

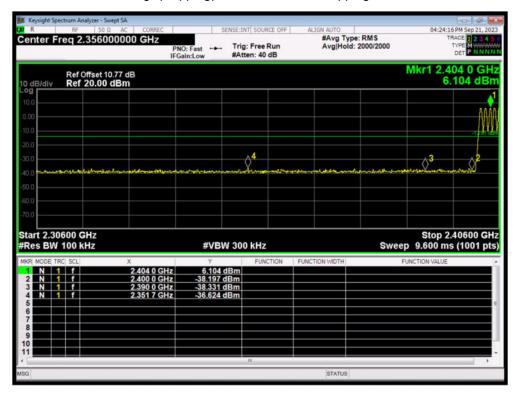
TA

RF Test Report Test Results Hopping On

> Krysight Spectrum Analyzer - Swept SA
> Concert Freq 2.402000000 GHz
> Serve Eint | SOURCe OFF
> ALION AUTO
> 04/23/42PH Sep 21,2023
>
>
> Center Freq 2.402000000 GHz
> PNO: Wide IFGain:Low
> Trig: Free Run #Atten: 40 dB
> #Avg Type: RMS Avg|Hold: 2000/2000
> Trie: Free Run #Avg Type: RMS Avg|Hold: 2000/2000
> Trie: Free Run #Avg Type: RMS Avg|Hold: 2000/2000
> Trie: Free Run #Avg Type: RMS Avg|Hold: 2000/2000
> Trie: Free Run #Avg Type: RMS Avg|Hold: 2000/2000
> Trie: Free Run #Avg Type: RMS Avg Type: RMS

Band Edge(Hopping) 1-DH5 2402MHz Hopping Ref

Band Edge(Hopping) 1-DH5 2402MHz Hopping Emission





Report No.: R2308A0883-R2V1

Band Edge(Hopping) 1-DH5 2480MHz Hopping Ref



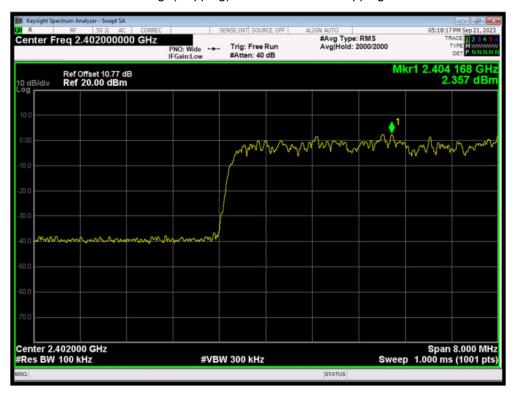
Band Edge(Hopping) 1-DH5 2480MHz Hopping Emission





Report No.: R2308A0883-R2V1

Band Edge(Hopping) 2-DH5 2402MHz Hopping Ref



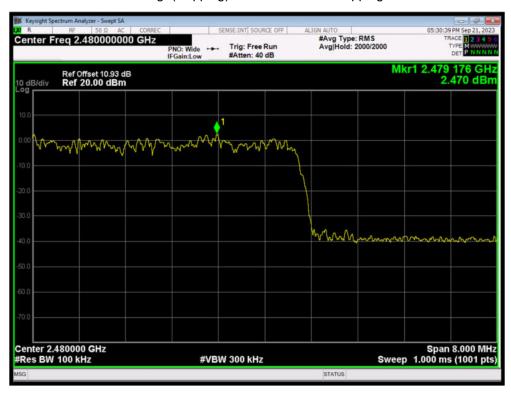
Band Edge(Hopping) 2-DH5 2402MHz Hopping Emission



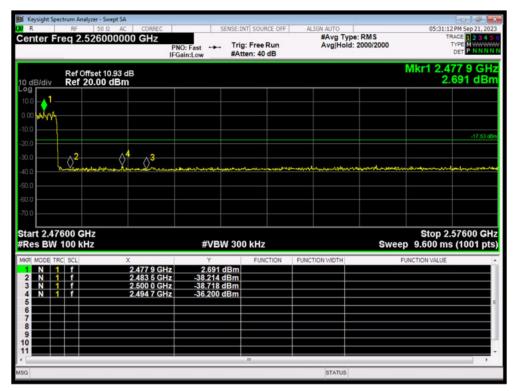


Report No.: R2308A0883-R2V1

Band Edge(Hopping) 2-DH5 2480MHz Hopping Ref



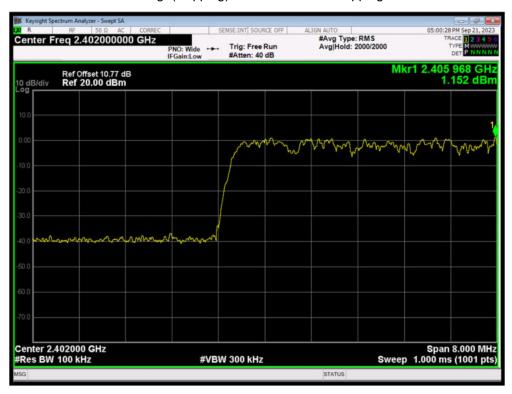
Band Edge(Hopping) 2-DH5 2480MHz Hopping Emission





Report No.: R2308A0883-R2V1

Band Edge(Hopping) 3-DH5 2402MHz Hopping Ref



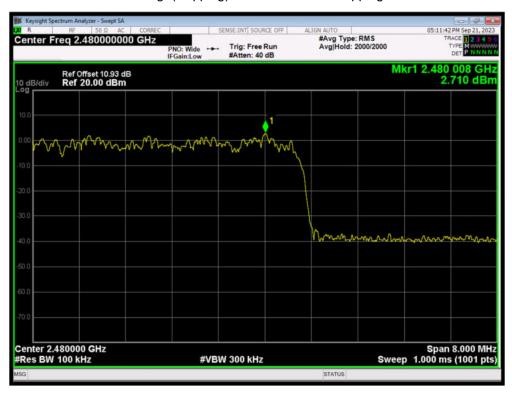
Band Edge(Hopping) 3-DH5 2402MHz Hopping Emission



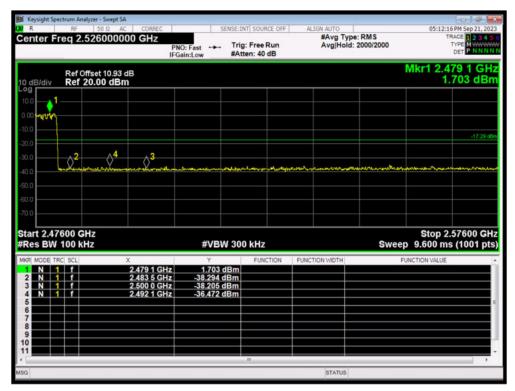


Report No.: R2308A0883-R2V1

Band Edge(Hopping) 3-DH5 2480MHz Hopping Ref



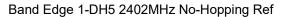
Band Edge(Hopping) 3-DH5 2480MHz Hopping Emission

