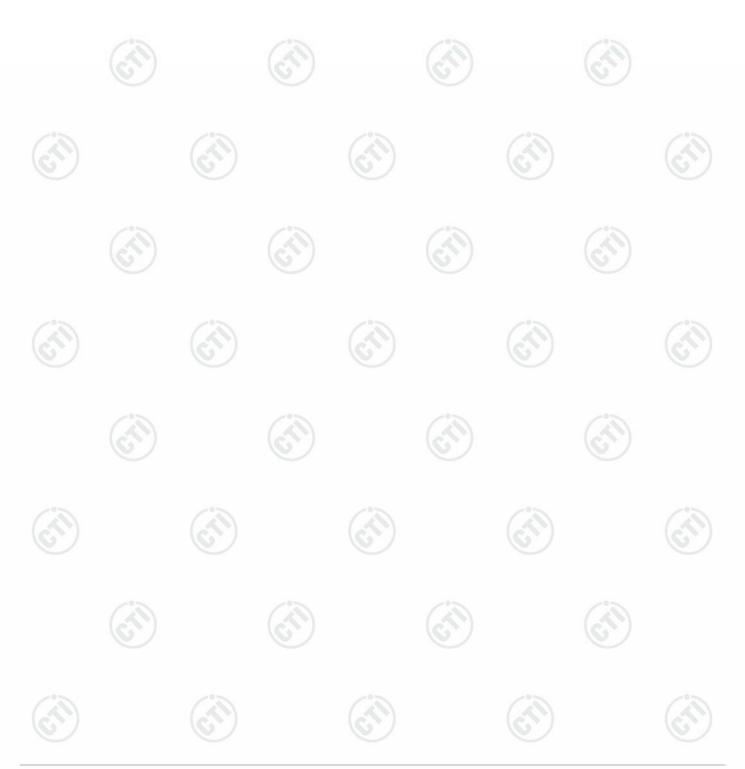
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Report S						Check No.: 7256	3300524



1 Version

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Version No.	Date		Description	1
00	Oct. 30, 2024		Original	
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2 Test Summary

Test Item	Test Requirement	Test method	Result	
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10:2013	PASS	
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10:2013	PASS	
Radiated Emissions	47 CFR Part 15 Subpart C Section 15.209	ANSI C63.10:2013	PASS	

Remark:

Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

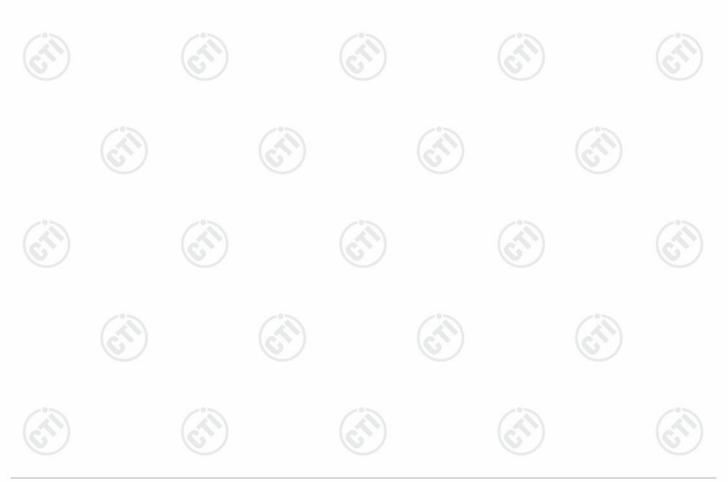


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	4.2 GENERAL DESCRIPTION OF EUT	-
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4 General Information

4.1 Client Information

Applicant:	Chaoxuan technology (ShenZhen) Co., Ltd.				
Address of Applicant:	1222-2, Block B, Tianxia Jinniu Plaza, No.8 Taoyuan Road,				
23	Dawangshan Community, NanTou Street, Shenzhen, China				
Manufacturer:	Chaoxuan technology (ShenZhen) Co., Ltd.				
Address of Manufacturer:	1222-2, Block B, Tianxia Jinniu Plaza, No.8 Taoyuan Road,				
	Dawangshan Community, NanTou Street, Shenzhen, China				
Factory:	Shenzhen Weiduli Technology Co., Ltd.				
Address of Factory:	Room 601, building 4, Dejin Industrial Zone, No, 40, Fuyuan ist Road, Zhancheng community, Fuhaistreet, Bao'an District, Shenzhen, Guangdong, P,R, China				

4.2 General Description of EUT

Product Name:	Universal Power Bank
Model No.:	A01
Trade Mark:	N/A
Device type:	Desktop applications device
Frequency Range:	Output1: 111kHz-140kHz Output2: 111kHz-140kHz
Center Frequency:	148kHz
Modulation Type:	ASK
Antenna Type:	Coil antenna
Power Supply:	AC INPUT: 110V-230V 50/60Hz 0.5A(Max) OUT/TYPE-C1: V-3A/9V-2.22A/12V=1.67A(Max) USB OUTPUT: 5V-2.4A(Max) TYPE-C OUTPUT: 5V-3A/9V-2.22A/12V=1.67A(Max) TYPE-C INTPUT: 5V-3A/9V-2A/12V-1.5A(Max) TYPE-C Built-in wire output :5V-3A/9V-2A/10V-2.25A/12V=1.5A(Max) Lighining Built-in wire output: 5V-3A/9V-2.22A/12V-1.67A(Max) Wireless output: 5W/7.5W/10W/15W iWaich Wireless output: 2.5W
Test Power Grade:	Default
Test Software of EUT:	RF test
Sample Received Date:	Jul. 15, 2024
Sample tested Date:	Jul. 15, 2024 to Sep. 24, 2024



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4.3 Test Environment and Mode

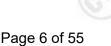
	Operating Environment	:
	Radiated Spurious Emis	ssions:
	Temperature:	22~25.0 °C
	Humidity:	50~55 % RH
2	Atmospheric Pressure:	1010mbar
	Conducted Emissions:	
	Temperature:	22~25.0 °C
	Humidity:	50~55 % RH
	Atmospheric Pressure:	1010mbar
	Test mode:Transmitting r	node
	Mode a:	Wireless charging mode(Null load)(Connect to adapter)
	Mode b:	Wireless charging mode(Half load)(Connect to adapter)
	Mode c:	Wireless charging mode(75% load)(Connect to adapter)
9	Mode d:	Wireless charging mode(Full load)(Connect to adapter)
)	Mode e:	iWaich Wireles charging mode(Full load)(Connect to adapter)
Note		

Note:

1.Wireless output: 2.5W, 5W, 7.5W, 10W, 15W (maximum wireless output 15W during charging);

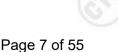
2.Through Pre-scan, when EUT power by DC 12.0V was the worst case, only the worst case data was recorded in the report.













4.4 Description of Support Units

The EUT has been tested with associated equipment below.

1) support equipment

Descr	iption	Manufacturer	Model No.	Certification	Supplied by
Intelligent wirele	ess charging full	YBZ	/	FCC ID and DOC	СТІ
function te	st module				

4.5 Test Location

All tests were performed at: Centre Testing International Group Co., Ltd Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385 No tests were sub-contracted. FCC Designation No.: CN1164

4.6 Deviation from Standards

None.

4.7 Abnormalities from Standard Conditions

None.

4.8 Other Information Requested by the Customer

None.

