



TEST REPORT



Dt&C Co., Ltd.
42, Yurim-ro, 154 beon-gil, Cheoin-gu, Yongin-si,
Gyeonggi-do, Korea
Tel : 031-321-2664, Fax : 031-321-1664



1. Report No : DREKFCC2307-0102
2. Customer
 - Name : Miliwave Co., Ltd.
 - Address : Room504, 106-40 Gwahakdanji-ro, Gangneung-si, Gangwon-do, 25440 KOREA
3. Use of Report : Grant of Certification
4. Product Name / Model Name : 5G NR-U wireless Bridge / MWC-915
(FCC ID : 2AVCWMWC-915)
5. Test Method Used : ANSI C63.4:2014
FCC Part 15 Subpart B
(Class A digital devices, peripherals & external switching power supplies)
6. Date of Test : Jul. 09. 2023 ~ Jul. 16. 2023
7. Location of Test : Permanent Testing Lab On Site Testing
(Address : Refer to the attached)
8. Testing Environment : Temperature (20 ~ 23) °C , Humidity (47 ~ 48) % R.H.
9. Test Result : Refer to the attached Test Result

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This laboratory is not accredited for the test results marked. " * "

Affirmation	Tested by	Technical Manager
	Name : JunSeo Park	Name : DaeHwa Eun

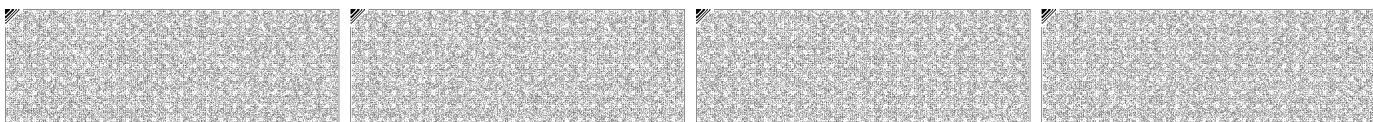
The above test report is the accredited test result by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

Jul. 20. 2023

Dt&C Co., Ltd.

Accredited by KOLAS, Republic of KOREA

If this report is required to confirmation of authenticity, please contact to report@dtnc.net



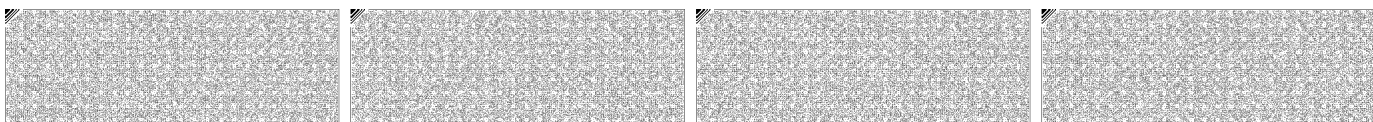


Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



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1. General Remarks

This report contains the result of tests performed by :

Dt&C Co., Ltd.

42, Yurim-ro, 154 beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea

<http://www.dtc.net>

Tel: +82-31-321-2664 Fax: +82-31-321-1664

2. Test Laboratory

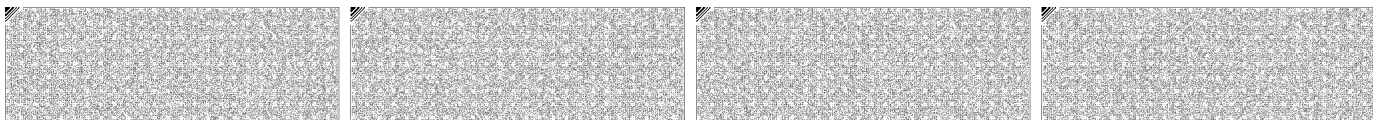
Address of Laboratory

<input type="checkbox"/>	Branch site	42, Yurim-ro 154 beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea
<input type="checkbox"/>	Satellite facilities-1	46, Yurim-ro 154 beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea
<input checked="" type="checkbox"/>	Satellite facilities-2	38, Yurim-ro 154 beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea
<input type="checkbox"/>	Satellite facilities-3	28, Baengnyeong-ro 20 beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea

Dt&C Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Remark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
	South Africa	SABS	0006	ISO/IEC 17025
	Ghana	NCA	NCA agreement 23rd,Oct,2018	-
Site Filing	USA	FCC	KR0034	Designation
	Canada	IC	KR0034	Designation
	Japan	VCCI	C-11427, R-13385, R-14076, R-14180, R-14496, T-11442, G-10338, G-10754, G-10815, G-20051	Registered
Certification	Korea	KC	KR0034	Designation
	Germany	TUV	CARAT 089112 0010 Rev.00	ISO/IEC 17025
	Russia	RMRS	22.03.01.01196.296	ISO/IEC 17025

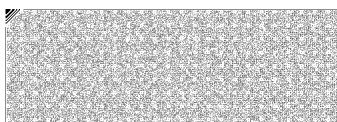
Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".



3. General Information of EUT

Applicant	Miliwave Co., Ltd. Room504, 106-40 Gwahakdanji-ro, Gangneung-si, Gangwon-do, 25440 KOREA
Manufacturer	Miliwave Co., Ltd. Room504, 106-40 Gwahakdanji-ro, Gangneung-si, Gangwon-do, 25440 KOREA
Product Name	5G NR-U wireless Bridge
Model Name	MWC-915
Add Model Name	None
Add Model Difference	None
Software Version	1
Hardware Version	1
Maximum Internal Frequency	7 0200 MHz
Rated Power	DC 24 V, POE
FCC ID	2AVCWMWC-915
RF Module Name	MWC-740m
Remarks	RF Frequency : 57.24 ~ 70.20 GHz (CH1~CH6)
	It is a device that is registered as a radio wave suitable for business use (Class A), so please be careful about this point by the seller or the user, and it is intended for use outside the house.

Related Submittal(s) / Grant(s)
Original submittal only



4. EUT Operations and Test Configurations

4.1 Principle of Configuration Selection

Emission :

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use. For each testing mode different configurations were used, Refer to the individual tests.

4.2 EUT Operation Mode

No.	Mode	Description
1	DC	EUT receives 24 V from DC POWER SUPPLY EUT is connected to an external PC via LAN and communicates data EUT uses the CMD program installed on the PC to check and test the operation of the LAN,SFP ports and wireless functions through PING TEST.
2	POE	EUT receives power from POE injector EUT is connected to an external PC via LAN and communicates data EUT uses the CMD program installed on the PC to check and test the operation of the LAN,SFP ports and wireless functions through PING TEST.

4.3 Test Configuration Mode

No.	Mode	Description
1	DC	EUT is connected DC POWER SUPPLY EUT is connected to SFP to LAN Module#1 SFP to LAN Module#1 is connected to 5G NR-U wireless Bridge SFP to LAN Module#2 to LAN SFP to LAN Module#2 is connected to 5G NR-U wireless Bridge EUT is connected to an external PC via LAN
2	POE	EUT is connected POE injector EUT is connected to SFP to LAN Module#1 SFP to LAN Module#1 is connected to 5G NR-U wireless Bridge SFP to LAN Module#2 to LAN SFP to LAN Module#2 is connected to 5G NR-U wireless Bridge POE injector is connected to an external PC via LAN



4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Serial number	Remarks
AE	PC	DELL	N/A	N/A	MODE 1,2
AE	5G NR-U wireless Bridge	Miliwave Co., Ltd.	MWC-915	N/A	MODE 1,2
AE	DC POWER SUPPLY	SMtechno	SDP 30-5D	305DPA 018	MODE 1,2
AE	DC POWER SUPPLY	SMtechno	SDP 30-5D	305DPB 048	MODE 2
AE	SFP TO RJ45 Module#1	Rivernetwork	GLC-T-A	N/A	MODE 1,2
AE	SFP TO RJ45 Module#2	Rivernetwork	GLC-T-A	N/A	MODE 1,2
AE	POE injector	RB-PSE153GS	N/A	N/A	MODE 1,2

*Abbreviations:
 AE - Auxiliary/Associated Equipment, or
 SIM - Simulator

4.5 EUT In/Output Port

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
DC IN	DC	3.0	Non-Shielded	Plastic	DC POWER SUPPLY (MODE 1)
SFP	I/O	-	-	-	SFP MODULE (MODE 1,2)
RJ 45	I/O	2.5	Non-Shielded	Plastic	EXTERNAL PC(MODE1) POE injector(MODE 2)
F.G	N/E	2.0	Non-Shielded	Plastic	GROUND(MODE1,2)

*Abbreviations:
 AC = AC Power Port DC = DC Power Port N/E = Non-Electrical
 I/O = Signal Input or Output Port
 TP = Telecommunication Ports

4.6 Test Voltage and Frequency

Case	Voltage (V)	Frequency (Hz)	Phases	Remarks
1	DC 24	-	-	-
2	DC 48	-	-	POE



5. Test Summary

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4 : 2014	N/A (Note 1)
Radiated Disturbance	ANSI C63.4 : 2014	C
Antenna Power Conduction	ANSI C63.4:2014	N/A (Note 2)
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		
Note 1) This test was not required because EUT was used DC power.		
Note 2) This test was not required because EUT has not port about this test.		

The data in this test report are traceable to the national or international standards.

Measurement Uncertainty	
Test Items	$U (k = 2)$
Conducted Disturbance (9 kHz~ 30 MHz)	Mains : 3.6 dB Signal : 6.0 dB
Conducted Disturbance (150 kHz ~ 30 MHz)	Mains : 3.4 dB Signal : 6.0 dB
Radiated Disturbance (3m)	Below 1 GHz : 5.86 dB Above 1 GHz : 6.98 dB
Radiated Disturbance (10m)	Below 1 GHz : 4.92 dB Above 1 GHz : 6.98 dB
Antenna Power Conduction	N/A

- Conducted Disturbance

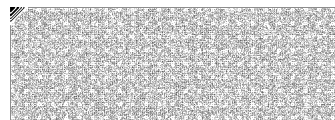
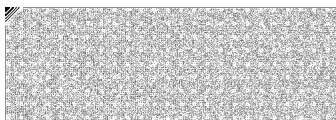
Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
-	-	-	-	-	-

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
299.985	H	45.39	Quasi - Peak	56.4	11.01

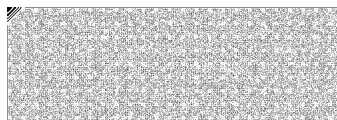
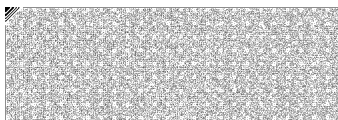
-Antenna Power Conduction

Frequency [MHz]	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
-	-	-	-	-



6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Radiated Disturbance	2023-07-09	23	48	-
	2023-07-16	20	47	