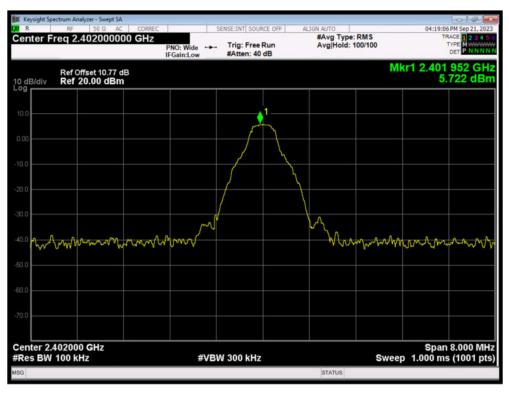




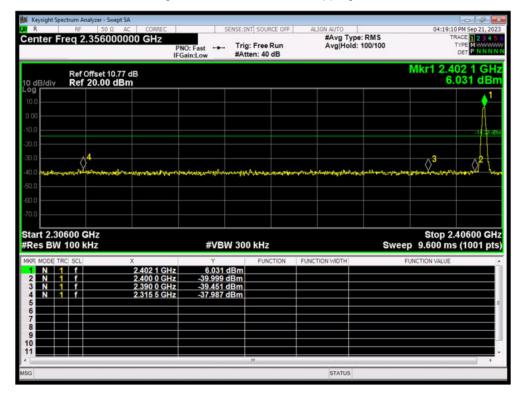
TA

Hopping Off





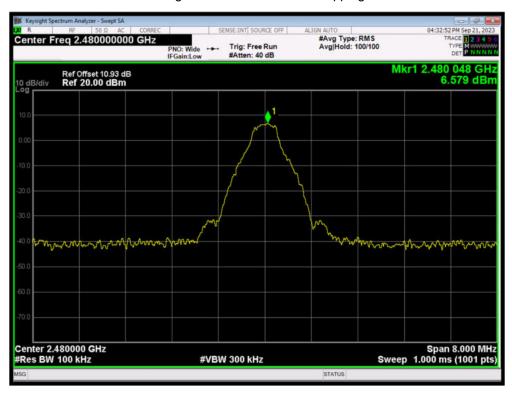




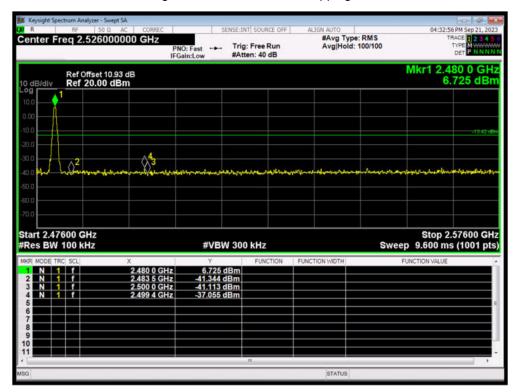


Report No.: R2308A0883-R2V1

Band Edge 1-DH5 2480MHz No-Hopping Ref

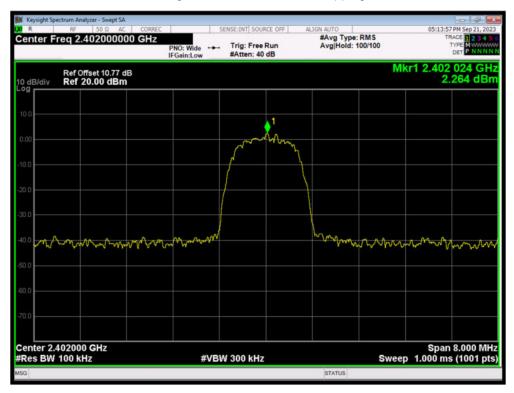


Band Edge 1-DH5 2480MHz No-Hopping Emission

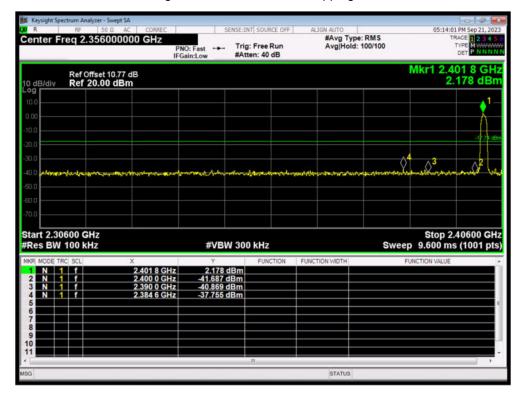




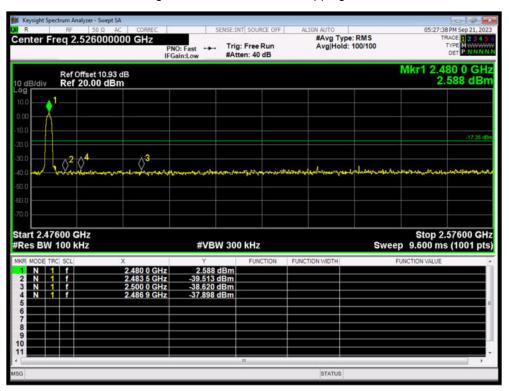
Band Edge 2-DH5 2402MHz No-Hopping Ref



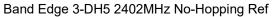
Band Edge 2-DH5 2402MHz No-Hopping Emission

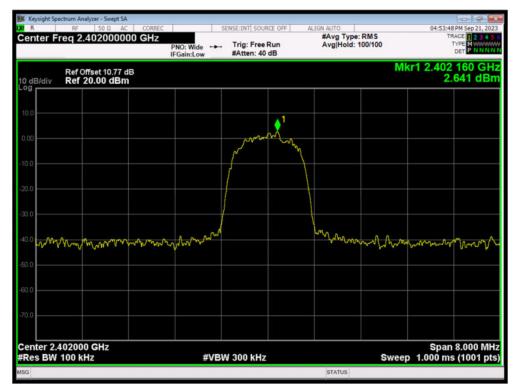






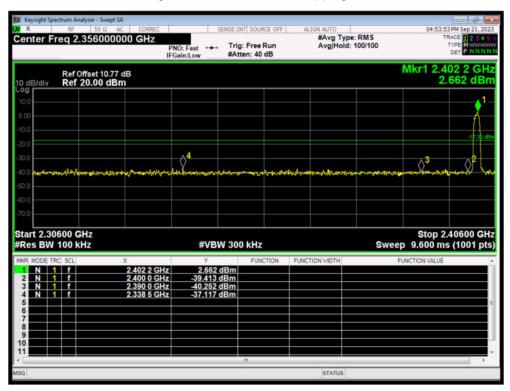
Band Edge 2-DH5 2480MHz No-Hopping Emission