4.9 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty	
1	Radio Frequency	7.9 x 10 ⁻⁸	
2		0.46dB (30MHz-1GHz)	
2	RF power, conducted	0.55dB (1GHz-18GHz)	
		3.3dB (9kHz-30MHz)	
3	Radiated Spurious emission test	4.3dB (30MHz-1GHz)	
		4.5dB (1GHz-12.75GHz	
4	Conduction emission	3.5dB (9kHz to 150kHz)	
4	Conduction emission	3.1dB (150kHz to 30MHz)	
5	Temperature test	0.64°C	
6	Humidity test	3.8%	
7	DC power voltages	0.026%	







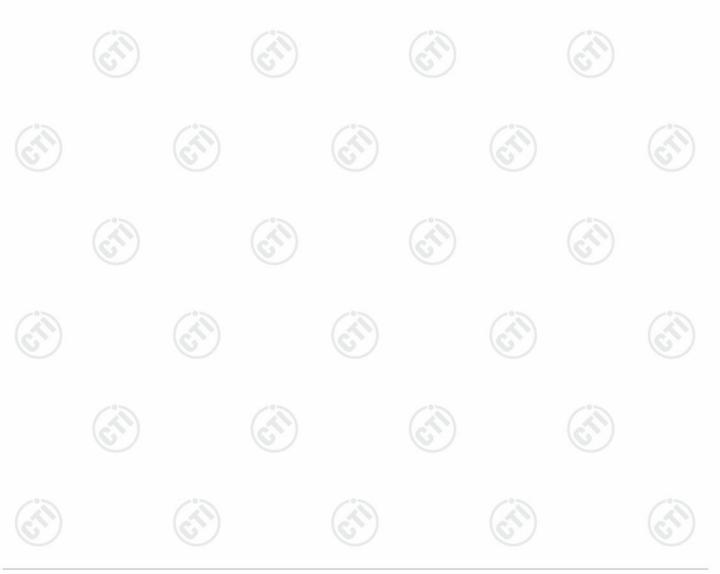


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Report No. : EED32Q80738001

5 Equipment List

		ducted disturba			
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Receiver	R&S	ESCI	100435	04-18-2024	04-17-2025
Temperature/ Humidity Indicator	Defu	TH128	/	04-25-2024	04-24-2025
LISN	R&S	ENV216	100098	09-22-2023 09-19-2024	09-21-2024 09-18-2025
Barometer	changchun	DYM3	1188		
Test software	Fara	EZ-EMC	EMC-CON 3A1.1		
Capacitive voltage probe	Schwarzbeck	CVP 9222C	00124	06-18-2024	06-17-2025
ISN S	TESEQ	ISN T800	30297	12-14-2023	12-13-2024





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Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due dat
3M Chamber & Accessory Equipment	TDK	SAC-3		05/22/2022	05/21/2025
Receiver	R&S	ESCI7	100938- 003	09/22/2023 09/07/2024	09/21/2024 09/06/2025
Spectrum Analyzer	R&S	FSV40	101200	07/25/2023 07/18/2024	07/24/2024 07/17/2025
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/22/2022	05/21/2025
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04/16/2024	04/15/2025
Microwave Preamplifier	Tonscend	EMC051845SE	980380	12/14/2023	12/13/2024
Horn Antenna	A.H.SYSTEMS	SAS-574	374	07/02/2023	07/01/2026
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D- 1869	04/16/2024	04/15/2025
Preamplifier	Agilent	11909A	12-1	03/22/2024	03/21/2025
Preamplifier	CD	PAP-1840-60	6041.6042	06/19/2024	06/18/2025
Test software	Fara	EZ-EMC	EMEC- 3A1-Pre		
Cable line	Fulai(7M)	SF106	5219/6A		S)
Cable line	Fulai(6M)	SF106	5220/6A		
Cable line	Fulai(3M)	SF106	5216/6A		
Cable line	Fulai(3M)	SF106	5217/6A	(U)	











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6

Test results and Measurement Data

6.1 Antenna Requirement

Stan	dard require	ement:	47 CFR	Part 15C Sect	tion 15.203	(in)		12
An ir respo anter so th	onsible party nna that uses at a broken a	diator shall b shall be used	with the devi pling to the in e replaced by	ice. The use ntentional rad	of a permaneı iator, the man	ntly attached ufacturer ma	that furnished antenna or of a y design the un enna jack or	n
EUT	Antenna:	tached on the	Please s	ee Internal ph		acoment	6	
						acement.		

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CTI华测检测





Report No. : EED32Q80738001 6.2 Conducted Emissions

Test Requirement: Test Method: Test Frequency Range:

Limit	







Test Setup:

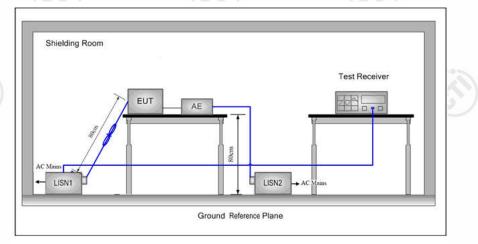
Test Mode:

Test Results:

47 CFR Part 15C Section 15.207 ANSI C63.10: 2013 150kHz to 30MHz

	Limit (dBµV)						
Frequency range (MHz)	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.
- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu$ H + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.



Transmitting mode, refer to section 4.3

Pass



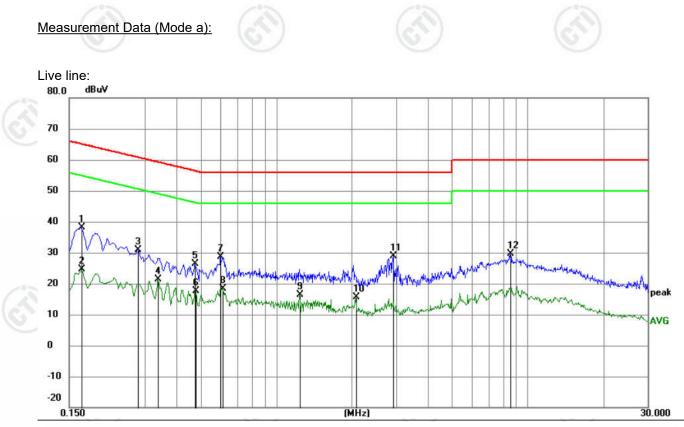
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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1	*	0.1680	28.36	9.85	38.21	65.06	-26.85	QP		_
2		0.1680	14.86	9.85	24.71	55.06	-30.35	AVG		
3		0.2805	21.24	9.60	30.84	60.80	-29.96	QP		
4		0.3390	11.65	9.64	21.29	49.23	-27.94	AVG		
5		0.4740	16.67	9.78	26.45	56.44	-29.99	QP		
6		0.4785	7.85	9.78	17.63	46.37	-28.74	AVG		
7		0.6000	19.03	9.59	28.62	56.00	-27.38	QP		
8		0.6134	8.64	9.65	18.29	46.00	-27.71	AVG		
9		1.2390	6.55	9.74	16.29	46.00	-29.71	AVG		
10		2.0670	5.80	9.75	15.55	46.00	-30.45	AVG		
11		2.9175	19.19	9.78	28.97	56.00	-27.03	QP		
12		8.5424	19.80	9.84	29.64	60.00	-30.36	QP		

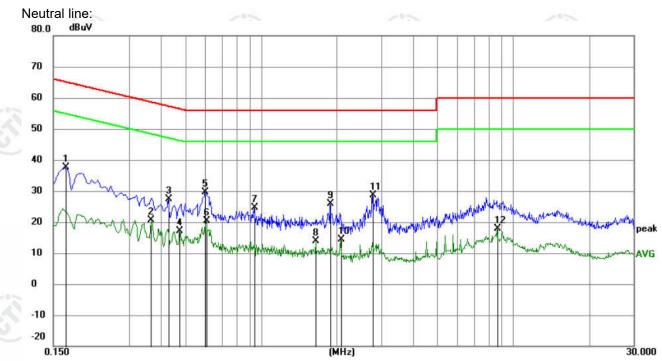
- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.