7. Test Results : Emission

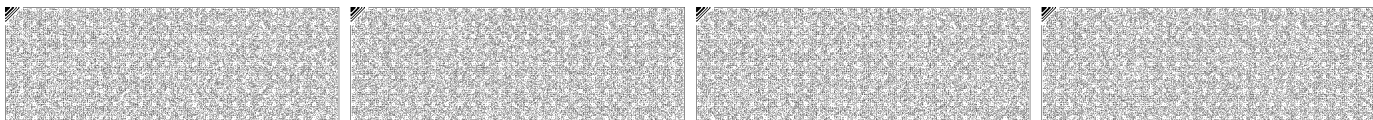
7.1 Conducted Disturbance

ANSI C63.4	Mains terminal disturbance voltage		Result		
Method: The AMN placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane. This distance was between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment were at least 0,8 m from the AMN. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN. The measuring port of the LISN for EUT was connected to spectrum analyzer. Using conducted emission test software, the emissions were scanned with peak detector mode. After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector. For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector with 10 kHz RBW and 30 kHz VBW was used. By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.			Not Applicable		
Fully configured sample scanned over the following frequency range	Frequency range on each side of line	Measurement Point			
	150 kHz to 30 MHz	Mains			
EUT mode (Refer to clauses 4)	Test configuration mode	N/A			
	EUT Operation mode	N/A			
Limits – Class A					
Frequency (MHz)	Limit dB μ V				
	Quasi-Peak	Average			
0.15 to 0.50	79	66			
0.50 to 30	73	60			
Limits – Class B					
Frequency (MHz)	Limit dB μ V				
	Quasi-Peak	Average			
0.15 to 0.50	66 to 56	56 to 46			
0.50 to 5	56	46			
5 to 30	60	50			
Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
-	-	-	-	-	-

Calculation

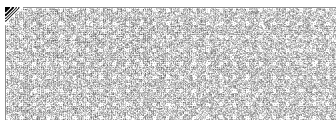
N : Neutral phase, L1 : Live phase
C.FACTOR(dB) : Pulse Limiter(dB) + Cable loss(dB) + Insertion loss of LISN(dB)
Result(dB μ V) : Reading Value(dB μ V) + C.FACTOR(dB)
Margin(dB) : Limit(dB μ V) - Result(dB μ V)

Mains terminal disturbance voltage _Measurement data			
Test configuration mode	N/A	EUT Operation mode	N/A
Test voltage (V)	N/A	Test Frequency (Hz)	N/A



7.2 Radiated Disturbance

ANSI C63.4	Radiated disturbance 30 MHz –40 GHz**			Result
<p>Method: Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10 or 3 meter below 1GHz and 3 meter above 1GHz. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in horizontal and vertical polarities. Final measurements were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4 m. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable. For final measurement below 1 GHz frequency range, Quasi-Peak detector with (RBW = 120 kHz Bandwidth) was used. For final measurement above 1 GHz frequency range, Peak detector with (RBW = 1 MHz Bandwidth) and CISPR Average detector with (RBW = 1 MHz Bandwidth) were used.</p>				Comply
EUT mode (Refer to clauses 4)	Test configuration mode		1, 2	
	EUT Operation mode		1, 2	
Radiated Disturbance below 1 000 MHz				
Frequency range (MHz)	Quasi-peak limit dB μ V/m			
	Class A		Class B	
	3 m distance	10 m distance	3 m distance	
30 to 88	49.1	39.1	40	
88 to 216	53.5	43.5	43.5	
216 to 960	56.4	46.4	46	
960 to 1 000	59.5	49.5	54	
<p>According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards contained in Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22 shown.</p>				
Frequency range (MHz)	Quasi-peak limit dB μ V/m			
	Class A (10 m distance)		Class B (10 m distance)	
30 to 230	40		30	
230 to 1 000	47		37	
Radiated Disturbance for above 1 000 MHz at a measurement distance of 3 m				
Frequency range (GHz)	Peak limit dB μ V/m		Average limit dB μ V/m	
	Class A	Class B	Class A	Class B
1 to 40	80	74	60	54
The test frequency range of Radiated Disturbance measurements are listed below.				
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)			Upper frequency of measurement range (MHz)	
Below 108			1 000	
108 – 500			2 000	
500 – 1 000			5 000	
Above 1 000			5th harmonic of the highest frequency or 40 GHz, whichever is lower	

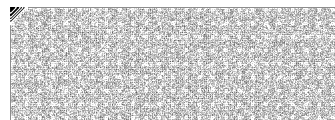


Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-R VER. 2.00.0177	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESU40	ROHDE&SCHWARZ	100525	2022.11.29	2023.11.29
TRILOG BROADBAND TEST-ANTENNA	VULB9160	SCHWARZBECK	9160-3363	2022.09.29	2024.09.29
6 DB ATTENUATOR	2708A	H.P	23831	2022.09.29	2024.09.29
LOW NOISE PRE AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2023.02.07	2024.02.07
BROAD-BAND HORN ANTENNA	BBHA 9120D	SCHWARZBECK	9120D-1014	2022.08.02	2023.08.02
PRE AMPLIFIER	8449B	H.P	3008A00887	2022.08.24	2023.08.24
HORN ANTENNA	EM-6969	ELECTRO-METRICS	156	2022.12.20	2023.12.20
PREAMPLIFIER	MLA-0618-B03-34	TSJ	1785642	2022.12.20	2023.12.20
HORN ANTENNA	3116C	ETS-LINDGREN	00240008	2022.07.22	2023.07.22
PRE AMPLIFIER	LNAS-50-18004000-33-5P	L3HARRIS	2210093	2022.07.22	2023.07.22
HORN ANTENNA	3117	ETS-LINDGREN	00152093	2023.03.17	2024.03.17

(NOTE : THE MEASUREMENT ANTENNAS WERE CALIBRATED IN ACCORDANCE TO THE REQUIREMENTS OF C63.5-2017.)

Calculation

Result(dBuV/m) : Reading Value(dBuV) + Cable loss(dB) - Pre amplifier gain(dB) + Ant. Factor(dB)
Margin : Limit(dBuV/m) - Result(dBuV/m)





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Radiated disturbance at (30 ~ 1 000) MHz _ Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

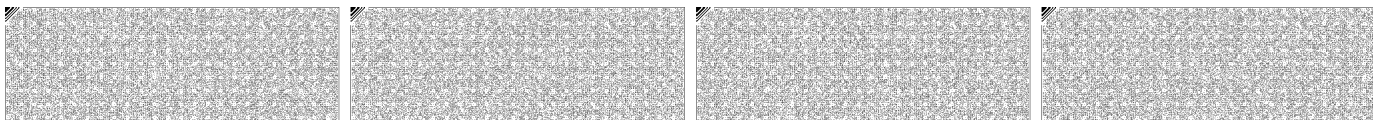
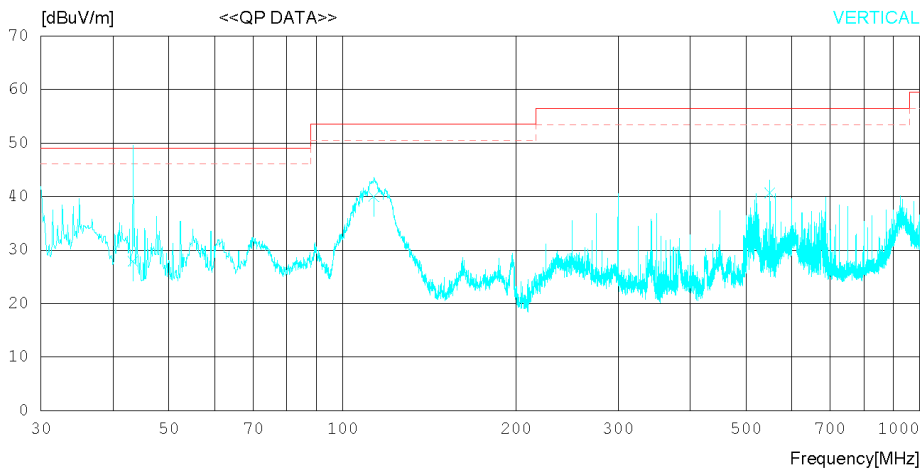
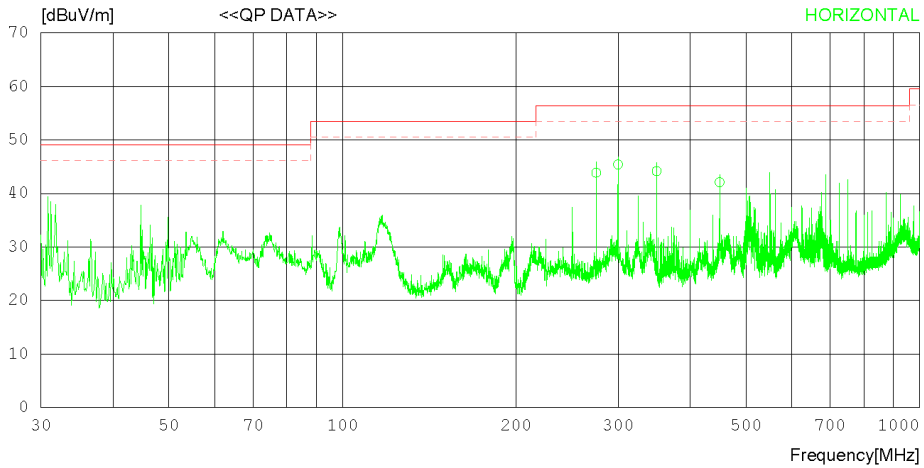
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 'C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m)
MARGIN: 3 dB

- Antenna Factor
1. ANT_EMC-309_VULB9160_3363_with ATT_2022-09-29
Cable Loss
1. C1_ANT TO BOTTOM_UNDER_2023_05_16
2. C2_AMP TO BOTTOM_UNDER_2023_02_17
3. C3_AMP TO RECEIVER_UNDER_2022.12.12
Pre Amp Gain
1. EMC-110_AMP_MLA-100K01-B01-26_1252741_2023.02.07





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

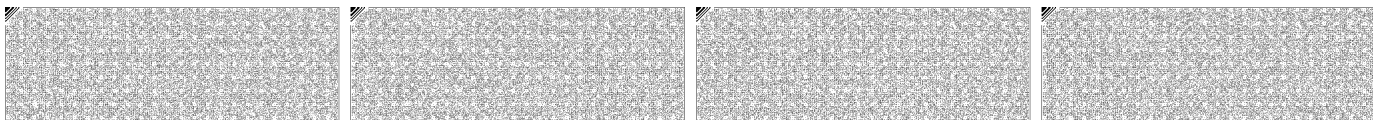
LIMIT : FCC Part15 Subpart.B Class A (3m)
MARGIN: 3 dB

Antenna Factor
1. ANT_EMC-309_VULB9160_3363_with ATT_2022-09-29
Cable Loss

1. C1_ANT TO BOTTOM_UNDER_2023_05_16
2. C2_AMP TO BOTTOM_UNDER_2023_02_17
3. C3_AMP TO RECEIVER_UNDER_2022.12.12

Pre Amp Gain
1. EMC-110_AMP_MLA-100K01-B01-26_1252741_2023.02.07

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	274.919	49.50	18.50	2.26	26.40	43.86	56.40	12.54	322	223
2	299.895	50.30	19.10	2.39	26.40	45.39	56.40	11.01	210	110
3	349.970	47.96	20.00	2.60	26.40	44.16	56.40	12.24	223	233
4	449.877	42.30	23.19	2.88	26.30	42.07	56.40	14.33	305	134
----- VERTICAL -----										
5	43.338	35.50	17.90	0.95	26.43	27.92	49.10	21.18	132	135
6	113.176	48.60	16.40	1.48	26.50	39.98	53.50	13.52	350	78
7	549.915	38.60	24.50	3.36	25.80	40.66	56.40	15.74	245	137





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Radiated disturbance at (1 ~ 6) GHz _ Peak Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

