FCC Test Report

(Part 90 Subpart Y)

Report No.:	RF171005C05-1
FCC ID:	REP-8020-1
Test Model:	HotPort 8020
Received Date:	Oct. 05, 2017
Test Date:	Nov. 07 ~ Dec. 26, 2017
Issued Date:	Dec. 26, 2017
Applicant:	Firetide Inc.
Address:	Firetide Inc. A Division of UNICOM GLOBAL 2105, South Bascom Avenue, Suite 220, Campbell, California, United States, 950008
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RF171005C05-1	Original release.	Dec. 26, 2017

1 Certificate of Conformity

Product:	Firetide Wireless Mesh Node
Brand:	Firetide
Test Model:	HotPort 8020
Sample Status:	Engineering sample
Applicant:	Firetide Inc.
Test Date:	Nov. 07 ~ Dec. 26, 2017
Standards:	FCC Part 90, Subpart Y FCC Part 2

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Dec. 26, 2017

Suntee Liu / Specialist

Approved by : _____ , **Date:** Dec. 26, 2017

Ken Liu / Senior Manager

2 Summary of Test Results

Applied Standard: FCC Part 90 & Part 2			
FCC Clause	Test Item	Result	Remarks
Part 2.1046 Part 90.1215(a)	Peak Output Power	Pass	Meet the requirement of limit.
Part 2.1049 Part 90.210	Emission Bandwidth	Pass	Meet the requirement of limit.
Part 2.1049 Part 90.210	Emission Mask	Pass	Meet the requirement of limit.
Part 90.1215	Peak Excursion	Pass	Meet the requirement of limit.
Part 2.1046 Part 90.1215(a)	Power Spectral Density	Pass	Meet the requirement of limit.
Part 2.1053 Part 90.210	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -2.12dB at 9975.00MHz.
Part 2.1055 Part 90.213	Frequency Stability	Pass	Meet the requirement of limit.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Mar. 27, 2017	Mar. 26, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	May 11, 2017	May 10, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-148	Dec. 28, 2016	Dec. 27, 2017
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Dec. 27, 2016	Dec. 26, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 14, 2016	Dec. 13, 2017
			Dec. 01, 2017	Nov. 30, 2018
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Aug. 08, 2017	Aug. 07, 2018
Preamplifier Agilent (Above 1GHz)	8449B	3008A01638	Feb. 22, 2017	Feb. 21, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-02 (248780+MY13377)	Aug. 08, 2017	Aug. 07, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Aug. 08, 2017	Aug. 07, 2018
RF signal cable Woken	8D-FB	Cable-CH9-01	Aug. 01, 2017	Jul. 31, 2018
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA

Note:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.
3. The FCC Designation Number is TW0003. The number will be varied with the Lab location and scope as attached.
4. The IC Site Registration No. is IC 7450F-9.

3 General Information

3.1 General Description of EUT

Product	Firetide Wireless Mesh Node
Brand	Firetide
Test Model	HotPort 8020
Status of EUT	Engineering sample
Power Supply Rating	54Vdc (POE)
Modulation Type & Data Rate	Channel Bandwidth 5MHz: BPSK: 1.5 and 2.25Mbps QPSK: 3 and 4.5Mbps 16QAM: 6 and 9Mbps 64QAM: 12 and 13.5Mbps Channel Bandwidth 10MHz: BPSK: 3 and 4.5Mbps QPSK: 6 and 9Mbps 16QAM: 12 and 18Mbps 64QAM: 24 and 27Mbps Channel Bandwidth 20MHz: BPSK: 6 and 9Mbps QPSK: 12 and 18Mbps 16QAM: 24 and 36Mbps 64QAM: 48 and 54Mbps
Operating Frequency	Channel Bandwidth 5MHz: 4942.5~4987.5MHz Channel Bandwidth 10MHz: 4945~4985MHz Channel Bandwidth 20MHz: 4950~4980MHz
Number of Channel	Channel Bandwidth 5MHz: 10 Channel Bandwidth 10MHz: 9 Channel Bandwidth 20MHz: 7
Conducted Output Power	Radio 1, Antenna 1 & 2: Channel Bandwidth 5MHz: 16.64dBm (0.046W) Channel Bandwidth 10MHz: 14.54dBm (0.028W) Channel Bandwidth 20MHz: 17.62dBm (0.058W) Radio 2, Antenna 1 & 2: Channel Bandwidth 5MHz: 17.22dBm (0.053W) Channel Bandwidth 10MHz: 15.00dBm (0.032W) Channel Bandwidth 20MHz: 19.15dBm (0.082W)
Emission Designator	Radio 1, Antenna 1 & 2: Channel Bandwidth 5MHz: 4M17G7D Channel Bandwidth 10MHz: 8M44G7D Channel Bandwidth 20MHz: 16M7G7D Radio 2, Antenna 1 & 2: Channel Bandwidth 5MHz: 4M21G7D Channel Bandwidth 10MHz: 8M44G7D Channel Bandwidth 20MHz: 16M7G7D

Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Cable Supplied	1.8m non-shielded ground cable without core

Note:

1. The EUT consumes power from following POE. (Support units only)

POE	
Brand	EnGenius
Model	EPA5006GAT
Input Power	100-240Vac, 0.8A, 50-60Hz
Output Power	54Vdc, 0.6A
Power Cable	0.5m non-shielded AC cable without core

2. The EUT supports Point to Point and Point to Multipoint.
3. The EUT belongs to High power device.
4. The lowest data rate was chosen for the final tests:
   Channel Bandwidth 5MHz: BPSK: 1.5Mbps,
   Channel Bandwidth 10MHz: BPSK: 3Mbps,
   Channel Bandwidth 20MHz: BPSK: 6Mbps
5. The EUT uses following antennas.

No.	Function	Antenna Type	Connector	Gain (dBi)		Remark
				4.9G	5G	
1	WLAN	Dipole	N Plug	6.5	7	Radio 1 / Radio 2
2	WLAN	Panel	N Plug	17.5	18.5	Radio 1 / Radio 2

* Antenna 1 direction gain = 6.5 + 10log(4) = 12.52dBi.

* Antenna 2 direction gain = 17.5 + 10log(3) = 22.27dBi.

6. Radio 1, 5GHz & Radio 2, 5GHz / Radio 1, 4.9GHz & Radio 2, 4.9GHz can transmit at same time but cannot transmit at same channel.
7. Spurious emission of the simultaneous operation (Radio 1, 5GHz & Radio 2, 5GHz / Radio 1, 4.9GHz & Radio 2, 4.9GHz) has been evaluated and no non-compliance was found.

3.2 Description of Test Modes

10 channels are for the Channel Bandwidth 5MHz bandwidth of EUT:

Channel	Frequency (MHz)
1	4942.5
2	4947.5
3	4952.5
4	4957.5
5	4962.5
6	4967.5
7	4972.5
8	4977.5
9	4982.5
10	4987.5

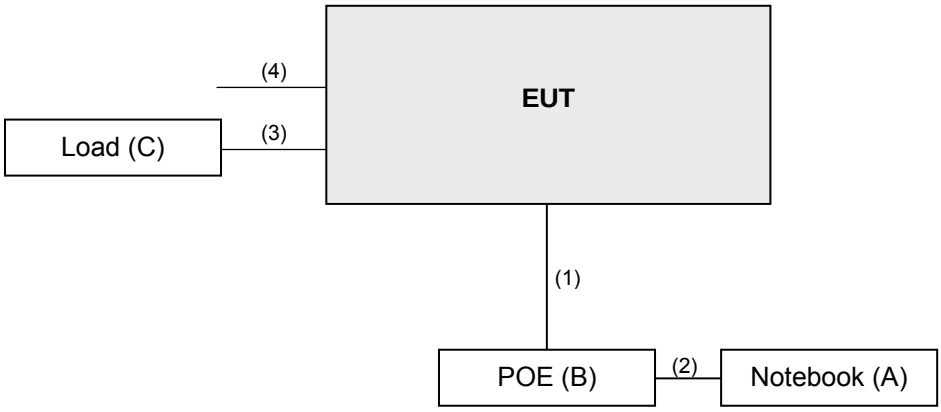
9 channels are for the Channel Bandwidth 10MHz bandwidth of EUT:

Channel	Frequency (MHz)
11	4945
12	4950
13	4955
14	4960
15	4965
16	4970
17	4975
18	4980
19	4985

7 channels are for the Channel Bandwidth 20MHz bandwidth of EUT:

Channel	Frequency (MHz)
20	4950
21	4955
22	4960
23	4965
24	4970
25	4975
26	4980

3.3 Configuration of System under Test



3.3.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	POE	EnGenius	EPA5006GAT	NA	NA	Supplied by the manufacturer
C.	Load	NA	NA	NA	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45, Cat5e	1	10	N	0	-
2.	RJ45, Cat5e	1	1.5	N	0	-
3.	RJ45, Cat5e	1	1.5	N	0	-
4.	RJ45, Cat5e	1	1.5	N	0	-

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on Y-plane for mode A1, B1 and X-plane for mode A2, B2.

Following channel(s) was (were) selected for the final test as listed below:

EUT Configure Mode:

EUT Configure Mode	Antenna Model
A1	Radio 1, Antenna 1
A2	Radio 1, Antenna 2
B1	Radio 2, Antenna 1
B2	Radio 2, Antenna 2

EUT Configure Mode	Test Item	Channel Bandwidth (MHz)	Data Rate (Mbps)	Tested Channel
A2, B2	Peak Output Power	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A2, B2	Emission Bandwidth	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A2, B2	Emission Mask	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A2, B2	Peak Excursion	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A1, A2, B1, B2	Power Spectral Density	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A1, A2, B1, B2	Radiated Spurious Emissions (Frequency range below 1GHz)	5	1.5Mbps	10
		10	3Mbps	19
		20	6Mbps	26
A1, A2, B1, B2	Radiated Spurious Emissions (Frequency range above 1GHz)	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26
A2, B2	Frequency Stability	5	1.5Mbps	1, 5, 10
		10	3Mbps	11, 15, 19
		20	6Mbps	20, 23, 26

*For all tests except Spurious Emissions test, the maximum antenna gain is chosen for final test.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Peak Output Power	25 deg. C, 65% RH	120Vac	James Yang
Emission Bandwidth	25 deg. C, 65% RH	120Vac	James Yang
Emission Mask	25 deg. C, 66% RH	120Vac	James Yang
Peak Excursion	25 deg. C, 65% RH	120Vac	James Yang
Radiated Spurious Emission	25 deg. C, 69% RH 23 deg. C, 66% RH	120Vac	Willy Cheng Adair Peng
Frequency Stability	25 deg. C, 65% RH	120Vac	James Yang

3.5 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency.

3.6 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2
FCC 47 CFR Part 90
KDB 971168 D01 Power Meas License Digital Systems v03
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI/TIA-603-E:2016
ANSI 63.26:2015

All test items have been performed and recorded as per the above standards.

Note: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Peak Output Power Measurement

4.1.1 Limits of Peak Output Power Measurement

Per FCC §90.1215, the transmitting power of stations operating in the 4940-4990 MHz band must not exceed the maximum limits in this section.

The maximum conducted output power should not exceed:

Channel Bandwidth (MHz)	Low Power Maximum conducted output power (dBm)	High Power Maximum conducted output power (dBm)
1	7	20
5	14	27
10	17	30
15	18.8	31.8
20	20	33

If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi. However, high power point-to-point and point-to-multipoint operations (both fixed and temporary-fixed rapid deployment) may employ transmitting antennas with directional gain up to 26 dBi without any corresponding reduction in the maximum conducted output power or spectral density. Corresponding reduction in the maximum conducted output power and peak power spectral density should be the amount in decibels that the directional gain of the antenna exceeds 26 dBi

4.1.2 Test Procedures

a) Set span to at least 1.5 times the OBW
b) Set RBW = 1-5 % of the OBW, not to exceed 1MHz
c) Set VBW ≥ 3 MHz
d) Detector = RMS
e) Sweep time = auto couple.
f) Trace mode = max hold.

4.1.3 Test Setup

Conducted Power Measurement:

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.4 Test Results

Conducted Output Power

Mode A2

Channel Bandwidth 5MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
1	4942.5	7.80	12.52	9.40	11.30	16.64
5	4962.5	5.75	7.48	8.70	6.74	13.32
10	4987.5	7.88	8.64	9.45	11.44	15.59

Channel Bandwidth 10MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
11	4945	8.18	9.13	7.71	8.29	14.38
15	4965	8.32	8.92	7.79	8.77	14.49
19	4985	8.42	9.11	7.61	8.79	14.54

Channel Bandwidth 20MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
20	4950	10.12	10.78	9.78	10.44	16.32
23	4965	10.88	11.74	10.52	11.19	17.13
26	4980	11.48	12.22	10.91	11.70	17.62

Mode B2

Channel Bandwidth 5MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
1	4942.5	10.92	12.20	10.73	8.88	16.86
5	4962.5	11.35	12.63	10.89	9.30	17.22
10	4987.5	9.22	10.10	9.46	10.20	15.79

Channel Bandwidth 10MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
11	4945	8.57	9.39	7.50	8.42	14.54
15	4965	9.00	9.63	8.07	9.07	15.00
19	4985	8.11	8.73	7.47	8.03	14.13

Channel Bandwidth 20MHz

Channel	Frequency (MHz)	Conducted Output Power (dBm)				
		Chain 0	Chain 1	Chain 2	Chain 3	Total
20	4950	11.35	12.12	10.44	11.55	17.43
23	4965	12.37	13.12	11.53	12.74	18.50
26	4980	13.10	13.73	12.38	13.21	19.15

4.2 Emission Bandwidth Measurement

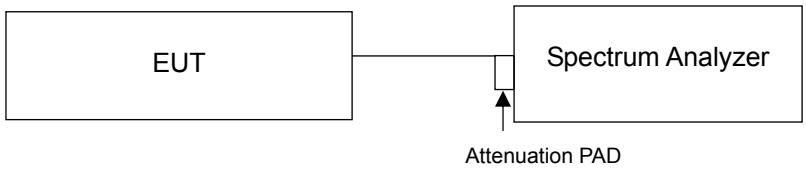
4.2.1 Limits of Emission Bandwidth Measurement

The width of a frequency band such that, below the lower and above the upper frequency limits, the signal power at the 99% channel power of occupied bandwidth when resolution bandwidth should be approximately 1 % to 5 % of the occupied bandwidth (OBW)

4.2.2 Test Procedure

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

4.2.3 Test Setup



4.2.4 Test Result

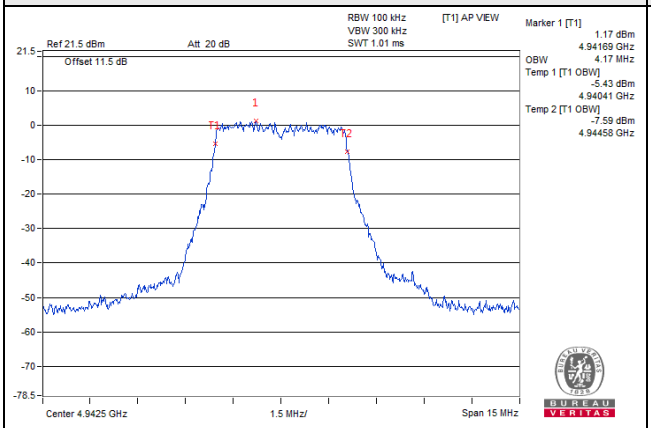
Mode A2

Channel Bandwidth 5MHz

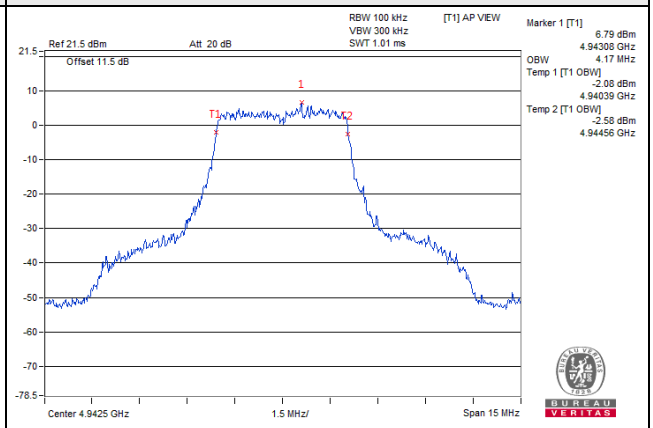
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
1	4942.5	4.17	4.17	4.13	4.17
5	4962.5	4.15	4.17	4.15	4.15
10	4987.5	4.15	4.17	4.15	4.17

Spectrum Plot of Worst Value

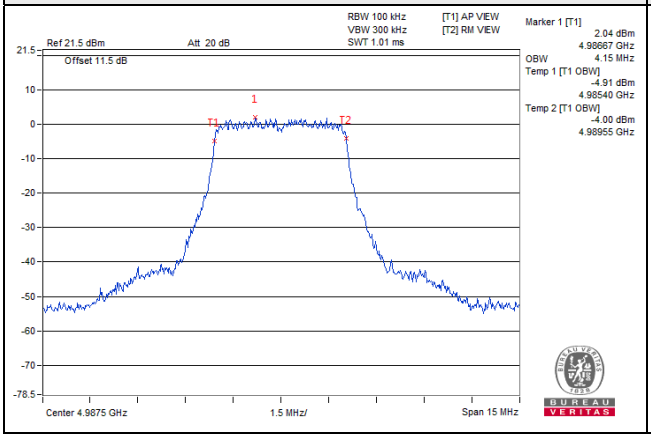
Chain 0



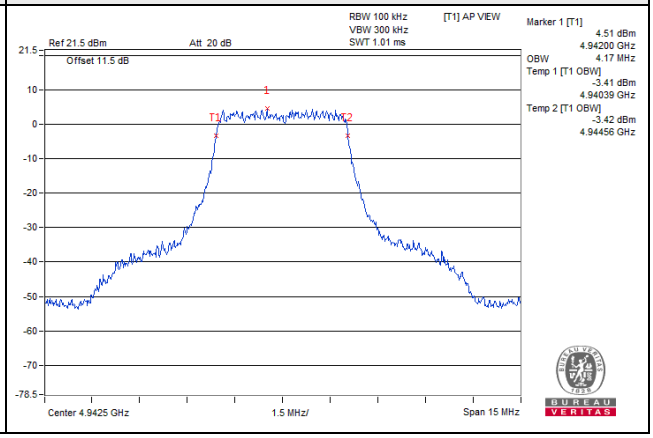
Chain 1



Chain 2



Chain 3

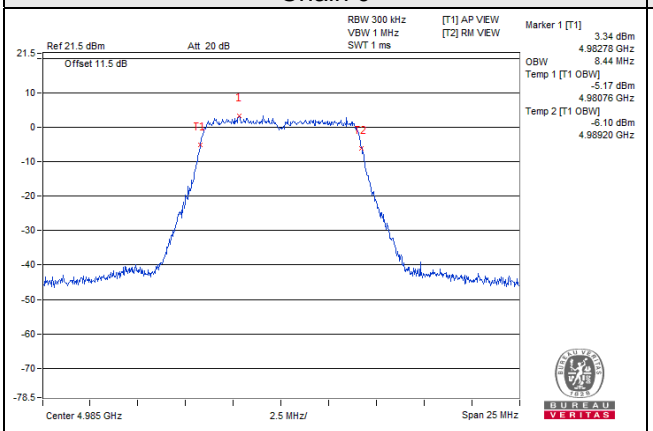


Channel Bandwidth 10MHz

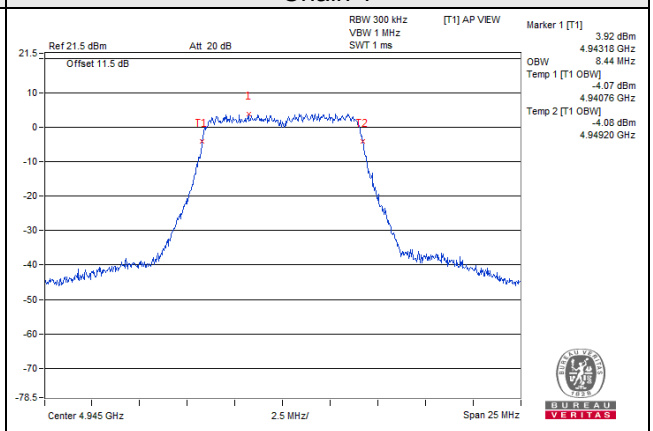
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
11	4945	8.40	8.44	8.40	8.40
15	4965	8.44	8.40	8.40	8.40
19	4985	8.44	8.44	8.36	8.40

Spectrum Plot of Worst Value

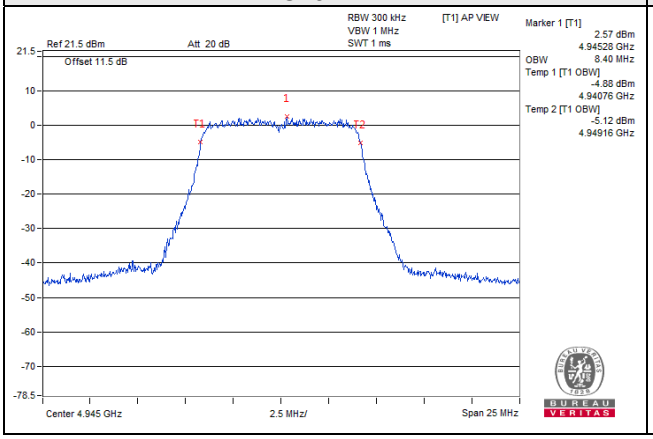
Chain 0



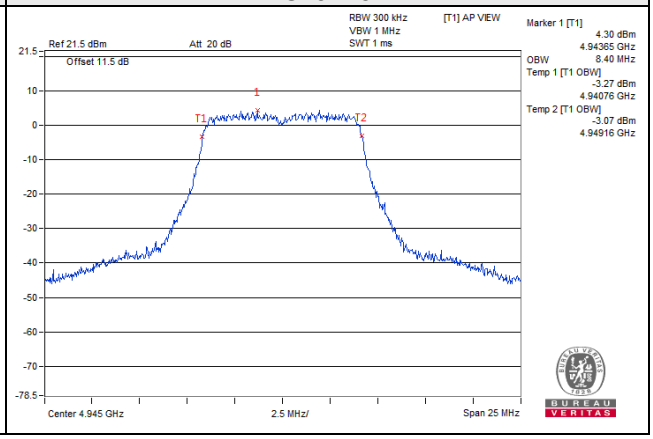
Chain 1



Chain 2



Chain 3

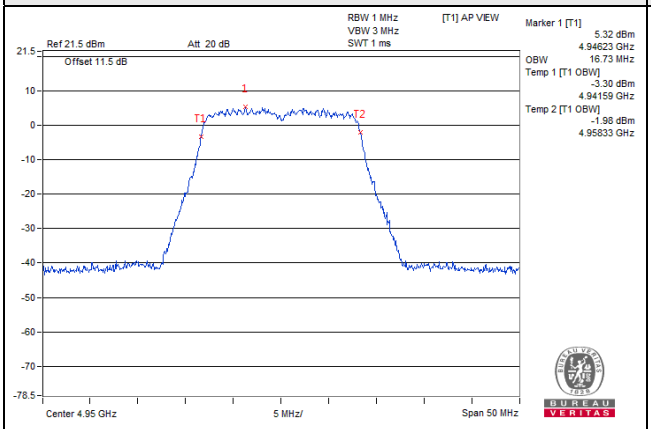


Channel Bandwidth 20MHz

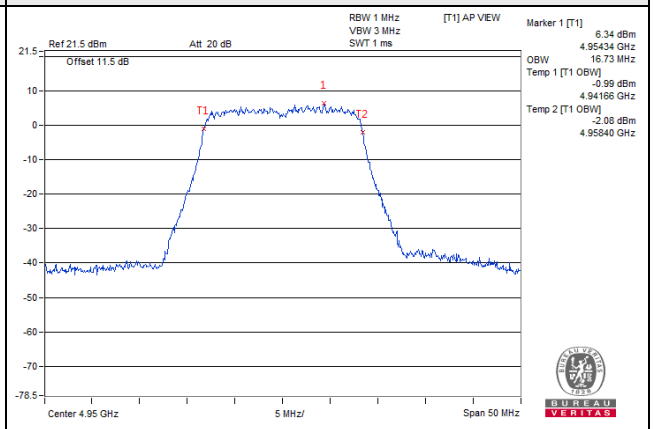
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
20	4950	16.73	16.73	16.66	16.66
23	4965	16.73	16.73	16.66	16.66
26	4980	16.73	16.66	16.66	16.66

Spectrum Plot of Worst Value

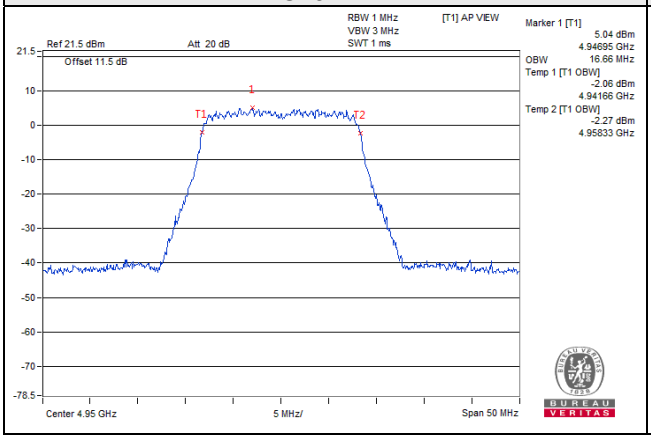
Chain 0



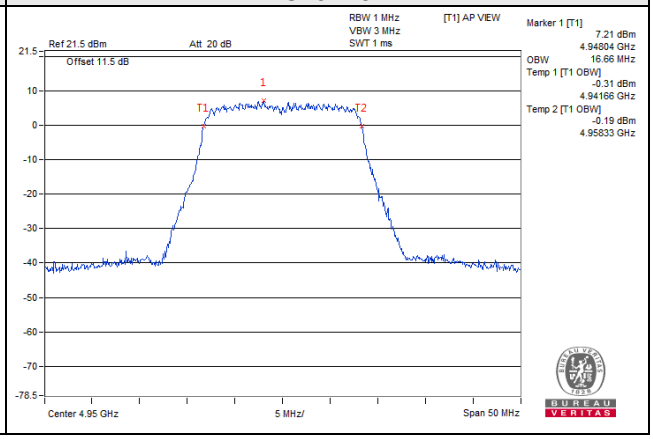
Chain 1



Chain 2



Chain 3



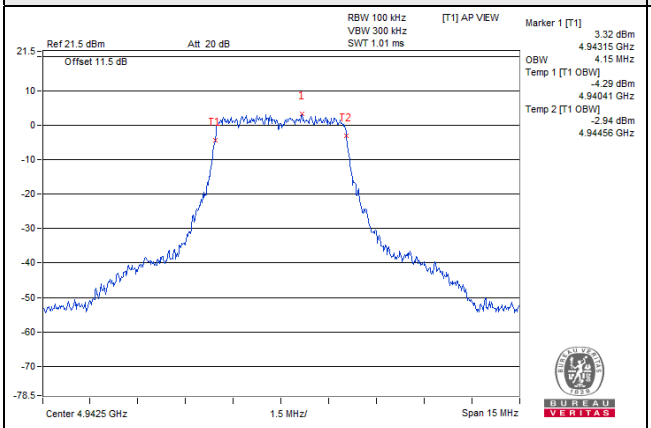
Mode B2

Channel Bandwidth 5MHz

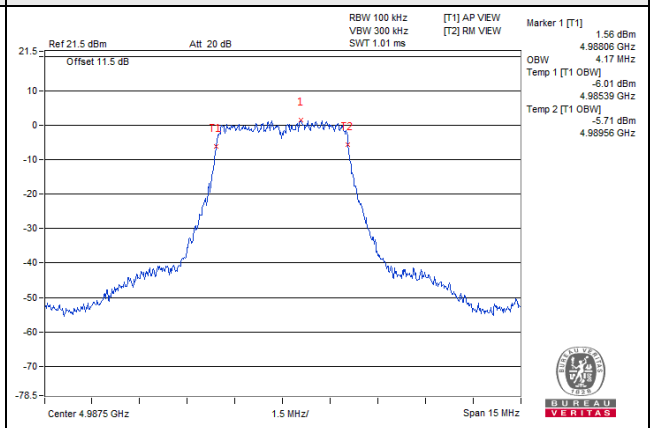
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
1	4942.5	4.15	4.15	4.17	4.15
5	4962.5	4.15	4.15	4.17	4.15
10	4987.5	4.15	4.17	4.21	4.13