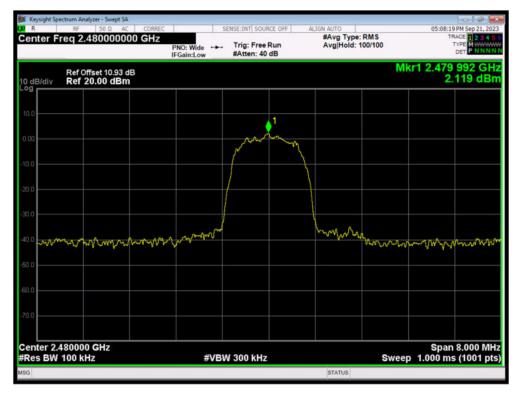




Band Edge 3-DH5 2402MHz No-Hopping Emission



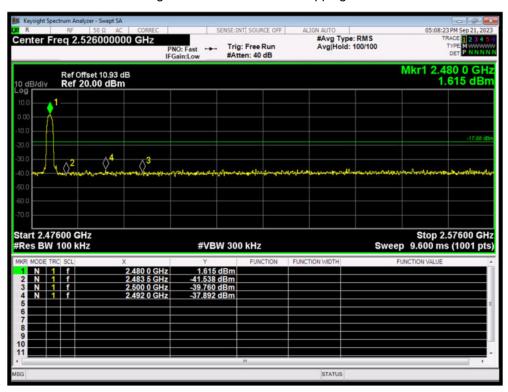
Band Edge 3-DH5 2480MHz No-Hopping Ref





Report No.: R2308A0883-R2V1

Band Edge 3-DH5 2480MHz No-Hopping Emission





5.6 Number of hopping Frequency

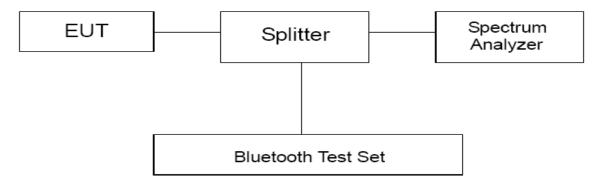
Ambient condition

Temperature	Relative humidity	Pressure	
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa	

Method of Measurement

The EUT was connected to the spectrum analyzer and Bluetooth test set via a power splitter with a known loss. RBW is set to 100kHz and VBW is set to 300kHz on spectrum analyzer. Set EUT on Hopping on mode.

Test setup



Limits

Rule Part 15.247(a) (1) (iii) specifies that" Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels."

Limits	≥ 15 channels
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RF Test Report Test Results:

Test Mode		Number of hopping channels	conclusion	
	DH5	79	PASS	
BT	2DH5	79	PASS	
	3DH5	79	PASS	

Hopping No. 1-DH5 2402MHz

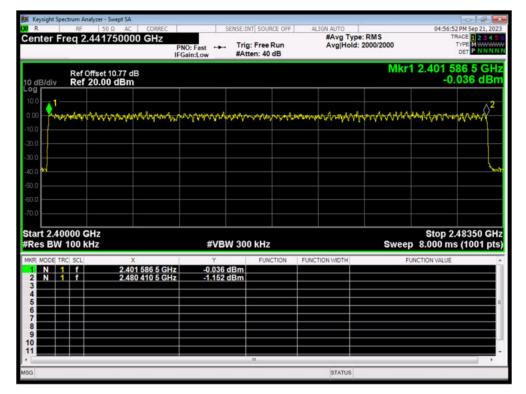




Hopping No. 2-DH5 2402MHz

Keysight Spectrum Analyzer - Swept SA	20 - 20				0	
OZ R RF 50.0. AC CORREC Center Freq 2.441750000 GHz	PNO: Fast Trig	nt source off	ALIGN AUTO #Avg Type Avg Hold:		05:17:20 PM Sep 21, 2 TRACE 2 2 TYPE M	50
Ref Offset 10.77 dB 10 dB/div Ref 20.00 dBm				Mkr	1 2.401 670 0 G -0.648 dE	Hz im
10.0 1	₩₩₩₽₩₽₽₩₽	mont	Antonin	munanan	mound	2
-10.0						
-30.0						2
-60.0 -70.0						
Start 2.40000 GHz #Res BW 100 kHz	#VBW 30	0 kHz		Swee	Stop 2.48350 G p 8.000 ms (1001 p	iHz ots)
MKR MODE TRC SCL X 1 N 1 f 2.401 670 0 GH 2 N 1 f 2.420 410 5 GH	Y -0.648 dBm z -1.291 dBm	FUNCTION	FUNCTION WIDTH	F	UNCTION VALUE	Í
3 4 5 6						
7 8 9 10						
11		H.	STATUS			

Hopping No. 3-DH5 2402MHz





5.7 Spurious RF Conducted Emissions

Ambient condition

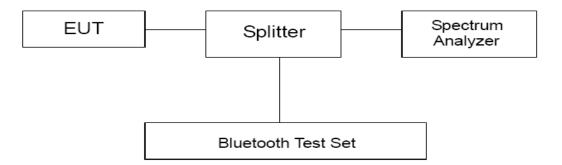
Temperature	Relative humidity	Pressure	
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa	

Method of Measurement

The EUT was connected to the spectrum analyzer and Bluetooth test set via a power splitter with a known loss. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. Set RBW 100kHz and VBW 300 kHz, Sweep is set to AUTO.

The test is in transmitting mode.

Test setup



Limits

Rule Part 15.247(d) pacifies that "In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power."

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
	2402	5.880	-14.12
DH5	2441	5.930	-14.07
	2480	6.710	-13.29
	2402	2.660	-17.34
2DH5	2441	2.410	-17.59
	2480	3.180	-16.82
	2402	2.510	-17.49
3DH5	2441	1.710	-18.29
	2480	3.160	-16.84



Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB



Test Results:

The signal beyond the limit is carrier.