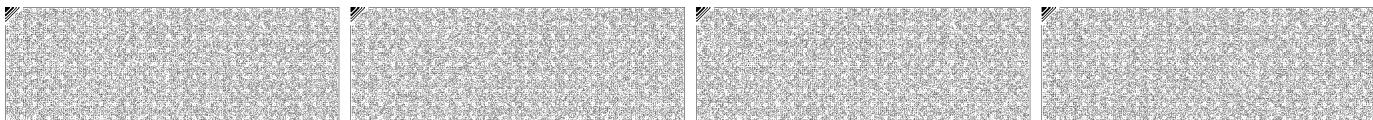
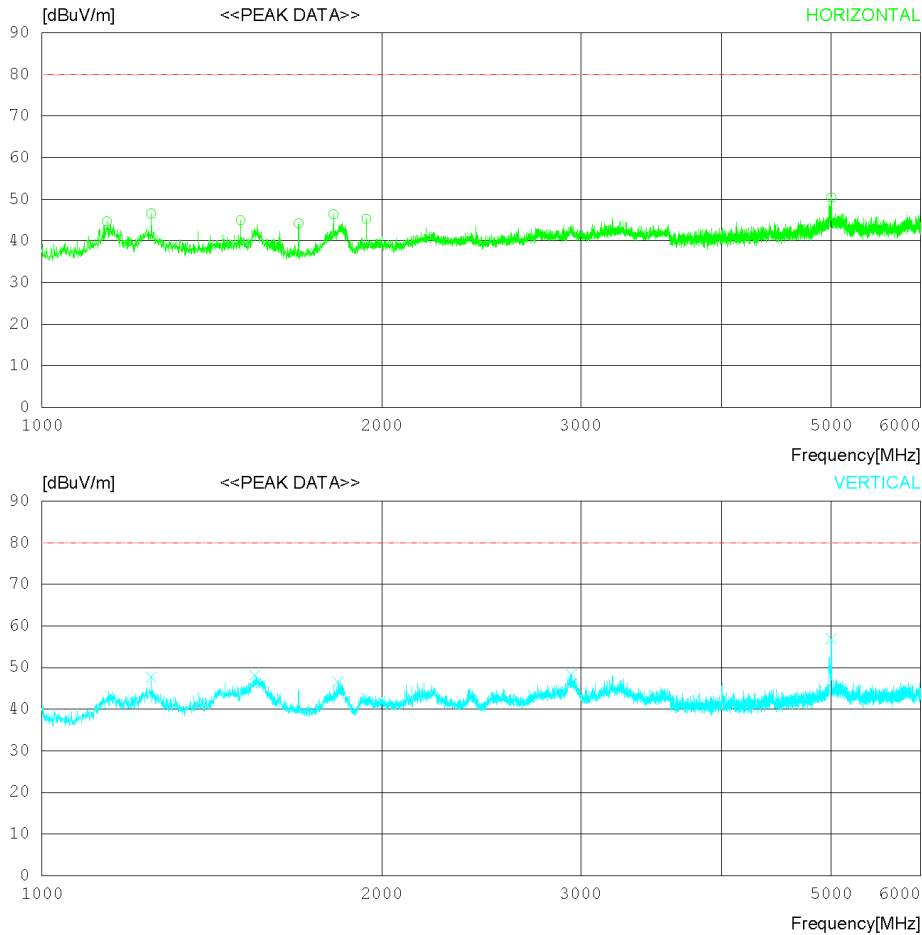
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

- Antenna Factor
1. ANT_9120D_1014_22.08.02
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15
Pre Amp Gain
1. AMP_8449B_3008A00887_2022.08.24





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Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor

1. ANT_9120D_1014_22.08.02

Cable Loss

1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

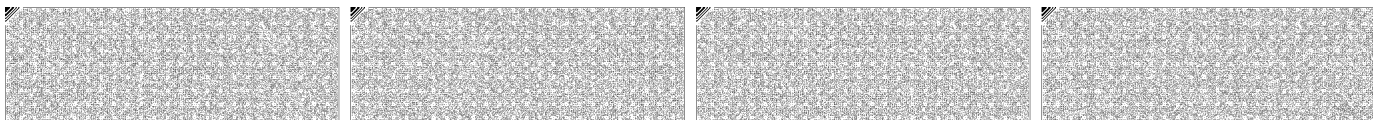
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15

Pre Amp Gain

1. AMP_8449B_3008A00887_2022.08.24

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	1141.875	51.70	25.38	3.60	35.97	44.71	80.0	35.29	132	358
2	1249.375	52.90	25.80	3.81	35.88	46.63	80.0	33.37	350	358
3	1500.000	50.70	25.80	4.16	35.65	45.01	80.0	34.99	233	128
4	1687.500	50.30	25.08	4.32	35.48	44.22	80.0	35.78	148	358
5	1811.875	52.00	25.42	4.40	35.37	46.45	80.0	33.55	206	137
6	1937.500	50.10	25.95	4.52	35.26	45.31	80.0	34.69	223	193
7	5000.000	44.60	31.80	8.84	34.80	50.44	80.0	29.56	134	293
----- VERTICAL -----										
8	1250.000	54.00	25.80	3.83	35.88	47.75	80.0	32.25	112	0
9	1544.375	54.00	25.53	4.20	35.61	48.12	80.0	31.88	348	0
10	1828.750	52.10	25.46	4.42	35.35	46.63	80.0	33.37	132	0
11	2943.125	49.30	28.59	5.56	35.11	48.34	80.0	31.66	234	171
12	5000.000	51.10	31.80	8.84	34.80	56.94	80.0	23.06	164	213





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (1 ~ 6) GHz _Average Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

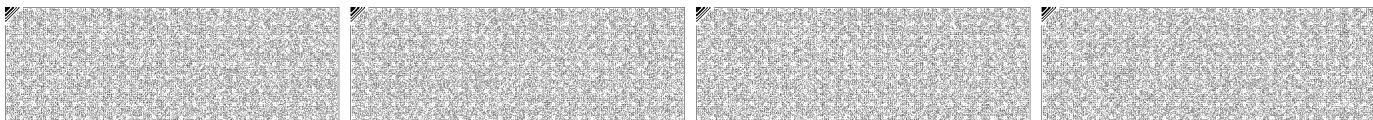
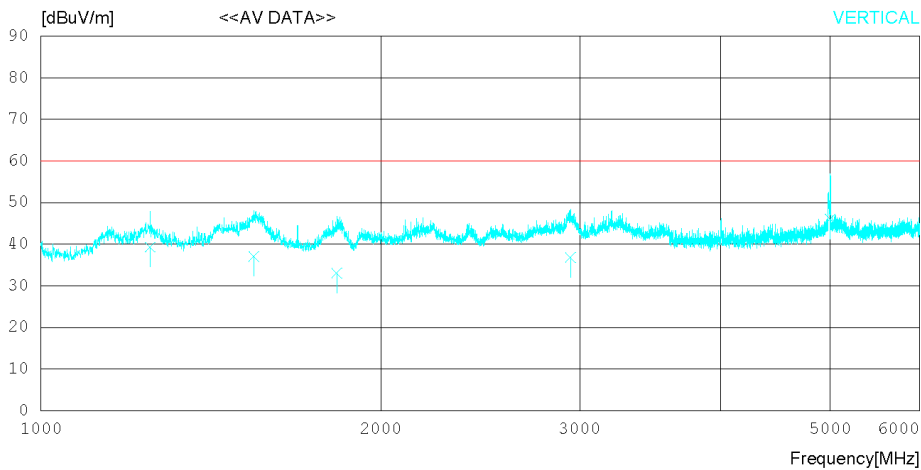
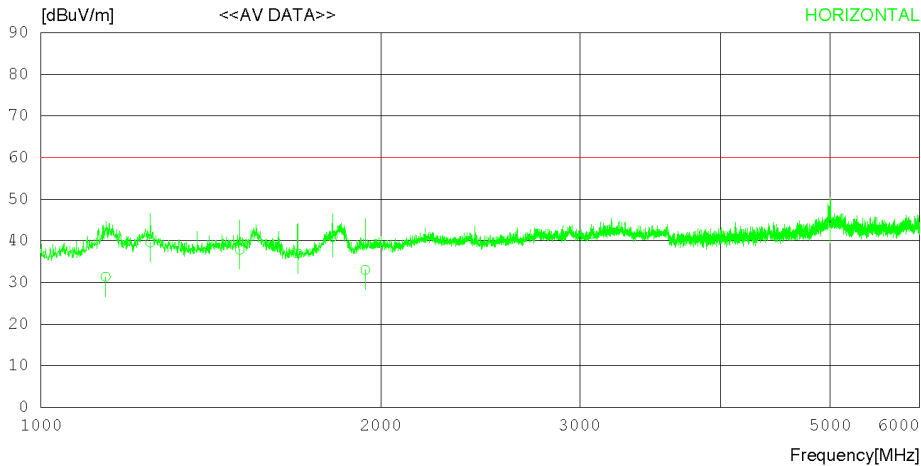
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 'C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

- Antenna Factor
1. ANT_9120D_1014_22.08.02
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15
Pre Amp Gain
1. AMP_8449B_3008A00887_2022.08.24





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor

1. ANT_9120D_1014_22.08.02

Cable Loss

1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

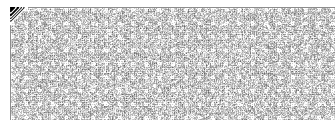
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15

Pre Amp Gain

1. AMP_8449B_3008A00887_2022.08.24

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	1141.121	38.40	25.38	3.60	35.97	31.41	60.00	28.59	322	268
2	1250.020	45.90	25.80	3.83	35.87	39.66	60.00	20.34	145	186
3	1500.043	43.60	25.80	4.16	35.65	37.91	60.00	22.09	365	305
4	1687.538	43.10	25.08	4.32	35.48	37.02	60.00	22.98	114	268
5	1812.548	46.50	25.43	4.40	35.37	40.96	60.00	19.04	203	206
6	1937.546	37.80	25.95	4.52	35.26	33.01	60.00	26.99	345	134
7	4999.692	38.50	31.80	8.84	34.80	44.34	60.00	15.66	116	156
----- VERTICAL -----										
8	1250.036	45.50	25.80	3.83	35.87	39.26	60.00	20.74	202	223
9	1544.139	42.90	25.54	4.20	35.61	37.03	60.00	22.97	231	145
10	1828.006	38.50	25.46	4.42	35.35	33.03	60.00	26.97	162	115
11	2943.586	37.80	28.59	5.56	35.11	36.84	60.00	23.16	225	306
12	4999.685	40.10	31.80	8.84	34.80	45.94	60.00	14.06	219	12





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (6 ~ 18) GHz _Peak Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