Spectrum Plot of Worst Value

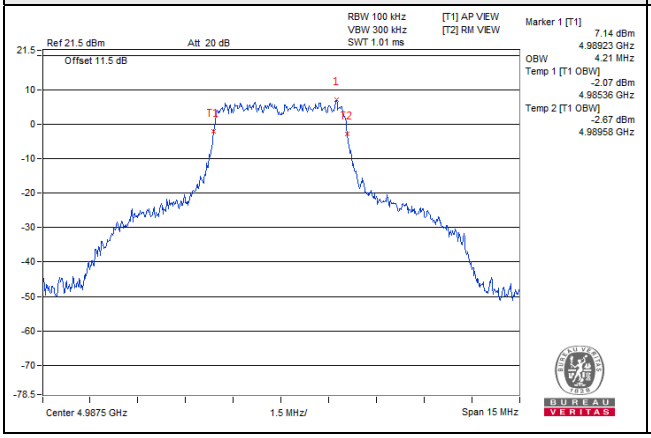
Chain 0



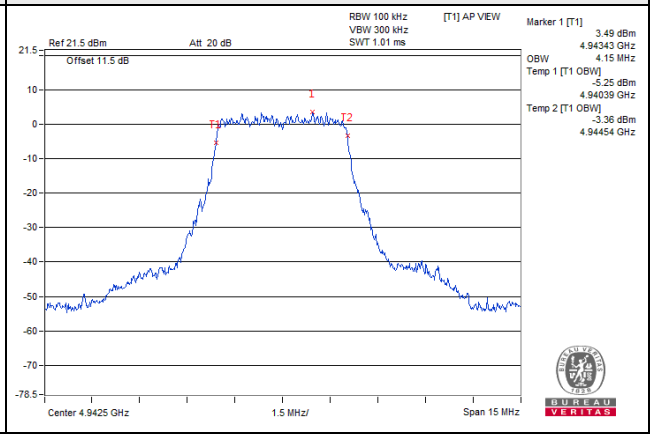
Chain 1



Chain 2



Chain 3

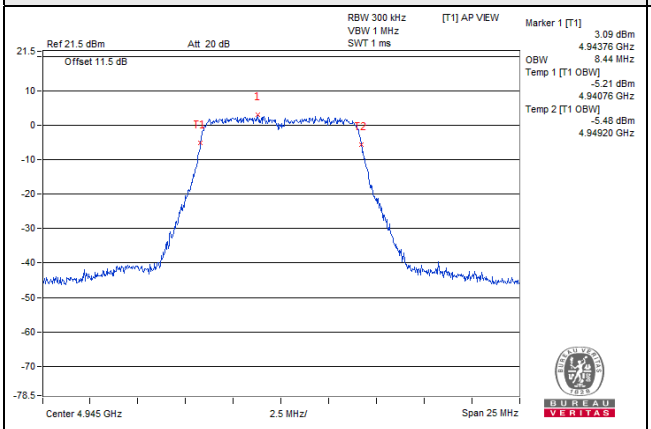


Channel Bandwidth 10MHz

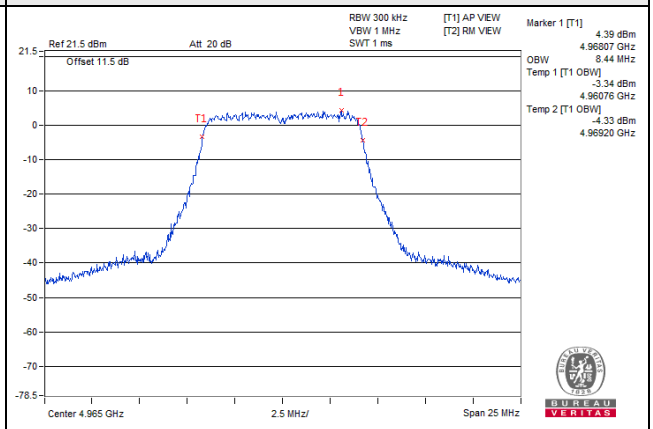
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
11	4945	8.44	8.40	8.40	8.36
15	4965	8.40	8.44	8.36	8.36
19	4985	8.40	8.40	8.36	8.36

Spectrum Plot of Worst Value

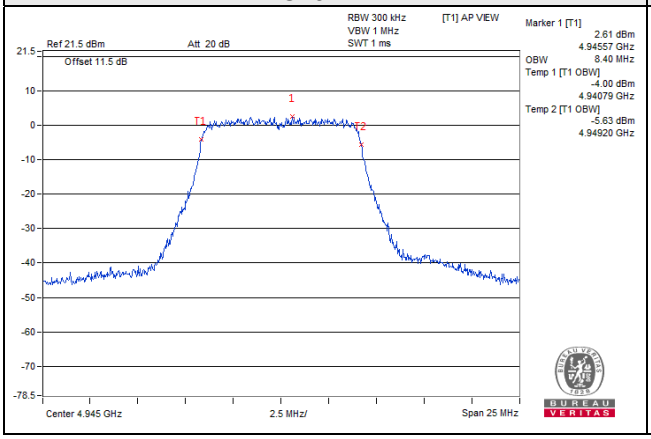
Chain 0



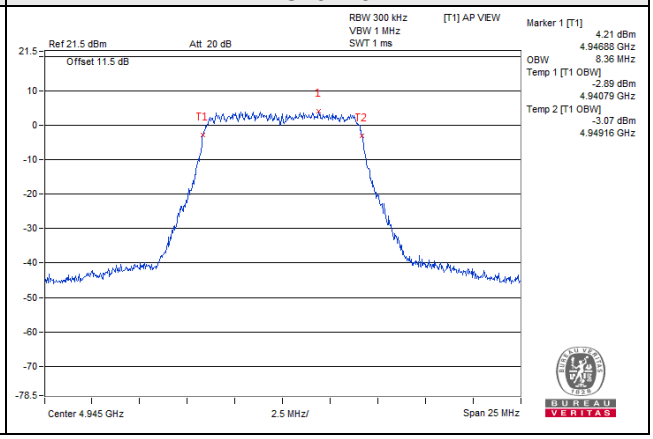
Chain 1



Chain 2



Chain 3

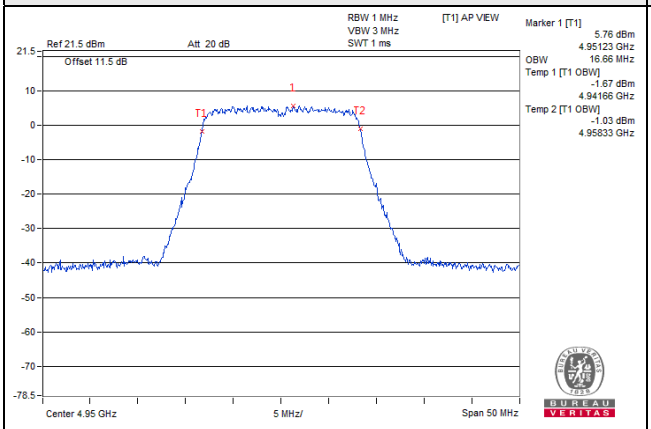


Channel Bandwidth 20MHz

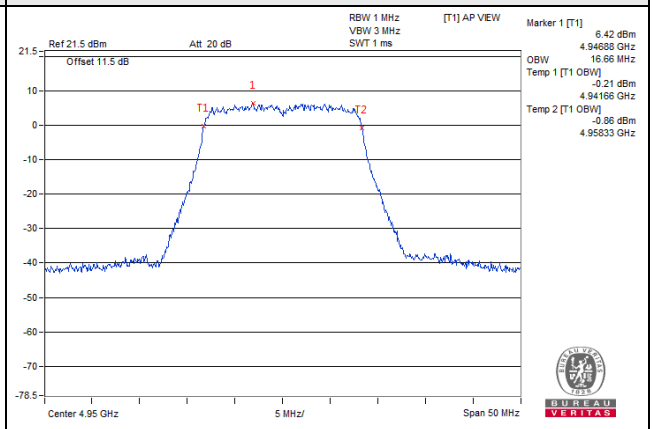
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
20	4950	16.66	16.66	16.66	16.66
23	4965	16.66	16.66	16.66	16.66
26	4980	16.66	16.66	16.66	16.66

Spectrum Plot of Worst Value

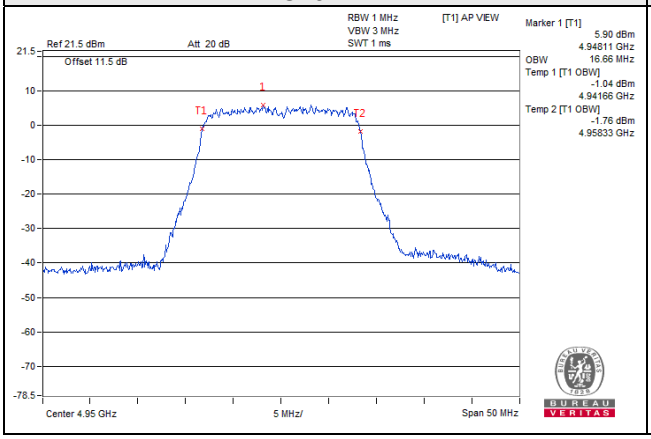
Chain 0



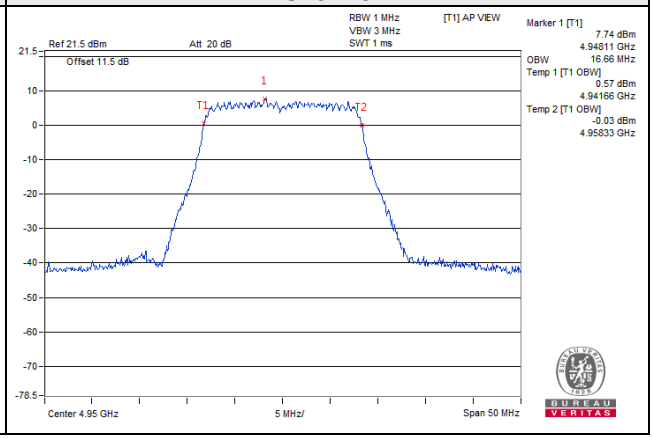
Chain 1



Chain 2



Chain 3



4.3 Emission Mask Measurement

4.3.1 Limits of Emission Mask Measurement

For low power transmitters (20 dBm or less) and high power transmitters (greater than 20 dBm operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:

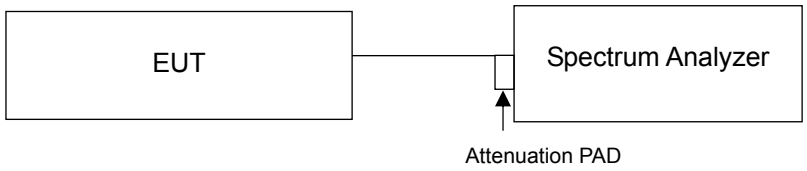
Frequency Offset fd	Minimum Attenuation	
	Low Power Transmitter	High Power Transmitter
0 < fd ≤ 45	0	0
45 < fd ≤ 50	219 log(fd/45)	568 log(fd/45)
50 < fd ≤ 55	10 + 242 log(fd/50)	26 + 145 log(fd/50)
55 < fd ≤ 100	20 + 31 log(fd/55)	32 + 31 log(fd/55)
100 < fd ≤ 150	28 + 68 log(fd/100)	40 + 57 log(fd/100)
fd > 150	40	50 dB or 55 + 10 log (P) dB, whichever is the lesser attenuation.

f_d is the percentage of the equipment's channel bandwidth.

4.3.2 Test Procedures

The zero dB reference is measured relative to the highest average power of the fundamental emission measured across the designated channel bandwidth using a resolution bandwidth of at least one percent of the occupied bandwidth of the fundamental emission and a video bandwidth of 30 kHz.

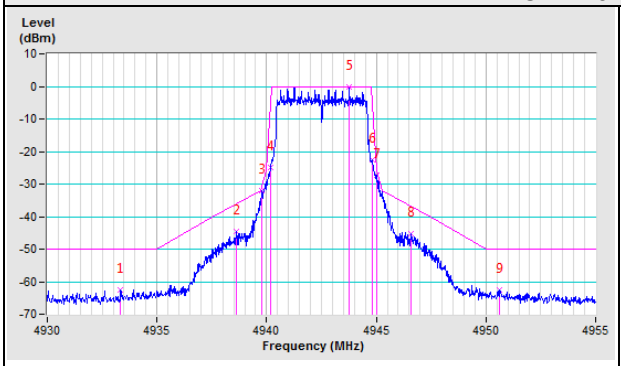
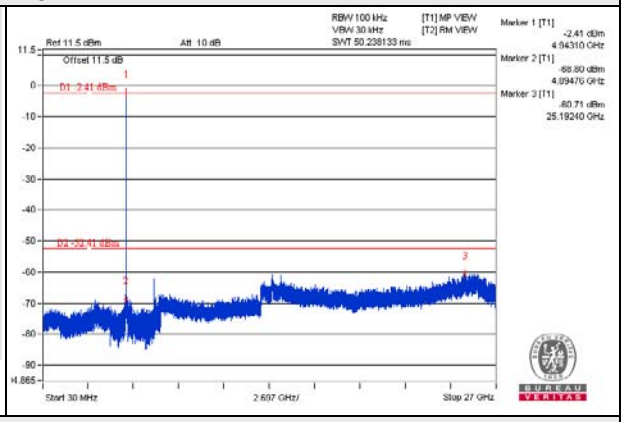
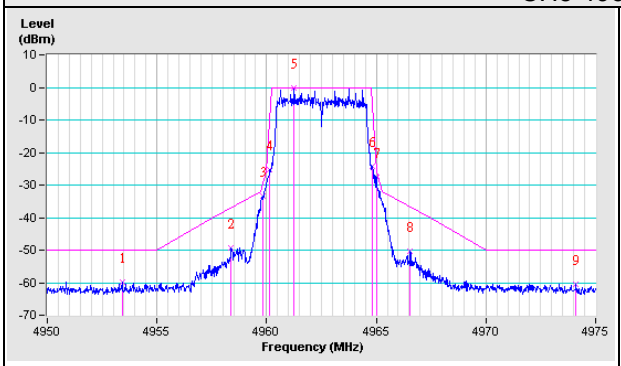
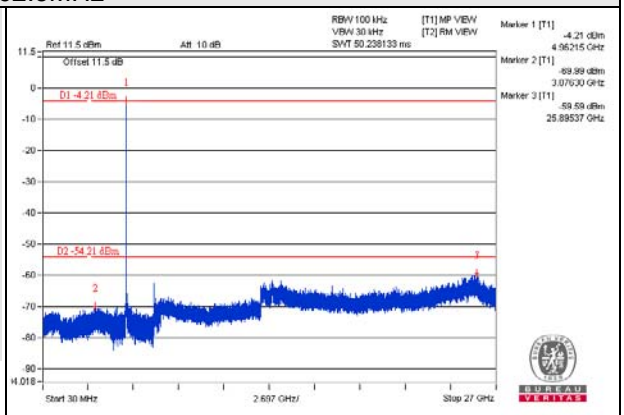
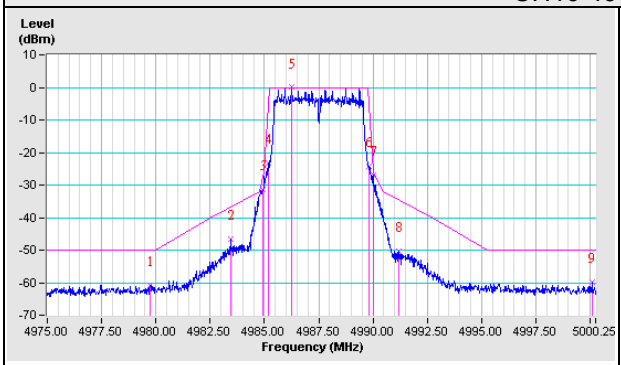
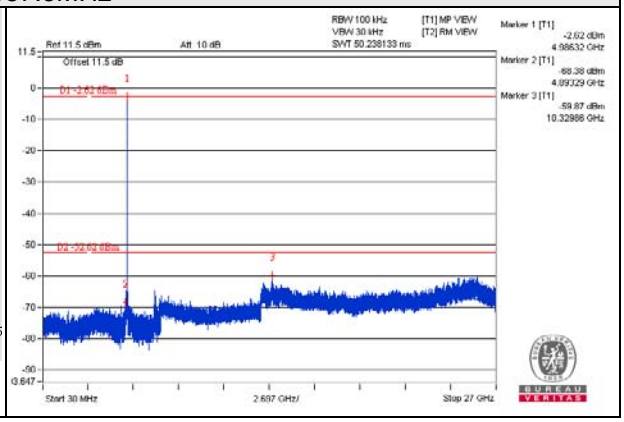
4.3.3 Test Setup



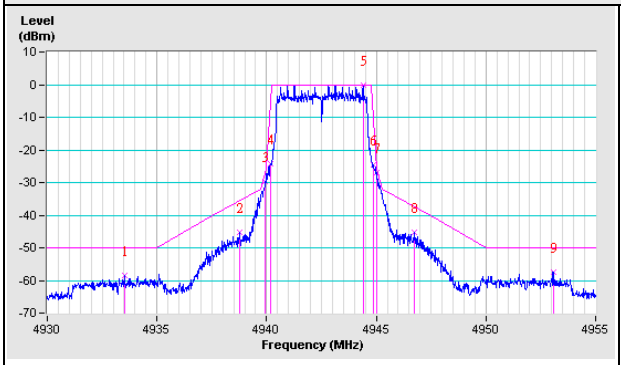
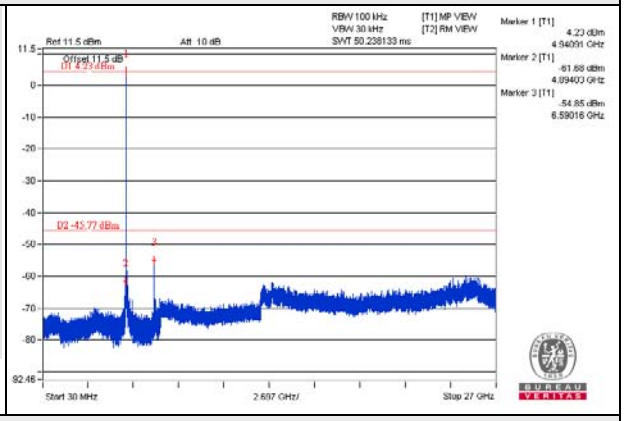
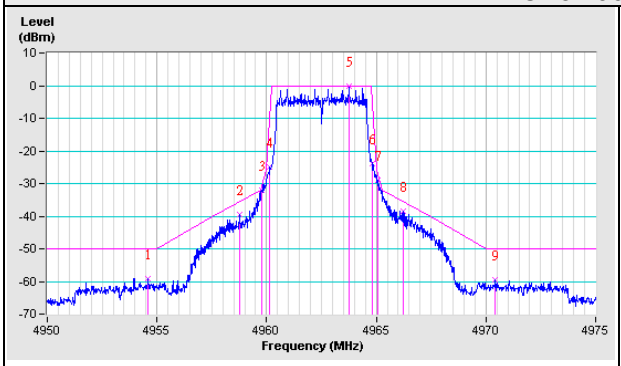
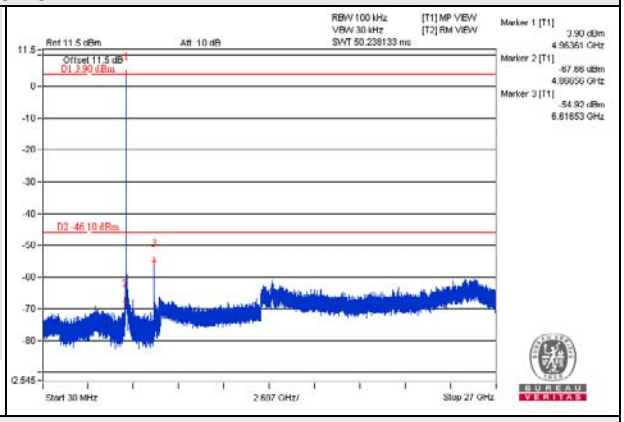
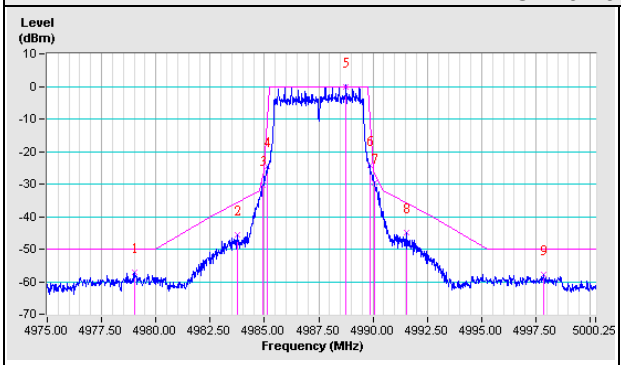
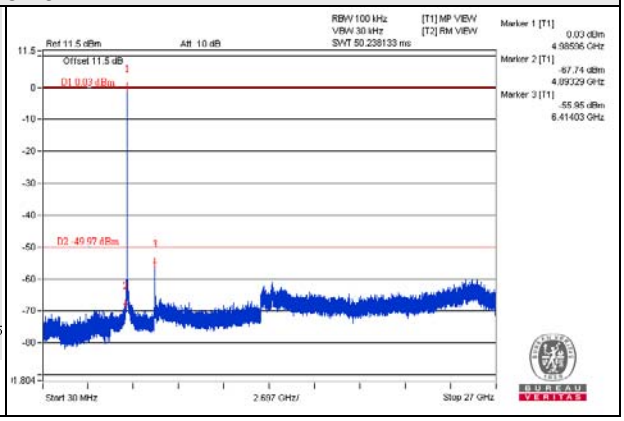
4.3.4 Test Results

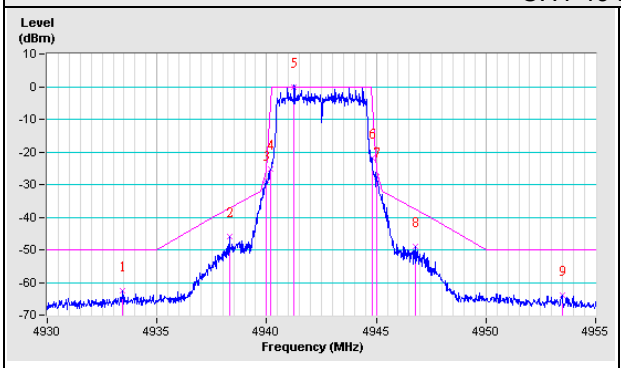
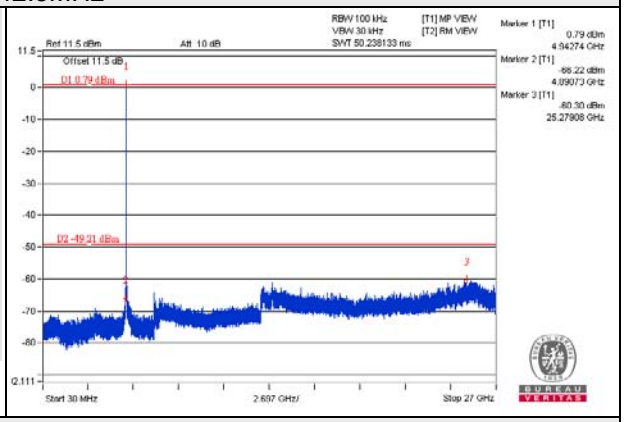
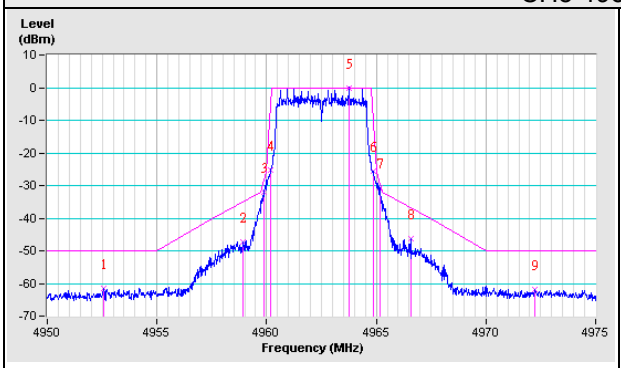
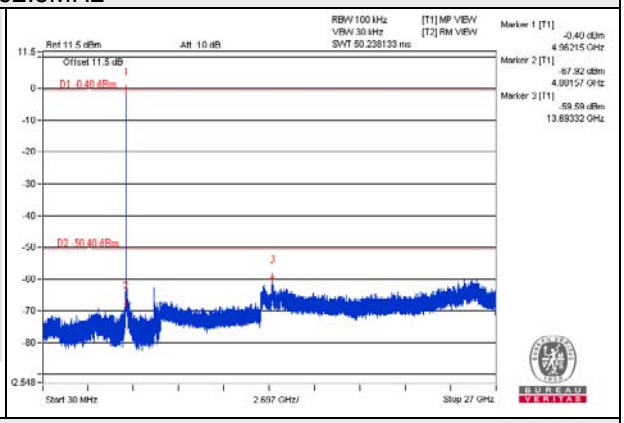
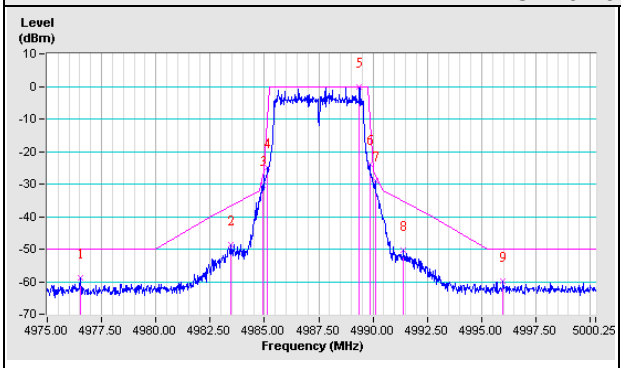
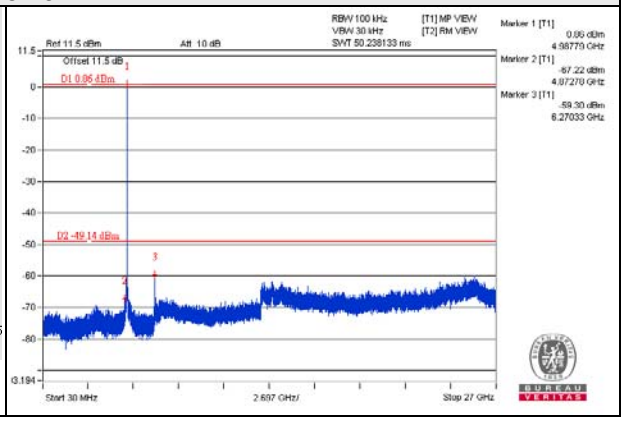
Mode A2

Channel Bandwidth 5MHz

Chain 0	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Channel Bandwidth 5MHz