Tx. Spurious 1-DH5 2402MHz Ref



Tx. Spurious 1-DH5 2402MHz Emission



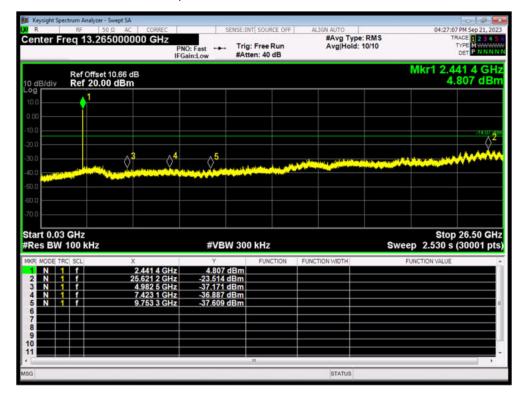


Report No.: R2308A0883-R2V1

Tx. Spurious 1-DH5 2441MHz Ref



Tx. Spurious 1-DH5 2441MHz Emission





Report No.: R2308A0883-R2V1

Tx. Spurious 1-DH5 2480MHz Ref



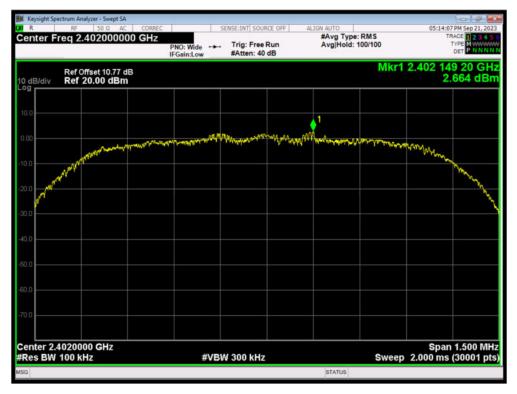
Tx. Spurious 1-DH5 2480MHz Emission



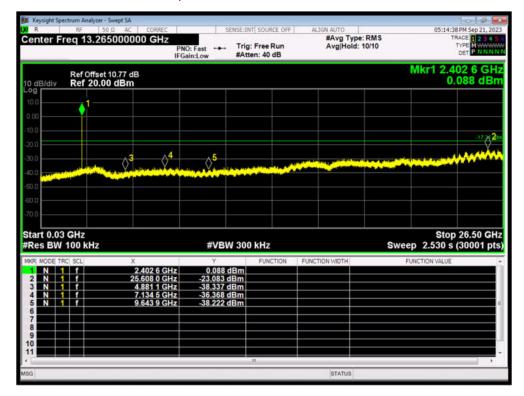


Report No.: R2308A0883-R2V1

Tx. Spurious 2-DH5 2402MHz Ref



Tx. Spurious 2-DH5 2402MHz Emission



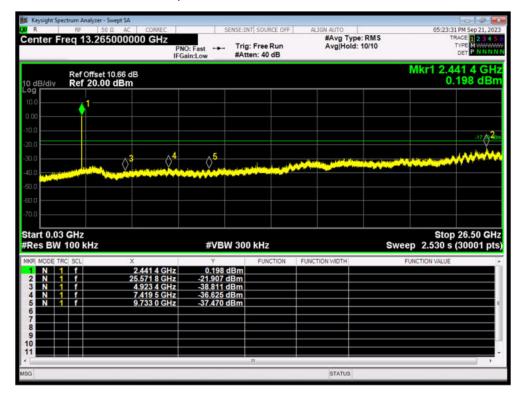


Report No.: R2308A0883-R2V1

Tx. Spurious 2-DH5 2441MHz Ref



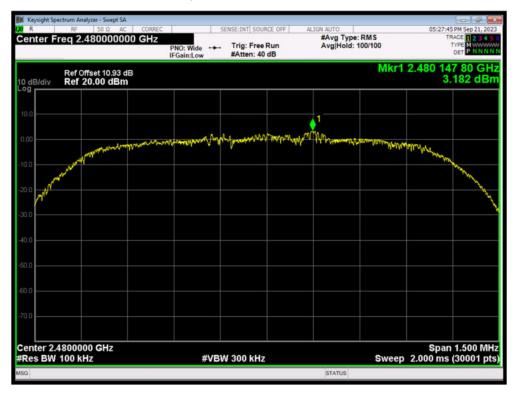
Tx. Spurious 2-DH5 2441MHz Emission



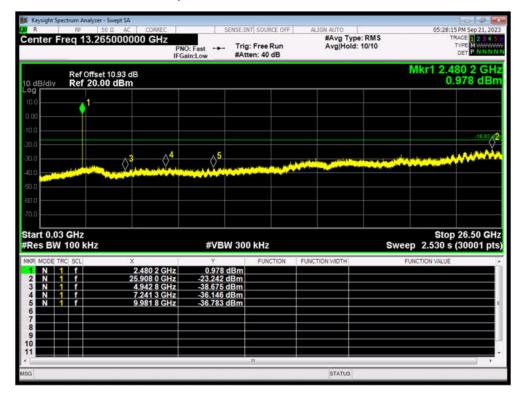


Report No.: R2308A0883-R2V1

Tx. Spurious 2-DH5 2480MHz Ref



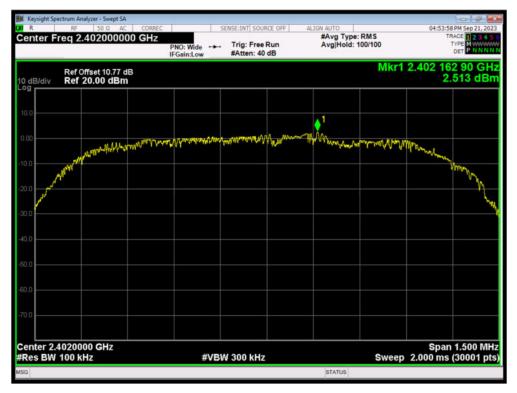
Tx. Spurious 2-DH5 2480MHz Emission





Report No.: R2308A0883-R2V1

Tx. Spurious 3-DH5 2402MHz Ref



Tx. Spurious 3-DH5 2402MHz Emission



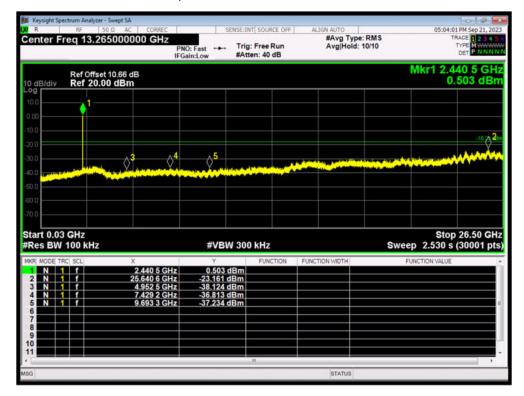


Report No.: R2308A0883-R2V1

Tx. Spurious 3-DH5 2441MHz Ref



Tx. Spurious 3-DH5 2441MHz Emission



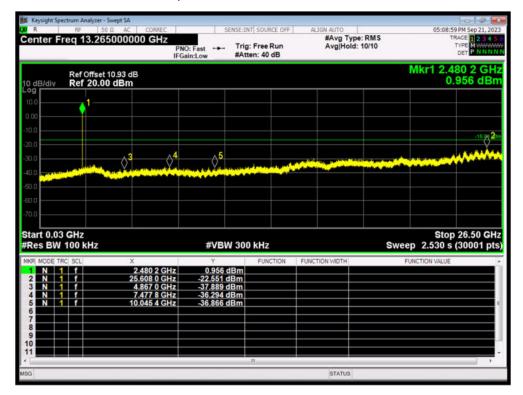


Report No.: R2308A0883-R2V1

Tx. Spurious 3-DH5 2480MHz Ref



Tx. Spurious 3-DH5 2480MHz Emission





5.8 Unwanted Emission

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration.