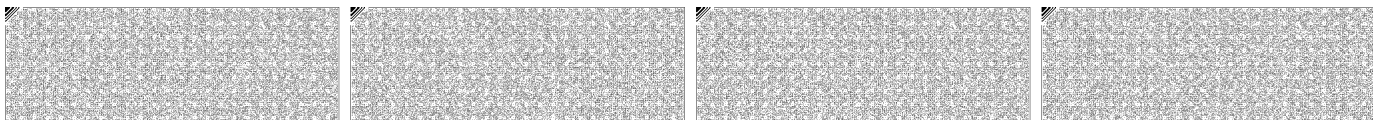
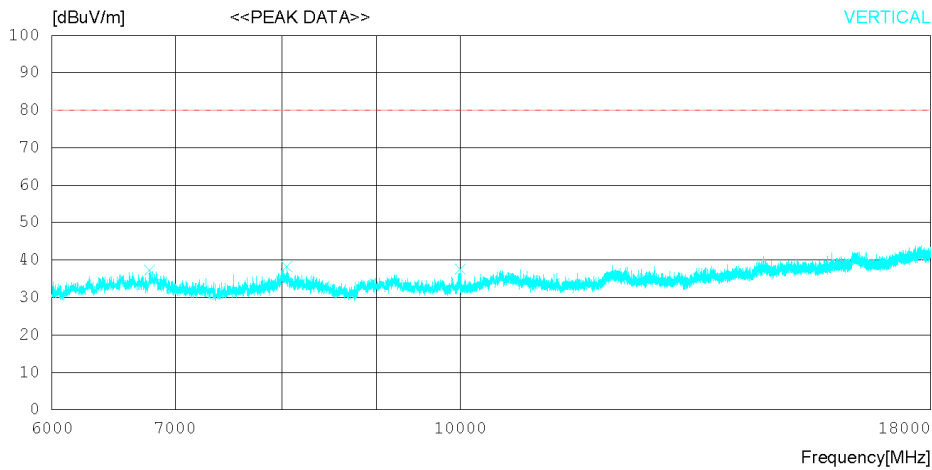
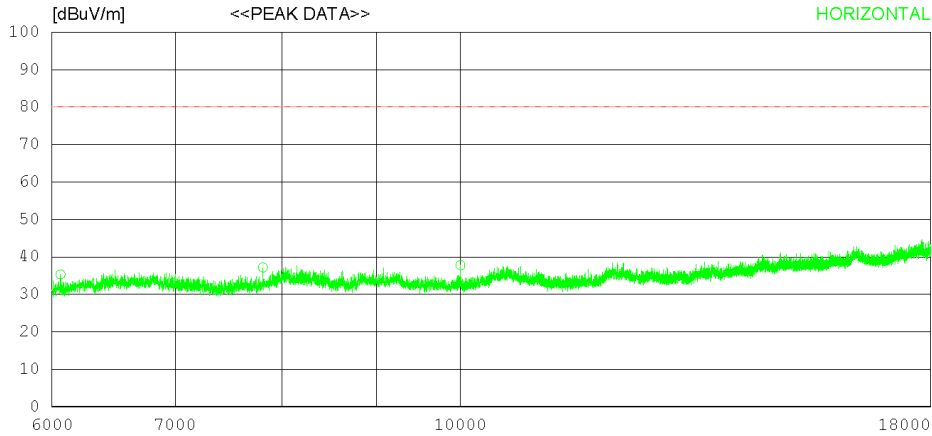
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

- Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor

1. EMC-233-A_EM-6969_156_2022.12.20

Cable Loss

1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

Pre Amp Gain

1. EMC-233-M_MLA-0618-B03-34_2022.12.20

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	6065.250	36.10	31.47	7.58	39.83	35.32	80.0	44.68	132	358
2	7811.250	36.10	31.10	8.37	38.41	37.16	80.0	42.84	315	358
3	9999.000	35.00	31.90	9.38	38.55	37.73	80.0	42.27	346	194
----- VERTICAL -----										
4	6782.250	37.40	31.10	8.05	39.21	37.34	80.0	42.66	202	147
5	8048.250	36.80	31.40	8.45	38.34	38.31	80.0	41.69	220	358
6	9999.750	34.80	31.90	9.38	38.55	37.53	80.0	42.47	223	207





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (6 ~ 18) GHz _ Average Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

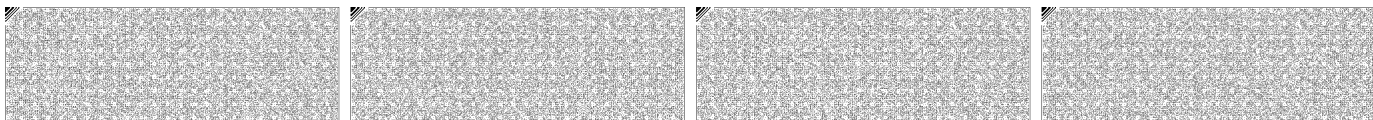
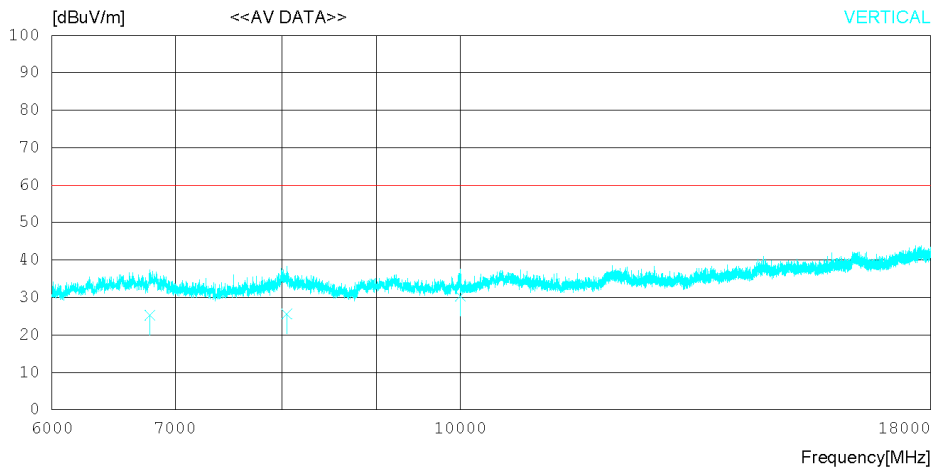
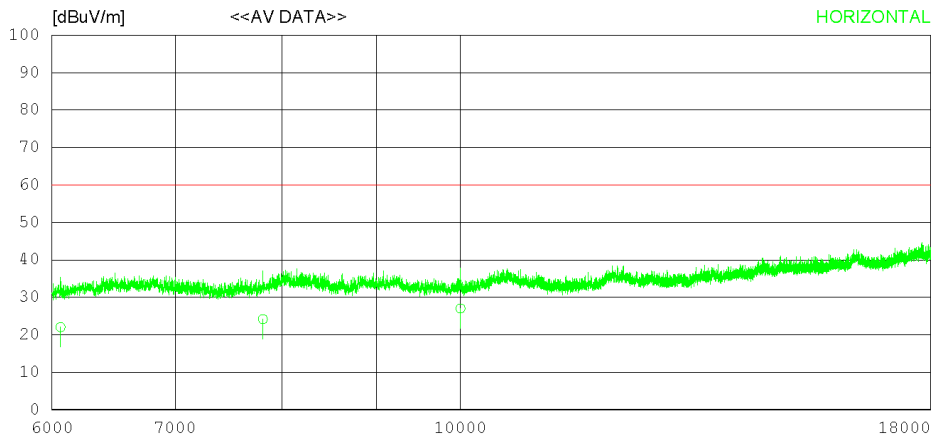
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 'C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

- Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-09

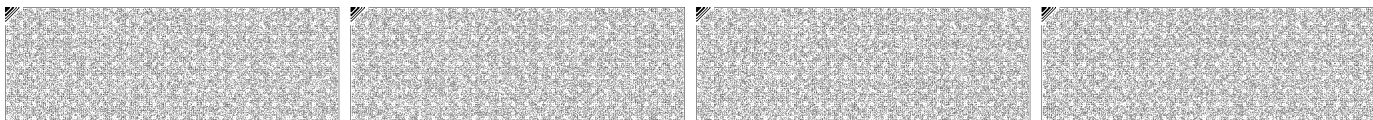
Order No. DTNC2307-04707
Power Supply DC 24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	6064.970	22.80	31.47	7.58	39.83	22.02	60.00	37.98	132	132
2	7811.170	23.10	31.10	8.37	38.41	24.16	60.00	35.84	134	131
3	9999.482	24.30	31.90	9.38	38.55	27.03	60.00	32.97	236	60
----- VERTICAL -----										
4	6782.613	25.30	31.10	8.05	39.21	25.24	60.00	34.76	202	20
5	8048.657	24.10	31.40	8.45	38.34	25.61	60.00	34.39	307	24
6	9999.475	27.60	31.90	9.38	38.55	30.33	60.00	29.67	223	115





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (18 ~ 40) GHz _Peak Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

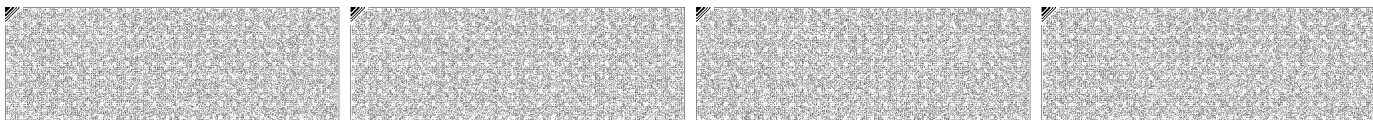
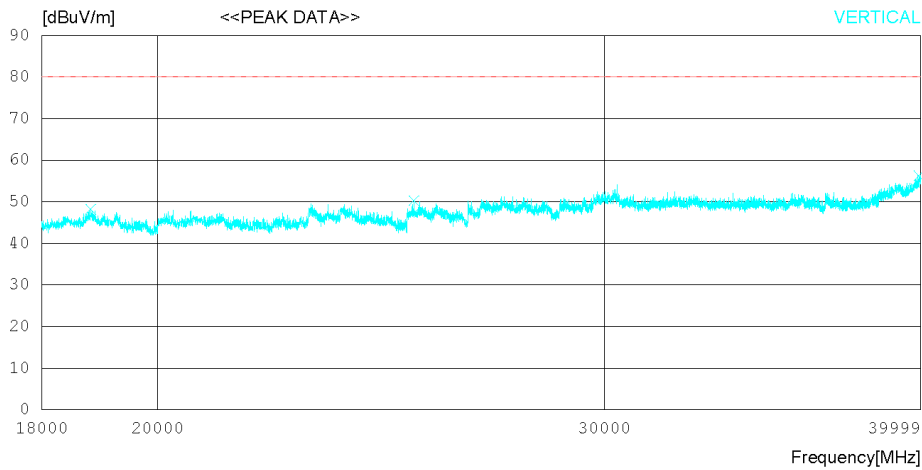
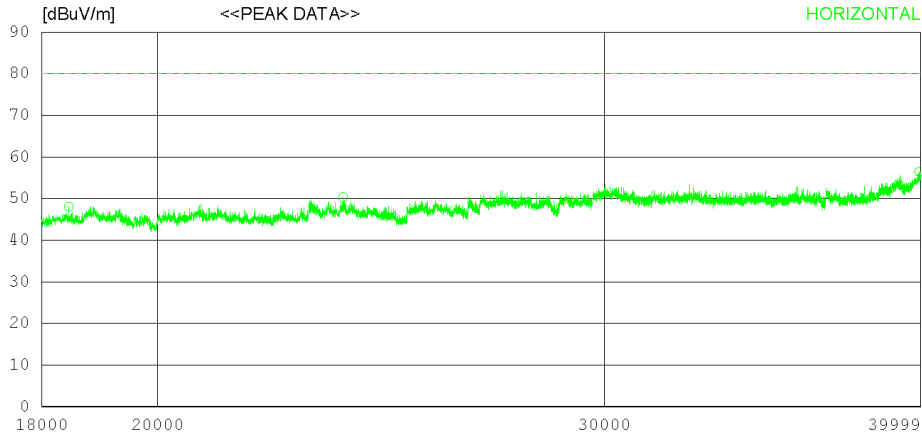
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor

1. ANT_3116C_00240008_2022.07.22

Cable Loss

1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20

2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20

Pre Amp Gain

1. AMP_LNAS-5018004000-33-5P_2022.07.22

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	18445.500	41.80	43.95	19.42	57.13	48.04	80.0	31.96	132	301
2	23665.000	39.50	45.20	21.27	55.62	50.35	80.0	29.65	131	358
3	39950.500	36.40	47.05	29.41	56.41	56.45	80.0	23.55	203	358
----- VERTICAL -----										
4	18814.000	41.50	44.11	19.78	57.17	48.22	80.0	31.78	320	343
5	25235.250	38.90	45.50	22.38	56.50	50.28	80.0	29.72	305	96
6	39942.250	36.30	47.03	29.40	56.43	56.30	80.0	23.7	247	9





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (18 ~ 40) GHz _ Average Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	DC 12	Test Frequency (Hz)	-

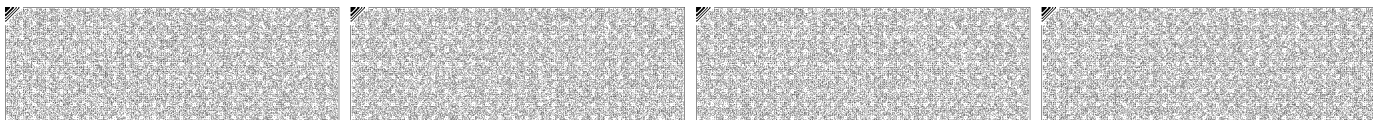
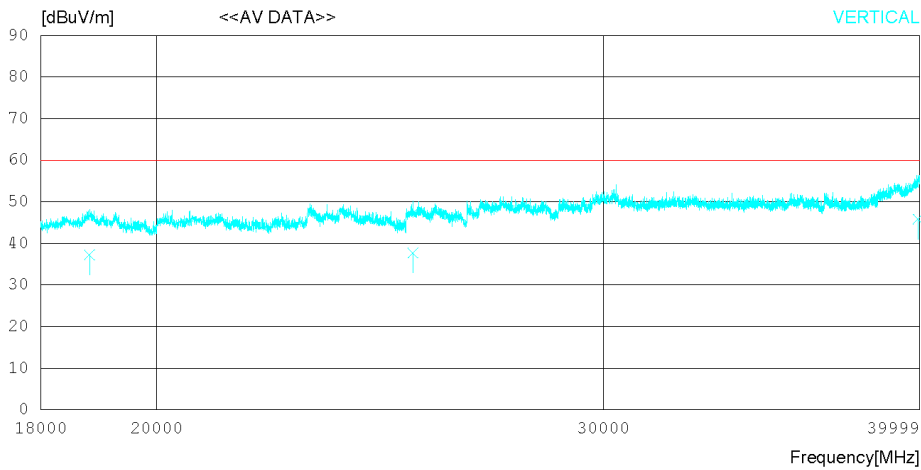
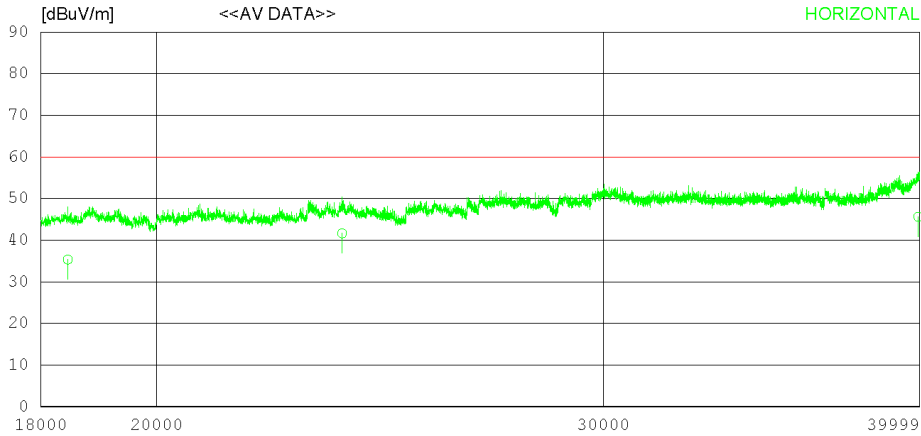
Date 2023-07-09

Order No. DTNC2307-04707
Power Supply DC24 V
Temp/Humi 23 'C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-09

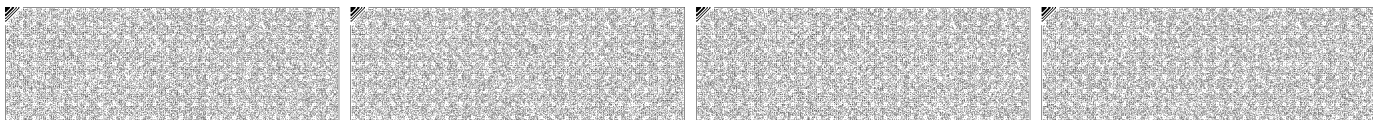
Order No. DTNC2307-04707
Power Supply DC24 V
Temp/Humi 23 °C 48 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	18444.970	29.10	43.94	19.42	57.13	35.33	60.00	24.67	132	145
2	23664.870	30.80	45.20	21.27	55.62	41.65	60.00	18.35	131	134
3	39950.110	25.60	47.05	29.41	56.41	45.65	60.00	14.35	134	45
----- VERTICAL -----										
4	18814.140	30.50	44.11	19.78	57.17	37.22	60.00	22.78	201	33
5	25235.310	26.30	45.50	22.38	56.50	37.68	60.00	22.32	343	350
6	39942.250	25.80	47.03	29.40	56.43	45.80	60.00	14.20	305	113





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (30 ~ 1 000) MHz _ Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

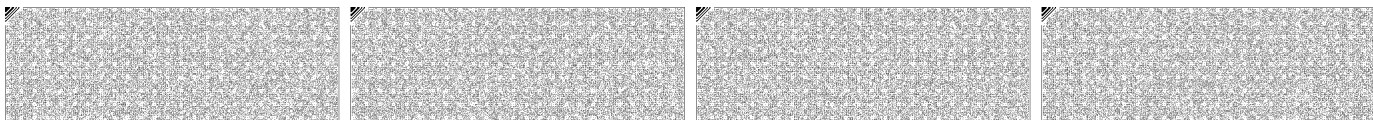
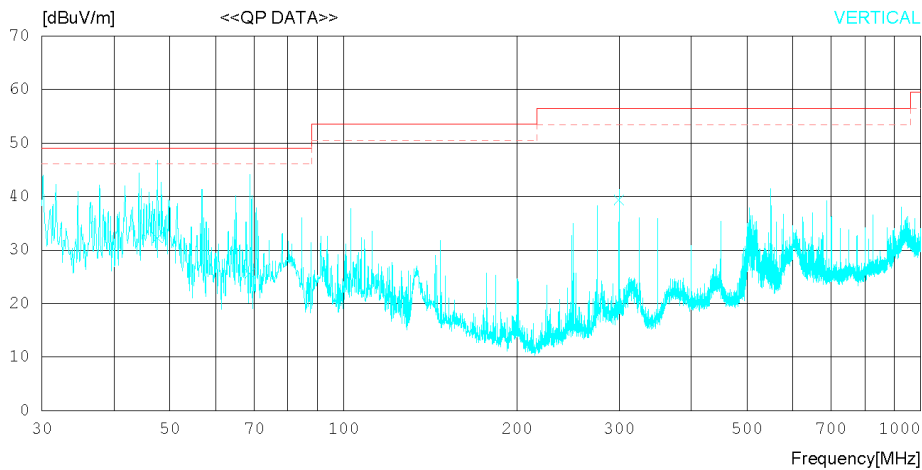
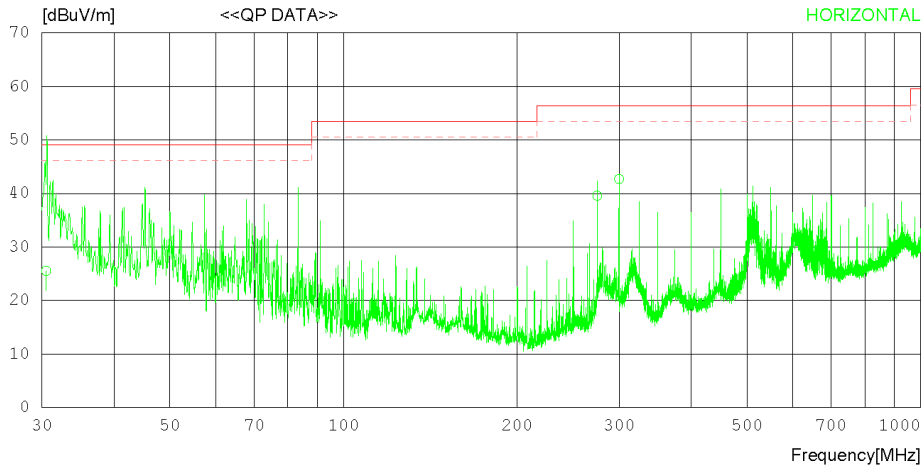
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m)
MARGIN: 3 dB

Antenna Factor
1. ANT_EMC-309_VULB9160_3363_with ATT_2022-09-29
Cable Loss
1. C1_ANT TO BOTTOM_UNDER_2023_05_16
2. C2_AMP TO BOTTOM_UNDER_2023_02_17
3. C3_AMP TO RECEIVER_UNDER_2022.12.12
Pre Amp Gain
1. EMC-110_AMP_MLA-100K01-B01-26_1252741_2023.02.07





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart B Class A (3m)
MARGIN: 3 dB

Antenna Factor

1. ANT_EMC-309_VULB9160_3363_with ATT_2022-09-29

Cable Loss

1. C1_ANT TO BOTTOM_UNDER_2023_05_16

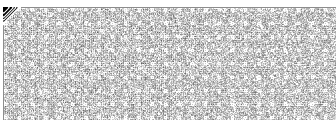
2. C2_AMP TO BOTTOM_UNDER_2023_02_17

3. C3_AMP TO RECEIVER_UNDER_2022.12.12

Pre Amp Gain

1. EMC-110_AMP_MLA-100K01-B01-26_1252741_2023.02.07

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	30.512	34.20	17.00	0.84	26.50	25.54	49.10	23.56	342	315
2	274.973	45.20	18.50	2.26	26.40	39.56	56.40	16.84	220	305
3	299.978	47.60	19.10	2.39	26.40	42.69	56.40	13.71	134	133
----- VERTICAL -----										
4	47.581	39.60	18.06	1.03	26.41	32.28	49.10	16.82	234	341
5	68.800	34.40	16.52	1.18	26.44	25.66	49.10	23.44	113	322
6	299.895	44.30	19.10	2.39	26.40	39.39	56.40	17.01	267	145





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Radiated disturbance at (1 ~ 6) GHz _ Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