Chain 1	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Chain 2	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Chain 3	
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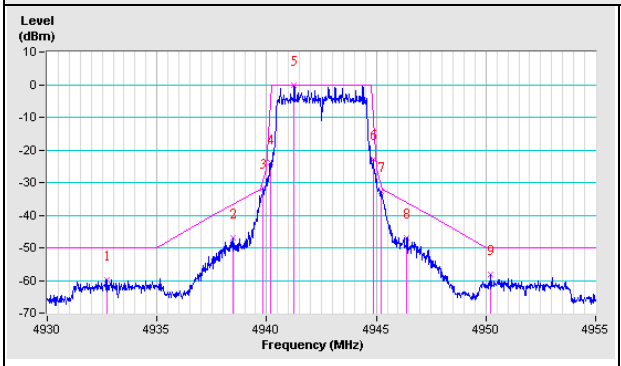
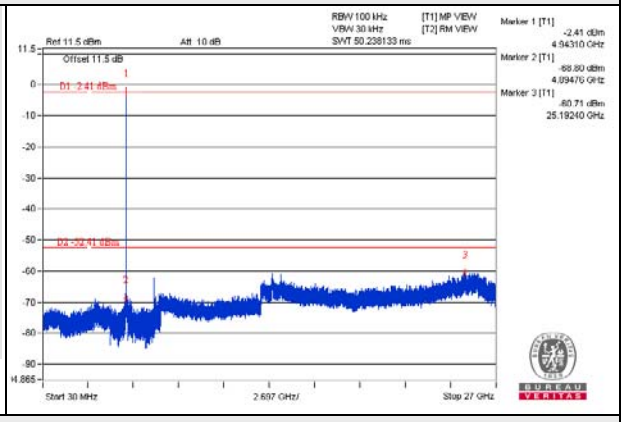
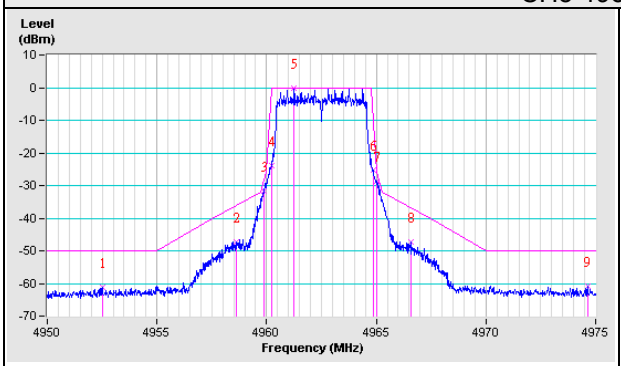
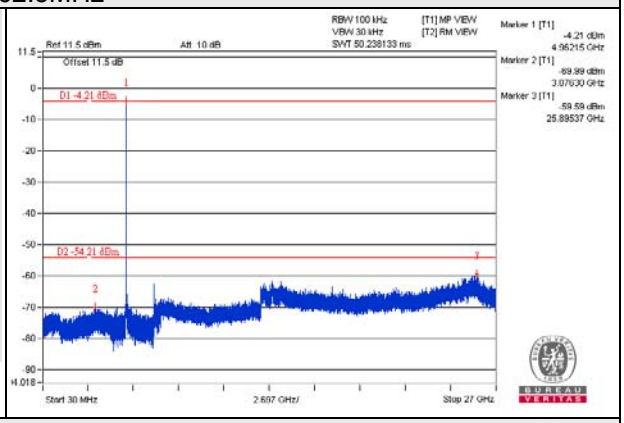
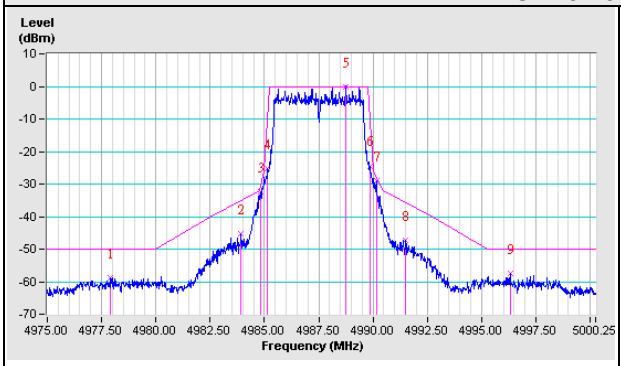
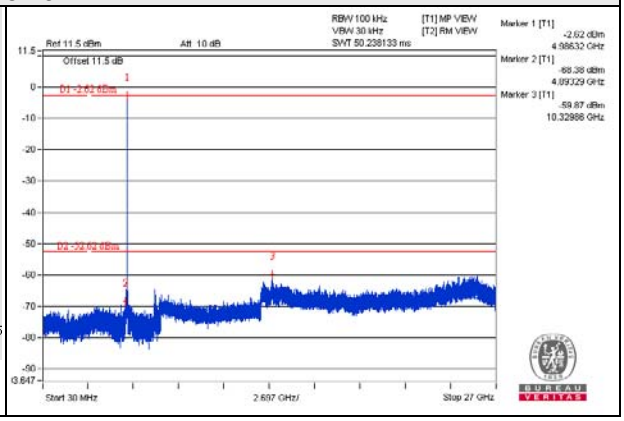
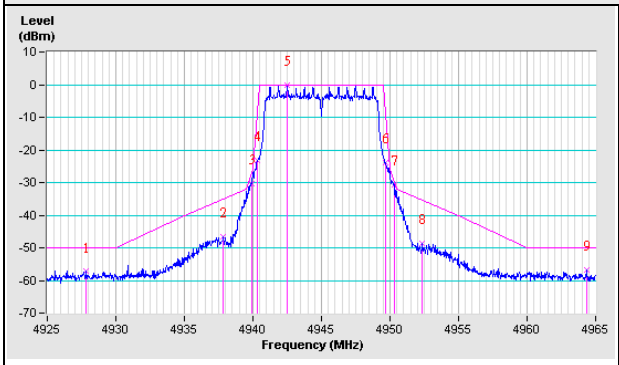
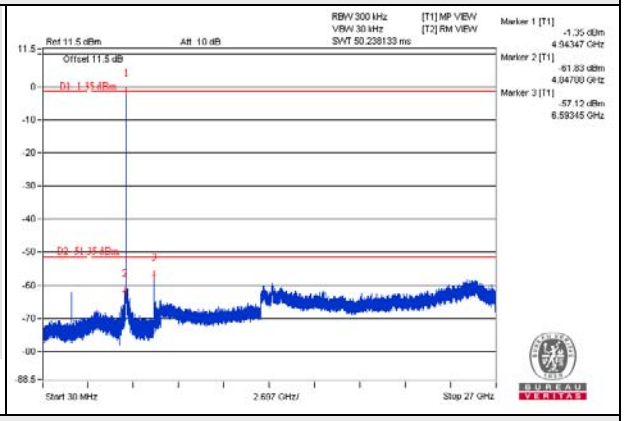
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Channel Bandwidth 10MHz

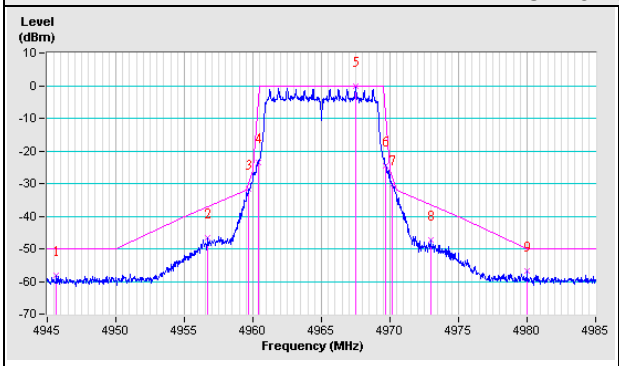
Chain 0

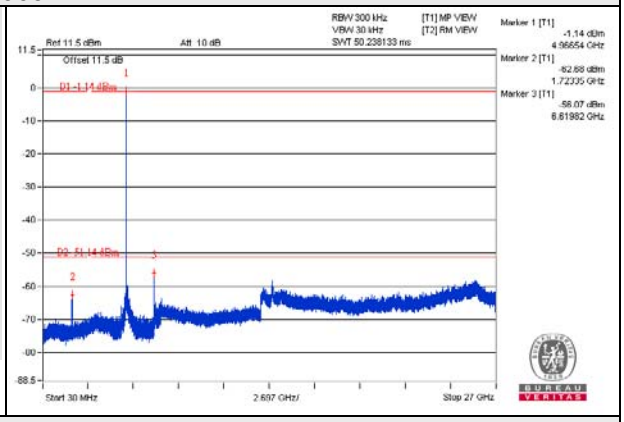
CH11 4945MHz



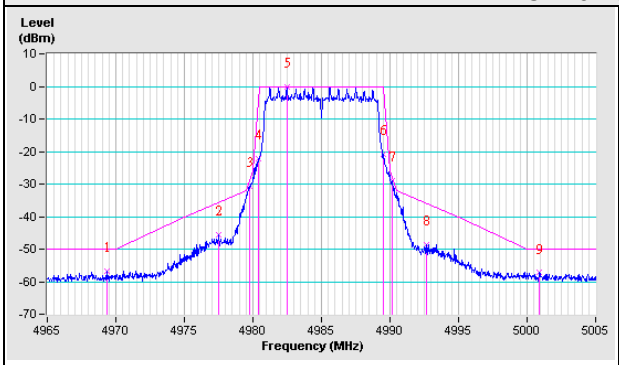


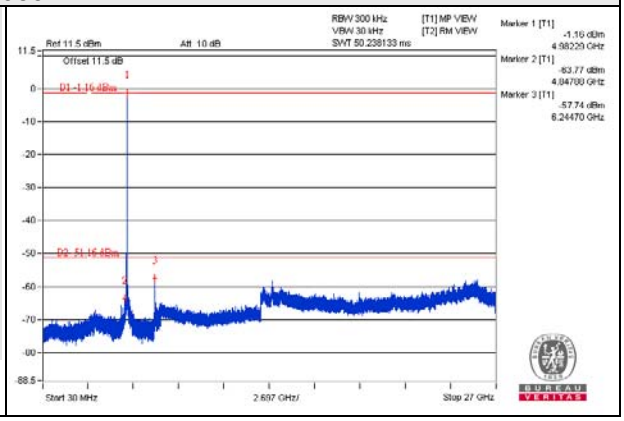
CH15 4965MHz

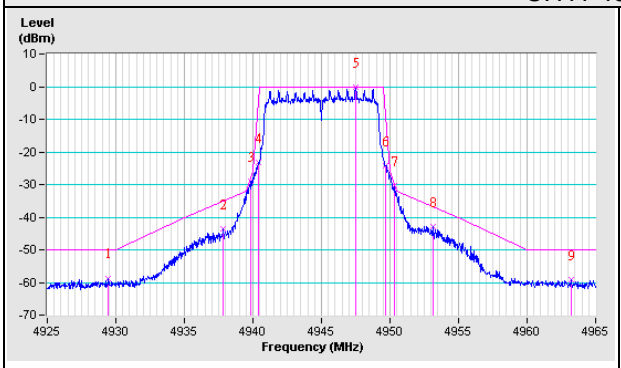
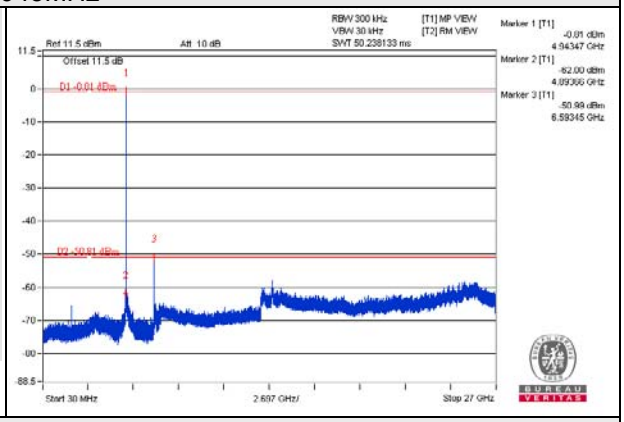
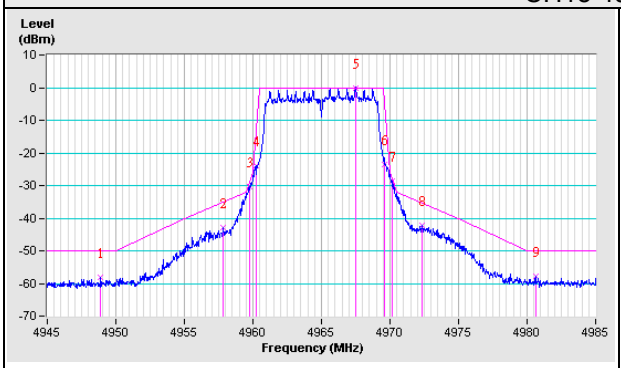
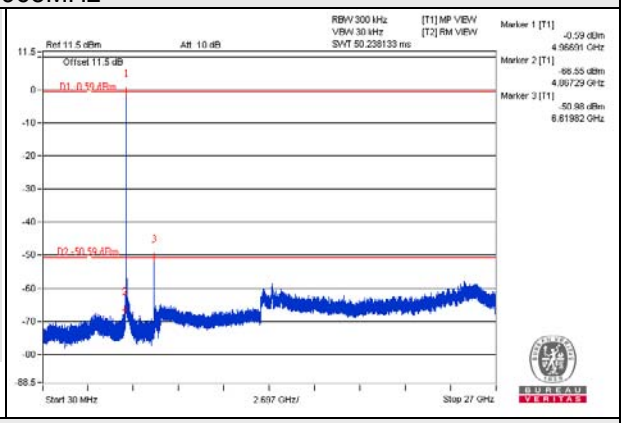
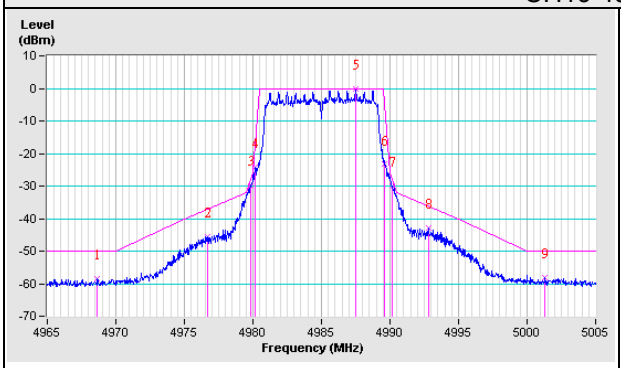
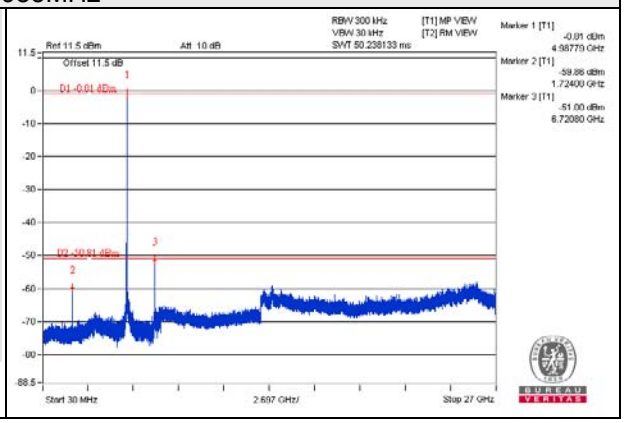


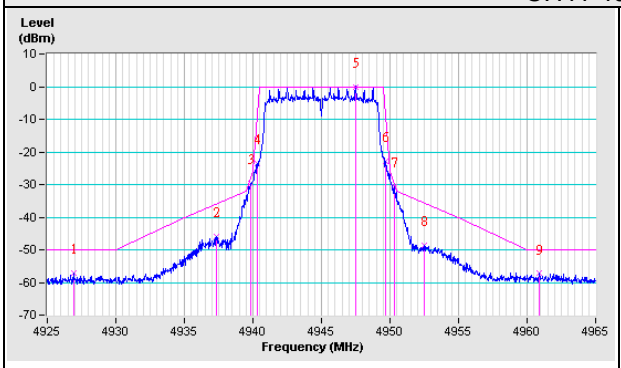
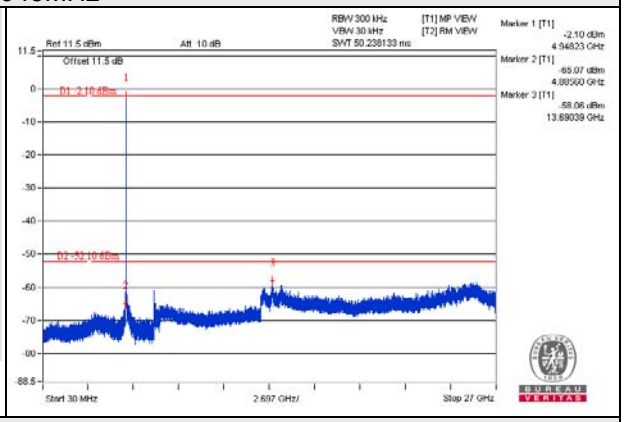
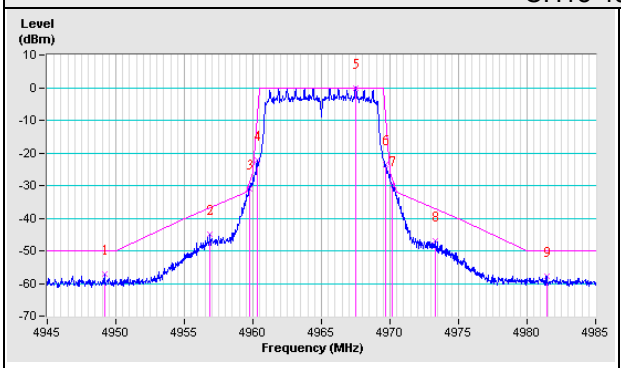
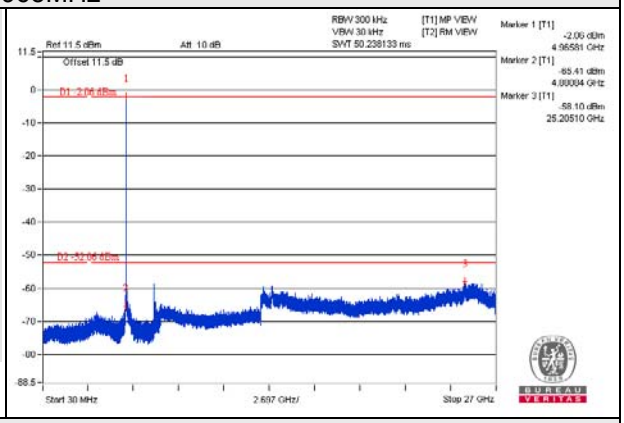
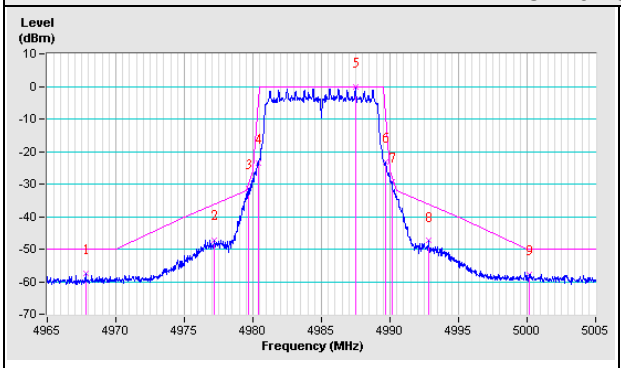
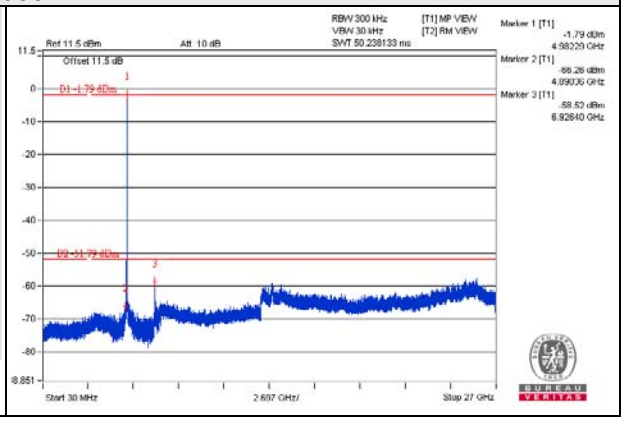


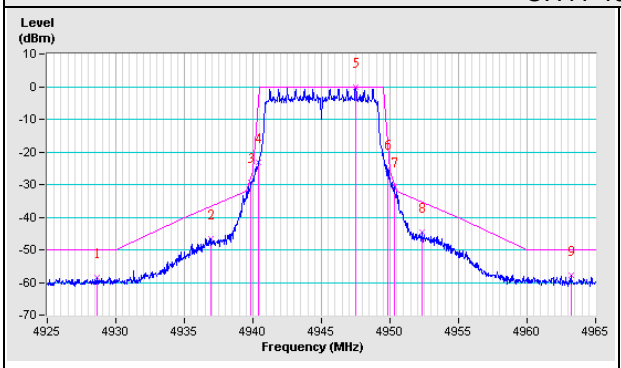
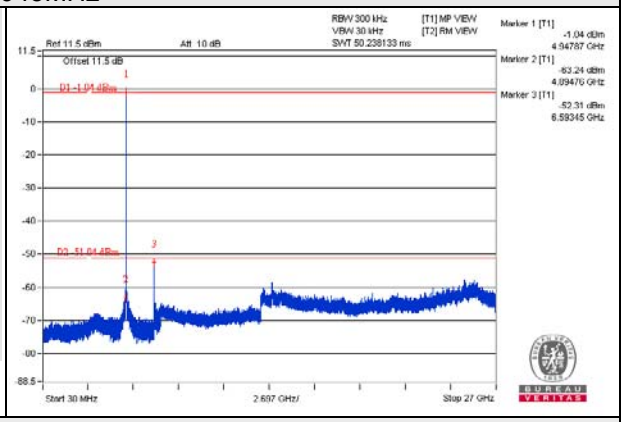
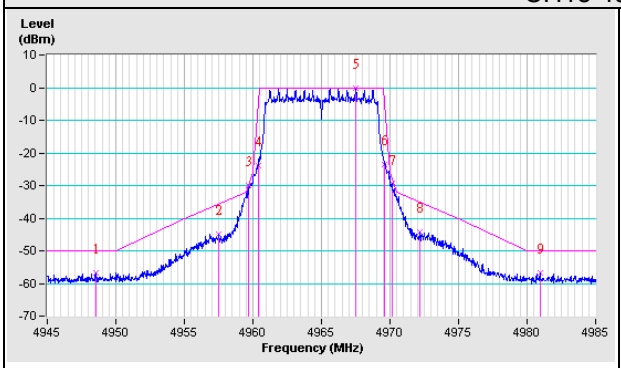
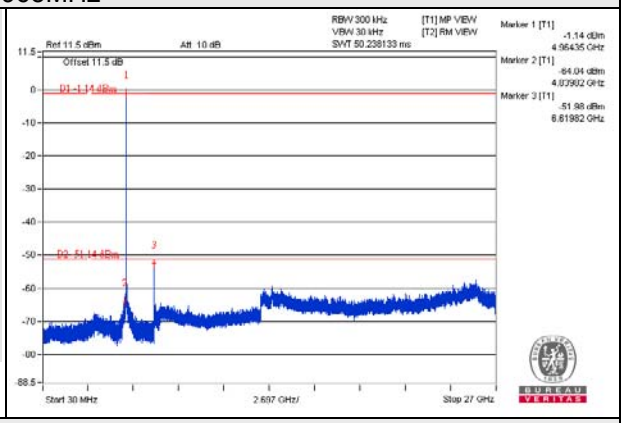
CH19 4985MHz





Chain 1	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Chain 2	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Chain 3	
CH11 4945MHz	
	
CH15 4965MHz	
	
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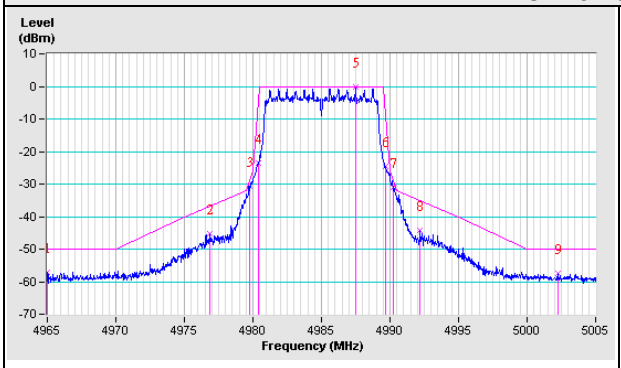	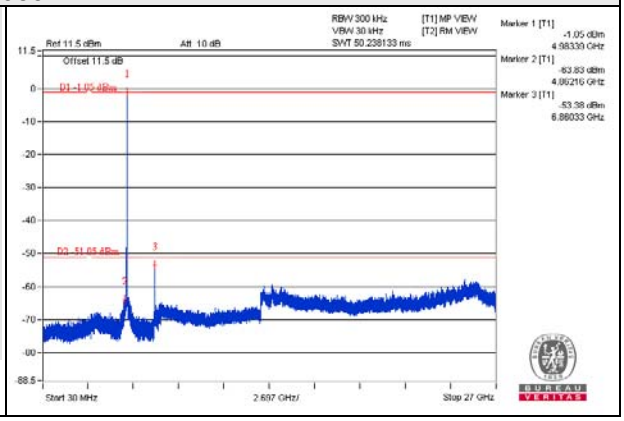