Sweep the whole frequency band through the range from 9 kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, below 30MHz, the center of the loop shall be 1 meters; above 30MHz, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

Set the spectrum analyzer in the following:

9kHz~150 kHz

RBW=200Hz, VBW=1kHz/ Sweep=AUTO

150 kHz~30MHz

RBW=9KHz, VBW=30KHz,/ Sweep=AUTO

Below 1GHz

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz

(a) PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO

detector; The measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

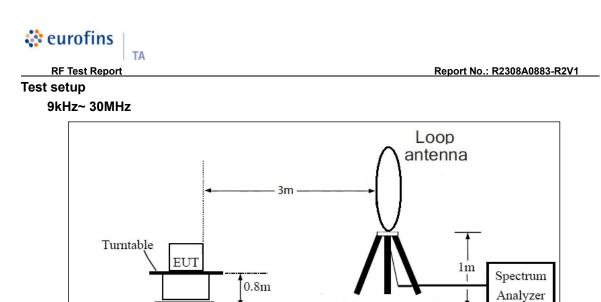
The dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from 20log(dwell time/100 ms), in an effort to demonstrate compliance with the 15.209 limit.

If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak- average correction factor, derived form the appropriate duty cycle calculation.

This setting method can refer to KDB 558074 D01.

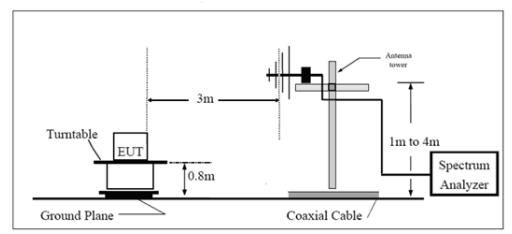
This mode was measured in the following mode: EUT with cradle and EUT without cradle. The worst emission was found in EUT with cradle mode and the worst case was recorded.

The test is in transmitting mode.



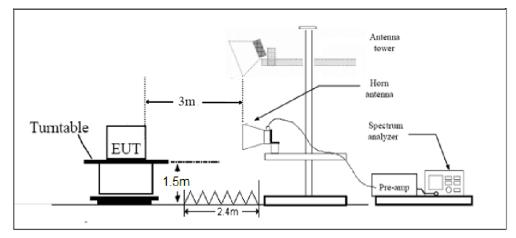


Ground Plane



Coaxial Cable

Above 1GHz



Note: Area side:2.4mX3.6m



Limits

Rule Part 15.247(d) specifies that "In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))."

Limit in restricted band

Frequency of emission (MHz)	Field strength(µV/m)	Field strength(dBµV/m)
0.009–0.490	2400/F(kHz)	1
0.490–1.705	24000/F(kHz)	1
1.705–30.0	30	1
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54

§15.35(b)

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. Peak Limit=74dBµV/m

Average Limit=54dBµV/m



Report No.: R2308A0883-R2V1

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB



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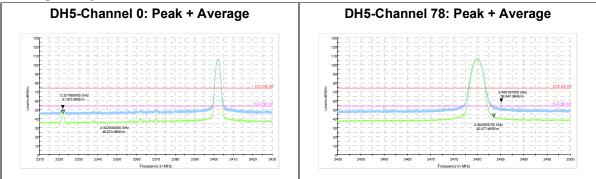
Report No.: R2308A0883-R2V1

Test Results:

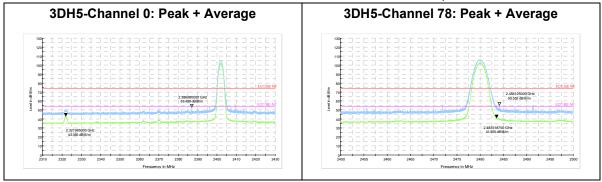
The following graphs display the maximum values of horizontal and vertical by software. Blue trace uses the peak detection, Green trace uses the average detection.

A symbol (^{33确}) in the test plot below means (dBµV/m)

The signal beyond the limit is carrier.



The bandage was performed in all EDR mode (2DH5 and 3DH5), 3DH5 was selected as the worse condition. The test data of the worst-case condition was recorded in this report.





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RF Test Report

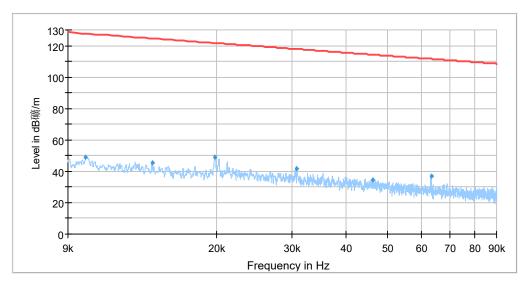
Test result

The following graphs display the maximum values of horizontal and vertical by software. For above 1GHz, Blue trace uses the peak detection, Green trace uses the average detection.

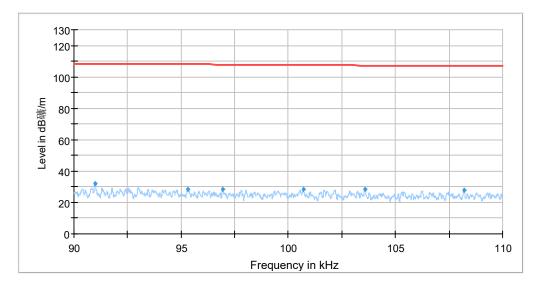
During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, DH5-Channel 39 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

A symbol (🕮 礦/術) in the test plot below means (dBµV/m)

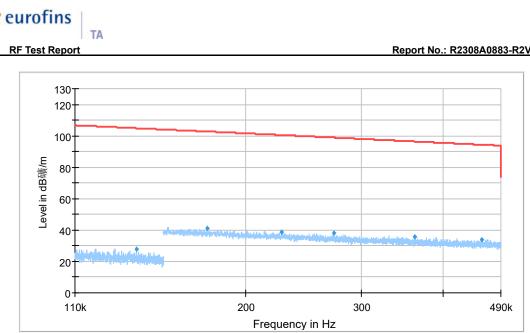
Continuous TX mode:



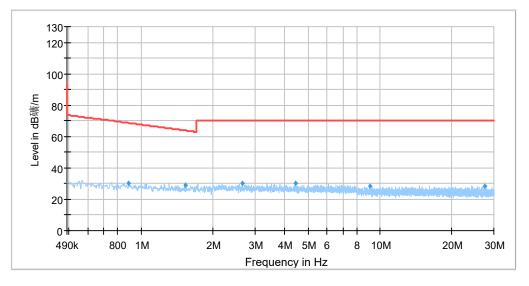
Radiates Emission from 9kHz to 90kHz



Radiates Emission from 90kHz to 110kHz

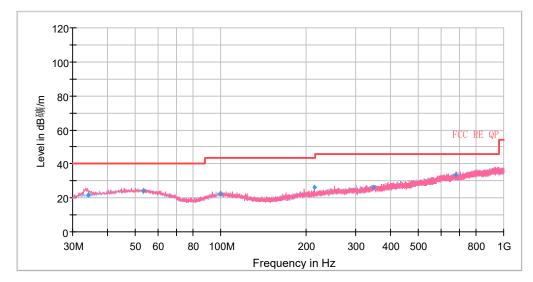


Radiates Emission from 110kHz to 490kHz



Radiates Emission from 490kHz to 30MHz

🔅 eurofins



🛟 eurofins

RF Test Report

TA

Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
33.96	21.78	40.00	18.22	123.0	V	30.00	18
53.29	24.07	40.00	15.93	196.0	Н	6.00	20
100.04	22.27	43.50	21.23	102.0	V	328.00	19
214.50	26.27	43.50	17.23	218.0	V	252.00	18
345.45	26.03	46.00	19.97	116.0	Н	356.00	23
676.23	33.59	46.00	12.41	122.0	V	44.00	29

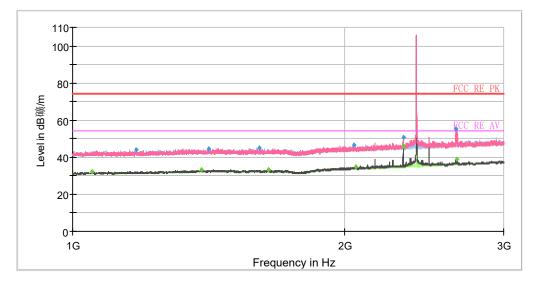
Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain) 2. Margin = Limit – Quasi-Peak

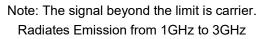


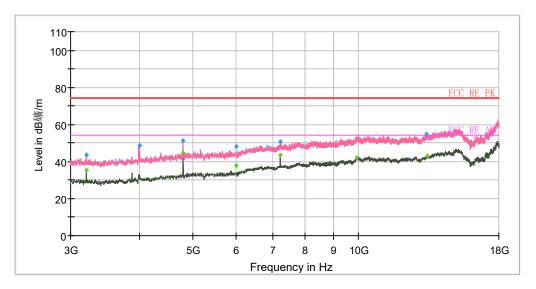
TA

Report No.: R2308A0883-R2V1

DH5-Channel 0







Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1050.75		32.26	54.00	21.74	500.00	100.0	V	2.00	-3
1175.75	43.94		74.00	30.06	500.00	100.0	Н	333.00	-2
1387.50		33.28	54.00	20.72	500.00	100.0	Н	97.00	-1
1413.50	44.29		74.00	29.71	500.00	100.0	V	7.00	-1
1607.25	44.96		74.00	29.04	500.00	100.0	Н	0.00	-1
1646.00		33.32	54.00	20.68	500.00	200.0	V	358.00	-1
2049.50	46.32		74.00	27.68	500.00	200.0	V	99.00	1
2058.25		34.76	54.00	19.24	500.00	100.0	Н	309.00	1
2322.00		45.95	54.00	8.05	500.00	200.0	V	19.00	2
2322.25	50.49		74.00	23.51	500.00	200.0	V	91.00	2
2656.75	55.50		74.00	18.50	500.00	100.0	V	4.00	4
2662.25		38.92	54.00	15.08	500.00	100.0	V	263.00	4

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain) 2. Margin = Limit –MAX Peak/ Average

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RF Test Report

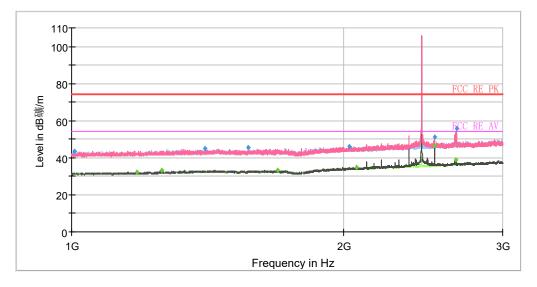
TA

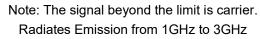


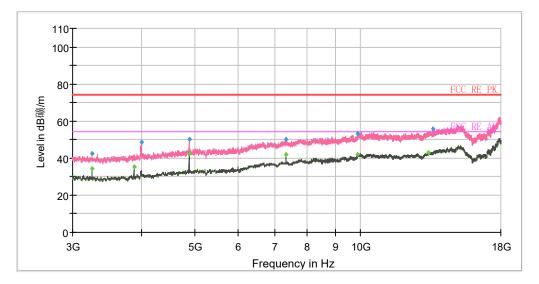
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RF Test Report

DH5-Channel 39







Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1007.75	43.63		74.00	30.37	500.00	100.0	V	65.00	-3
1181.00		32.19	54.00	21.81	500.00	100.0	Н	301.00	-2
1258.25		33.43	54.00	20.57	500.00	200.0	V	236.00	-2
1403.25	44.94		74.00	29.06	500.00	100.0	Н	333.00	-1
1569.00	45.43		74.00	28.57	500.00	100.0	Н	71.00	-1
1691.50		33.33	54.00	20.67	500.00	200.0	V	244.00	0
2031.00	46.09		74.00	27.91	500.00	200.0	Н	33.00	1
2065.75		34.68	54.00	19.32	500.00	200.0	Н	164.00	1
2521.00		46.77	54.00	7.23	500.00	200.0	V	357.00	3
2521.50	51.29		74.00	22.71	500.00	200.0	V	136.00	3
2663.25		38.99	54.00	15.01	500.00	100.0	V	264.00	4
2665.75	55.84		74.00	18.16	500.00	100.0	V	7.00	4