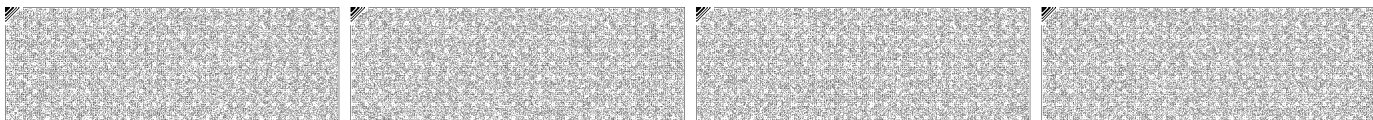
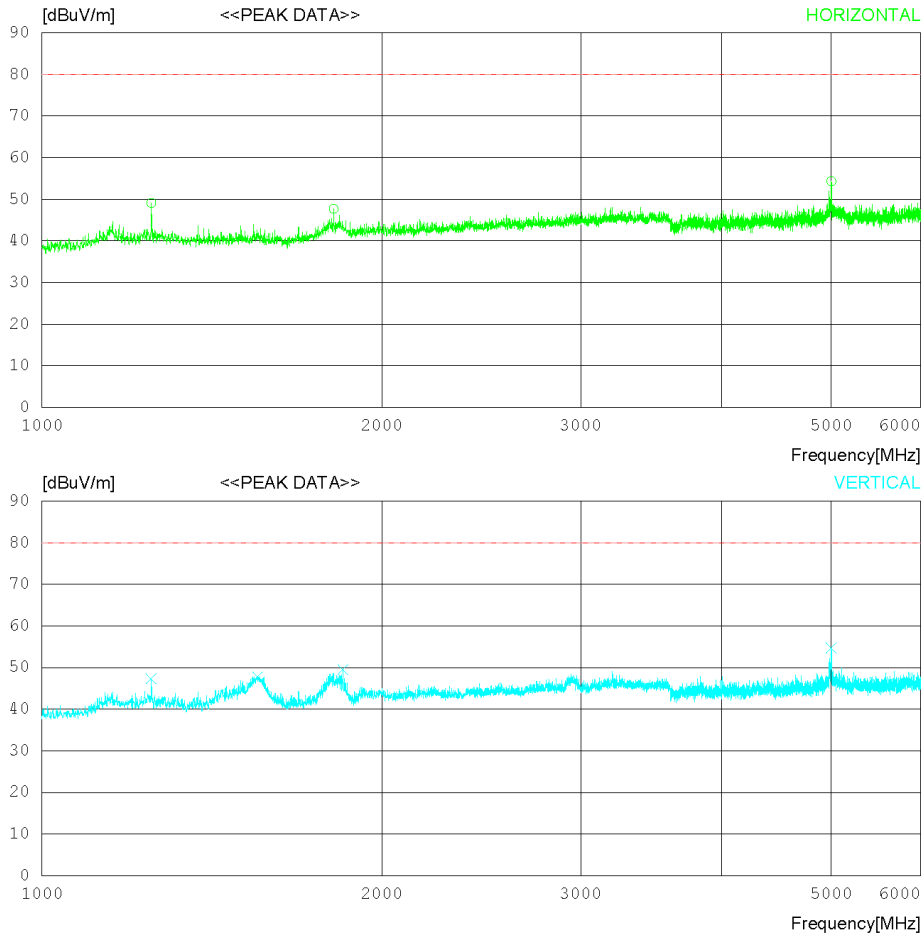
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

- Antenna Factor
1. EMC-299_ANT_3117_00152093_3m_2022.03.22
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15
Pre Amp Gain
1. AMP_8449B_3008A00887_2022.08.24





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor

1. EMC-299_ANT_3117_00152093_3m_2022.03.22

Cable Loss

1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

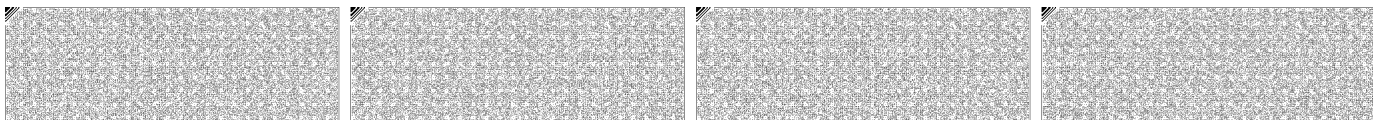
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15

Pre Amp Gain

1. AMP_8449B_3008A00887_2022.08.24

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	1250.000	52.00	29.20	3.83	35.88	49.15	80.0	30.85	231	214
2	1812.500	48.00	30.68	4.40	35.37	47.71	80.0	32.29	245	358
3	5000.000	46.20	34.10	8.84	34.80	54.34	80.0	25.66	134	283
----- VERTICAL -----										
4	1249.375	50.20	29.20	3.81	35.88	47.33	80.0	32.67	132	163
5	1552.500	50.90	28.22	4.21	35.60	47.73	80.0	32.27	133	0
6	1847.500	49.50	30.89	4.44	35.34	49.49	80.0	30.51	112	226
7	5000.000	46.50	34.10	8.84	34.80	54.64	80.0	25.36	305	0





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (1 ~ 6) GHz _Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

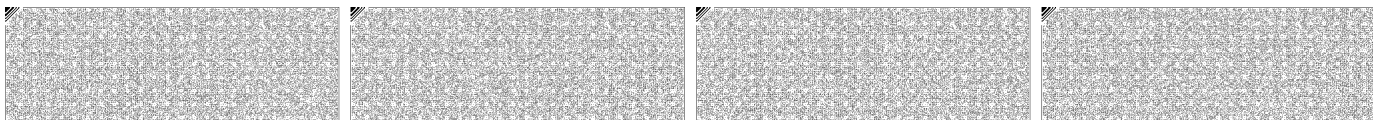
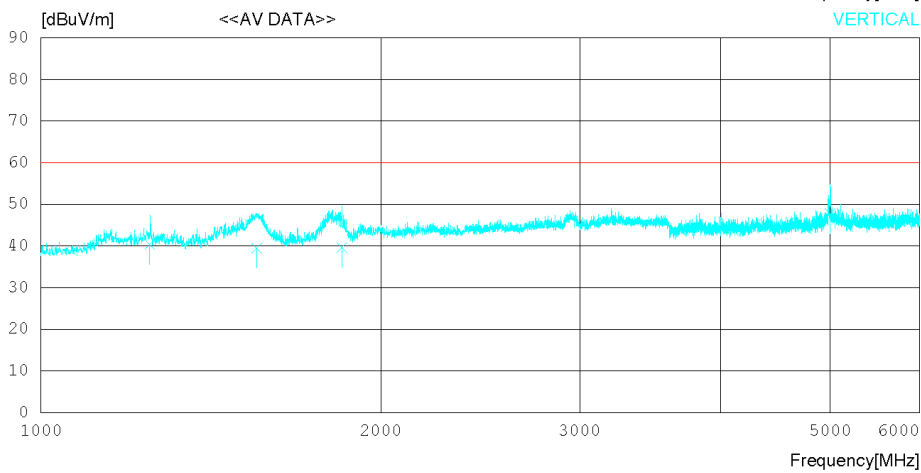
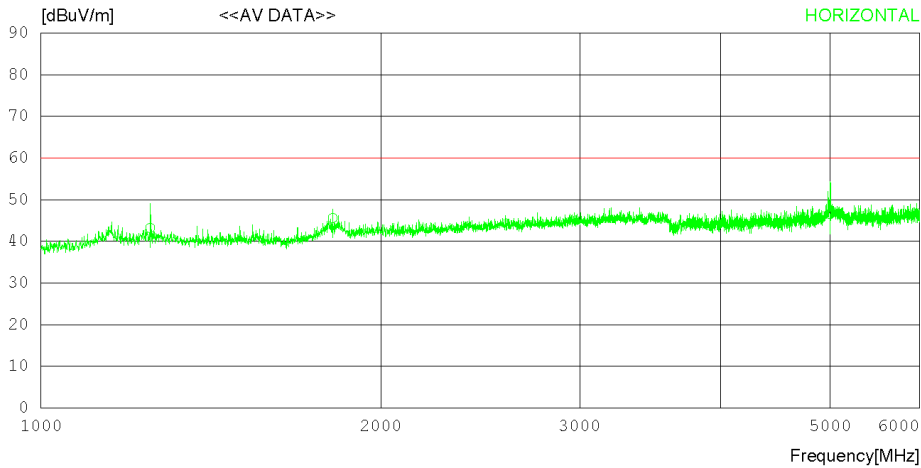
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 'C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor
1. EMC-299_ANT_3117_00152093_3m_2022.03.22
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15
Pre Amp Gain
1. AMP_8449B_3008A00887_2022.08.24





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor

1. EMC-299_ANT_3117_00152093_3m_2022.03.22

Cable Loss

1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

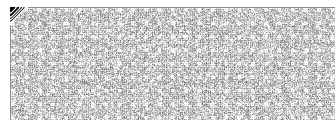
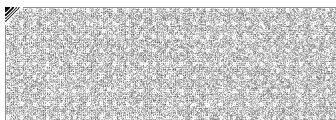
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

3. #29_C3_Amp to Receiver_3m_1-18G_2022-09-15

Pre Amp Gain

1. AMP_8449B_3008A00887_2022.08.24

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	1249.632	46.10	29.20	3.81	35.88	43.23	60.00	16.77	132	223
2	1812.547	45.90	30.68	4.40	35.37	45.61	60.00	14.39	220	213
3	4999.337	38.40	34.10	8.84	34.80	46.54	60.00	13.46	330	134
----- VERTICAL -----										
4	1248.623	43.20	29.19	3.81	35.88	40.32	60.00	19.68	132	165
5	1552.662	42.60	28.22	4.21	35.60	39.43	60.00	20.57	210	36
6	1847.336	39.60	30.88	4.44	35.34	39.58	60.00	20.42	221	145
7	4999.776	39.60	34.10	8.84	34.80	47.74	60.00	12.26	134	305





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (6 ~ 18) GHz _Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