Channel Bandwidth 20MHz

Chain 0	
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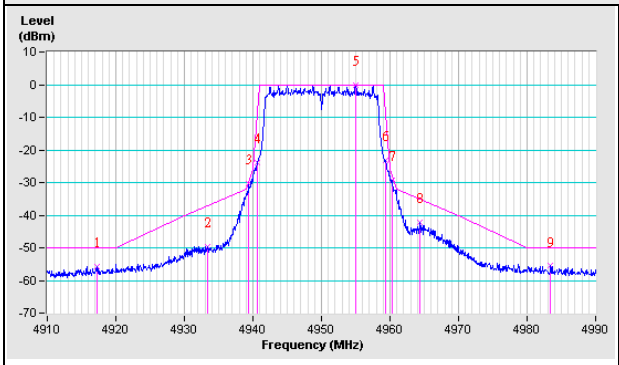	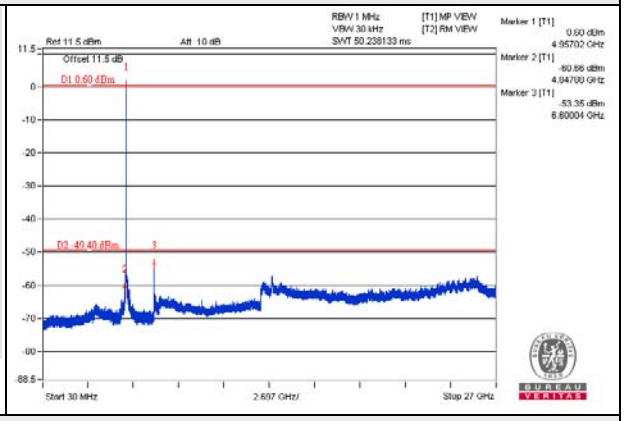
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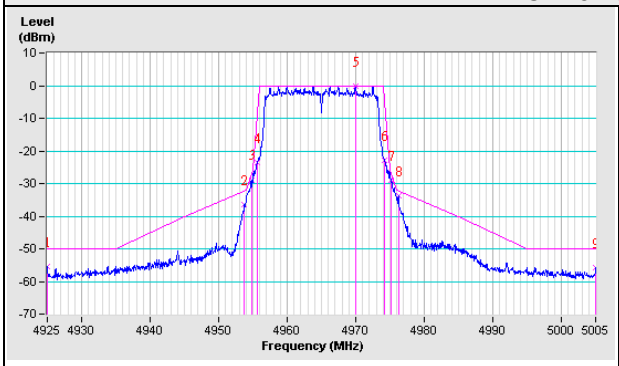
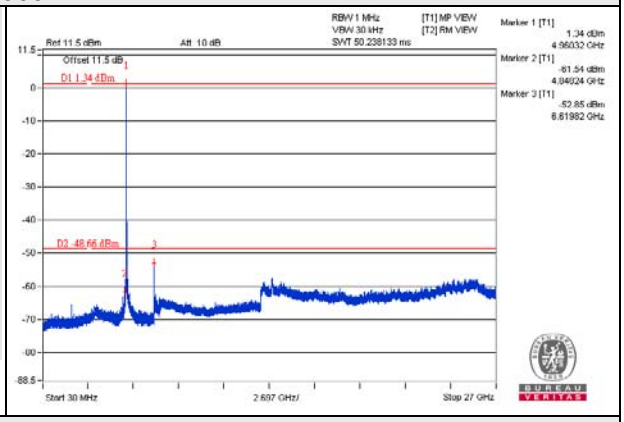
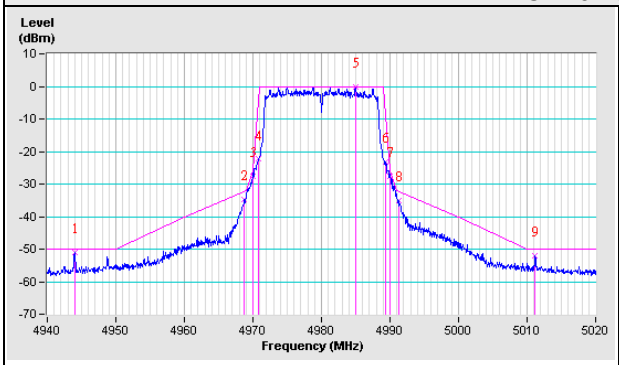
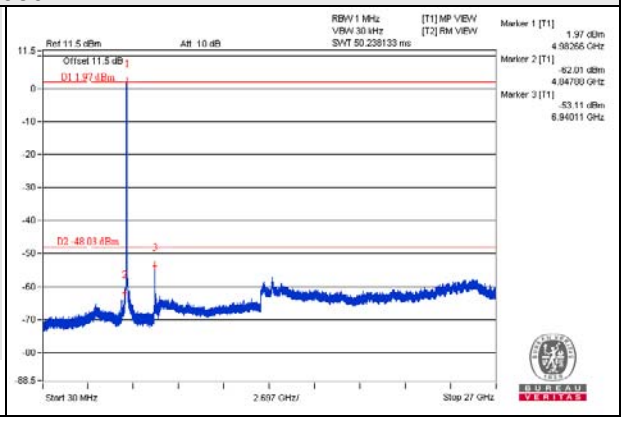
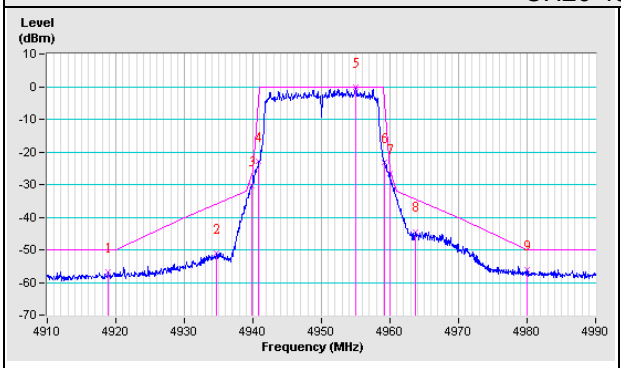
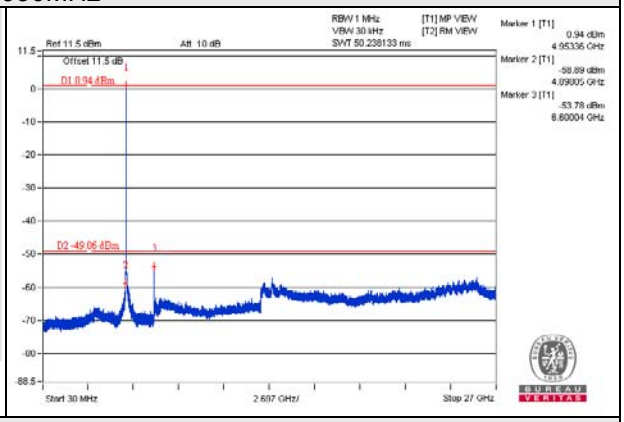
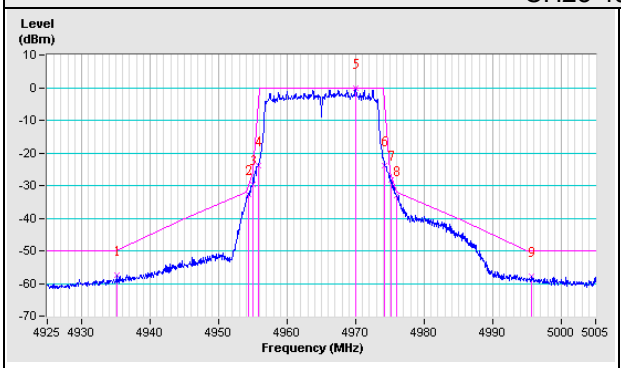
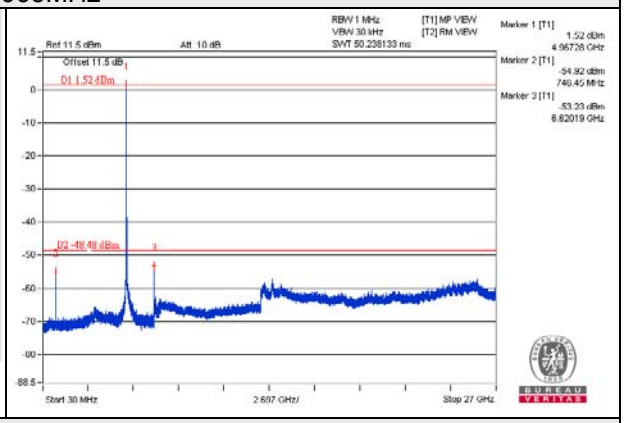
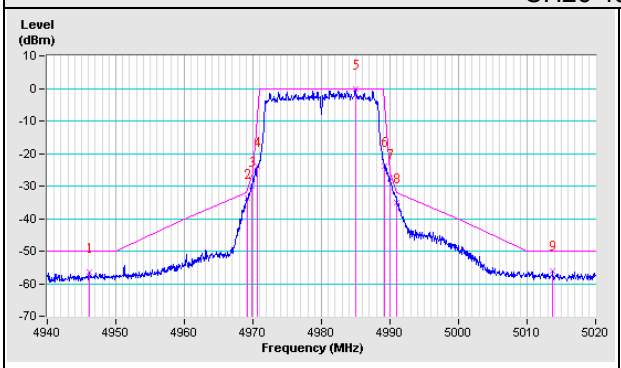
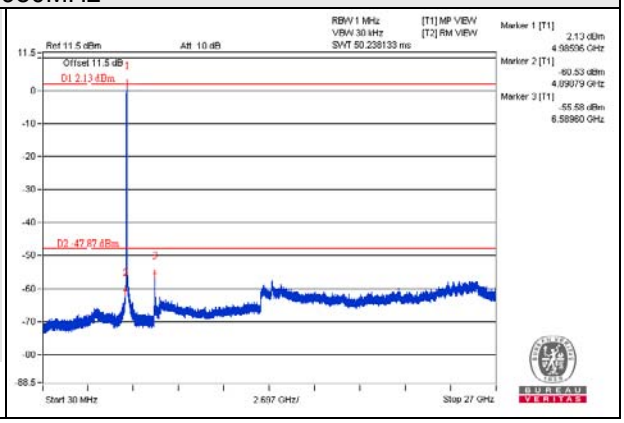
	
CH26 4980MHz	
	

Chain 1	
CH20 4950MHz	
	
CH23 4965MHz	
	
CH26 4980MHz	
	

Chain 2	
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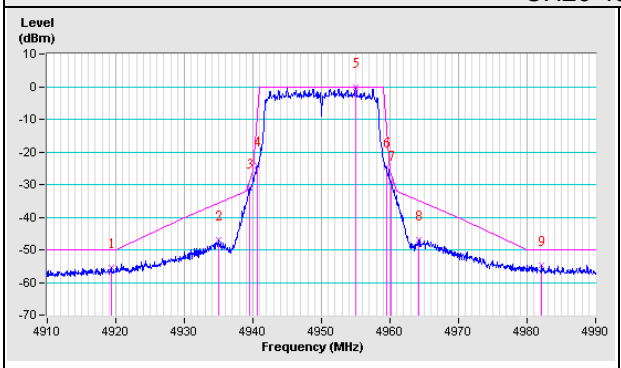	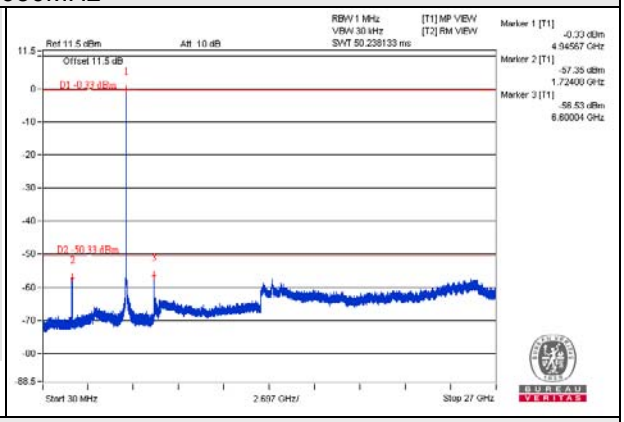
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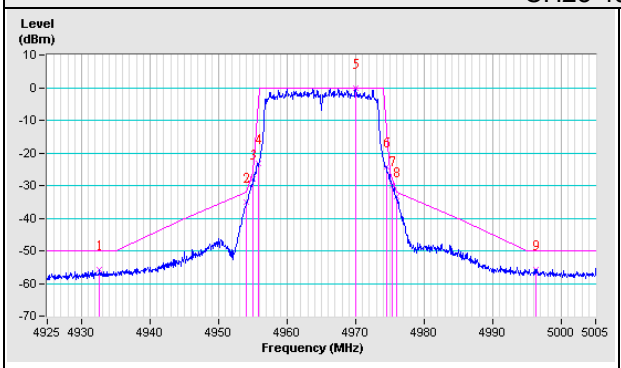
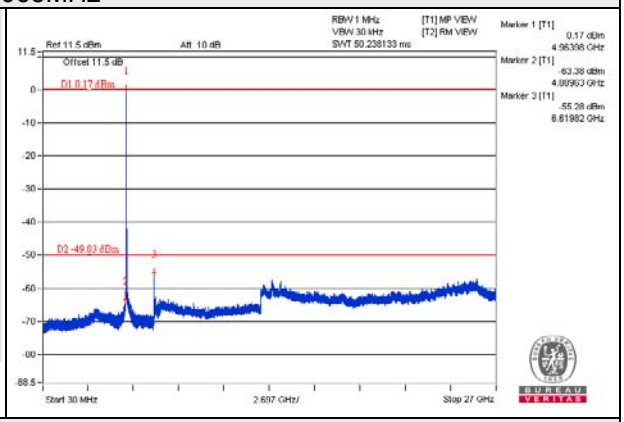
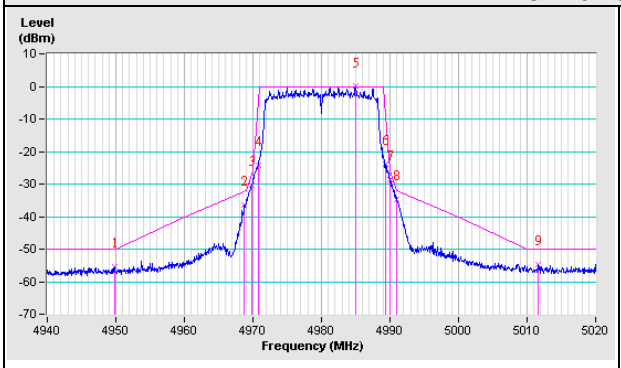
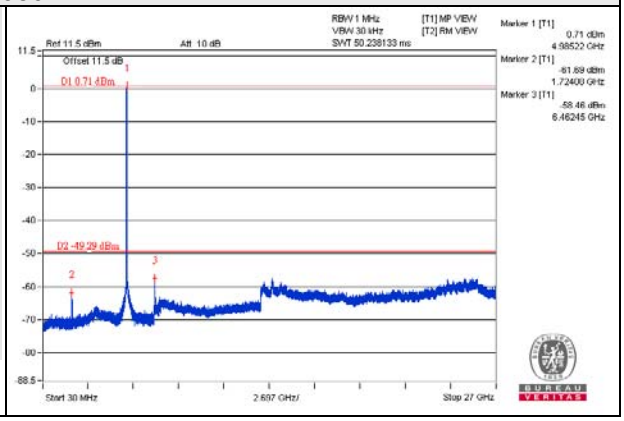
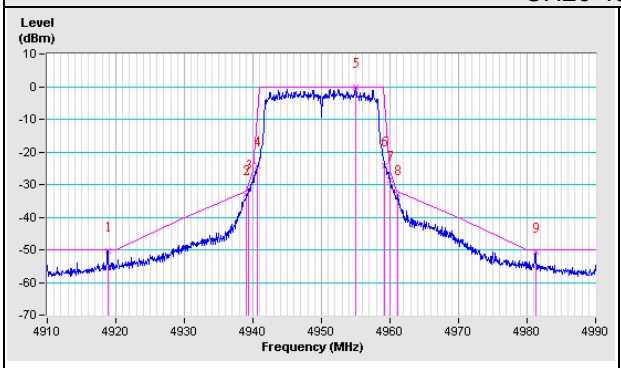
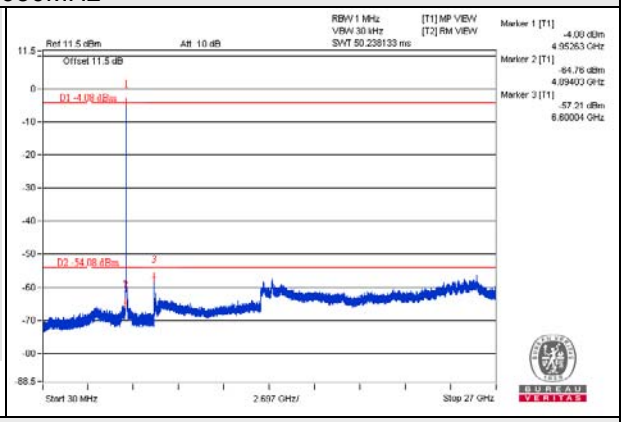
	
CH26 4980MHz	
	

Chain 3	
CH20 4950MHz	
	
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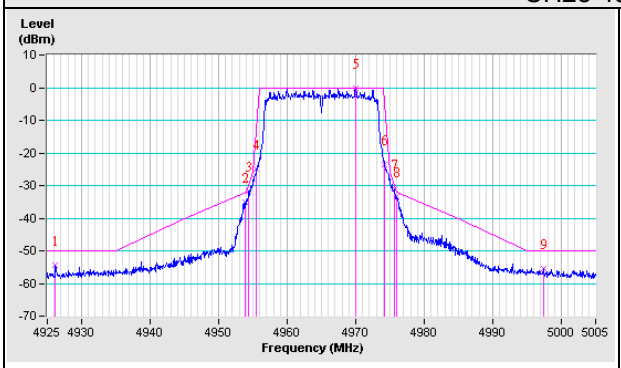
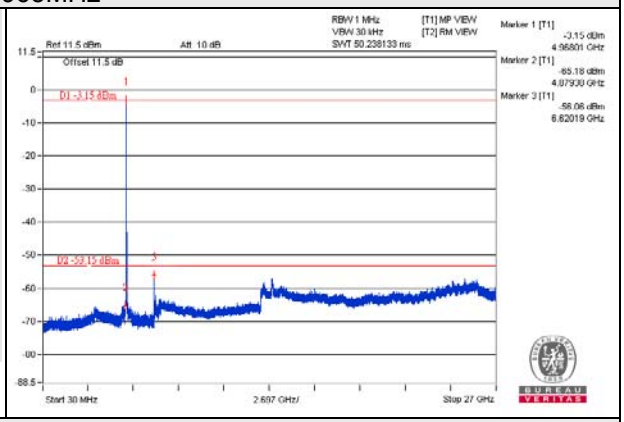
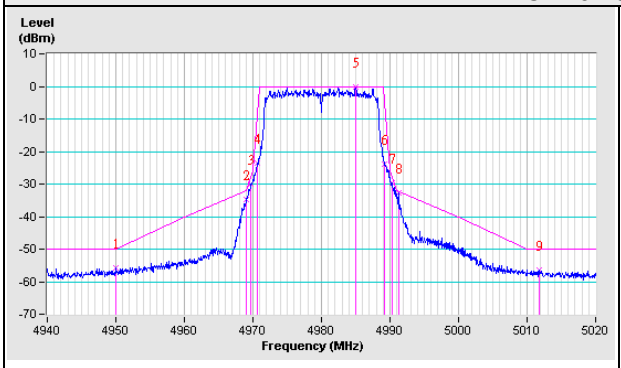
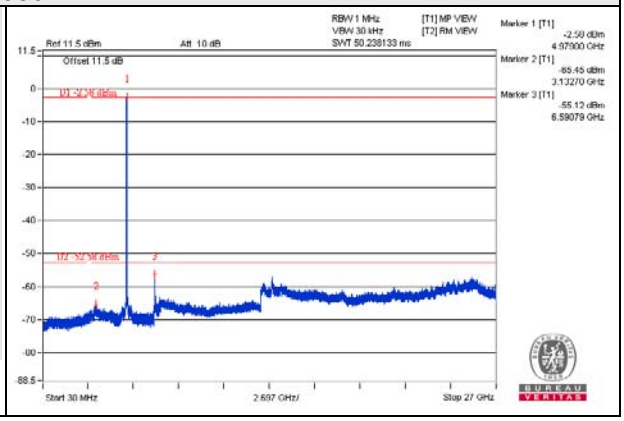
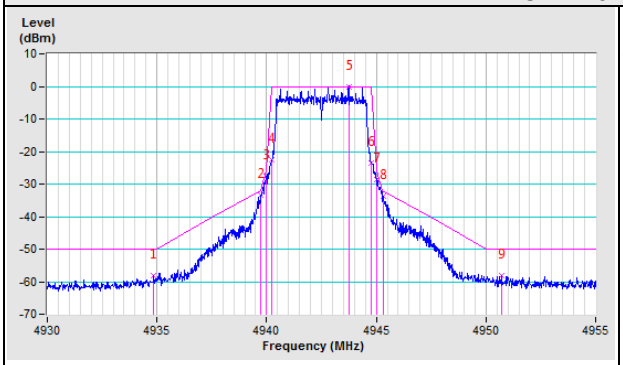
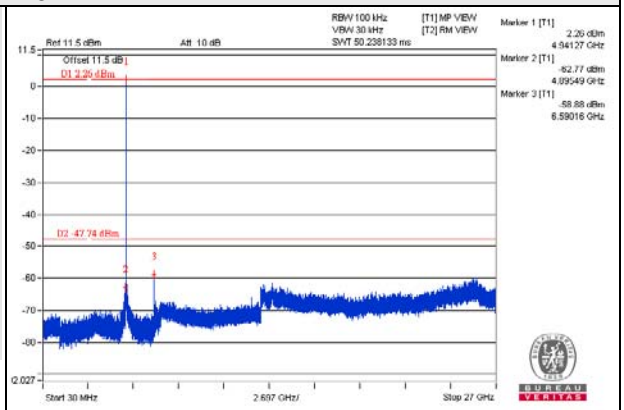
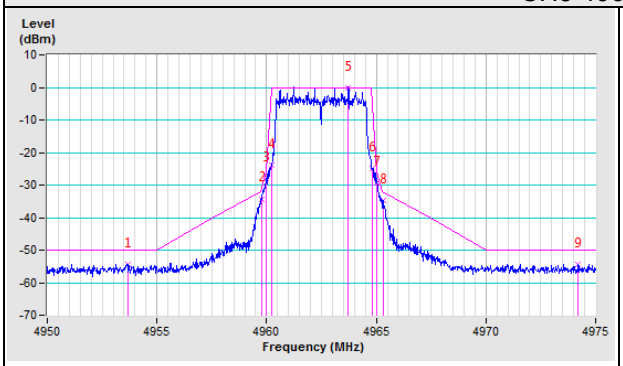
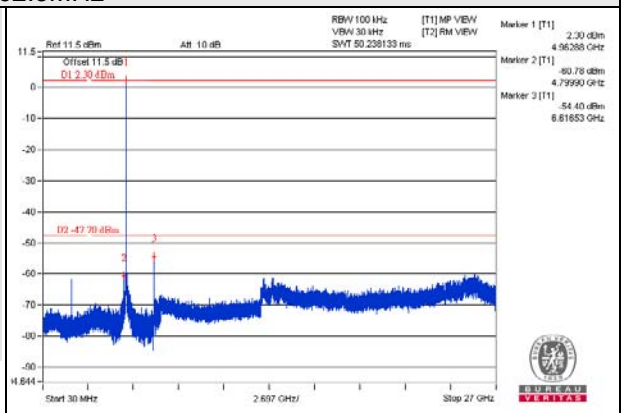
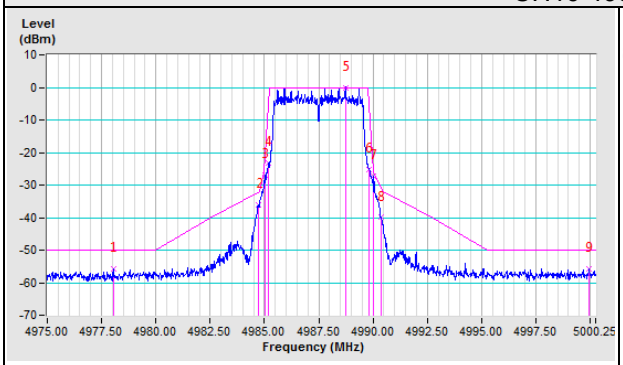
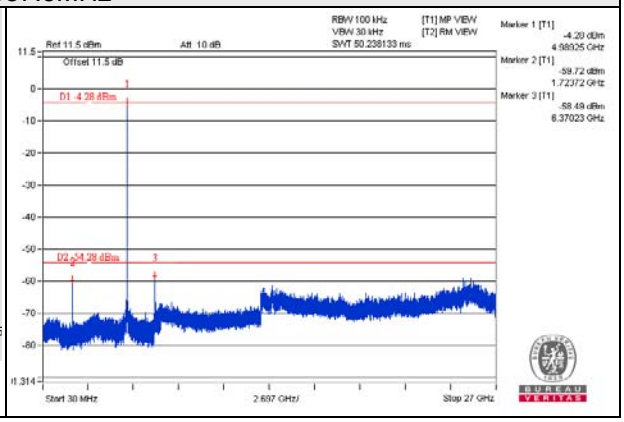
	
CH26 4980MHz	
	

Mode B2

Channel Bandwidth 5MHz

Chain 0	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Channel Bandwidth 5MHz