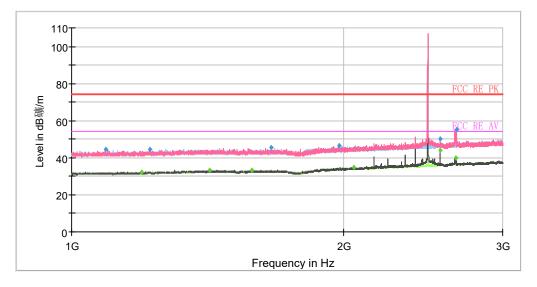
RF Test Report

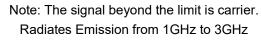


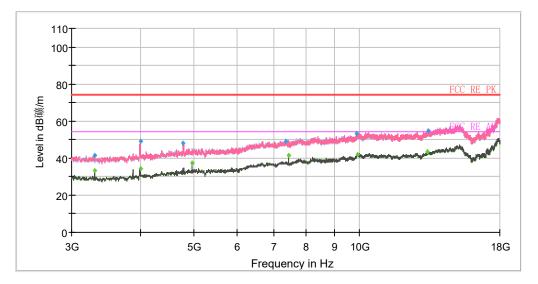
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RF Test Report

DH5-Channel 78







Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1090.50	44.39		74.00	29.61	500.00	100.0	V	231.00	-2
1195.75		32.40	54.00	21.60	500.00	200.0	V	353.00	-2
1220.00	44.74		74.00	29.26	500.00	200.0	V	262.00	-2
1420.00		33.17	54.00	20.83	500.00	200.0	V	0.00	-1
1584.50		33.17	54.00	20.83	500.00	200.0	Н	2.00	-1
1662.00	45.44		74.00	28.56	500.00	100.0	V	6.00	-1
1977.25	46.74		74.00	27.26	500.00	100.0	Н	357.00	1
2052.00		34.89	54.00	19.11	500.00	200.0	Н	5.00	1
2560.00	50.24		74.00	23.76	500.00	200.0	V	0.00	4
2560.00		44.25	54.00	9.75	500.00	200.0	V	0.00	4
2659.25		39.77	54.00	14.23	500.00	100.0	V	8.00	4
2665.75	55.18		74.00	18.82	500.00	100.0	V	6.00	4



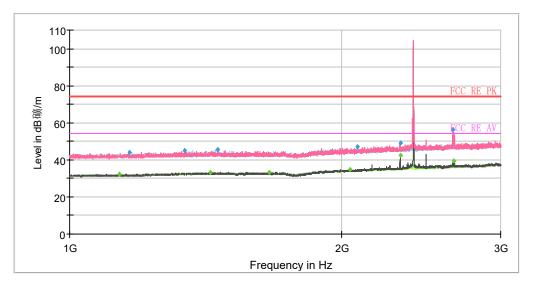
RF Test Report



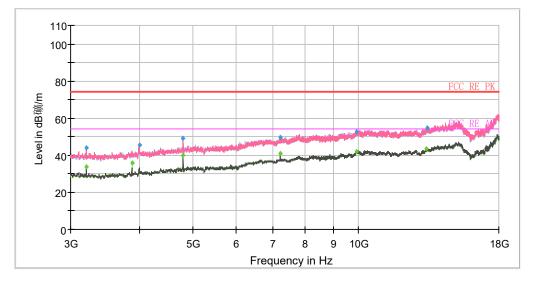
Report No.: R2308A0883-R2V1

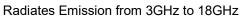
The Radiates Emission was performed in all EDR mode(2DH5 and 3DH5), 3DH5 was selected as the worse condition. The test data of the worst-case condition was recorded in this report.

3DH5-Channel 0



Note: The signal beyond the limit is carrier. Radiates Emission from 1GHz to 3GHz





Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1134.50		32.15	54.00	21.85	500.00	200.0	V	350.00	-2
1164.25	43.80		74.00	30.20	500.00	200.0	V	304.00	-2
1341.25	45.19		74.00	28.81	500.00	100.0	V	146.00	-1
1431.25		33.04	54.00	20.96	500.00	100.0	Н	358.00	-1
1457.00	45.71		74.00	28.29	500.00	100.0	V	2.00	-1
1661.25		33.33	54.00	20.67	500.00	200.0	V	271.00	-1
2041.25		34.77	54.00	19.23	500.00	100.0	Н	357.00	1
2079.50	47.16		74.00	26.84	500.00	100.0	Н	328.00	1
2322.25		42.34	54.00	11.66	500.00	200.0	V	121.00	2
2322.50	49.10		74.00	24.90	500.00	200.0	V	121.00	2
2657.00	56.18		74.00	17.82	500.00	100.0	V	255.00	4
2663.75		39.18	54.00	14.82	500.00	100.0	V	264.00	4

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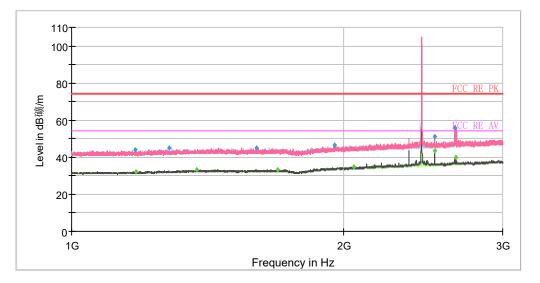
RF Test Report

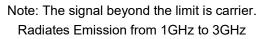


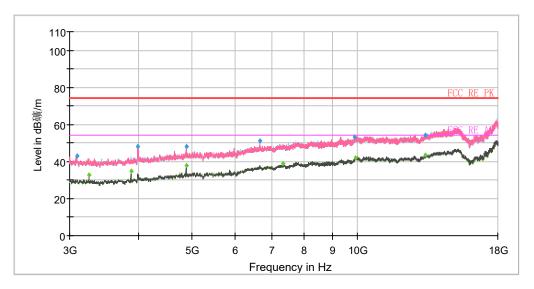
TA

Report No.: R2308A0883-R2V1

3DH5-Channel 39







Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1176.00	43.87		74.00	30.13	500.00	100.0	Н	202.00	-2
1177.25		32.17	54.00	21.83	500.00	200.0	V	144.00	-2
1282.25	45.11		74.00	28.89	500.00	200.0	Н	0.00	-2
1373.75		33.18	54.00	20.82	500.00	100.0	Н	354.00	-1
1599.50	45.05		74.00	28.95	500.00	200.0	V	128.00	-1
1691.25		33.40	54.00	20.60	500.00	200.0	Н	180.00	0
1953.75	46.36		74.00	27.64	500.00	100.0	V	72.00	1
2052.00		34.90	54.00	19.10	500.00	200.0	Н	104.00	1
2520.75	51.05		74.00	22.95	500.00	200.0	V	94.00	3
2521.25		43.64	54.00	10.36	500.00	200.0	V	86.00	3
2657.50	55.55		74.00	18.45	500.00	100.0	V	264.00	4
2661.50		40.04	54.00	13.96	500.00	100.0	V	264.00	4