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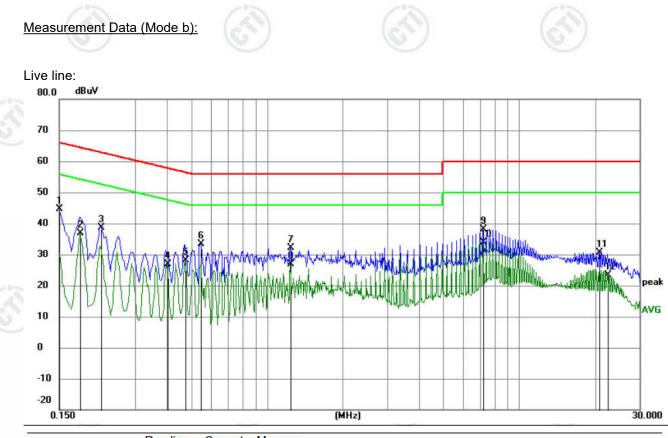
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1680	27.69	9.85	37.54	65.06	-27.52	QP	
2		0.3660	10.81	9.70	20.51	48.59	-28.08	AVG	
3		0.4290	17.52	9.79	27.31	57.27	-29.96	QP	
4		0.4740	7.44	9.78	17.22	46.44	-29.22	AVG	
5		0.6000	20.11	9.59	29.70	56.00	-26.30	QP	
6	*	0.6045	10.80	9.61	20.41	46.00	-25.59	AVG	
7		0.9420	14.83	9.78	24.61	56.00	-31.39	QP	
8		1.6530	4.24	9.75	13.99	46.00	-32.01	AVG	
9		1.8870	16.02	9.75	25.77	56.00	-30.23	QP	
10		2.0670	4.65	9.75	14.40	46.00	-31.60	AVG	
11		2.7780	18.78	9.77	28.55	56.00	-27.45	QP	
12		8.6775	7.95	9.84	17.79	50.00	-32.21	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.









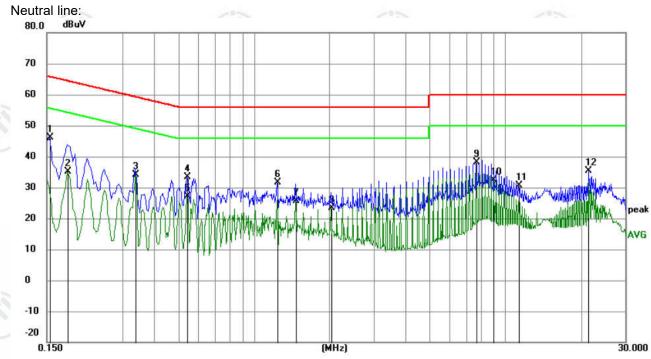
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	34.69	9.84	44.53	66.00	-21.47	QP	
2	0.1815	27.02	9.86	36.88	54.42	-17.54	AVG	
3	0.2197	28.86	9.80	38.66	62.83	-24.17	QP	
4	0.4020	17.04	9.79	26.83	47.81	-20.98	AVG	
5	0.4740	18.44	9.78	28.22	46.44	-18.22	AVG	
6	0.5460	23.73	9.69	33.42	56.00	-22.58	QP	
7	1.2390	22.46	9.74	32.20	56.00	-23.80	QP	
8	1.2390	17.10	9.74	26.84	46.00	-19.16	AVG	
9	7.2105	28.30	9.85	38.15	60.00	-21.85	QP	
10 *	7.2105	24.11	9.85	33.96	50.00	-16.04	AVG	
11	20.7285	20.71	10.02	30.73	60.00	-29.27	QP	
12	22.5330	13.43	9.98	23.41	50.00	-26.59	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.





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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1545	36.22	9.85	46.07	65.75	-19.68	QP	
2		0.1815	25.37	9.86	35.23	54.42	-19.19	AVG	
3	*	0.3390	24.49	9.64	34.13	49.23	-15.10	AVG	
4		0.5415	23.66	9.70	33.36	56.00	-22.64	QP	
5		0.5415	17.48	9.70	27.18	46.00	-18.82	AVG	
6		1.2390	21.77	9.74	31.51	56.00	-24.49	QP	
7		1.4640	15.79	9.74	25.53	46.00	-20.47	AVG	
8		2.0264	13.57	9.75	23.32	46.00	-22.68	AVG	
9		7.6605	28.20	9.85	38.05	60.00	-21.95	QP	
10		9.0105	22.61	9.84	32.45	50.00	-17.55	AVG	
11		11.2650	20.73	9.84	30.57	60.00	-29.43	QP	
12		21.4035	25.45	10.00	35.45	60.00	-24.55	QP	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.

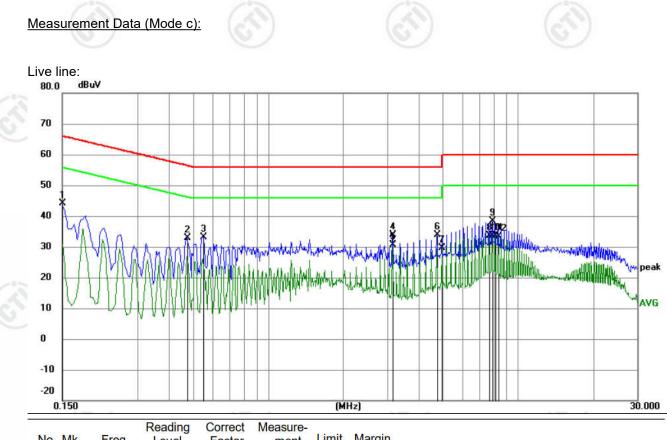








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	No. Mk.	Freq.	Level	Factor	ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
3	1	0.1500	34.20	9.84	44.04	66.00	-21.96	QP	
G) T	2	0.4740	23.11	9.78	32.89	56.44	-23.55	QP	
-	3	0.5505	23.47	9.68	33.15	56.00	-22.85	QP	
-	4	3.1560	24.12	9.78	33.90	56.00	-22.10	QP	
-	5 *	3.1560	20.80	9.78	30.58	46.00	-15.42	AVG	
-	6	4.7355	24.03	9.83	33.86	56.00	-22.14	QP	
-	7	4.9605	19.88	9.84	29.72	46.00	-16.28	AVG	
-	8	7.6650	23.76	9.85	33.61	50.00	-16.39	AVG	
-	9	7.8900	28.43	9.84	38.27	60.00	-21.73	QP	
13	10	7.8900	23.71	9.84	33.55	50.00	-16.45	AVG	
G	11	8.1150	23.82	9.84	33.66	50.00	-16.34	AVG	
e_	12	8.3400	23.61	9.84	33.45	50.00	-16.55	AVG	

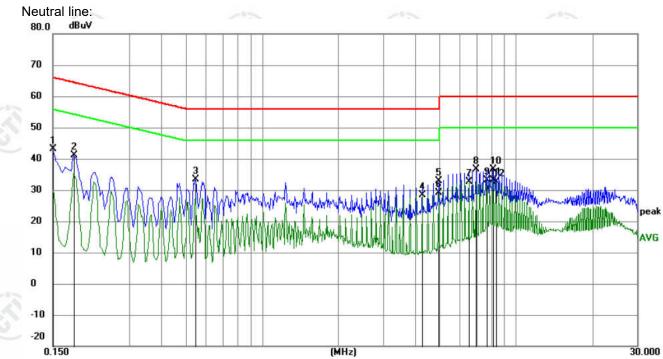
- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
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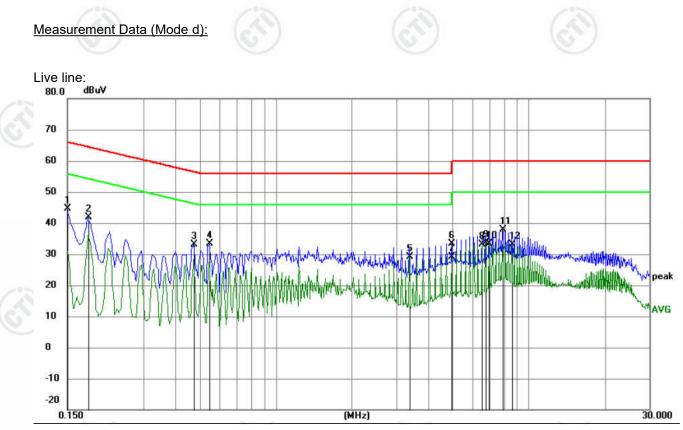


						-	•		
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	33.18	9.84	43.02	66.00	-22.98	QP	
2		0.1815	31.34	9.86	41.20	64.42	-23.22	QP	
3		0.5460	23.81	9.69	33.50	56.00	-22.50	QP	
4		4.2810	18.63	9.82	28.45	46.00	-17.55	AVG	
5		4.9605	23.00	9.84	32.84	56.00	-23.16	QP	
6	*	4.9605	19.33	9.84	29.17	46.00	-16.83	AVG	
7		6.5355	22.67	9.85	32.52	50.00	-17.48	AVG	
8		6.9855	26.89	9.85	36.74	60.00	-23.26	QP	
9		7.6650	23.17	9.85	33.02	50.00	-16.98	AVG	
10		8.1150	26.90	9.84	36.74	60.00	-23.26	QP	
11		8.1150	23.23	9.84	33.07	50.00	-16.93	AVG	
12		8.3400	22.85	9.84	32.69	50.00	-17.31	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.