Chain 1	
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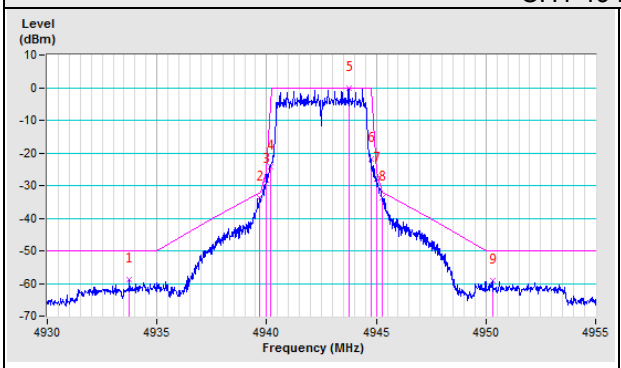
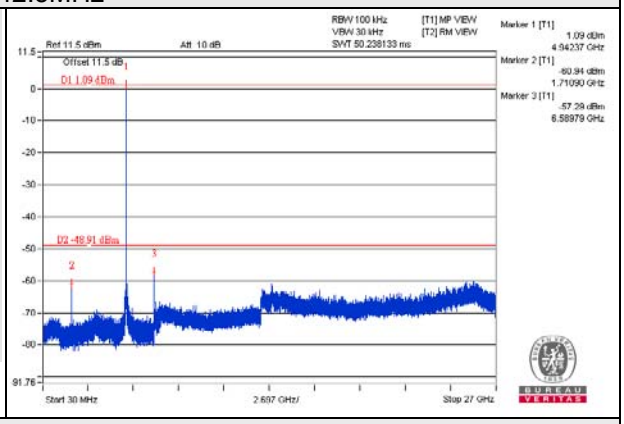
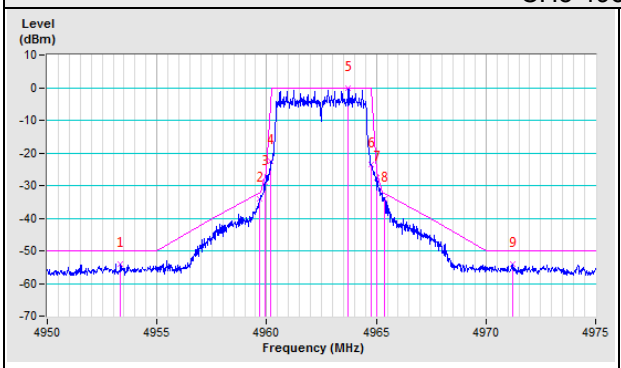
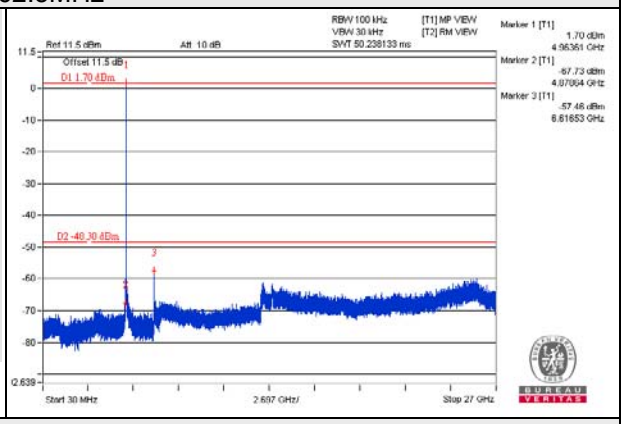
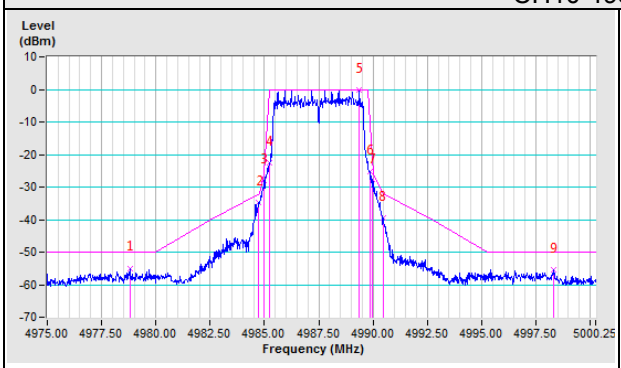
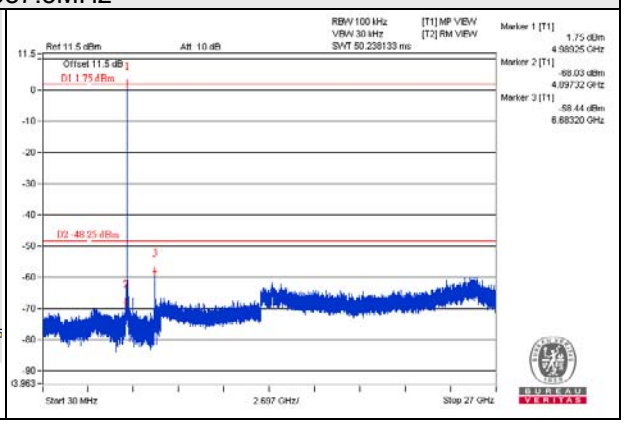
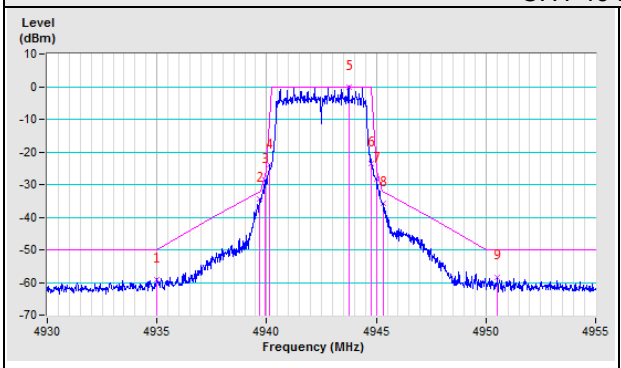
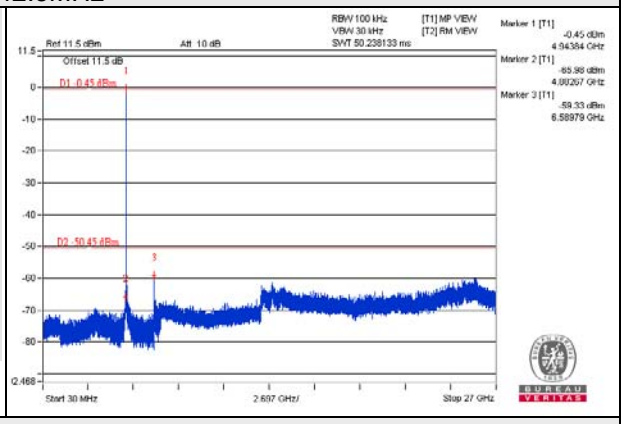
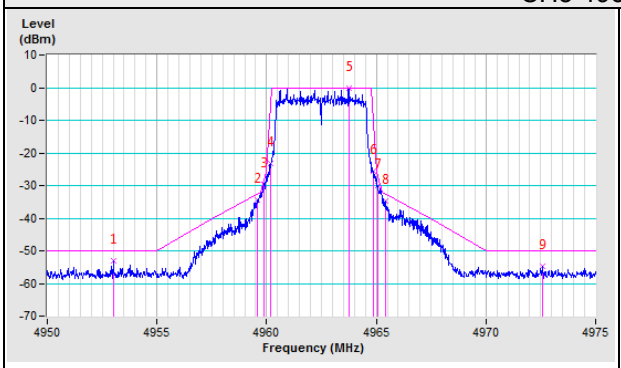
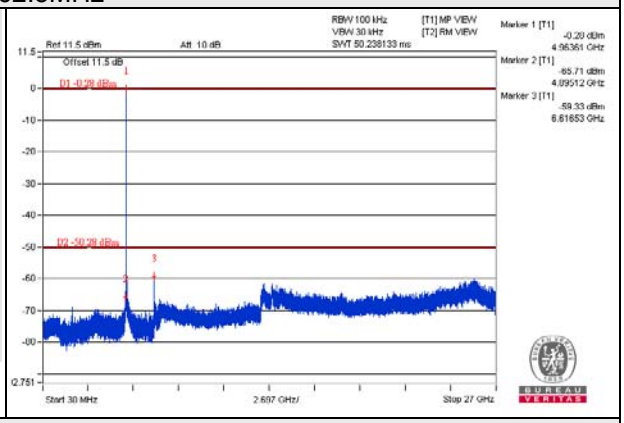
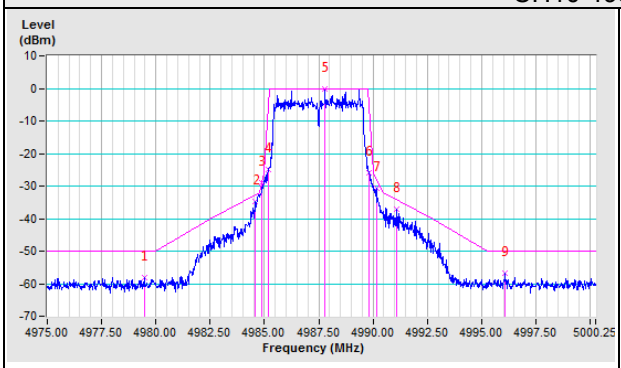
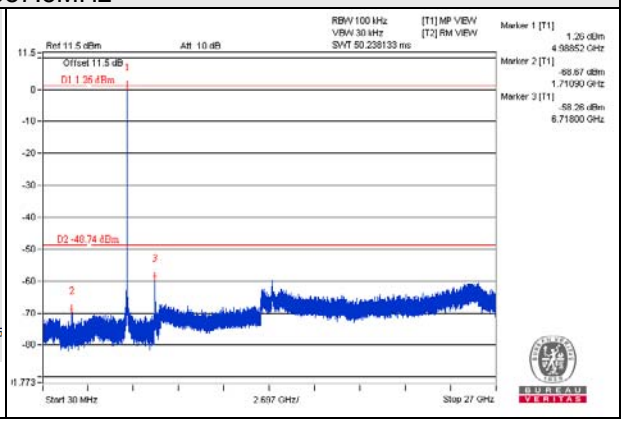
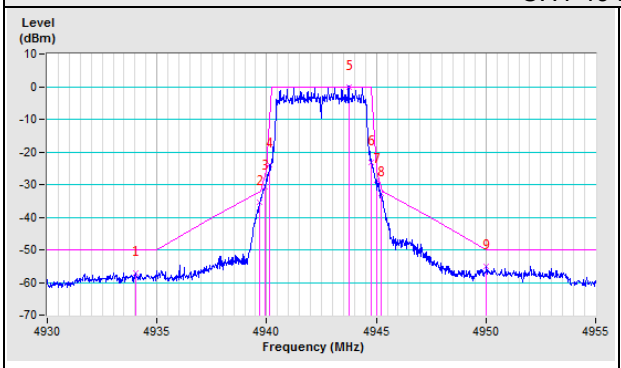
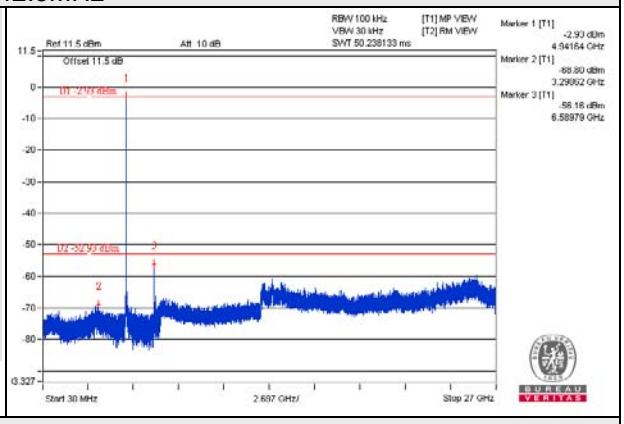
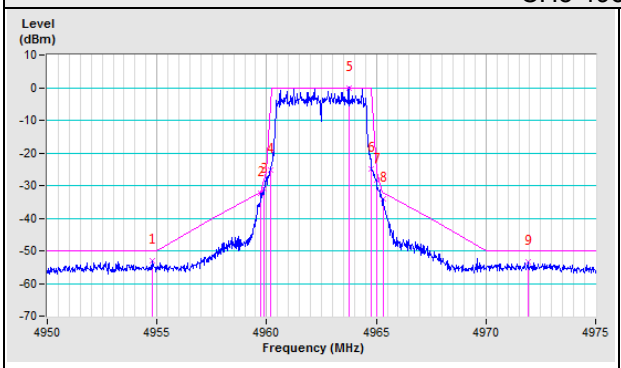
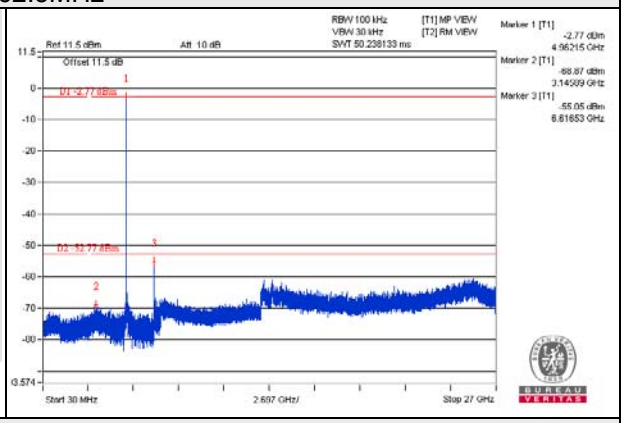
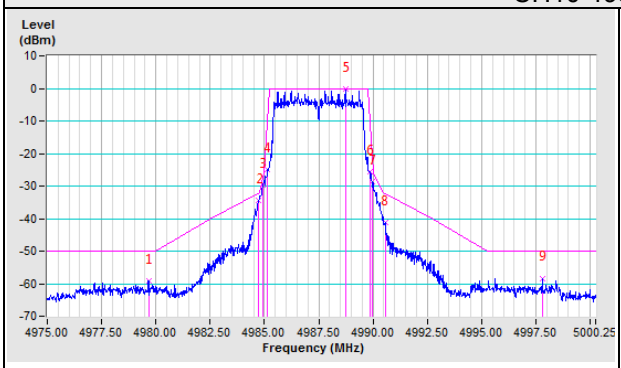
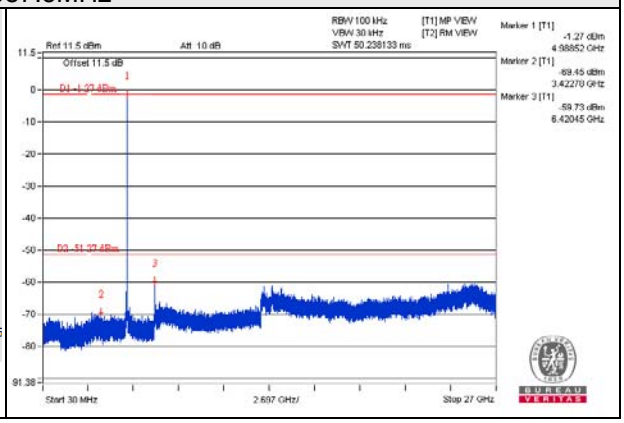
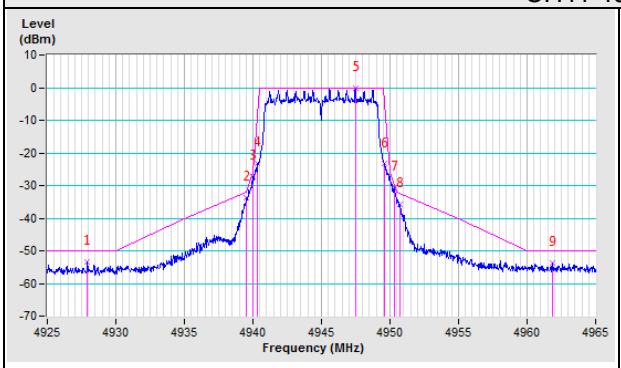
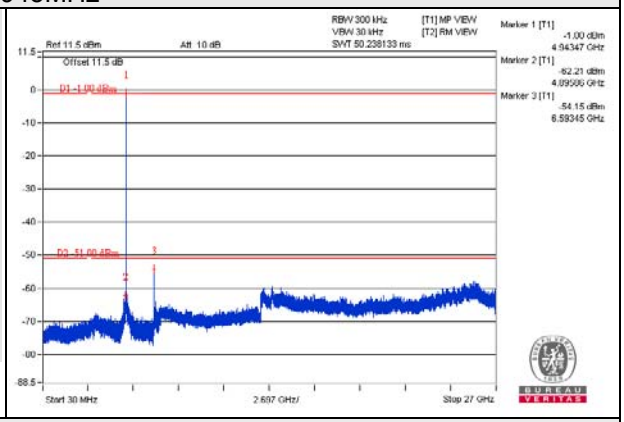
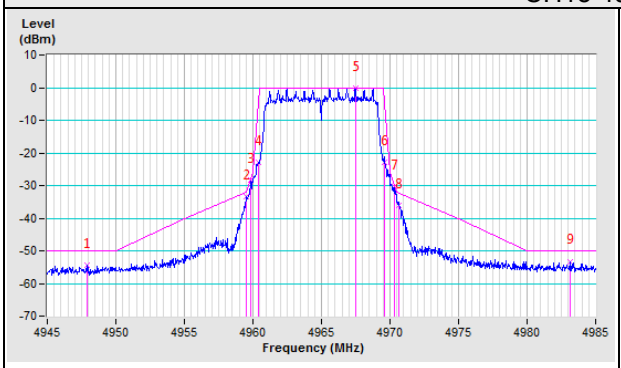
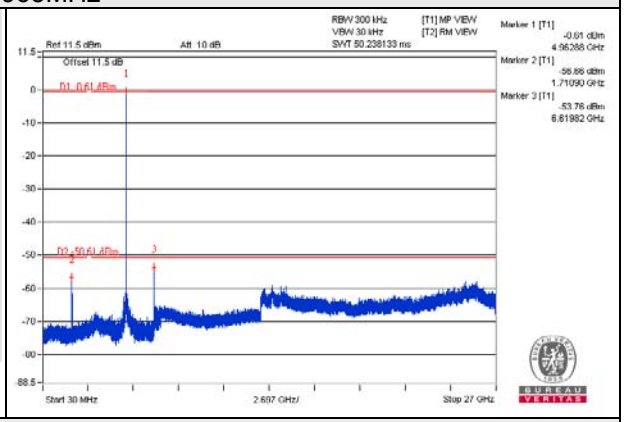
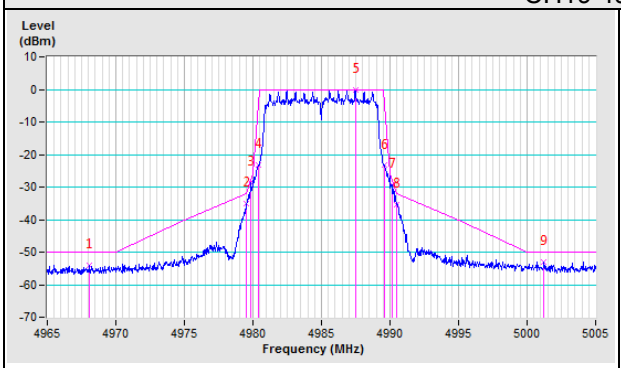
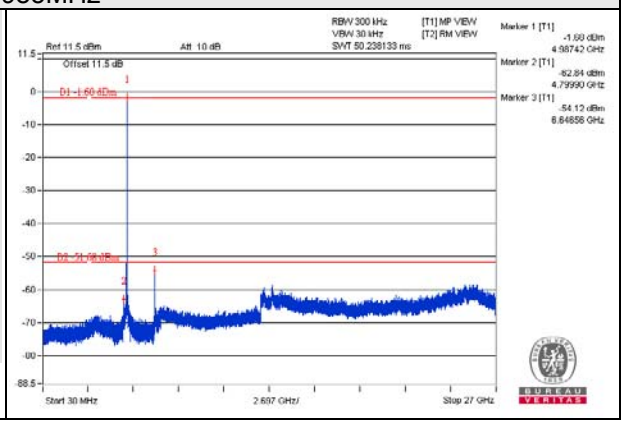
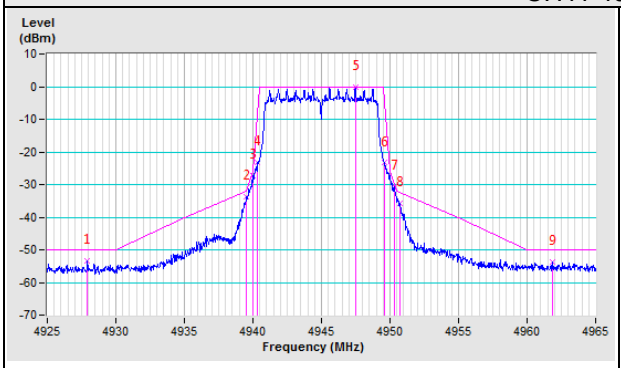
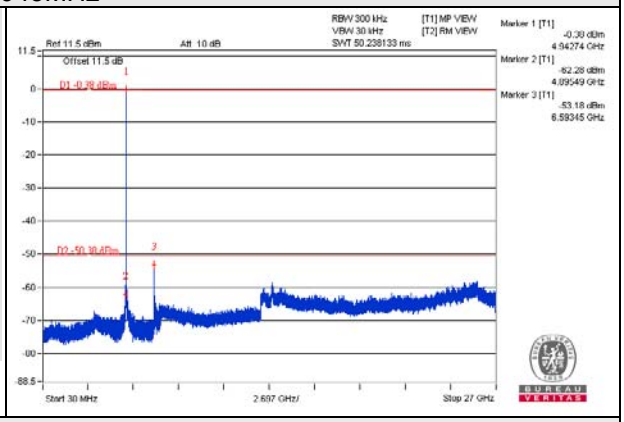
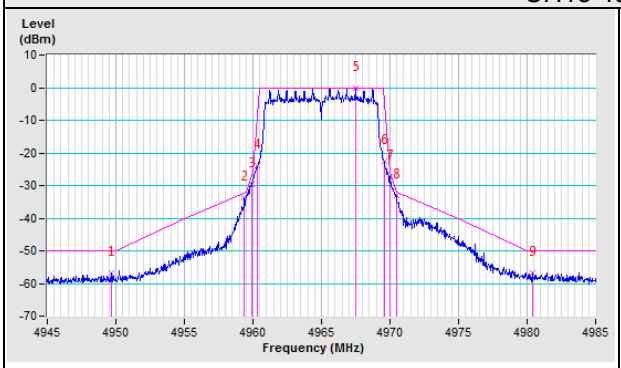
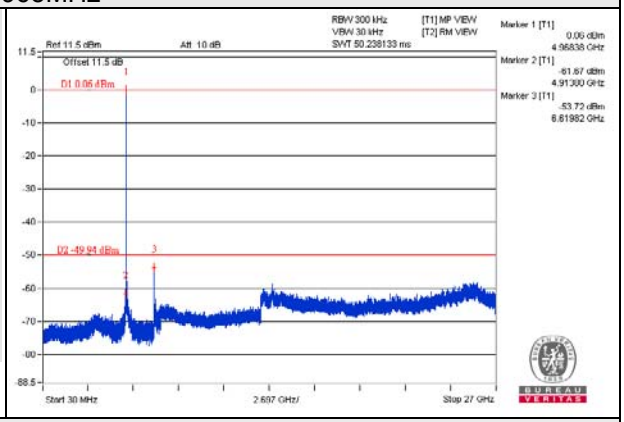
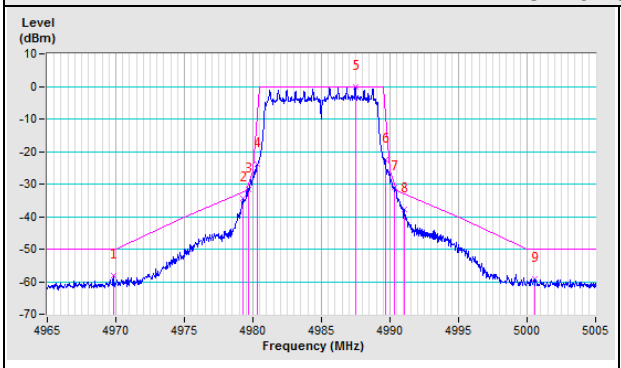
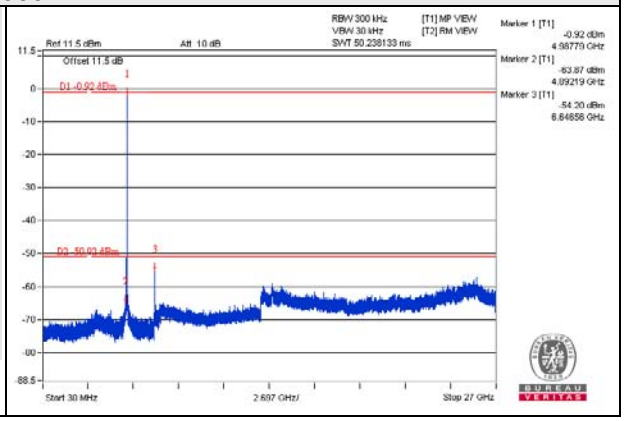
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

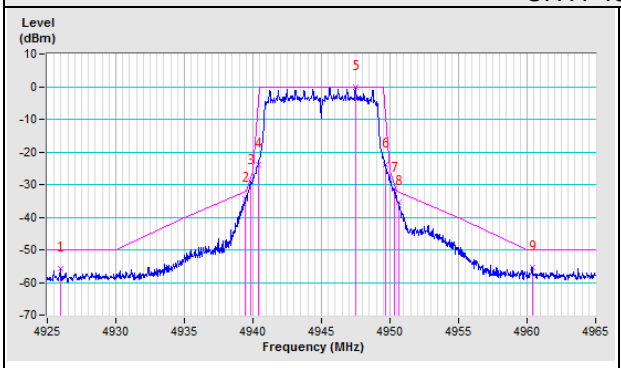
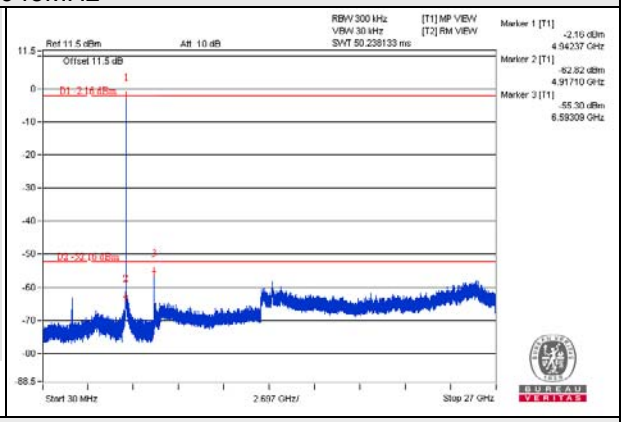
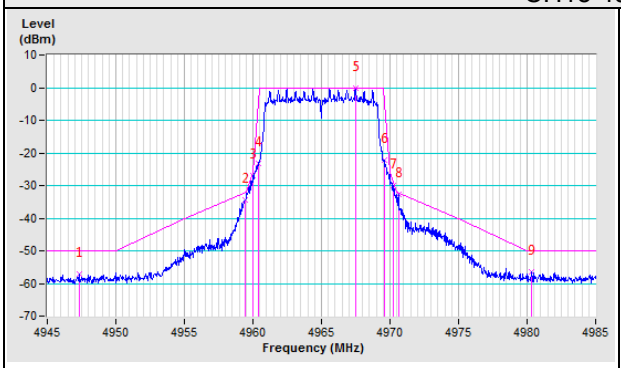
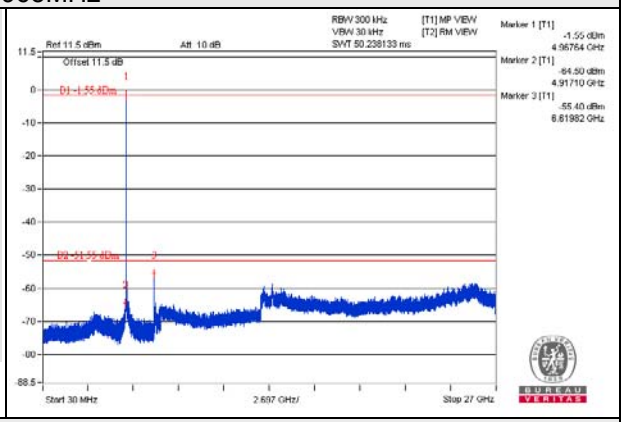
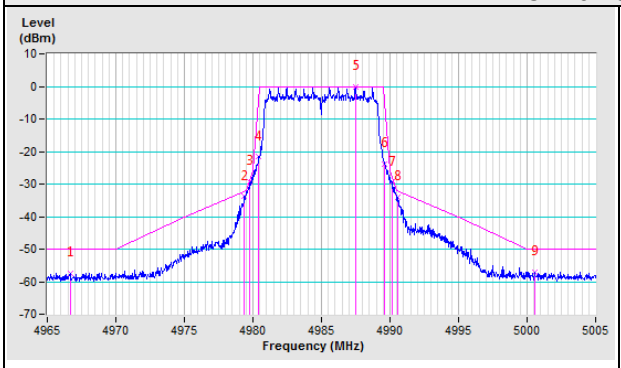
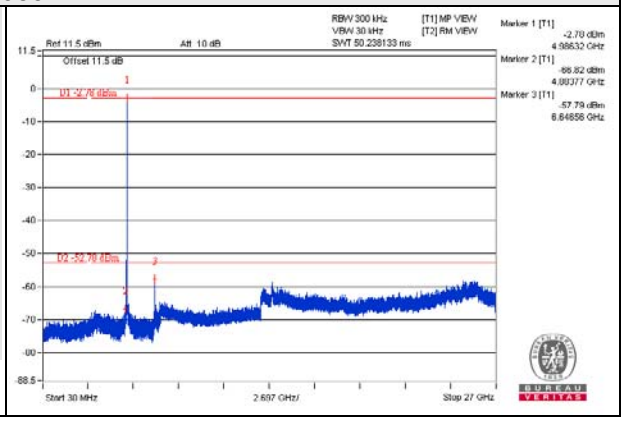
Chain 2	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

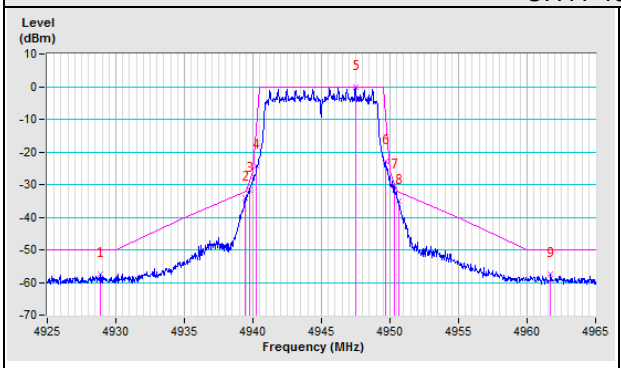
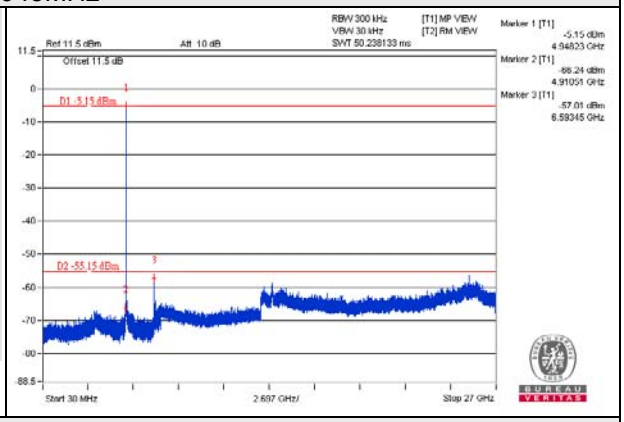
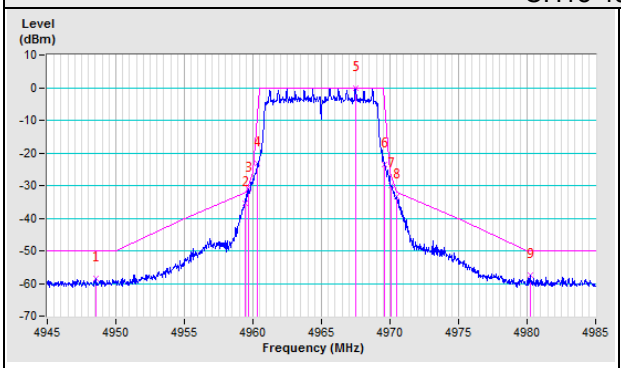
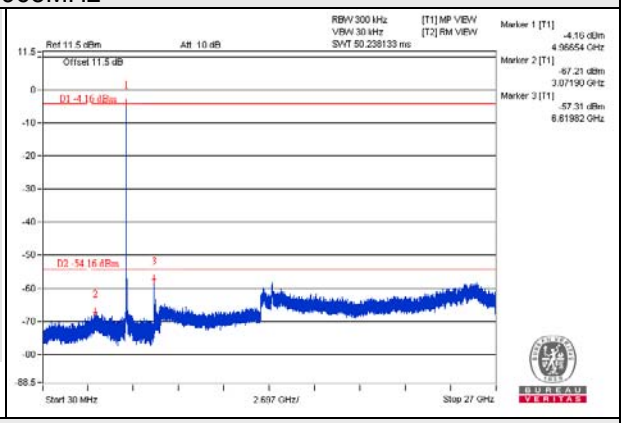
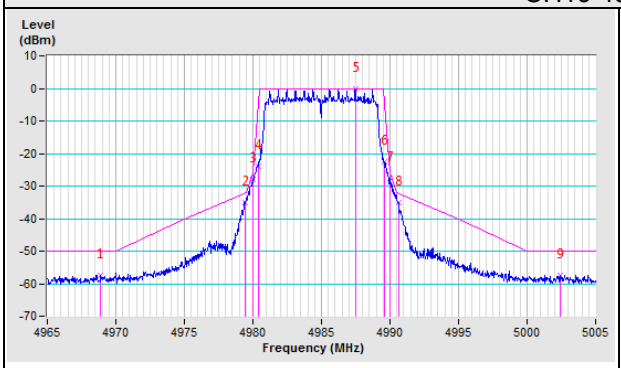
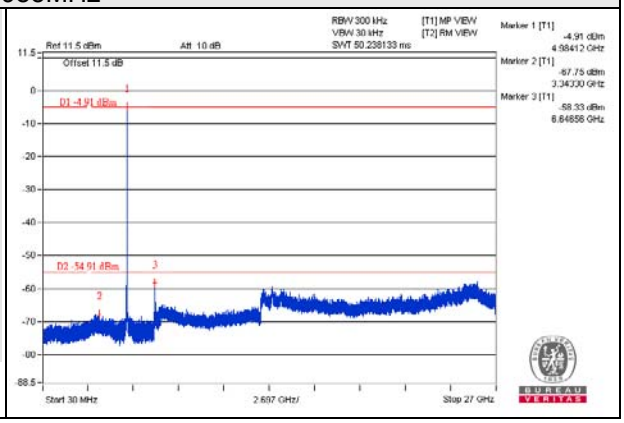
Chain 3	
CH1 4942.5MHz	
	
CH5 4962.5MHz	
	
CH10 4987.5MHz	
	

Channel Bandwidth 10MHz

Chain 0	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Chain 1	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Chain 2	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Chain 3	
CH11 4945MHz	
	