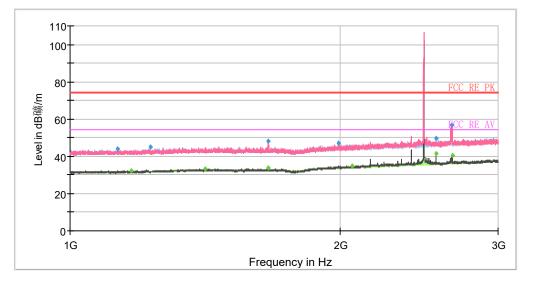


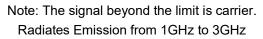
RF Test Report

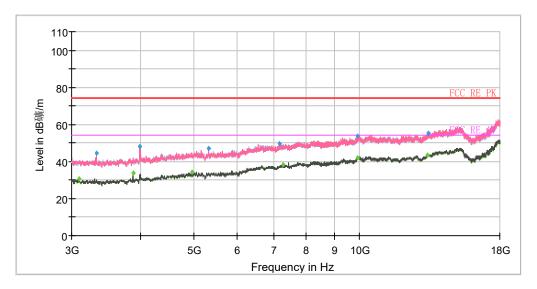


Report No.: R2308A0883-R2V1

3DH5-Channel 78







Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1128.50	43.81		74.00	30.19	500.00	100.0	V	61.00	-2
1170.00		32.22	54.00	21.78	500.00	100.0	Н	238.00	-2
1229.75	44.85		74.00	29.15	500.00	100.0	Н	246.00	-2
1413.75		33.31	54.00	20.69	500.00	200.0	Н	349.00	-1
1660.75		33.57	54.00	20.43	500.00	100.0	V	70.00	-1
1663.75	48.10		74.00	25.90	500.00	200.0	V	278.00	-1
1993.25	47.00		74.00	27.00	500.00	200.0	Н	2.00	1
2062.00		34.81	54.00	19.19	500.00	100.0	Н	357.00	1
2560.00	49.48		74.00	24.52	500.00	200.0	V	327.00	4
2560.00		41.59	54.00	12.41	500.00	200.0	V	327.00	4
2662.25	56.99		74.00	17.01	500.00	100.0	V	253.00	4
2666.25		40.44	54.00	13.56	500.00	100.0	V	262.00	4

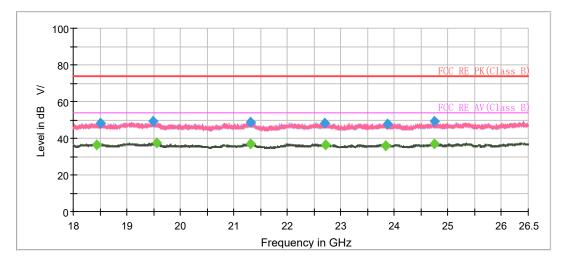
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RF Test Report



Report No.: R2308A0883-R2V1

During the test, the Radiates Emission from 18GHz to 26.5GHz was performed in all modes with all channels, DH5-Channel 39 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.



Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18443.062500		36.39	54.00	17.61	500.0	200.0	V	52.0	-3.0
18506.812500	48.31		74.00	25.69	500.0	200.0	V	108.0	-3.0
19483.250000	49.03		74.00	24.97	500.0	200.0	Н	316.0	-2.7
19555.500000		37.45	54.00	16.55	500.0	200.0	V	0.0	-2.9
21316.062500		37.11	54.00	16.89	500.0	200.0	V	76.0	-1.8
21317.125000	48.65		74.00	25.35	500.0	200.0	Н	304.0	-1.8
22693.062500	48.30		74.00	25.70	500.0	200.0	V	64.0	-1.7
22714.312500		36.40	54.00	17.60	500.0	200.0	Н	352.0	-1.7
23832.062500		36.09	54.00	17.91	500.0	100.0	Н	140.0	-1.0
23870.312500	47.55		74.00	26.45	500.0	100.0	Н	0.0	-1.1
24744.750000	49.05		74.00	24.95	500.0	200.0	V	34.0	-0.6
24749.000000		36.87	54.00	17.13	500.0	100.0	Н	12.0	-0.6



5.9 Conducted Emission

Ambient condition

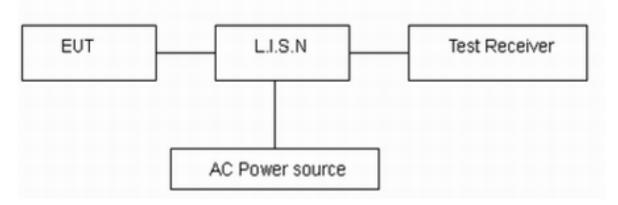
Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

The EUT is placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10. Connect the AC power line of the EUT to the L.I.S.N. Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9 kHz, VBW is set to 30kHz.The measurement result should include both L line and N line.

The test is in transmitting mode.

Test Setup



Note: AC Power source is used to 120V/60Hz.

Limits

Frequency	Conducted Limits(dBµV)						
(MHz)	Quasi-peak	Average					
0.15 - 0.5	66 to 56 *	56 to 46*					
0.5 - 5	56	46					
5 - 30	60	50					
^{*:} Decrease	s with the logarithm of the frequency.						

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U=2.69 dB.



Test Results:

The equipment doesn't connect to public network, therefore this requirement does not apply.





Main Test Instruments 6

Name	Manufacturer	Туре	Serial Number	Calibration Date	Expiration Date
Wireless Communication Tester	R&S	CMW270	101201	2023-05-12	2024-05-11
Power sensor	R&S	NRP18S	101954	2023-05-12	2024-05-11
Spectrum Analyzer	KEYSIGHT	N9020A	MY51330870	2023-05-12	2024-05-11
		Unwanted Emissio	n		
EMI Test Receiver	R&S	ESCI3	100948	2023-05-12	2024-05-11
Signal Analyzer	R&S	FSV40	101186	2023-05-12	2024-05-11
Signal Analyzer	R&S	FSV40	101298	2023-05-12	2024-05-11
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	01111	2022-10-25	2025-10-24
Horn Antenna	SCHWARZBECK	BBHA 9120D	430	2021-07-26	2024-07-25
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
Amplifier	MicroWave	KLNA-18040050	220826001	2023-05-12	2024-05-11
Software	R&S	EMC32	9.26.01	/	/



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.

****** END OF REPORT ******