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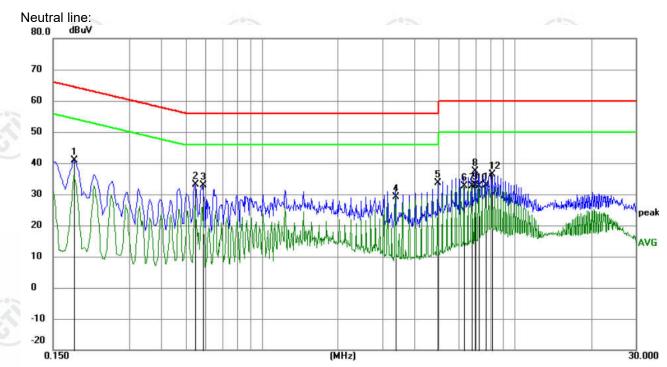


No. N	∕lk. Fr	r <mark>eq</mark> .	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
23 	M	Hz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.	1500	34.69	9.84	44.53	66.00	-21.47	QP	
2	0.	1815	32.12	9.86	41.98	64.42	-22.44	QP	
3	0.	4740	23.36	9.78	33.14	56.44	-23.30	QP	
4	0.	5460	23.75	9.69	33.44	56.00	-22.56	QP	
5	3.	3810	19.43	9.79	29.22	46.00	-16.78	AVG	
6	4.	9605	23.58	9.84	33.42	56.00	-22.58	QP	
7	4.	9605	19.33	9.84	29.17	46.00	-16.83	AVG	
8	6.	5355	23.28	9.85	33.13	50.00	-16.87	AVG	
9 *	• 6.	7605	23.66	9.85	33.51	50.00	-16.49	AVG	
10	6.	9855	23.53	9.85	33.38	50.00	-16.62	AVG	
11	7.	8900	28.00	9.84	37.84	60.00	-22.16	QP	
12	8.	5649	23.35	9.84	33.19	50.00	-16.81	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.



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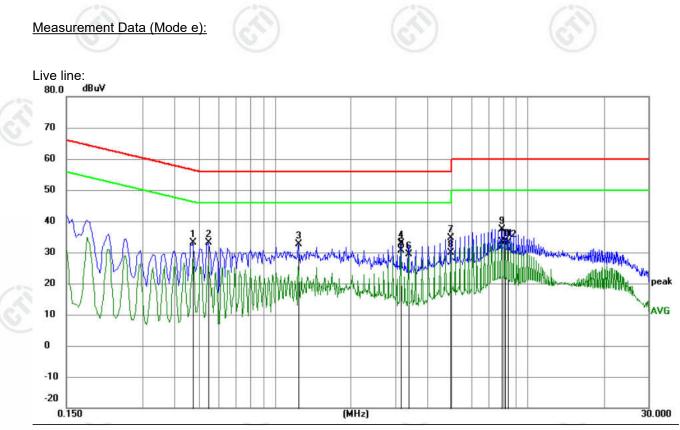
No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1815	31.14	9.86	41.00	64.42	-23.42	QP	
2	0.5460	23.51	9.69	33.20	56.00	-22.80	QP	
3	0.5865	23.34	9.62	32.96	56.00	-23.04	QP	
4 *	3.3810	19.41	9.79	29.20	46.00	-16.80	AVG	
5	4.9560	23.86	9.84	33.70	56.00	-22.30	QP	
6	6.3105	22.69	9.85	32.54	50.00	-17.46	AVG	
7	6.7605	22.83	9.85	32.68	50.00	-17.32	AVG	
8	6.9855	27.49	9.85	37.34	60.00	-22.66	QP	
9	6.9855	23.14	9.85	32.99	50.00	-17.01	AVG	
10	7.2105	22.90	9.85	32.75	50.00	-17.25	AVG	
11	7.6650	22.92	9.85	32.77	50.00	-17.23	AVG	
12	8.1150	26.58	9.84	36.42	60.00	-23.58	QP	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.





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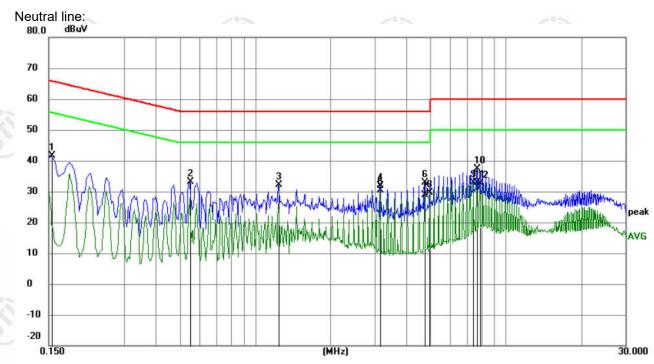


No. M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4740	23.27	9.78	33.05	56.44	-23.39	QP	
2	1	0.5460	23.34	9.69	33.03	56.00	-22.97	QP	
3	2	1.2390	22.91	9.74	32.65	56.00	-23.35	QP	
4		3.1560	23.14	9.78	32.92	56.00	-23.08	QP	
5 *	8	3.1560	20.75	9.78	30.53	46.00	-15.47	AVG	
6	2	3.3810	19.55	9.79	29.34	46.00	-16.66	AVG	
7	9	4.9605	24.68	9.84	34.52	56.00	-21.48	QP	
8		4.9605	19.98	9.84	29.82	46.00	-16.18	AVG	
9	6	7.8900	27.59	9.84	37.43	60.00	-22.57	QP	
10	ĩ	7.8900	23.50	9.84	33.34	50.00	-16.66	AVG	
11		8.1150	23.63	9.84	33.47	50.00	-16.53	AVG	
12		8.3400	23.39	9.84	33.23	50.00	-16.77	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.



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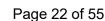


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1545	31.66	9.85	41.51	65.75	-24.24	QP	
2		0.5505	23.57	9.68	33.25	56.00	-22.75	QP	
3		1.2390	22.42	9.74	32.16	56.00	-23.84	QP	
4		3.1560	22.09	9.78	31.87	56.00	-24.13	QP	
5	*	3.1560	20.61	9.78	30.39	46.00	-15.61	AVG	
6		4.7355	23.16	9.83	32.99	56.00	-23.01	QP	
7		4.7355	19.09	9.83	28.92	46.00	-17.08	AVG	
8		4.9605	19.67	9.84	29.51	46.00	-16.49	AVG	
9		7.4400	22.95	9.85	32.80	50.00	-17.20	AVG	
10		7.6650	27.43	9.85	37.28	60.00	-22.72	QP	
11		7.6650	23.11	9.85	32.96	50.00	-17.04	AVG	
12		7.8900	22.88	9.84	32.72	50.00	-17.28	AVG	

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
- 3. If the Peak value under Average limit, the Average value is not recorded in the report.

CTI华测检测





Report No. : EED32Q80738001

6.3 Radiated Emissions

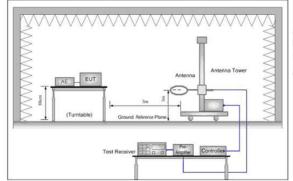
Test Requirement:	47 CFR Part 15C Section	15.231(b) and 1	5.209	
Test Method:	ANSI C63.10 2013			
Test Site:	Measurement Distance: 3	m (Semi-Anech	oic Chamber)	
	Frequency	Detector	RBW	VBW
	0.009MHz-0.090MHz	Peak	10kHz	30kHz
	0.009MHz-0.090MHz	Average	10kHz	30kHz
Receiver Setup:	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz

0.110MHz-0.490MHz

0.110MHz-0.490MHz

0.490MHz -30MHz





Peak

Average

Quasi-peak

Figure . Below 30MHz



Below 1GHz test procedure as below:

The EUT was placed on the top of a rotating table 0.8 meters above the ground at a. a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

10kHz

10kHz

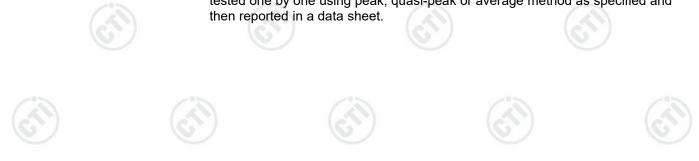
10kHz

30kHz

30kHz

30kHz

- The EUT was set 3 meters away from the interference-receiving antenna, which b. was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to C. determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be retested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.