CH15 4965MHz	
	
CH19 4985MHz	
	

Channel Bandwidth 20MHz

Chain 0	
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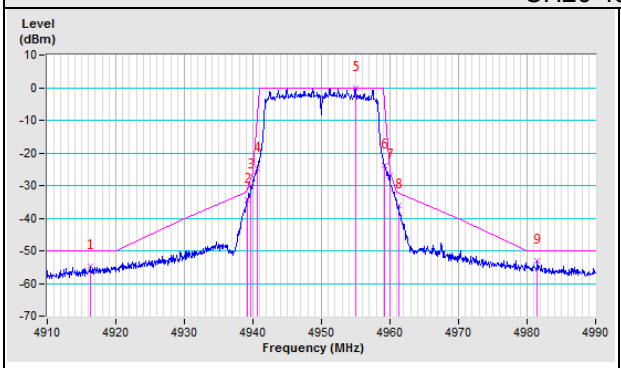	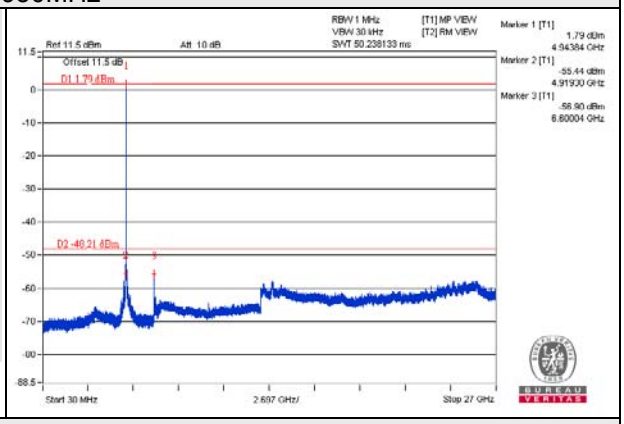
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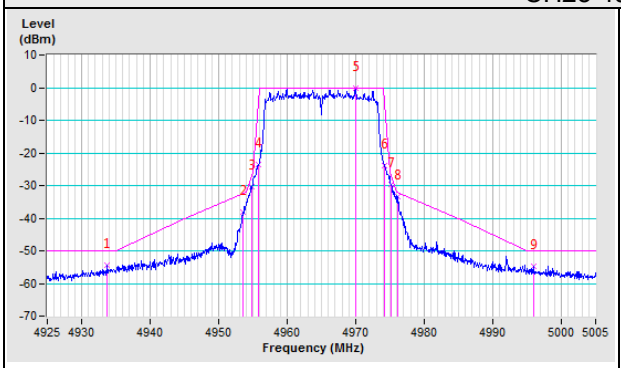
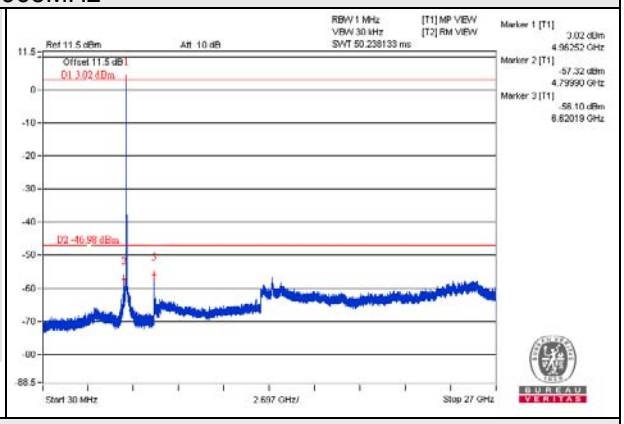
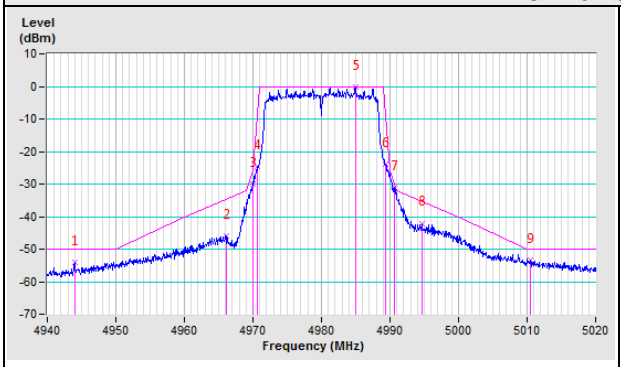
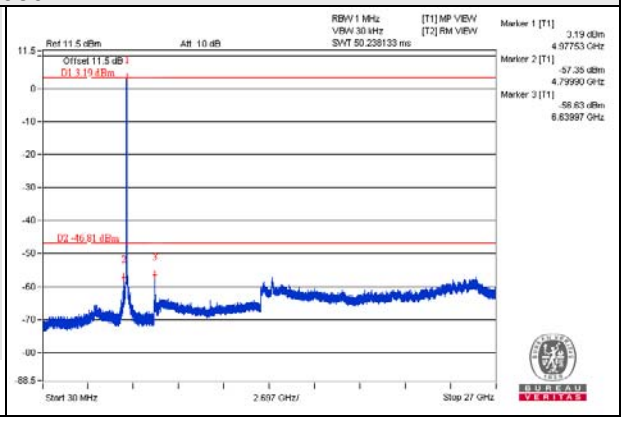
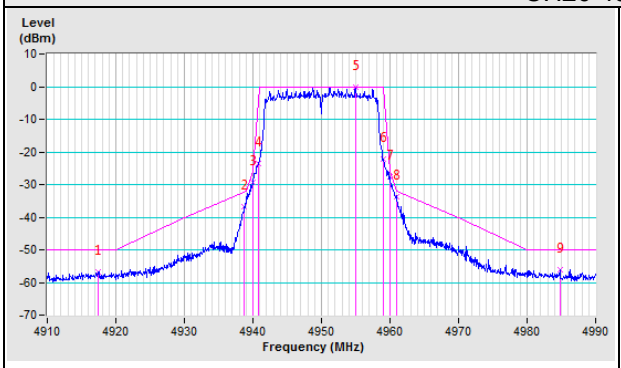
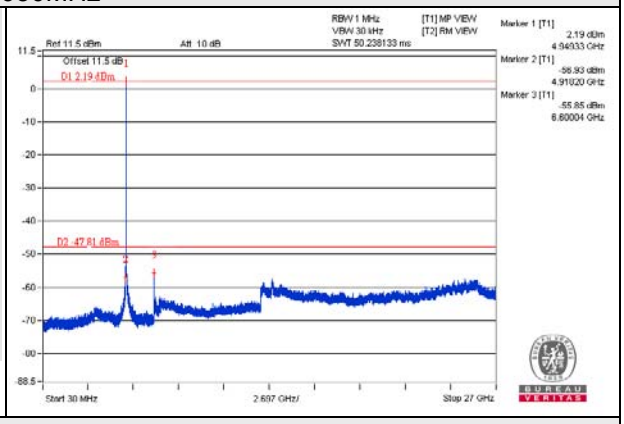
	
CH26 4980MHz	
	

Chain 1	
CH20 4950MHz	
	
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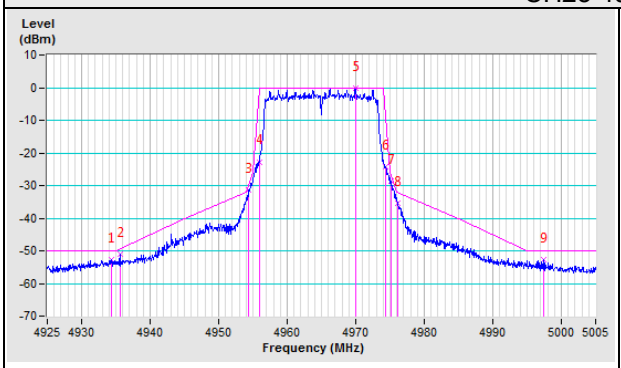	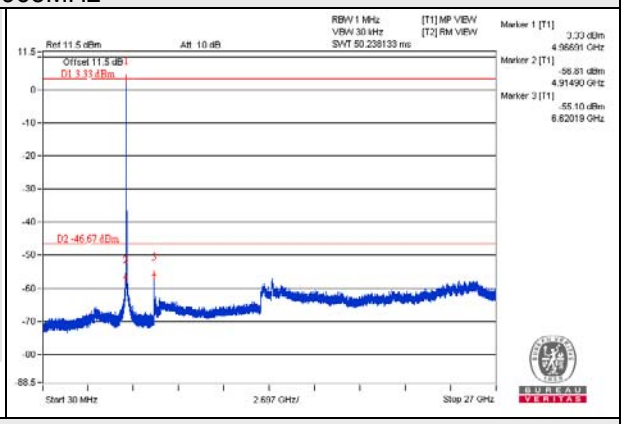
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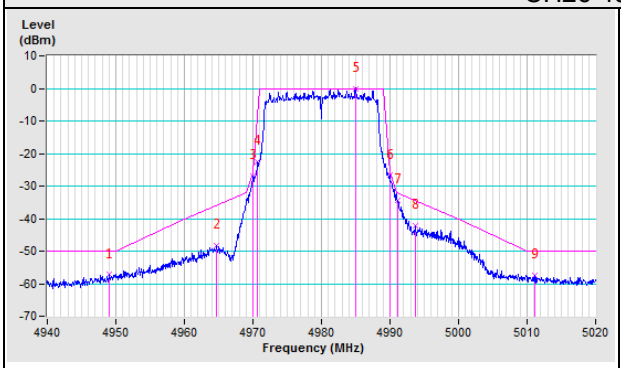
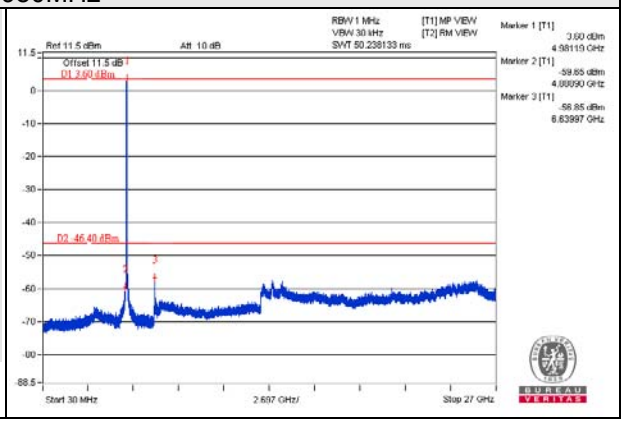
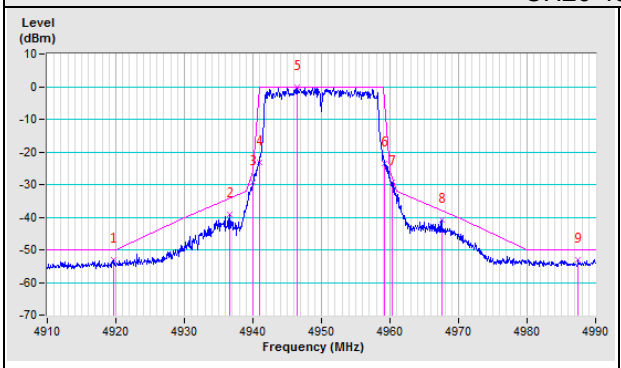
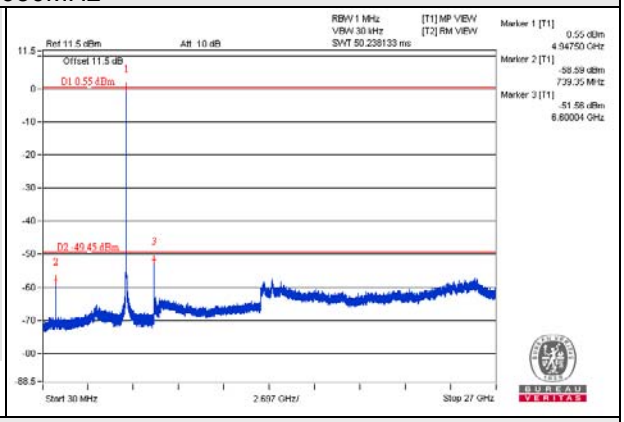
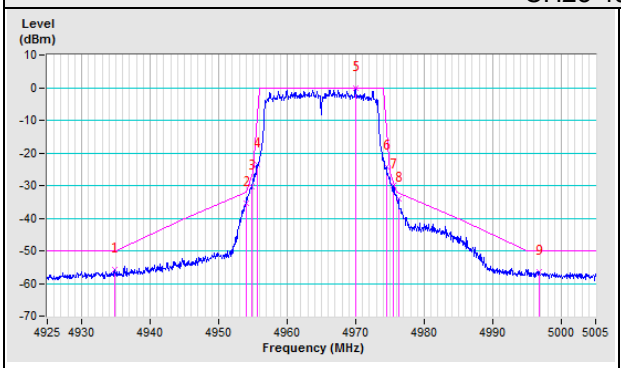
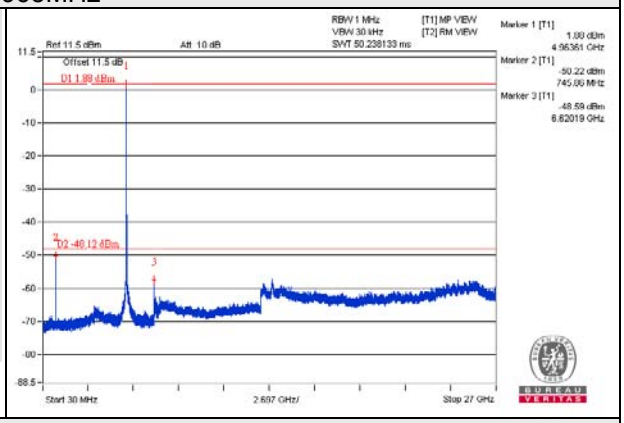
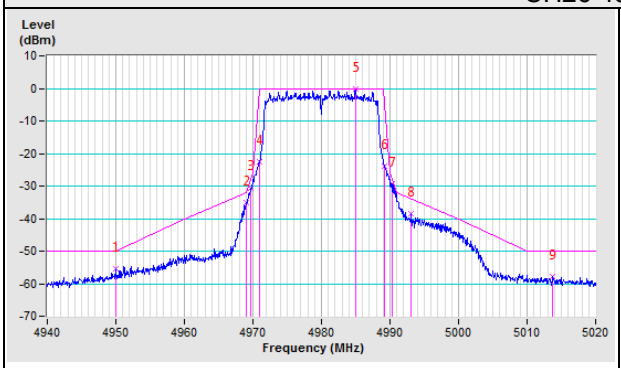
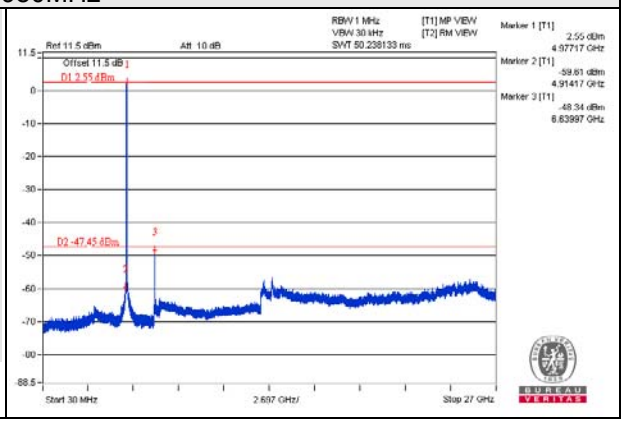
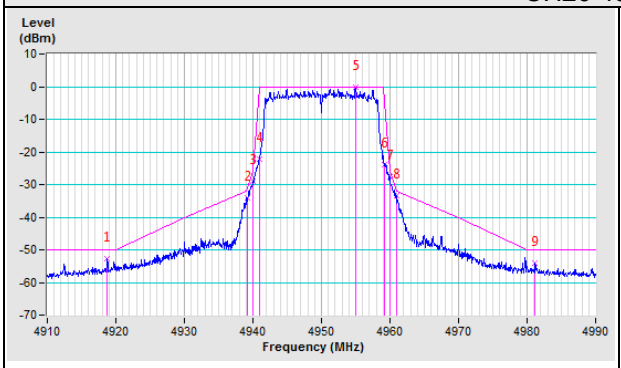
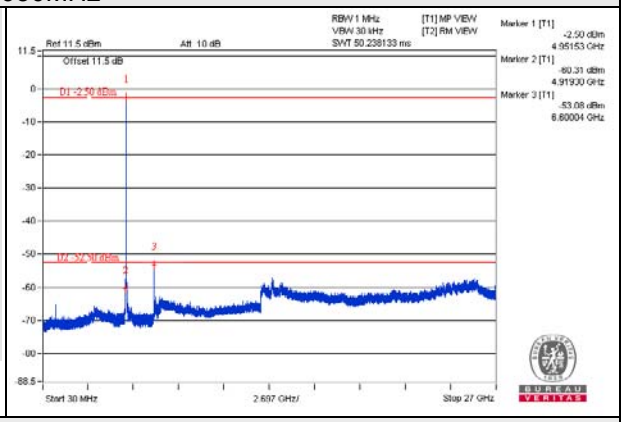
	

Chain 2	
CH20 4950MHz	
	
CH23 4965MHz	
	
CH26 4980MHz	
	

Chain 3	
CH20 4950MHz	
	
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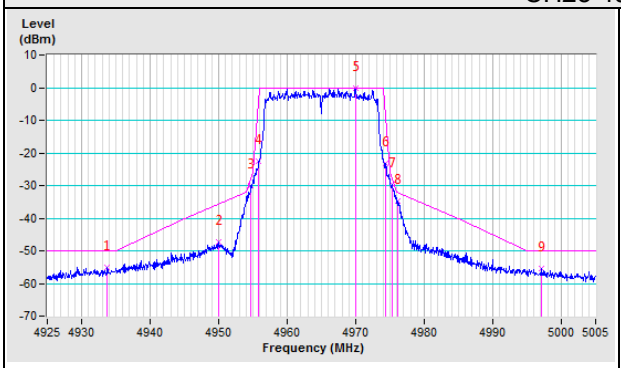
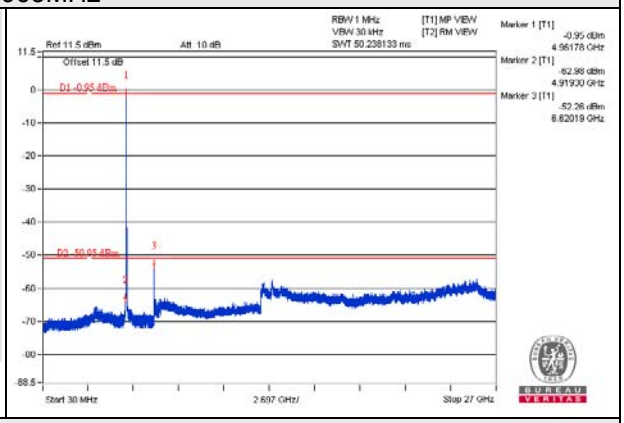
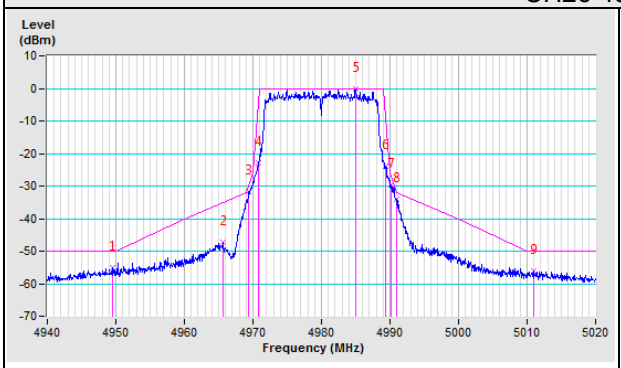
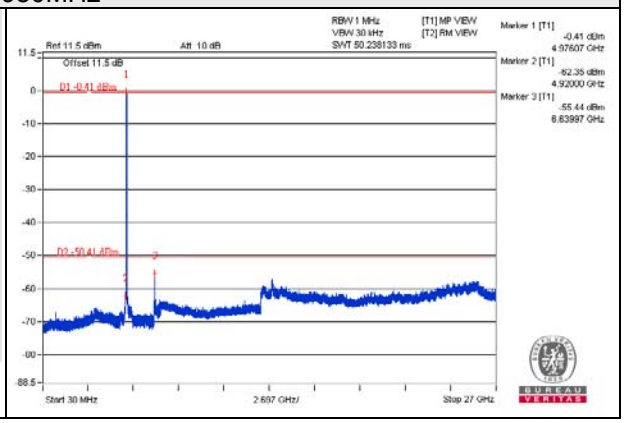
	
CH26 4980MHz	
	

4.4 Peak Excursion Measurement

4.4.1 Limits of Peak Excursion Measurement

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

4.4.2 Test Procedures

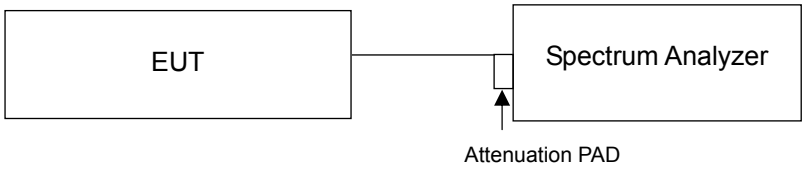
The EUT was set to transmit continuously;
The following setting were set on the spectrum analyzer:
Trace 1:

- RBW = 1MHz
- VBW = 3 x RBW
- Span = 40MHz
- Detector = Peak
- Trace = Maxhold

Trace 2:

- RBW = 1MHz
- VBW = 3 x RBW
- Span = 40MHz
- Detector = Average (RMS)
- Trace = 100 Trace average

4.4.3 Test Setup



4.4.4 Test Results

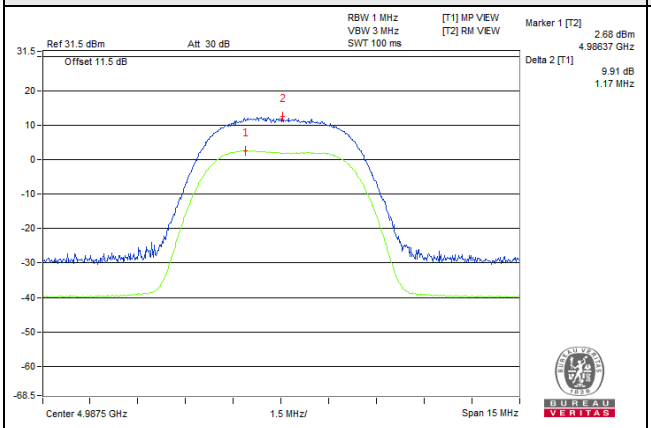
Mode A2

Channel Bandwidth 5MHz

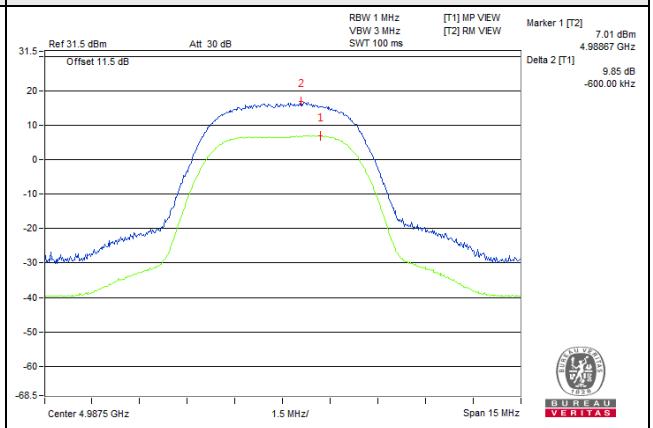
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	4942.5	9.82	9.64	10.27	9.73	13	Pass
5	4962.5	9.79	9.79	10.11	10.14	13	Pass
10	4987.5	9.91	9.85	10.09	9.89	13	Pass

Spectrum Plot of Worst Value

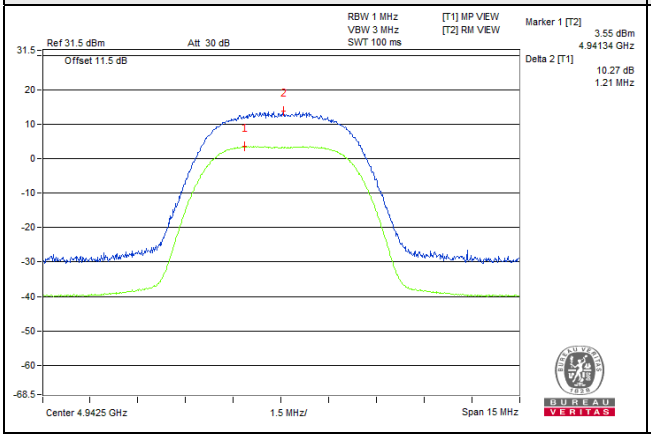
Chain 0



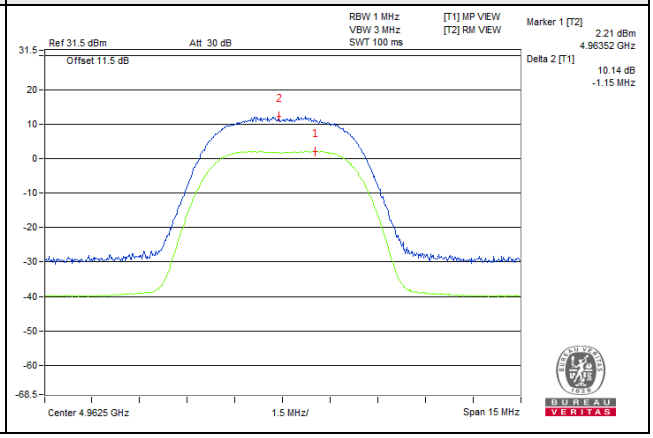
Chain 1



Chain 2



Chain 3

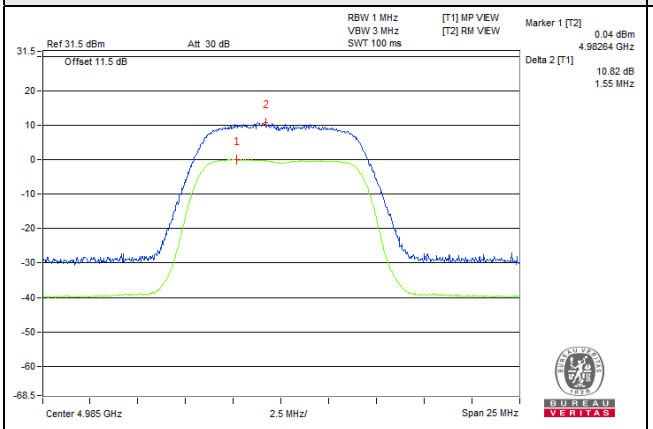


Channel Bandwidth 10MHz

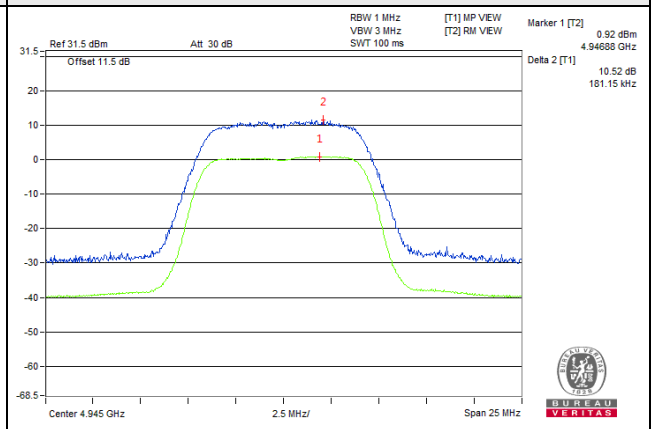
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
11	4945	10.61	10.52	10.91	10.56	13	Pass
15	4965	10.79	10.35	10.51	10.67	13	Pass
19	4985	10.82	10.43	10.72	10.50	13	Pass