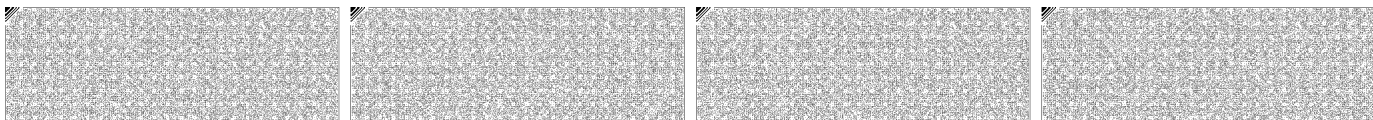
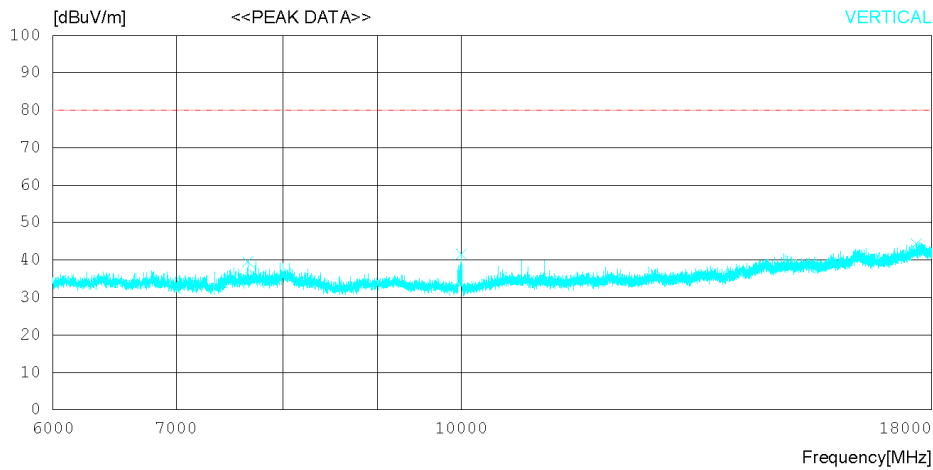
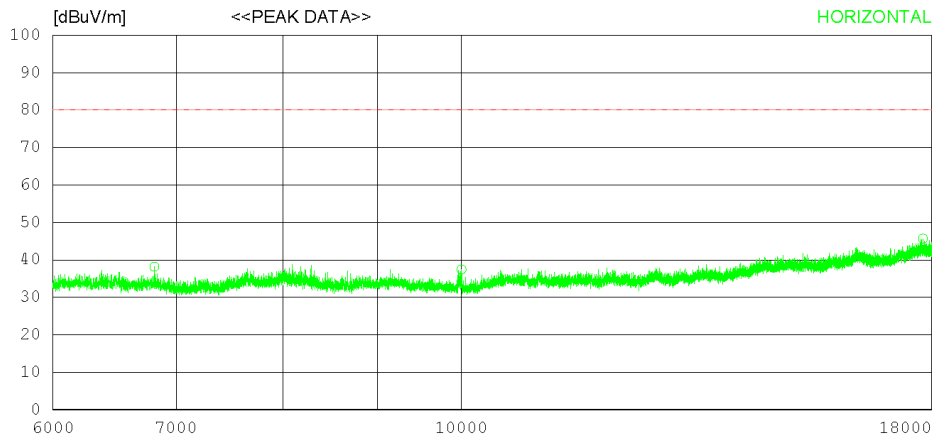
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart B Class A (3m) - GHz(Peak)
FCC Part15 Subpart B Class A (3m) - GHz(Peak)

Antenna Factor

1. EMC-233-A_EM-6969_156_2022.12.20

Cable Loss

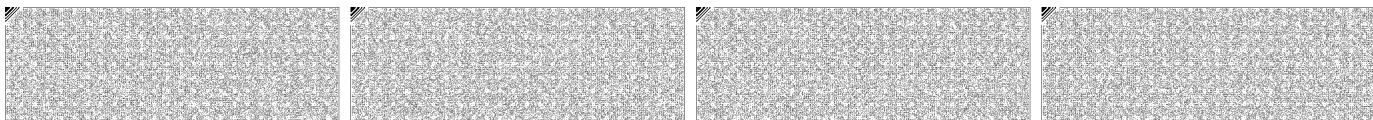
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15

2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15

Pre Amp Gain

1. EMC-233-M_MLA-0618-B03-34_2022.12.20

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	6810.750	38.20	31.10	8.05	39.18	38.17	80.0	41.83	321	237
2	9999.750	34.70	31.90	9.38	38.55	37.43	80.0	42.57	306	261
3	17803.500	31.00	37.11	15.71	38.17	45.65	80.0	34.35	175	0
----- VERTICAL -----										
4	7655.250	38.30	31.10	8.64	38.48	39.56	80.0	40.44	220	358
5	9999.000	38.90	31.90	9.38	38.55	41.63	80.0	38.37	134	358
6	17658.000	29.90	37.10	15.30	37.93	44.37	80.0	35.63	213	190





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (6 ~ 18) GHz _ Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

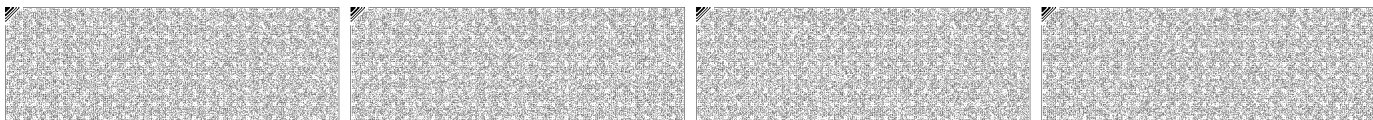
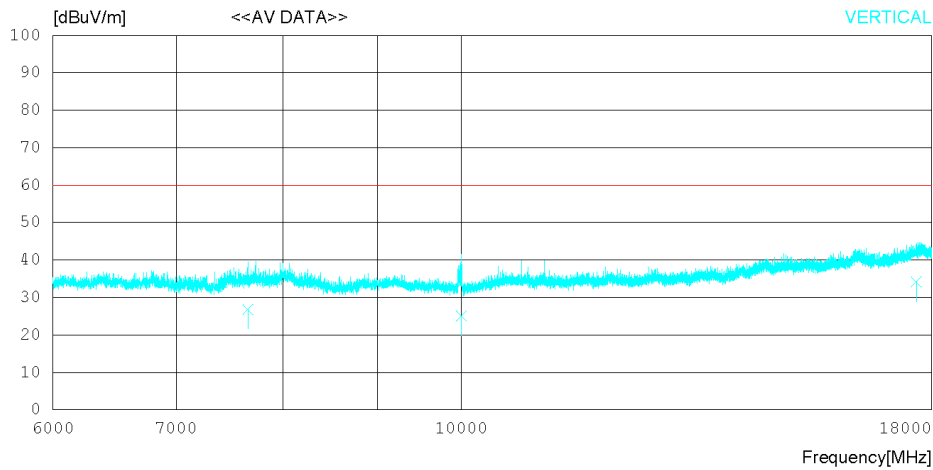
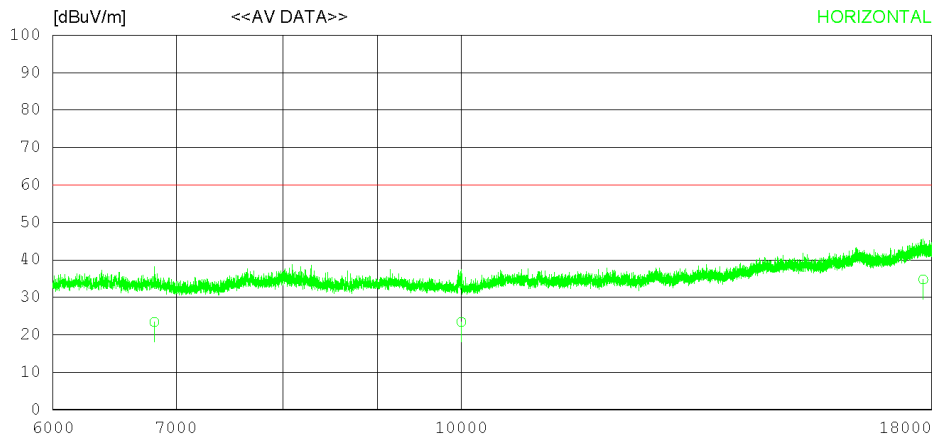
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

- Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Date 2023-07-16

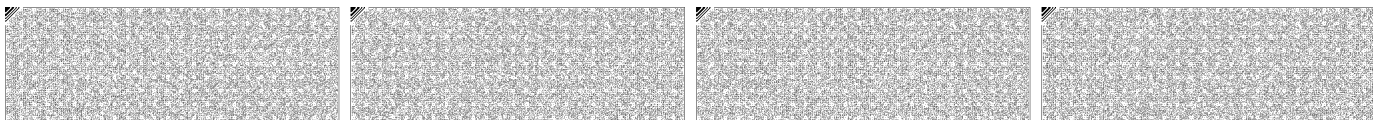
Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart B Class A (3m) - GHz(Average)
FCC Part15 Subpart B Class A (3m) - GHz(Average)

- Antenna Factor
1. EMC-233-A_EM-6969_156_2022.12.20
Cable Loss
1. #27_C1_Ant to Bottom_3m_1-18G_2022-09-15
2. #28_C2_Bottom to Amp(Filter,Receiver)_3m_1-18G_2022-09-15
Pre Amp Gain
1. EMC-233-M_MLA-0618-B03-34_2022.12.20

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	6810.480	23.40	31.10	8.05	39.18	23.37	60.00	36.63	321	224
2	9999.038	20.70	31.90	9.38	38.55	23.43	60.00	36.57	156	163
3	17807.040	20.10	37.11	15.71	38.17	34.75	60.00	25.25	284	45
----- VERTICAL -----										
4	7654.937	25.60	31.10	8.64	38.48	26.86	60.00	33.14	352	145
5	9999.334	22.30	31.90	9.38	38.55	25.03	60.00	34.97	112	223
6	17657.940	19.70	37.10	15.30	37.93	34.17	60.00	25.83	332	276





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (18 ~ 40) GHz _Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

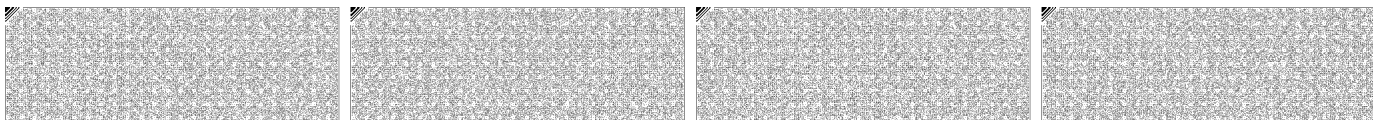
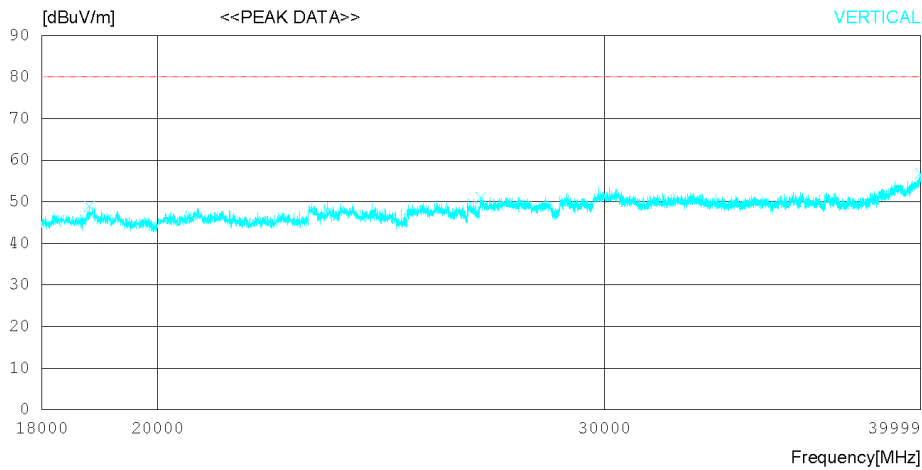
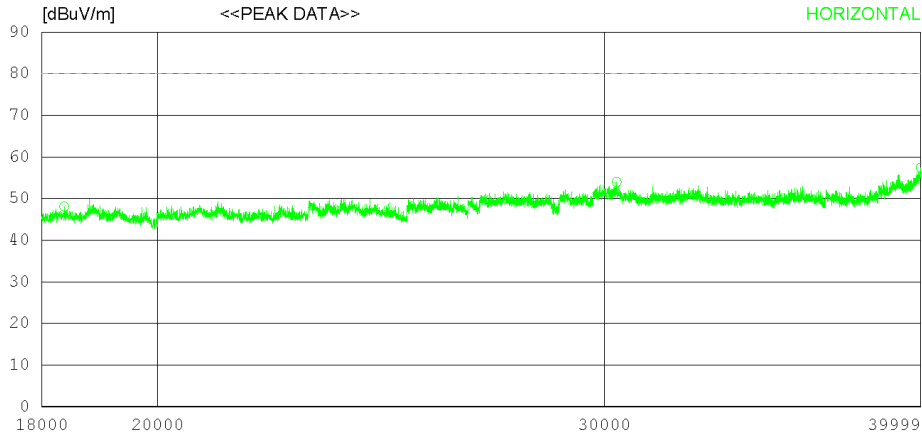
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Peak)
FCC Part15 Subpart.B Class A (3m) - GHz(Peak)