Remark

Peak Average

Quasi-peak

Peak

Average

Quasi-peak

CTI华测检测



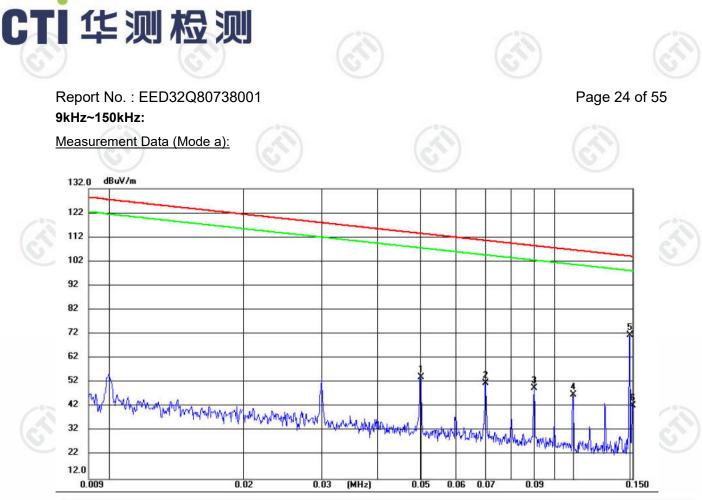


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	F	requency	Field str (microvolt	ength /meter)	Limit (dBµV/m)	Remark	Measurement distance (m)
	0.009	MHz-0.490MHz	2400/F(kHz)	-	-67	300
Limit:	0.490	MHz-1.705MHz	24000/F	(kHz)	-	-	30
(Spurious Emissions)	1.70	5MHz-30MHz	30		-	-	30
)	e a e	5.35(b), Unless of emissions is 20dE emission level rac	B above the equipment u diated by the	maximu Inder tes e device.	m permitted t. This peak	average emis	sion limit
Test Mode: Test Results:	Transm Pass	itting mode,refer	r to section 2	1.3			
	1 455						



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	i.	Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0501	33.14	20.90	54.04	113.49	-59.45	QP	100	352	
2	0.0700	31.05	20.83	51.88	110.60	-58.72	QP	100	352	
3	0.0901	28.84	20.85	49.69	108.42	-58.73	QP	100	352	
4	0.1101	26.09	20.84	46.93	106.69	-59.76	QP	100	352	
5 *	0.1479	50.64	20.91	71.55	104.14	-32.59	QP	100	226	
6	0.1496	21.55	20.92	42.47	104.04	-61.57	QP	100	65	

Remark:

1.According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

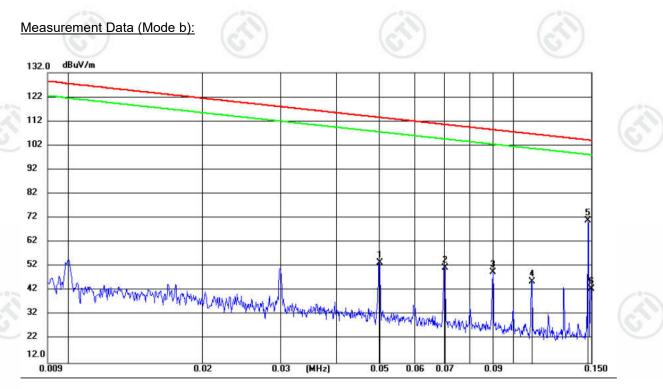
on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor- Antenna Factor-Cable Factor



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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0501	32.73	20.90	53.63	113.49	-59.86	QP	100	359	
2	0.0702	30.63	20.83	51.46	110.57	-59.11	QP	100	7	
3	0.0901	28.82	20.85	49.67	108.42	-58.75	QP	100	7	
4	0.1101	24.76	20.84	45.60	106.69	-61.09	QP	100	7	
5 *	0.1474	50.11	20.91	71.02	104.17	-33.15	QP	100	243	
6	0.1496	21.78	20.92	42.70	104.04	-61.34	QP	100	243	

Remark:

1.According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

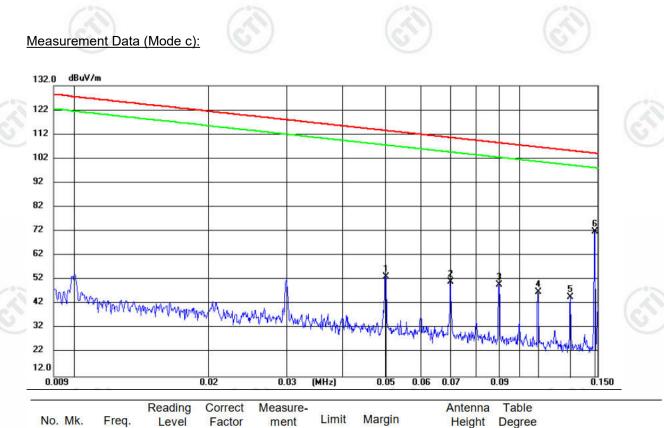
on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor



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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0501	32.35	20.90	53.25	113.49	-60.24	QP	100	0	
2	0.0700	30.38	20.83	51.21	110.60	-59.39	QP	100	352	
3	0.0901	29.12	20.85	49.97	108.42	-58.45	QP	100	352	
4	0.1101	26.14	20.84	46.98	106.69	-59.71	QP	100	352	
5	0.1303	24.04	20.90	44.94	105.23	-60.29	QP	100	352	
6 *	0.1479	51.03	20.91	71.94	104.14	-32.20	QP	100	225	

Remark:

1. According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

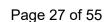
ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

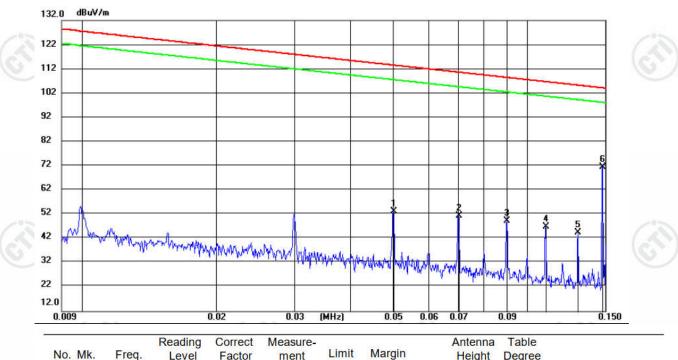
Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor





Measurement Data (Mode d):