Spectrum Plot of Worst Value

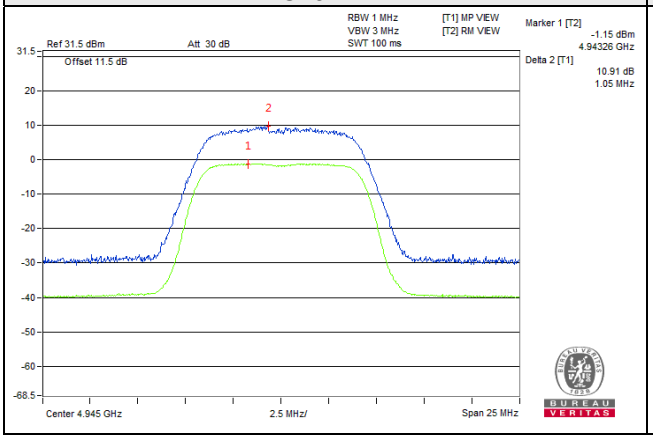
Chain 0



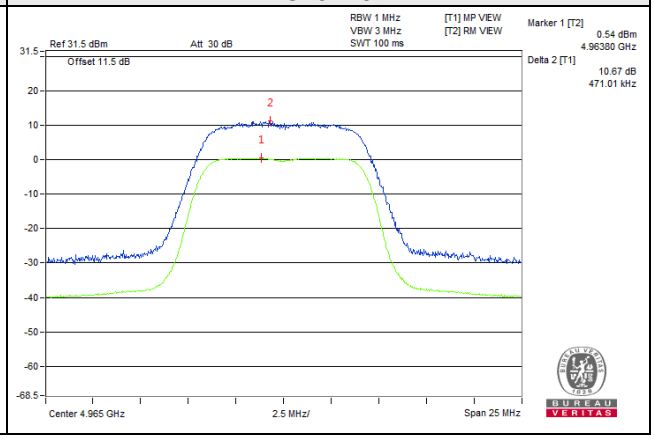
Chain 1



Chain 2



Chain 3

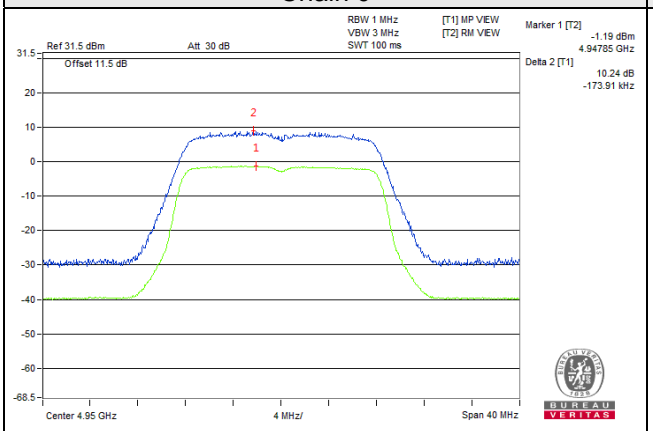


Channel Bandwidth 20MHz

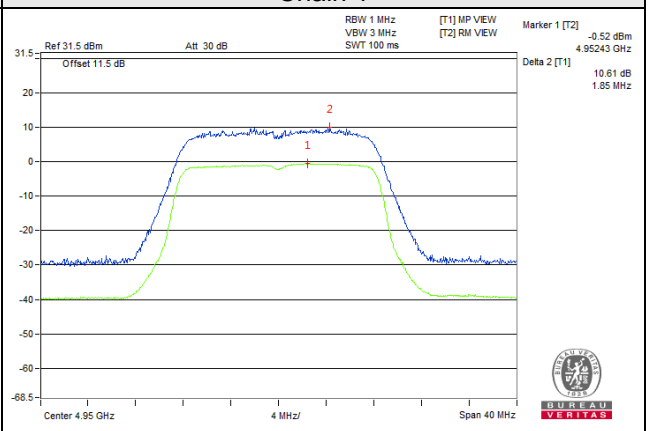
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
20	4950	10.24	10.61	10.34	11.15	13	Pass
23	4965	10.12	10.60	10.63	11.05	13	Pass
26	4980	10.16	10.38	10.37	10.99	13	Pass

Spectrum Plot of Worst Value

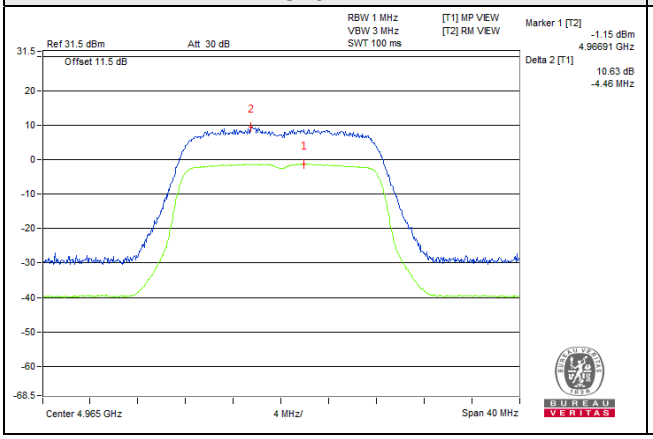
Chain 0



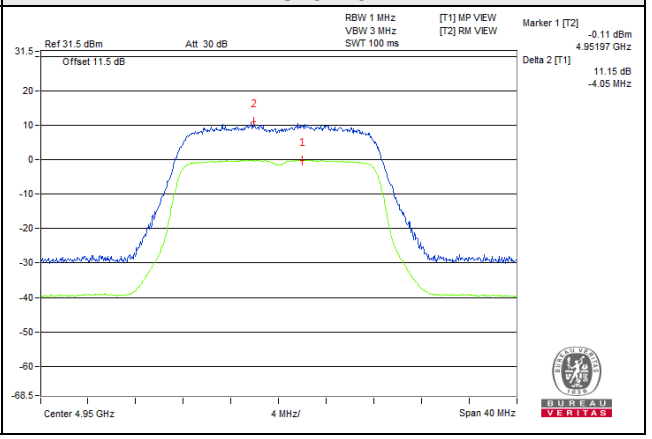
Chain 1



Chain 2



Chain 3



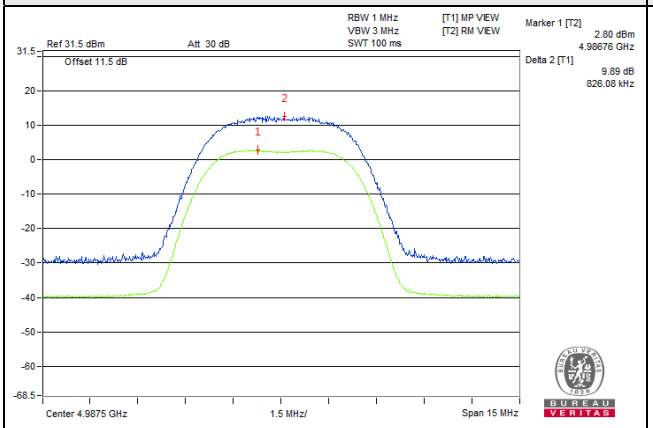
Mode B2

Channel Bandwidth 5MHz

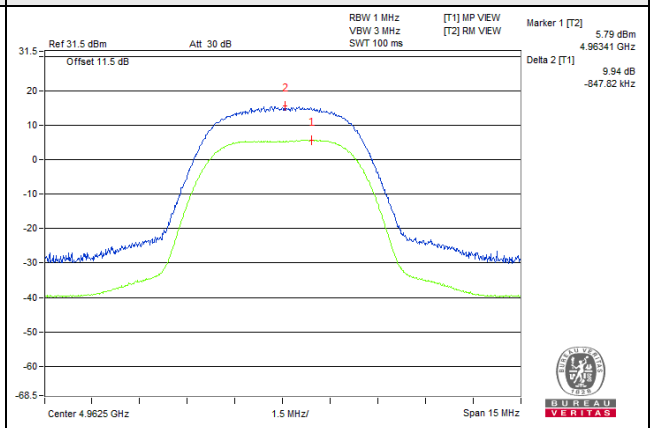
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	4942.5	9.88	9.91	9.94	9.69	13	Pass
5	4962.5	9.88	9.94	9.69	9.93	13	Pass
10	4987.5	9.89	9.74	9.54	10.24	13	Pass

Spectrum Plot of Worst Value

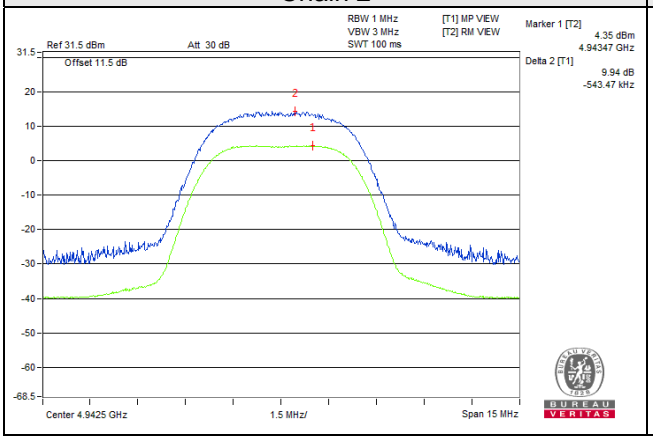
Chain 0



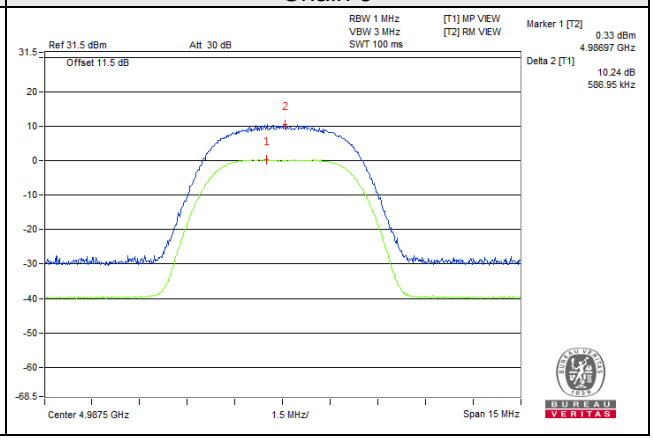
Chain 1



Chain 2



Chain 3

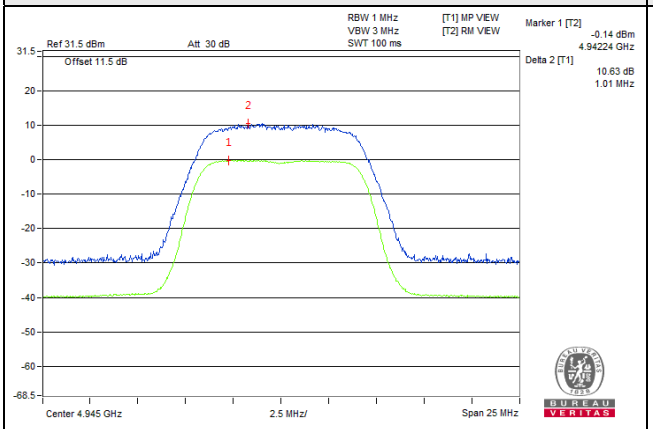


Channel Bandwidth 10MHz

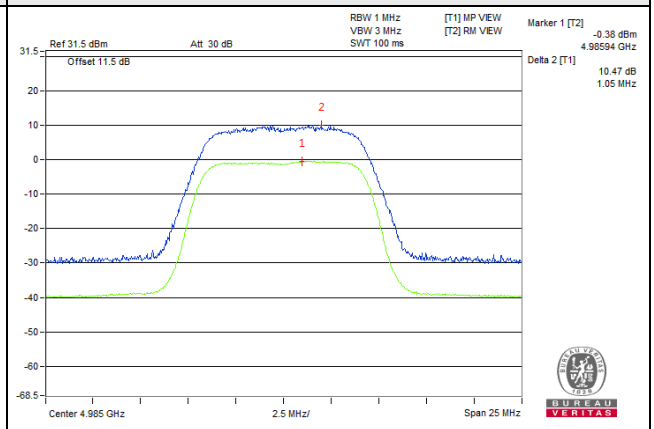
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
11	4945	10.63	10.44	10.75	10.53	13	Pass
15	4965	10.50	10.43	10.67	10.61	13	Pass
19	4985	10.56	10.47	10.89	10.65	13	Pass

Spectrum Plot of Worst Value

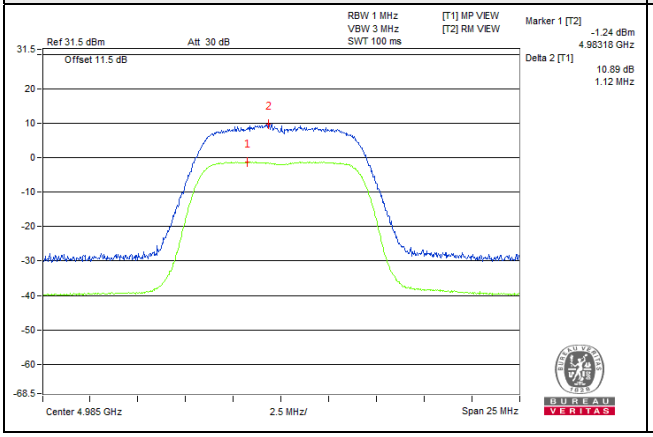
Chain 0



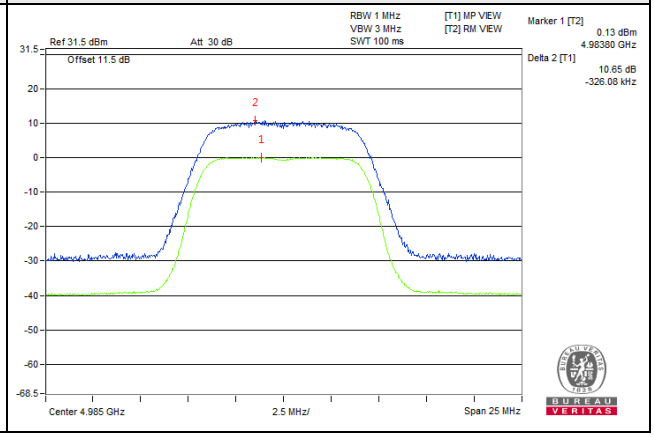
Chain 1



Chain 2



Chain 3

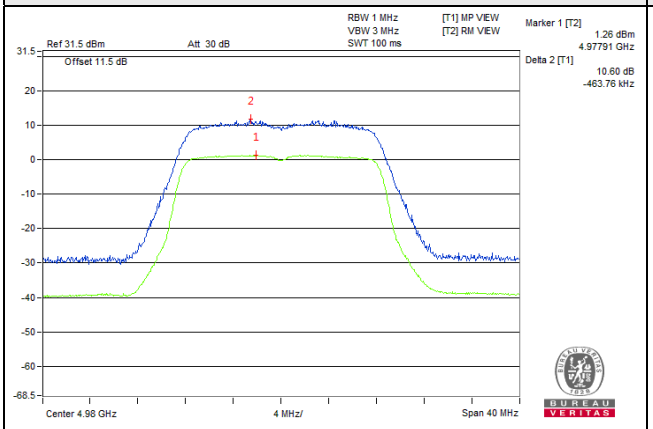


Channel Bandwidth 20MHz

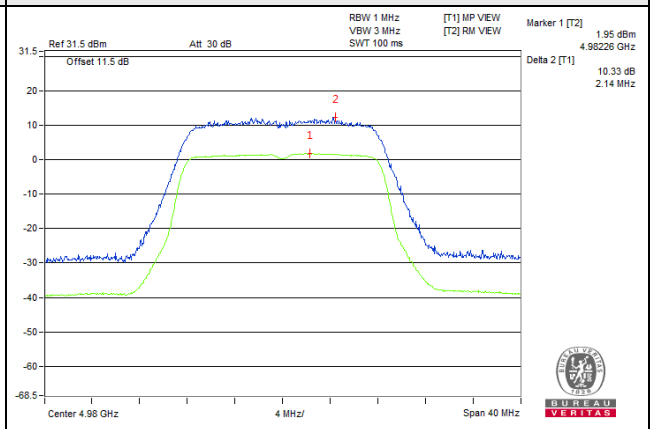
Channel	Frequency (MHz)	Peak Excursion (dB)				Limit (dB)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
20	4950	10.57	10.28	10.57	10.79	13	Pass
23	4965	10.59	10.26	10.52	10.73	13	Pass
26	4980	10.60	10.33	10.43	10.83	13	Pass

Spectrum Plot of Worst Value

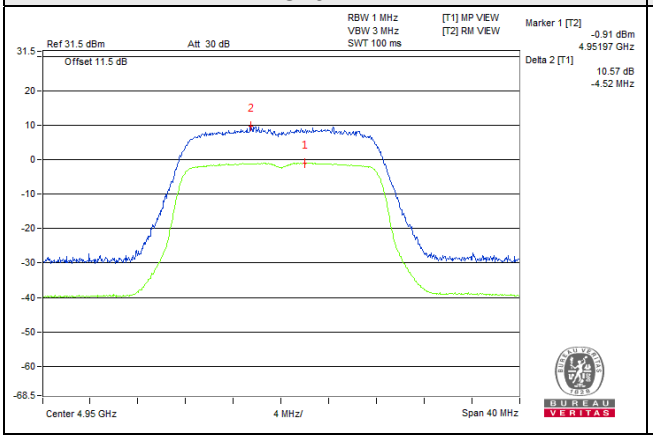
Chain 0



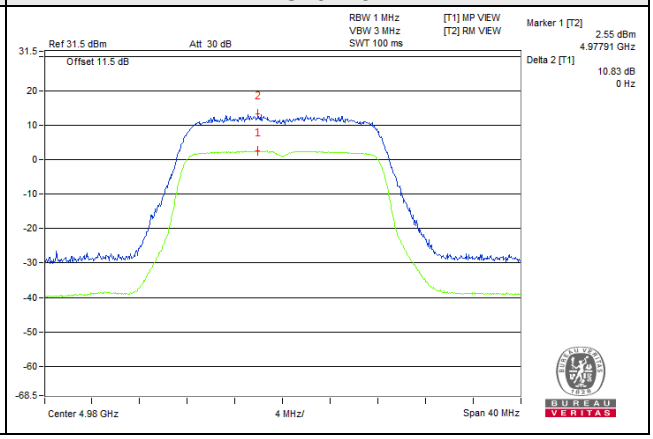
Chain 1



Chain 2



Chain 3



4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

High power devices are also limited to a peak power spectral density of 21 dBm per one MHz. If transmitting antennas of directional gain greater than 9 dBi are used, the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi.

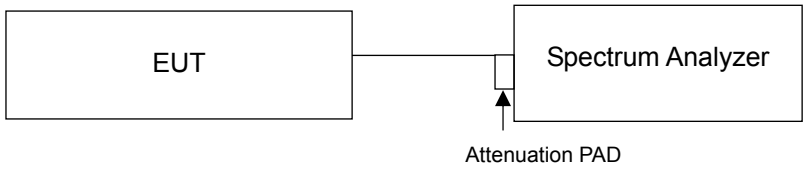
Low power devices are also limited to a peak power spectral density of 8 dBm per one MHz. Low power devices using channel bandwidths other than those listed above are permitted; however, they are limited to a peak power spectral density of 8 dBm/MHz. If transmitting antennas of directional gain greater than 9 dBi are used, the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi.

However, high power point-to-point and point-to-multipoint operations (both fixed and temporary-fixed rapid deployment) may employ transmitting antennas with directional gain up to 26 dBi without any corresponding reduction in the maximum conducted output power or spectral density. Corresponding reduction in the maximum conducted output power and peak power spectral density should be the amount in decibels that the directional gain of the antenna exceeds 26 dBi

4.5.2 Test Procedures

- Set span to minimum of 1.5 times the OBW
- Set RBW = 1 MHz
- Set VBW ≥ 1 MHz
- Detector = RMS
- Sweep time = auto couple.
- Trace mode = max hold.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

4.5.3 Test Setup



4.5.4 Test Results

Mode A1, A2

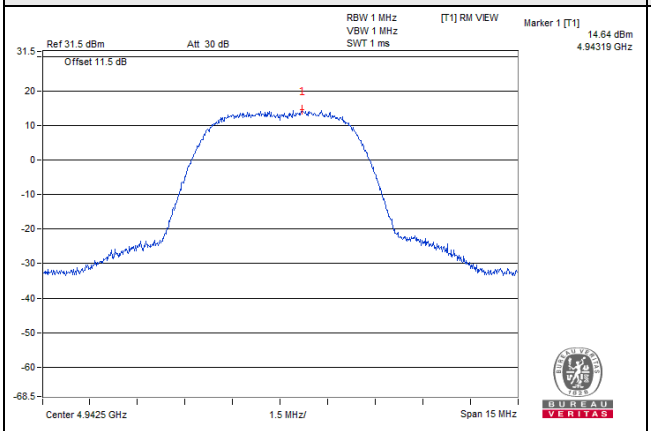
Channel Bandwidth 5MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	4942.5	8.82	14.64	10.24	11.96	17.99	21	Pass
5	4962.5	6.28	13.78	9.38	8.58	16.44	21	Pass
10	4987.5	8.35	14.38	9.73	11.59	17.64	21	Pass

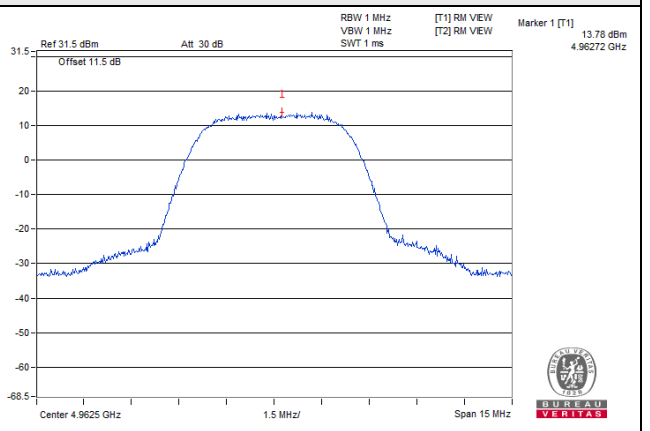
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

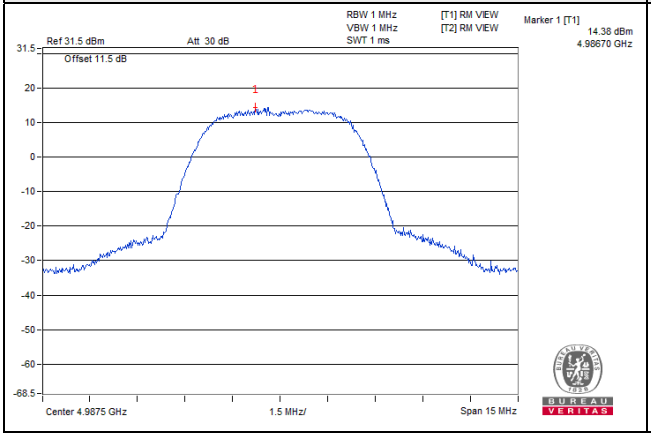
CH 1 / Chain 1



CH 5 / Chain 1



CH 10 / Chain 1



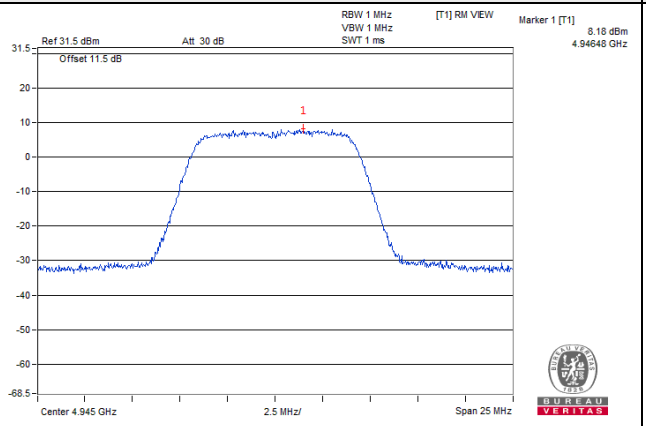
Channel Bandwidth 10MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
11	4945	5.68	8.18	5.61	6.88	12.74	21	Pass
15	4965	7.02	8.52	4.67	6.73	12.96	21	Pass
19	4985	6.41	8.18	4.43	6.73	12.66	21	Pass

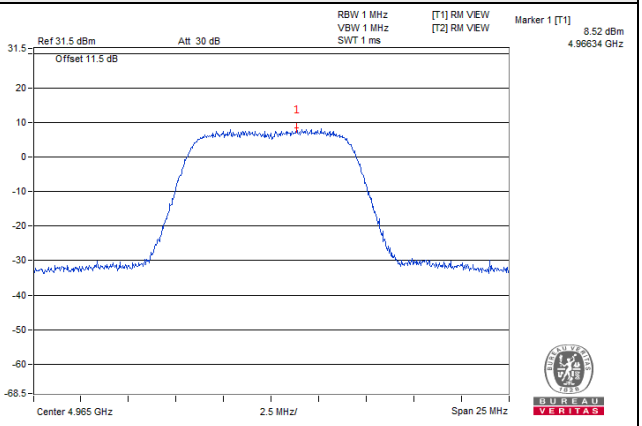
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

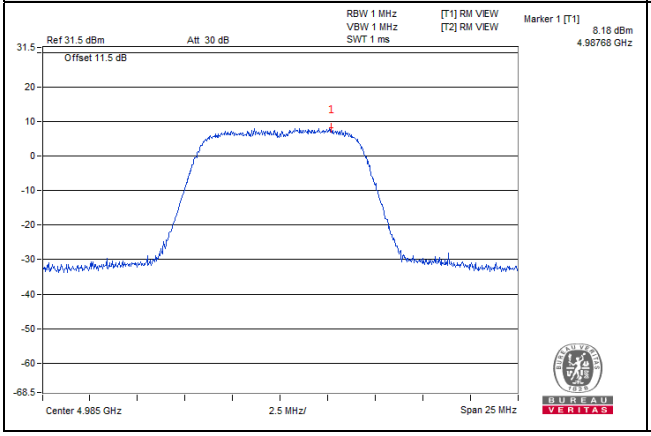
CH 11 / Chain 1



CH 15 / Chain 1



CH 19 / Chain 1



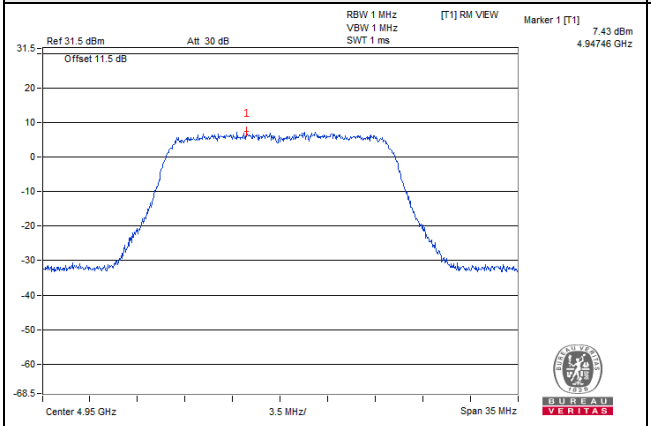
Channel Bandwidth 20MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
20	4950	4.12	5.40	5.01	7.43	11.69	21	Pass
23	4965	5.64	5.73	5.27	7.95	12.31	21	Pass
26	4980	5.80	7.13	5.57	9.02	13.13	21	Pass

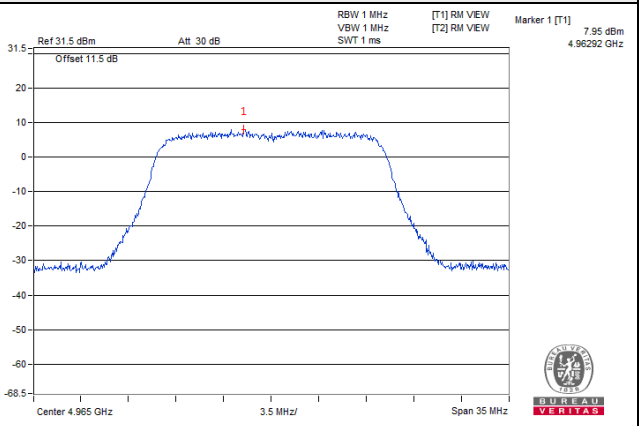
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

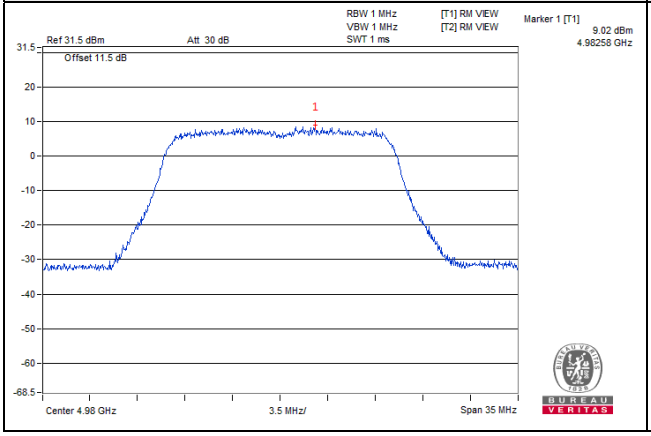
CH 20 / Chain 3



CH 23 / Chain 3



CH 26 / Chain 3



Mode B1, B2

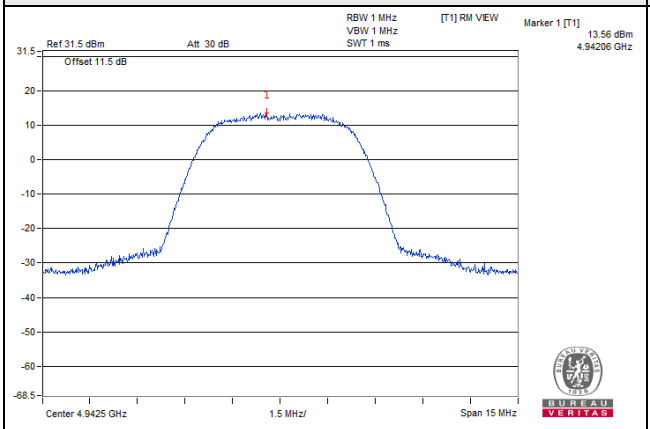
Channel Bandwidth 5MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	4942.5	12.35	13.56	10.91	11.58	18.23	21	Pass
5	4962.5	11.24	13.21	11.26	13.13	18.34	21	Pass
10	4987.5	8.97	10.22	16.02	6.85	18.01	21	Pass