Antenna Factor

1. ANT_3116C_00240008_2022.07.22

Cable Loss

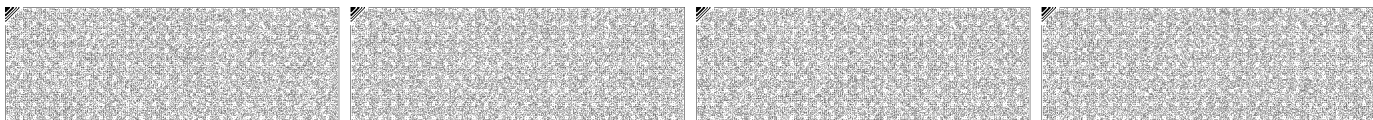
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20

2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20

Pre Amp Gain

1. AMP_LNAS-5018004000-33-5P_2022.07.22

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	18368.500	41.90	43.90	19.33	57.03	48.10	80.0	31.9	356	7
2	30344.750	39.20	46.70	24.10	56.02	53.98	80.0	26.02	205	31
3	39994.500	37.10	47.18	29.45	56.33	57.40	80.0	22.6	112	6
----- VERTICAL -----										
4	18792.000	42.20	44.10	19.76	57.17	48.89	80.0	31.11	221	136
5	26824.750	39.40	45.70	22.92	56.91	51.11	80.0	28.89	137	45
6	39986.250	36.50	47.16	29.44	56.35	56.75	80.0	23.25	236	333





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMWC-915)



Radiated disturbance at (18 ~ 40) GHz _ Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	POE	Test Frequency (Hz)	-

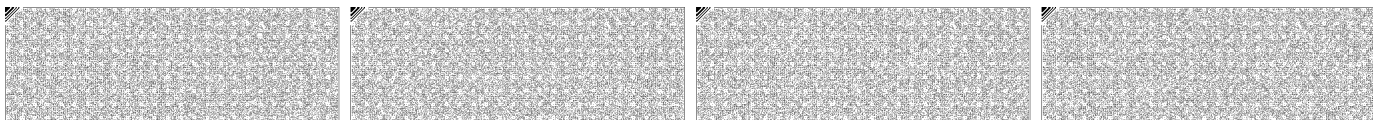
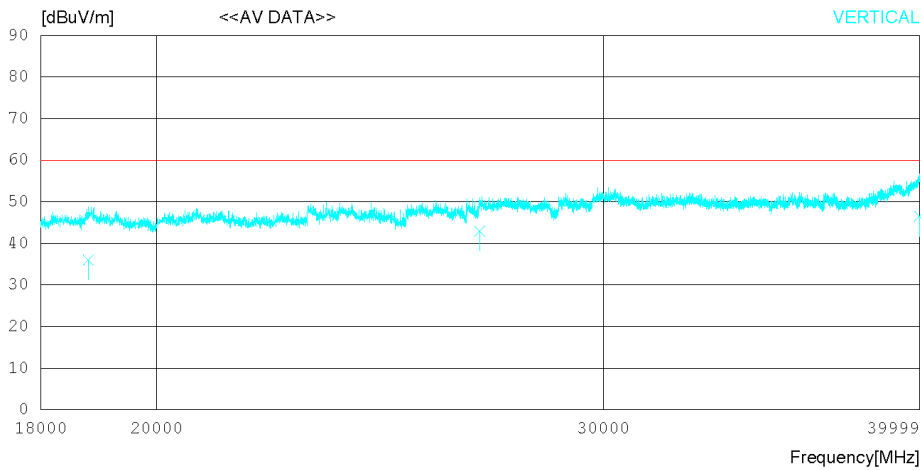
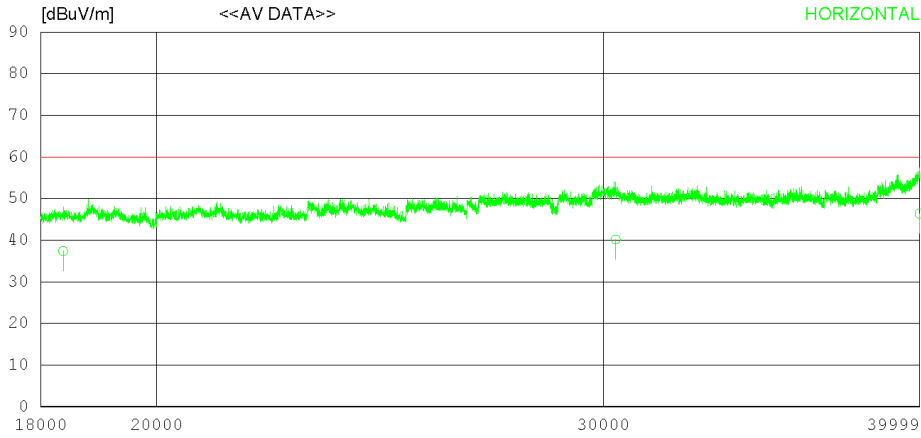
Date 2023-07-16

Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

- Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22





Report No.: DREKFCC2307-0102
(FCC ID : 2AVCWMMC-915)



Date 2023-07-16

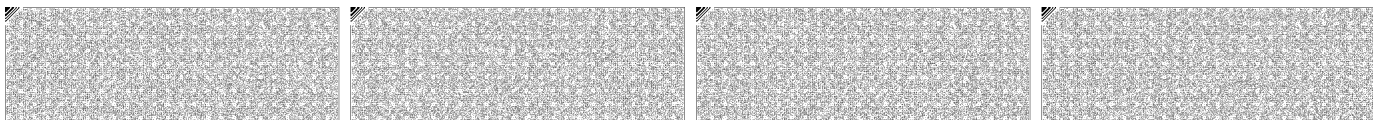
Order No. DTNC2307-04707
Power Supply POE
Temp/Humi 20 °C 47 % R.H.
Test Condition

Memo

LIMIT : FCC Part15 Subpart.B Class A (3m) - GHz(Average)
FCC Part15 Subpart.B Class A (3m) - GHz(Average)

Antenna Factor
1. ANT_3116C_00240008_2022.07.22
Cable Loss
1. #32_C1_Ant to Amp_3m_18-40G_2023-06-20
2. #33_C2_Amp to Receiver_3m_18-40G_2023-06-20
Pre Amp Gain
1. AMP_LNAS-5018004000-33-5P_2022.07.22

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- HORIZONTAL -----										
1	18368.430	31.20	43.90	19.33	57.03	37.40	60.00	22.60	231	13
2	30343.990	25.40	46.70	24.10	56.02	40.18	60.00	19.82	224	134
3	39993.250	26.10	47.18	29.45	56.33	46.40	60.00	13.60	314	113
----- VERTICAL -----										
4	18792.370	29.30	44.10	19.76	57.17	35.99	60.00	24.01	223	350
5	26823.940	31.20	45.70	22.92	56.91	42.91	60.00	17.09	306	223
6	39986.780	26.20	47.16	29.44	56.34	46.46	60.00	13.54	176	45



7.3 Antenna Power Conduction

ANSI C63.4	Antenna power conduction	Result					
<p><u>Method:</u> Power on the receive antenna terminals was to be determined by measurement of the voltage present at these terminals. Antenna conducted power measurements was performed with the EUT antenna terminals connected directly to measuring instrument using a impedance-Matching network to connect the measurement Instrument to the antenna terminals of the EUT. The losses in decibels in impedance-matching network and cables was added to the measured values in dBμV. The measurements were repeated with the receiver tuned to a frequency until all of frequencies had been successively measured. Power in the receive antenna terminals in the ratio of V^2/R, where V is the loss-corrected voltage measured at the antenna terminals, and R is the impedance of the measuring instrument</p>		Not Applicable					
Fully configured sample scanned over the following frequency range	<table border="1"> <thead> <tr> <th>Frequency range on each side of line</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>30 MHz to 1 000 MHz</td> <td>2 nW (50 dBμV)</td> </tr> <tr> <td>54 MHz to 300 MHz 300 MHz to 450 MHz 450 MHz to 804 MHz</td> <td>-26 dBmV (34 dBμV) -20 dBmV (40 dBμV) -15 dBmV (45 dBμV)</td> </tr> </tbody> </table>		Frequency range on each side of line	Limit	30 MHz to 1 000 MHz	2 nW (50 dBμV)	54 MHz to 300 MHz 300 MHz to 450 MHz 450 MHz to 804 MHz
	Frequency range on each side of line	Limit					
	30 MHz to 1 000 MHz	2 nW (50 dBμV)					
54 MHz to 300 MHz 300 MHz to 450 MHz 450 MHz to 804 MHz	-26 dBmV (34 dBμV) -20 dBmV (40 dBμV) -15 dBmV (45 dBμV)						
<table border="1"> <thead> <tr> <th>Measurement Point</th> <th>Tuner port</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center; vertical-align: middle;"> EUT mode (Refer to clauses 4) </td> <td>Test configuration mode</td> <td>N/A</td> </tr> <tr> <td>EUT Operation mode</td> <td>N/A</td> </tr> </tbody> </table>	Measurement Point	Tuner port	EUT mode (Refer to clauses 4)	Test configuration mode	N/A	EUT Operation mode	N/A
Measurement Point	Tuner port						
EUT mode (Refer to clauses 4)	Test configuration mode	N/A					
	EUT Operation mode	N/A					

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
-	-	-	-	-	-



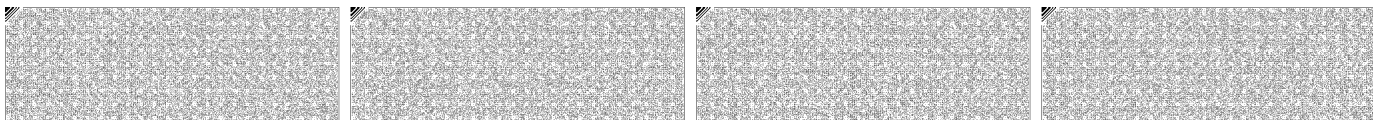


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Antenna Power Conduction _ Measurement data graph			
Test configuration mode	N/A	EUT Operation mode	N/A
Test voltage (V)	N/A	Test Frequency (Hz)	N/A
N/A			

Conducted differential voltage disturbance _ Measurement data list					
Test configuration mode		N/A	EUT Operation mode		N/A
Source (MHz)	Frequency (MHz)	Limit (dBμV)	Result (dBμV)	Margin (dB)	
Fundamental (≤ 1 000)	-	50	-	-	
Harmonics (30 ~ 300)	-		-	-	
Harmonics (300 ~ 1 000)	-		-	-	
Other (30 ~ 1 000)	-		-	-	





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8. Revision History

Date	Description	Revised By	Reviewed By
Jul. 20. 2023	Initial report	JunSeo Park	DaeHwa Eun

-End of test report-