			Factor	ment	Limit	Margin		Height	Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0501	32.48	20.90	53.38	113.49	-60.11	QP	100	359	
2	0.0702	30.72	20.83	51.55	110.57	-59.02	QP	100	360	
3	0.0901	28.52	20.85	49.37	108.42	-59.05	QP	100	7	
4	0.1101	26.25	20.84	47.09	106.69	-59.60	QP	100	7	
5	0.1303	23.68	20.90	44.58	105.23	-60.65	QP	100	7	
6 *	0.1479	50.60	20.91	71.51	104.14	-32.63	QP	100	243	
	3 4 5	2 0.0702 3 0.0901 4 0.1101 5 0.1303	2 0.0702 30.72 3 0.0901 28.52 4 0.1101 26.25 5 0.1303 23.68	2 0.0702 30.72 20.83 3 0.0901 28.52 20.85 4 0.1101 26.25 20.84 5 0.1303 23.68 20.90	2 0.0702 30.72 20.83 51.55 3 0.0901 28.52 20.85 49.37 4 0.1101 26.25 20.84 47.09 5 0.1303 23.68 20.90 44.58	2 0.0702 30.72 20.83 51.55 110.57 3 0.0901 28.52 20.85 49.37 108.42 4 0.1101 26.25 20.84 47.09 106.69 5 0.1303 23.68 20.90 44.58 105.23	2 0.0702 30.72 20.83 51.55 110.57 -59.02 3 0.0901 28.52 20.85 49.37 108.42 -59.05 4 0.1101 26.25 20.84 47.09 106.69 -59.60 5 0.1303 23.68 20.90 44.58 105.23 -60.65	2 0.0702 30.72 20.83 51.55 110.57 -59.02 QP 3 0.0901 28.52 20.85 49.37 108.42 -59.05 QP 4 0.1101 26.25 20.84 47.09 106.69 -59.60 QP 5 0.1303 23.68 20.90 44.58 105.23 -60.65 QP	2 0.0702 30.72 20.83 51.55 110.57 -59.02 QP 100 3 0.0901 28.52 20.85 49.37 108.42 -59.05 QP 100 4 0.1101 26.25 20.84 47.09 106.69 -59.60 QP 100 5 0.1303 23.68 20.90 44.58 105.23 -60.65 QP 100	2 0.0702 30.72 20.83 51.55 110.57 -59.02 QP 100 360 3 0.0901 28.52 20.85 49.37 108.42 -59.05 QP 100 7 4 0.1101 26.25 20.84 47.09 106.69 -59.60 QP 100 7 5 0.1303 23.68 20.90 44.58 105.23 -60.65 QP 100 7

Remark:

1. According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

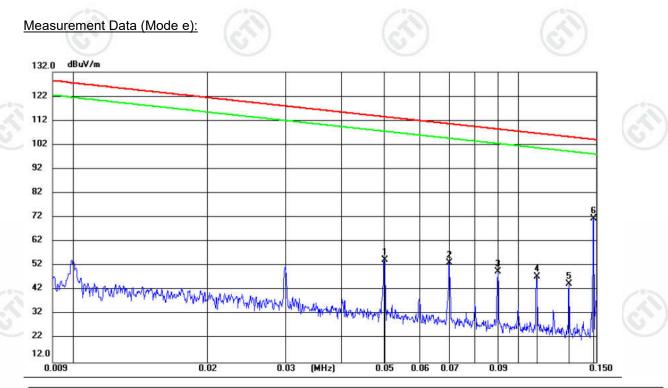
2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor



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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0501	33.66	20.90	54.56	113.49	-58.93	QP	100	359	
2	0.0700	32.41	20.83	53.24	110.60	-57.36	QP	100	360	
3	0.0901	28.81	20.85	49.66	108.42	-58.76	QP	100	7	
4	0.1101	26.72	20.84	47.56	106.69	-59.13	QP	100	7	
5	0.1303	23.60	20.90	44.50	105.23	-60.73	QP	100	7	
6 *	0.1479	50.61	20.91	71.52	104.14	-32.62	QP	100	243	

Remark:

1.According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor



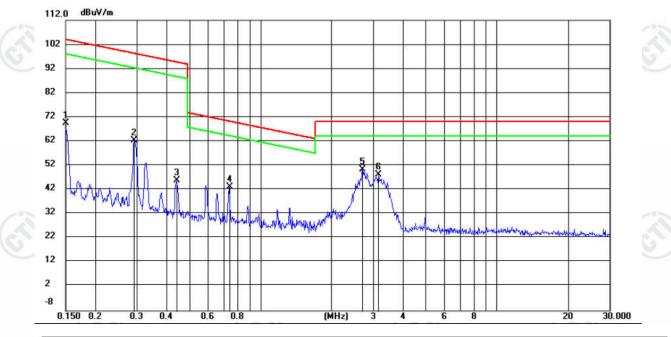




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150kHz~30MHz: Measurement Data (Mode a):



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.1500	48.58	20.92	69.50	104.02	-34.52	QP	100	212	
2	0.2924	41.26	20.95	62.21	98.26	-36.05	QP	100	241	
3	0.4421	25.09	20.66	45.75	94.69	-48.94	QP	100	220	
4	0.7391	22.67	20.53	43.20	70.24	-27.04	QP	100	234	
5 *	2.6925	29.91	20.42	50.33	70.00	-19.67	QP	100	162	
6	3.1563	27.98	20.41	48.39	70.00	-21.61	QP	100	7	

Remark:

1. According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

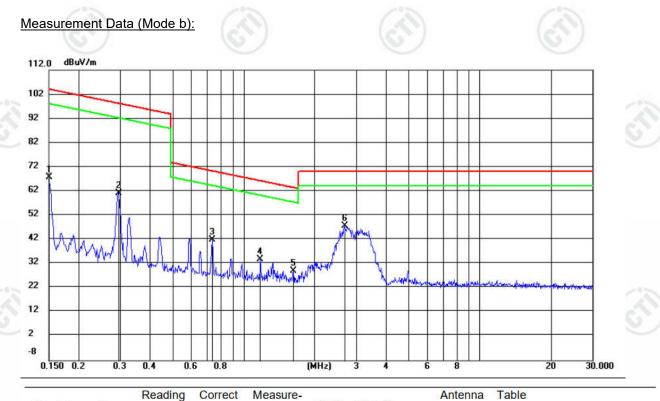
Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor – Antenna Factor – Cable Factor





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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.1500	46.95	20.92	67.87	104.05	-36.18	QP	100	220	
2	0.2955	40.19	20.95	61.14	98.18	-37.04	QP	100	256	
3	0.7352	21.57	20.53	42.10	70.29	-28.19	QP	100	212	
4	1.1781	13.28	20.49	33.77	66.20	-32.43	QP	100	234	
5	1.6276	8.53	20.46	28.99	63.40	-34.41	QP	100	242	
6 *	2.6783	27.10	20.42	47.52	70.00	-22.48	QP	100	322	

Remark:

1.According ANSI C63.10-2013 chapter 6.4.6,We tested the parallel,perpendicular,and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

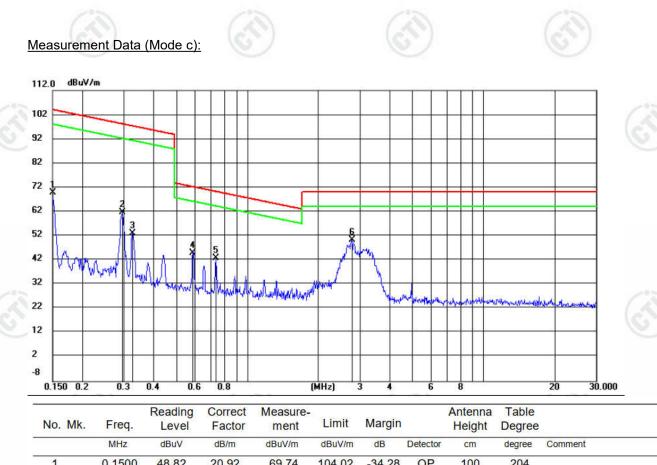
on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor



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		111112	abav	dDinn	abaviiii	abaviiii	чD	Detector	GIII	degree	oomment
_	1	0.1500	48.82	20.92	69.74	104.02	-34.28	QP	100	204	
	2	0.2955	40.89	20.95	61.84	98.17	-36.33	QP	100	218	
-	3	0.3268	32.27	20.88	53.15	97.30	-44.15	QP	100	218	
	4	0.5885	24.55	20.54	45.09	72.21	-27.12	QP	100	233	
	5	0.7352	22.44	20.53	42.97	70.29	-27.32	QP	100	189	
	6 *	2.7648	30.07	20.42	50.49	70.00	-19.51	QP	100	345	
_											

Remark:

1. According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor





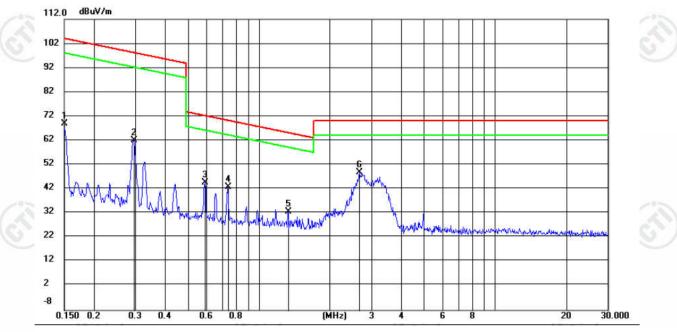


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Report No. : EED32Q80738001



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.1500	48.13	20.92	69.05	104.02	-34.97	QP	100	213	
2	0.2940	41.22	20.95	62.17	98.21	-36.04	QP	100	228	
3	0.5916	23.98	20.54	44.52	72.17	-27.65	QP	100	228	
4	0.7391	22.21	20.53	42.74	70.24	-27.50	QP	100	250	
5	1.3238	12.22	20.48	32.70	65.19	-32.49	QP	100	161	
6 *	2.6641	28.54	20.43	48.97	70.00	-21.03	QP	100	7	

Remark:

1. According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

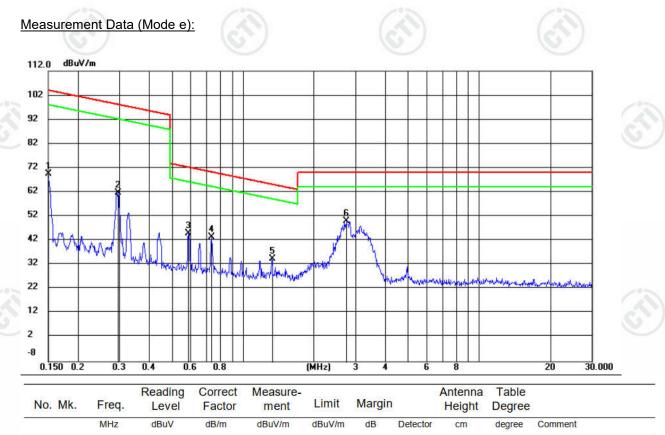
2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor – Antenna Factor – Cable Factor



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	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.1500	48.49	20.92	69.41	104.02	-34.61	QP	100	205	
2	0.2955	40.95	20.95	61.90	98.17	-36.27	QP	100	219	
3	0.5885	24.39	20.54	44.93	72.21	-27.28	QP	100	219	
4	0.7352	22.91	20.53	43.44	70.29	-26.85	QP	100	219	
5	1.3238	14.04	20.48	34.52	65.19	-30.67	QP	100	256	
6 *	2.7356	29.53	20.42	49.95	70.00	-20.05	QP	100	307	

Remark:

1.According ANSI C63.10-2013 chapter 6.4.6, We tested the parallel, perpendicular, and

ground-parallel of loop antenna, and was recorded the worst parallel data of loop antenna in the report.

2. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

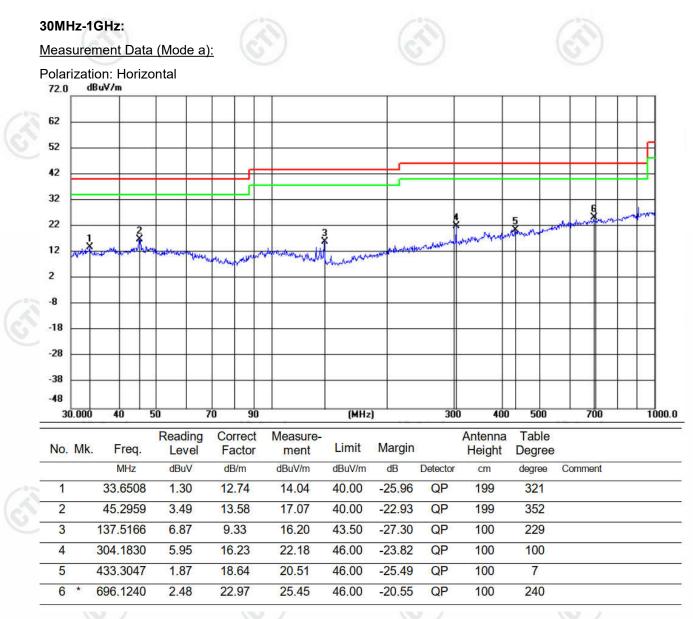
Correct Factor = Preamplifier Factor- Antenna Factor-Cable Factor







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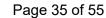
Remark:

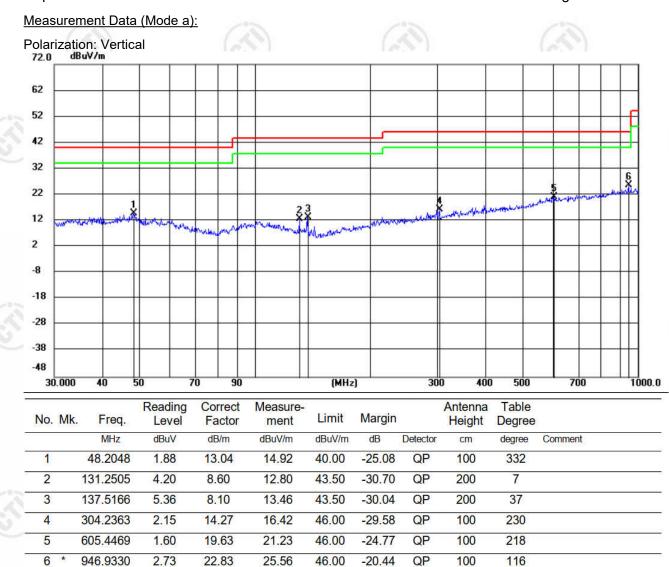
1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

CTI华测检测





Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

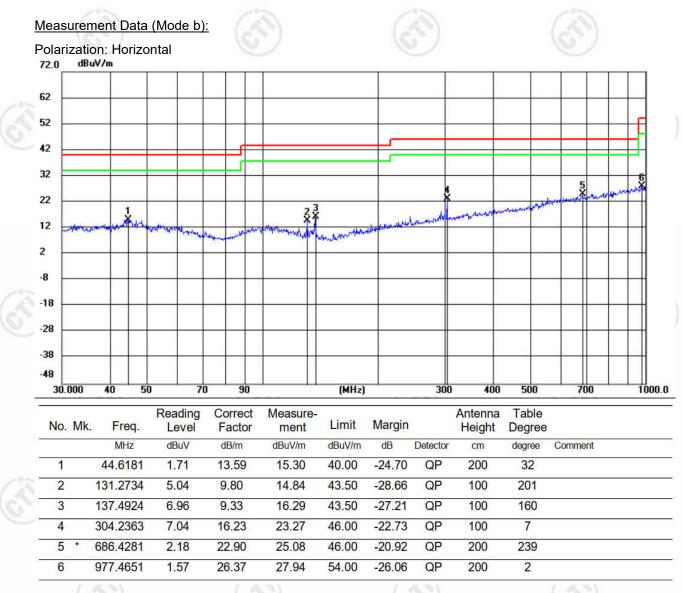
Final Test Level =Receiver Reading - Correct Factor







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Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

- Final Test Level =Receiver Reading Correct Factor
- Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor

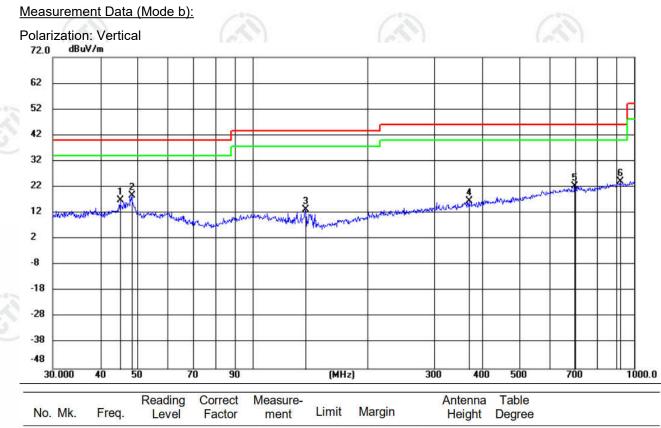
CTI华测检测





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No.	Mk.	Freq.	Level	Factor	ment	Limit	Margin		Height	Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		45.1058	3.93	13.10	17.03	40.00	-22.97	QP	100	169	
2	*	48.4421	5.63	13.03	18.66	40.00	-21.34	QP	100	331	
3		137.4924	5.38	8.10	13.48	43.50	-30.02	QP	200	37	
4		370.3775	1.13	15.40	16.53	46.00	-29.47	QP	100	189	
5	}	698.9368	2.24	20.09	22.33	46.00	-23.67	QP	100	352	
6		921.0612	1.34	22.71	24.05	46.00	-21.95	QP	100	26	

Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

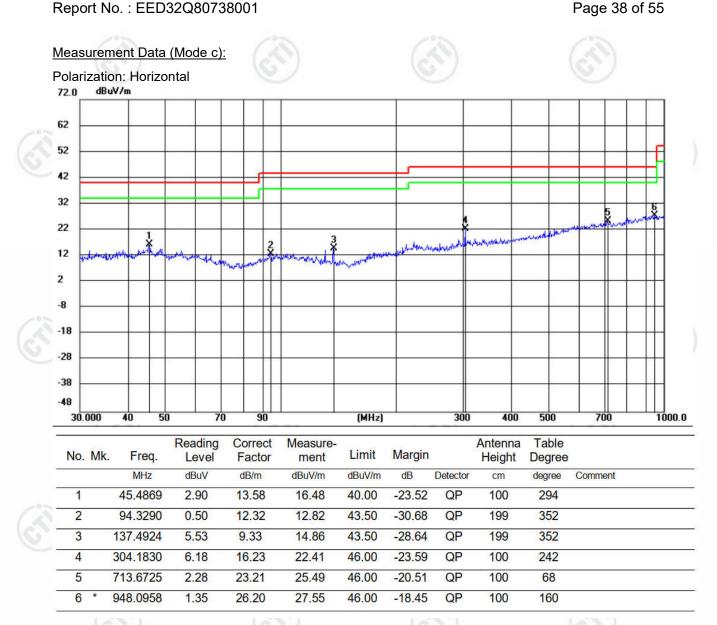
Final Test Level =Receiver Reading - Correct Factor







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Remark:

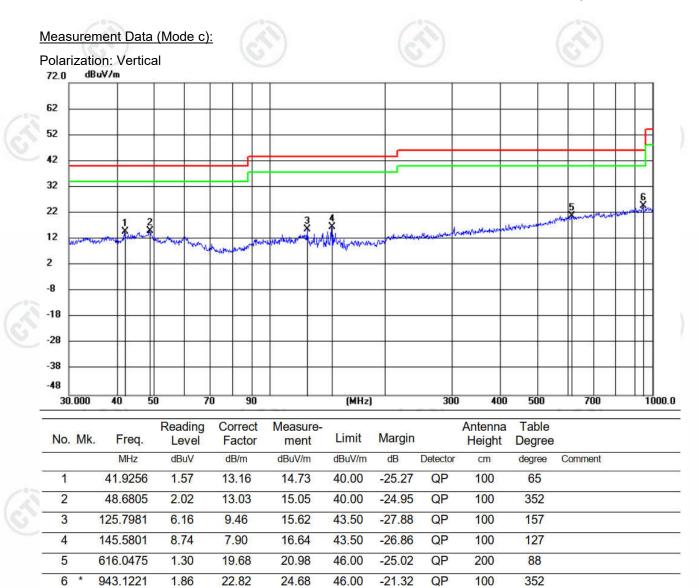
1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor





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Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor











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Remark:

4

5

6

430.6538

728.7191

944.4458

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati

46.00

46.00

46.00

-25.29

-20.35

-18.97

QP

QP

QP

200

200

200

70

352

166

on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

2.12

2.22

0.85

Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor

18.59

23.43

26.18

20.71

25.65

27.03



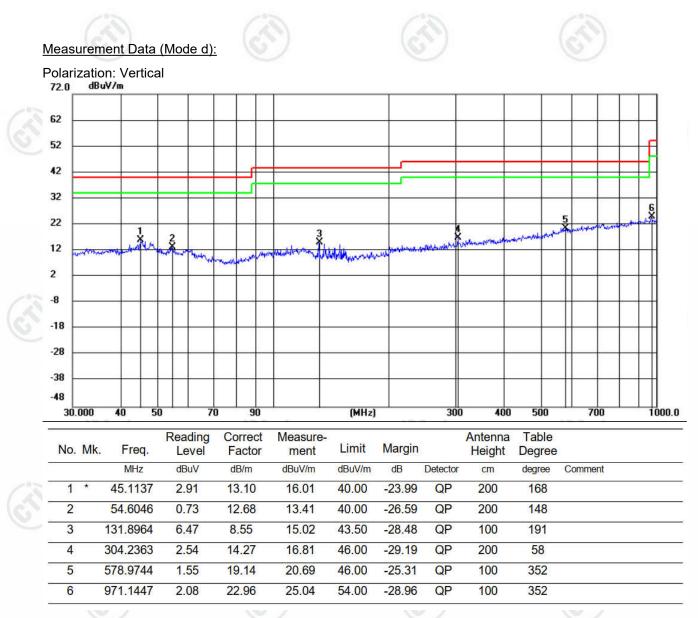








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Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

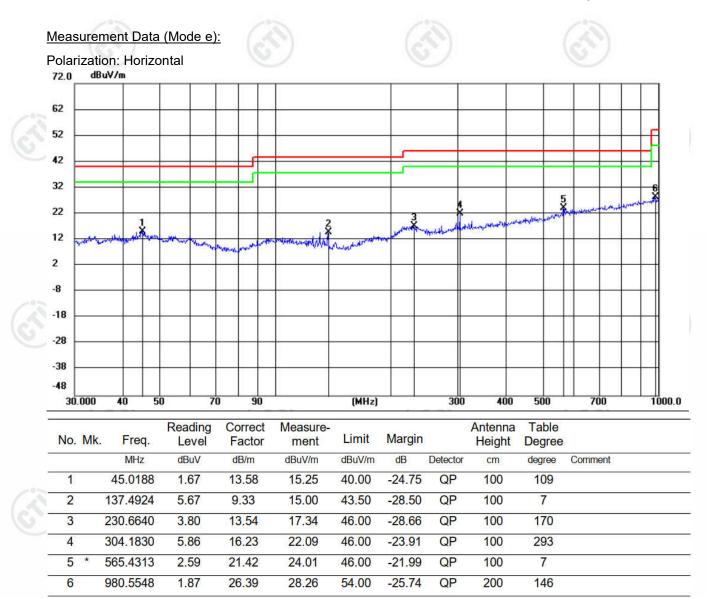








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Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

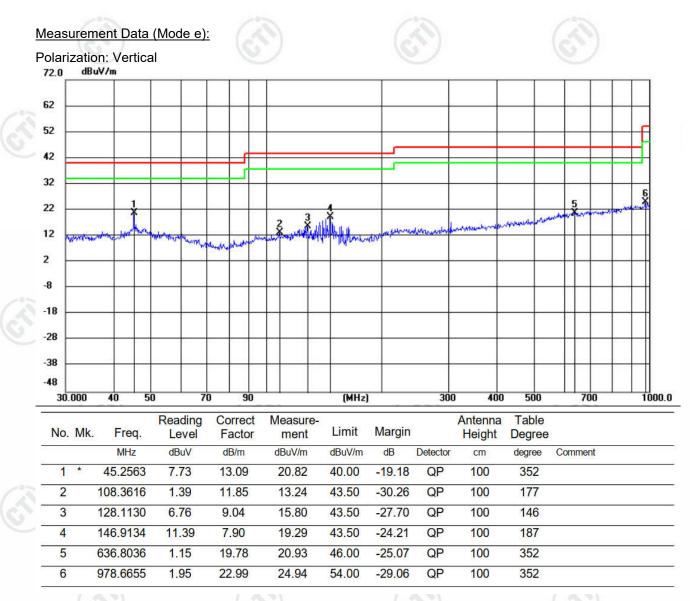
- Final Test Level =Receiver Reading Correct Factor
- Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor







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Remark:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equati on with a sample calculation is as follows:

- Final Test Level =Receiver Reading Correct Factor
- Correct Factor = Preamplifier Factor-Antenna Factor-Cable Factor