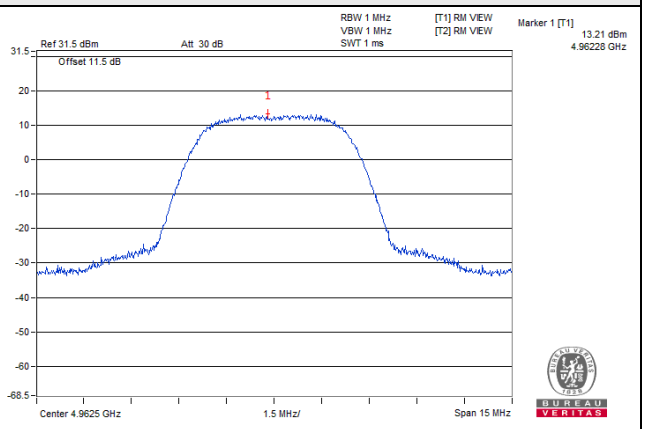
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

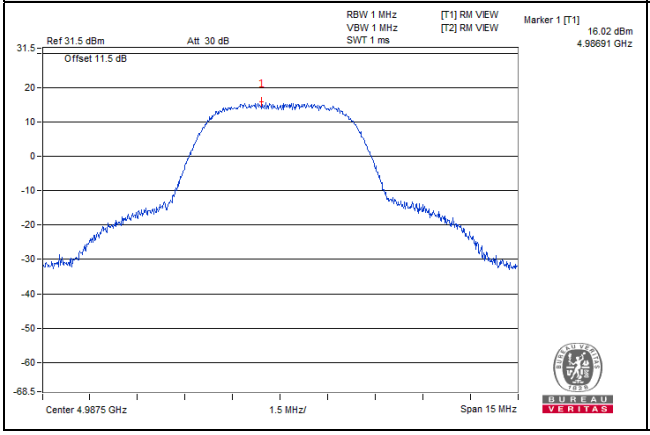
CH 1 / Chain 1



CH 5 / Chain 1



CH 10 / Chain 2



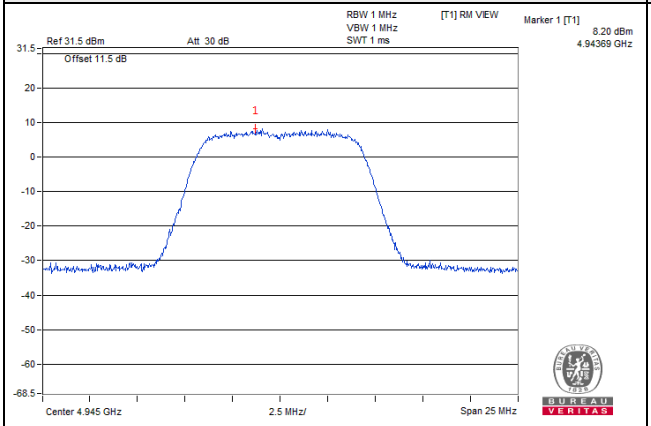
Channel Bandwidth 10MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
11	4945	6.34	7.08	4.91	8.20	12.81	21	Pass
15	4965	5.89	7.06	5.38	9.36	13.23	21	Pass
19	4985	6.57	6.42	5.40	8.46	12.88	21	Pass

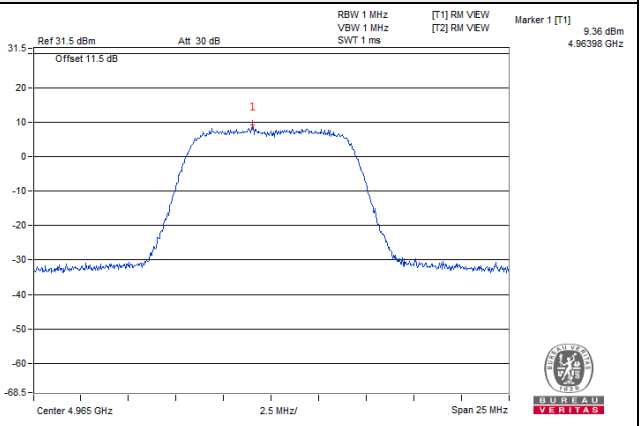
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

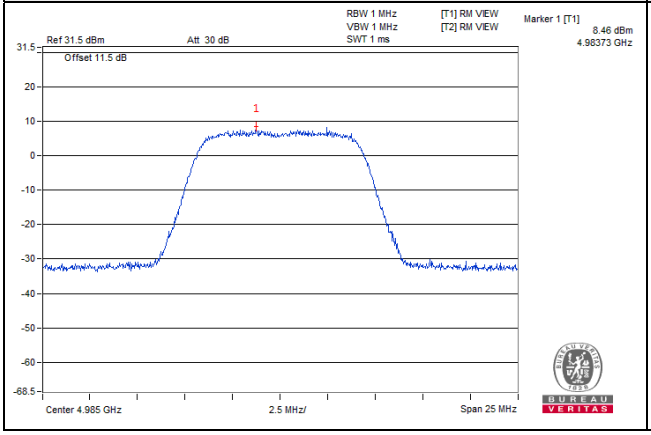
CH 11 / Chain 3



CH 15 / Chain 3



CH 19 / Chain 3



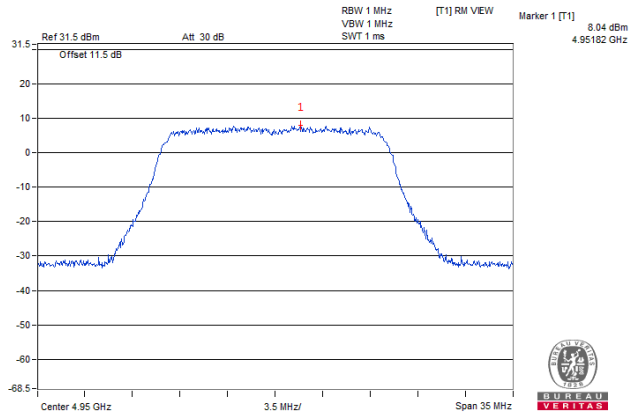
Channel Bandwidth 20MHz

Channel	Frequency (MHz)	Power Spectral Density (dBm)				Total PSD (dBm)	Limit (dBm)	Result
		Chain 0	Chain 1	Chain 2	Chain 3			
20	4950	4.69	5.91	5.08	8.04	12.16	21	Pass
23	4965	6.38	7.43	5.55	9.24	13.40	21	Pass
26	4980	6.39	6.98	7.33	10.52	14.15	21	Pass

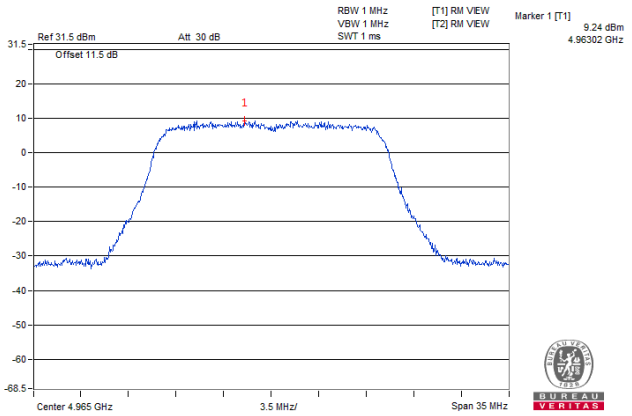
Note:
Antenna 1 Directional Gain = 6.5 + 10log(4) = 12.52dBi < 26dBi, so the limit no need to be reduced.
Antenna 2 Directional Gain = 17.5 + 10log(3) = 22.27dBi < 26dBi, so the limit no need to be reduced.

Spectrum Plot of Worst Value

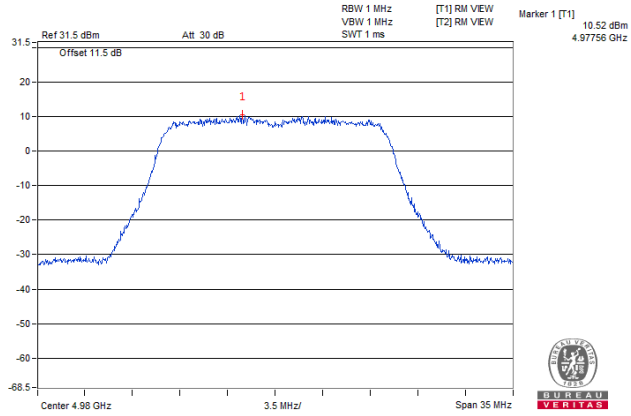
CH 20 / Chain 3



CH 23 / Chain 3



CH 26 / Chain 3



4.6 Radiated Emission Measurement

4.6.1 Limits of Radiated Emission Measurement

For low power transmitters (20 dBm or less) and high power transmitters (greater than 20 dBm operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:

Frequency Offset fd	Minimum Attenuation	
	Low Power Transmitter	High Power Transmitter
0 < fd ≤ 45	0	0
45 < fd ≤ 50	219 log(fd/45)	568 log(fd/45)
50 < fd ≤ 55	10 + 242 log(fd/50)	26 + 145 log(fd/50)
55 < fd ≤ 100	20 + 31 log(fd/55)	32 + 31 log(fd/55)
100 < fd ≤ 150	28 + 68 log(fd/100)	40 + 57 log(fd/100)
fd > 150	40	50 dB or 55 + 10 log (P) dB, whichever is the lesser attenuation.

f_d is the percentage of the equipment's channel bandwidth.

4.6.2 Test Procedure

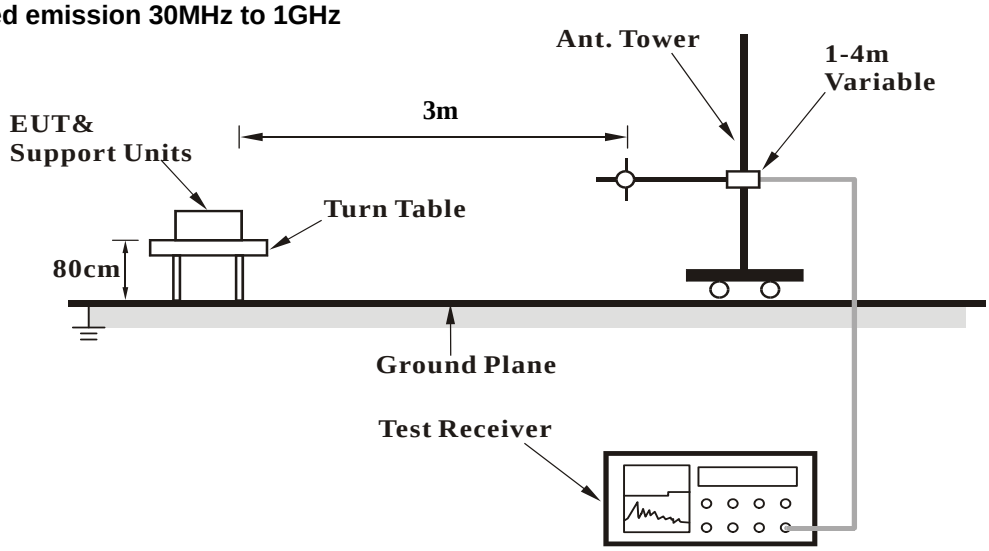
1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
    a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
    b. The EUT was then rotated to the direction that gave the maximum emission.
    c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
3. Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter.
4. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained.
5. Steps 4 were repeated for the next frequency point, until all selected frequency points were measured.

4.6.3 Deviation from Test Standard

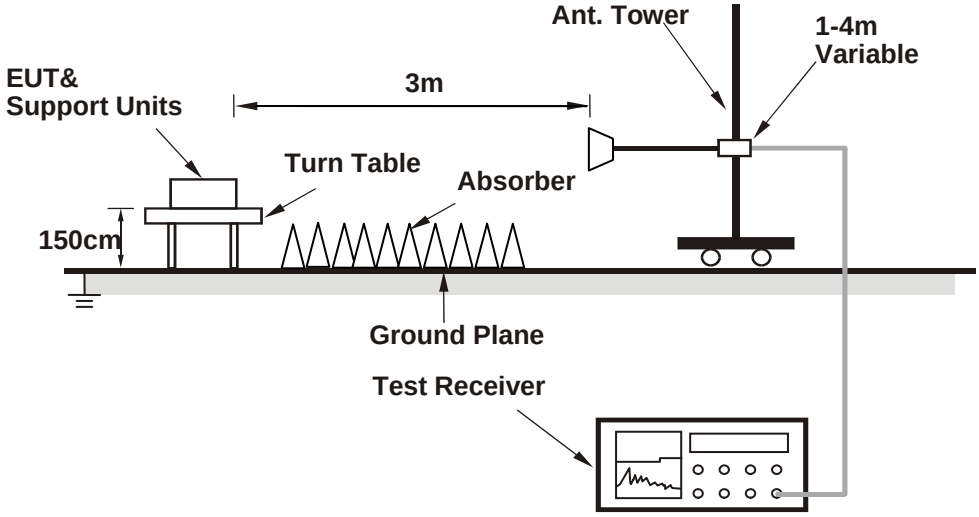
No deviation.

4.6.4 Test Setup

For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.6.5 Test Results

Mode A1

Below 1GHz

Channel Bandwidth 5MHz

Mode	TX channel 10	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	90.26	-37.11	-40.60	4.60	-36.00	-30.18	-5.82
2	136.91	-44.38	-47.71	4.44	-43.27	-30.18	-13.09
3	189.40	-39.53	-42.71	4.29	-38.42	-30.18	-8.24
4	391.56	-57.77	-60.49	3.83	-56.66	-30.18	-26.48
5	718.14	-52.97	-55.18	3.32	-51.86	-30.18	-21.68
6	931.96	-66.22	-68.15	3.04	-65.11	-30.18	-34.93
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.16	-34.75	-39.16	4.73	-34.43	-30.18	-4.25
2	189.40	-36.24	-40.21	4.29	-35.92	-30.18	-5.74
3	230.22	-45.61	-49.48	4.19	-45.29	-30.18	-15.11
4	741.46	-63.60	-66.57	3.29	-63.28	-30.18	-33.10
5	844.49	-63.27	-66.10	3.15	-62.95	-30.18	-32.77
6	978.62	-62.60	-65.27	2.99	-62.28	-30.18	-32.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 19.82dBm - 50dB = -30.18dBm.

Channel Bandwidth 10MHz

Mode	TX channel 19	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	90.26	-33.50	-36.99	4.60	-32.39	-29.12	-3.27
2	136.91	-44.19	-47.52	4.44	-43.08	-29.12	-13.96
3	189.40	-39.23	-42.41	4.29	-38.12	-29.12	-9.00
4	271.04	-51.63	-54.61	4.09	-50.52	-29.12	-21.40
5	399.34	-58.74	-61.46	3.83	-57.63	-29.12	-28.51
6	933.91	-63.99	-65.92	3.04	-62.88	-29.12	-33.76
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.16	-37.26	-41.67	4.73	-36.94	-29.12	-7.82
2	86.37	-41.55	-45.84	4.61	-41.23	-29.12	-12.11
3	191.34	-36.84	-40.80	4.28	-36.52	-29.12	-7.40
4	230.22	-44.98	-48.85	4.19	-44.66	-29.12	-15.54
5	337.13	-57.85	-61.49	3.96	-57.53	-29.12	-28.41
6	426.55	-60.62	-64.08	3.78	-60.30	-29.12	-31.18

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.88dBm - 50dB = -29.12dBm.

Channel Bandwidth 20MHz

Mode	TX channel 26	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.66	-48.01	-33.81	-10.61	-44.42	-27.18	-17.24
2	90.26	-34.64	-44.18	1.12	-43.06	-27.18	-15.88
3	193.29	-38.32	-51.42	4.62	-46.80	-27.18	-19.62
4	269.10	-51.48	-60.87	5.29	-55.58	-27.18	-28.40
5	389.62	-58.00	-64.21	5.24	-58.97	-27.18	-31.79
6	498.48	-60.97	-65.87	4.89	-60.98	-27.18	-33.80
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.16	-30.07	-29.31	-7.78	-37.09	-27.18	-9.91
2	115.53	-37.00	-44.80	0.26	-44.54	-27.18	-17.36
3	189.40	-33.45	-40.56	4.12	-36.44	-27.18	-9.26
4	230.22	-41.32	-50.23	5.43	-44.80	-27.18	-17.62
5	344.91	-56.11	-61.79	5.20	-56.59	-27.18	-29.41
6	434.33	-61.50	-66.41	5.14	-61.27	-27.18	-34.09

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.82dBm - 50dB = -27.18dBm.

Above 1GHz
Channel Bandwidth 5MHz

Mode	TX channel 1	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-59.72	-36.25	3.75	-32.50	-30.18	-2.32
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-59.96	-37.45	3.75	-33.70	-30.18	-3.52

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 19.82dBm - 50dB = -30.18dBm.

Mode	TX channel 5	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-60.09	-36.51	3.71	-32.80	-30.18	-2.62
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-60.98	-38.51	3.71	-34.80	-30.18	-4.62

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 19.82dBm - 50dB = -30.18dBm.

Mode	TX channel 10	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	**9975.00**	**-59.79**	**-35.85**	**3.55**	**-32.30**	**-30.18**	**-2.12**
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9975.00	-61.09	-38.55	3.55	-35.00	-30.18	-4.82

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 19.82dBm - 50dB = -30.18dBm.

Channel Bandwidth 10MHz

Mode	TX channel 11	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-60.11	-36.66	3.76	-32.90	-29.12	-3.78
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-62.05	-39.56	3.76	-35.80	-29.12	-6.68

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.88dBm - 50dB = -29.12dBm.

Mode	TX channel 15	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-60.71	-37.08	3.68	-33.40	-29.12	-4.28
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-61.27	-38.78	3.68	-35.10	-29.12	-5.98

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.88dBm - 50dB = -29.12dBm.

Mode	TX channel 19	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-61.07	-37.18	3.58	-33.60	-29.12	-4.48
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-61.70	-39.18	3.58	-35.60	-29.12	-6.48

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.88dBm - 50dB = -29.12dBm.

Channel Bandwidth 20MHz

Mode	TX channel 20	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-61.49	-38.07	3.77	-34.30	-27.18	-7.12
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-62.13	-39.67	3.77	-35.90	-27.18	-8.72

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.82dBm - 50dB = -27.18dBm.

Mode	TX channel 23	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-61.31	-37.68	3.68	-34.00	-27.18	-6.82
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-61.07	-38.58	3.68	-34.90	-27.18	-7.72

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.82dBm - 50dB = -27.18dBm.

Mode	TX channel 26	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9960.00	-62.13	-38.30	3.60	-34.70	-27.18	-7.52
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9960.00	-61.92	-39.40	3.60	-35.80	-27.18	-8.62

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.82dBm - 50dB = -27.18dBm.

Mode A2

Below 1GHz

Channel Bandwidth 5MHz

Mode	TX channel 10	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.48	-38.28	-43.41	-0.95	-44.36	-19.18	-25.18
2	115.53	-41.33	-49.94	0.26	-49.68	-19.18	-30.50
3	191.34	-41.58	-54.32	4.37	-49.95	-19.18	-30.77
4	290.48	-55.96	-64.35	5.18	-59.17	-19.18	-39.99
5	389.62	-59.52	-65.73	5.24	-60.49	-19.18	-41.31
6	457.66	-59.10	-63.97	5.04	-58.93	-19.18	-39.75
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.16	-38.50	-37.74	-7.78	-45.52	-19.18	-26.34
2	84.43	-38.23	-43.25	-0.42	-43.67	-19.18	-24.49
3	191.34	-45.00	-52.05	4.37	-47.68	-19.18	-28.50
4	239.94	-50.00	-56.37	5.41	-50.96	-19.18	-31.78
5	387.68	-57.56	-62.91	5.24	-57.67	-19.18	-38.49
6	484.87	-58.91	-63.59	4.94	-58.65	-19.18	-39.47

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 13.32dBm - 50dB = -19.18dBm.

Channel Bandwidth 10MHz

Mode	TX channel 19	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-44.41	-42.39	-7.31	-49.70	-18.12	-31.58
2	84.43	-36.87	-43.06	-0.42	-43.48	-18.12	-25.36
3	160.24	-44.63	-50.74	0.42	-50.32	-18.12	-32.20
4	191.34	-41.79	-54.53	4.37	-50.16	-18.12	-32.04
5	290.48	-56.58	-64.97	5.18	-59.79	-18.12	-41.67
6	457.66	-59.84	-64.71	5.04	-59.67	-18.12	-41.55
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-39.28	-39.11	-7.31	-46.42	-18.12	-28.30
2	84.43	-36.68	-41.70	-0.42	-42.12	-18.12	-24.00
3	191.34	-45.90	-52.95	4.37	-48.58	-18.12	-30.46
4	238.00	-48.44	-55.26	5.42	-49.84	-18.12	-31.72
5	385.73	-57.69	-62.96	5.25	-57.71	-18.12	-39.59
6	490.70	-59.43	-64.00	4.92	-59.08	-18.12	-40.96

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.88dBm - 50dB = -18.12dBm.

Channel Bandwidth 20MHz

Mode	TX channel 26	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-44.60	-42.58	-7.31	-49.89	-16.18	-33.71
2	92.20	-37.92	-47.85	1.07	-46.78	-16.18	-30.60
3	160.24	-44.80	-50.91	0.42	-50.49	-16.18	-34.31
4	191.34	-42.63	-55.37	4.37	-51.00	-16.18	-34.82
5	239.94	-48.15	-60.50	5.41	-55.09	-16.18	-38.91
6	397.39	-61.13	-66.68	5.27	-61.41	-16.18	-45.23
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-39.93	-39.76	-7.31	-47.07	-16.18	-30.89
2	90.26	-41.07	-48.38	1.12	-47.26	-16.18	-31.08
3	191.34	-46.15	-53.20	4.37	-48.83	-16.18	-32.65
4	239.94	-50.22	-56.59	5.41	-51.18	-16.18	-35.00
5	381.84	-59.17	-64.34	5.25	-59.09	-16.18	-42.91
6	490.70	-61.05	-65.62	4.92	-60.70	-16.18	-44.52

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.82dBm - 50dB = -16.18dBm.

Above 1GHz
Channel Bandwidth 5MHz

Mode	TX channel 1	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-61.52	-38.05	3.75	-34.30	-19.18	-15.12
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-60.26	-37.75	3.75	-34.00	-19.18	-14.82

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 30.82dBm - 50dB = -19.18dBm.

Mode	TX channel 5	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-62.39	-38.81	3.71	-35.10	-19.18	-15.92
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-63.78	-41.31	3.71	-37.60	-19.18	-18.42

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 30.82dBm - 50dB = -19.18dBm.

Mode	TX channel 10	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-63.19	-39.61	3.71	-35.90	-19.18	-16.72
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-62.68	-40.21	3.71	-36.50	-19.18	-17.32

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 30.82dBm - 50dB = -19.18dBm.

Channel Bandwidth 10MHz

Mode	TX channel 11	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-62.71	-39.26	3.76	-35.50	-18.12	-17.38
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-63.05	-40.56	3.76	-36.80	-18.12	-18.68

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.88dBm - 50dB = -18.12dBm.

Mode	TX channel 15	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.81	-39.18	3.68	-35.50	-18.12	-17.38
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-61.57	-39.08	3.68	-35.40	-18.12	-17.28

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.88dBm - 50dB = -18.12dBm.

Mode	TX channel 19	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-63.87	-39.98	3.58	-36.40	-18.12	-18.28
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-62.40	-39.88	3.58	-36.30	-18.12	-18.18

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.88dBm - 50dB = -18.12dBm.

Channel Bandwidth 20MHz

Mode	TX channel 20	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-63.79	-40.37	3.77	-36.60	-16.18	-20.42
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-64.23	-41.77	3.77	-38.00	-16.18	-21.82

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.82dBm - 50dB = -16.18dBm.

Mode	TX channel 23	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.71	-39.08	3.68	-35.40	-16.18	-19.22
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.97	-40.48	3.68	-36.80	-16.18	-20.62

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.82dBm - 50dB = -16.18dBm.

Mode	TX channel 26	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-64.27	-40.38	3.58	-36.80	-16.18	-20.62
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-64.90	-42.38	3.58	-38.80	-16.18	-22.62

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.82dBm - 50dB = -16.18dBm.

Mode B1

Below 1GHz

Channel Bandwidth 5MHz

Mode	TX channel 10	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.66	-47.09	-32.89	-10.61	-43.50	-27.71	-15.79
2	92.20	-35.01	-44.94	1.07	-43.87	-27.71	-16.16
3	191.34	-38.77	-51.51	4.37	-47.14	-27.71	-19.43
4	395.45	-57.54	-63.21	5.26	-57.95	-27.71	-30.24
5	484.87	-58.32	-63.36	4.94	-58.42	-27.71	-30.71
6	852.26	-69.18	-66.06	3.97	-62.09	-27.71	-34.38
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-36.85	-36.68	-7.31	-43.99	-27.71	-16.28
2	82.48	-41.67	-45.80	-0.95	-46.75	-27.71	-19.04
3	191.34	-40.76	-47.81	4.37	-43.44	-27.71	-15.73
4	210.78	-47.00	-54.32	5.46	-48.86	-27.71	-21.15
5	428.50	-59.31	-64.23	5.15	-59.08	-27.71	-31.37
6	488.76	-62.47	-67.13	4.92	-62.21	-27.71	-34.50

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.29dBm - 50dB = -27.71dBm.

Channel Bandwidth 10MHz

Mode	TX channel 19	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.66	-48.71	-34.51	-10.61	-45.12	-29.37	-15.75
2	86.37	-36.81	-44.40	0.12	-44.28	-29.37	-14.91
3	134.97	-46.17	-52.21	-0.21	-52.42	-29.37	-23.05
4	191.34	-39.14	-51.88	4.37	-47.51	-29.37	-18.14
5	228.28	-45.09	-58.67	5.43	-53.24	-29.37	-23.87
6	389.62	-57.04	-63.25	5.24	-58.01	-29.37	-28.64
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-38.35	-38.18	-7.31	-45.49	-29.37	-16.12
2	193.29	-38.35	-45.68	4.62	-41.06	-29.37	-11.69
3	236.05	-47.77	-55.10	5.42	-49.68	-29.37	-20.31
4	331.30	-57.85	-63.12	5.18	-57.94	-29.37	-28.57
5	434.33	-51.01	-55.92	5.14	-50.78	-29.37	-21.41
6	650.10	-67.81	-66.38	4.84	-61.54	-29.37	-32.17

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.63dBm - 50dB = -29.37dBm.

Channel Bandwidth 20MHz

Mode	TX channel 26	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.66	-47.63	-33.43	-10.61	-44.04	-26.07	-17.97
2	84.43	-38.31	-44.50	-0.42	-44.92	-26.07	-18.85
3	134.97	-45.69	-51.73	-0.21	-51.94	-26.07	-25.87
4	191.34	-38.25	-50.99	4.37	-46.62	-26.07	-20.55
5	292.42	-55.04	-63.51	5.17	-58.34	-26.07	-32.27
6	393.51	-57.50	-63.32	5.25	-58.07	-26.07	-32.00
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	61.10	-38.74	-38.57	-7.31	-45.88	-26.07	-19.81
2	136.91	-47.57	-50.94	-0.26	-51.20	-26.07	-25.13
3	189.40	-37.09	-44.20	4.12	-40.08	-26.07	-14.01
4	232.16	-45.57	-53.91	5.42	-48.49	-26.07	-22.42
5	333.25	-58.29	-63.58	5.18	-58.40	-26.07	-32.33
6	432.38	-61.54	-66.42	5.15	-61.27	-26.07	-35.20

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 23.93dBm - 50dB = -26.07dBm.

Above 1GHz
Channel Bandwidth 5MHz

Mode	TX channel 1	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-61.12	-37.65	3.75	-33.90	-27.71	-6.19
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-62.86	-40.35	3.75	-36.60	-27.71	-8.89

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.29dBm - 50dB = -27.71dBm.

Mode	TX channel 5	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-58.49	-34.91	3.71	-31.20	-27.71	-3.49
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-64.08	-41.61	3.71	-37.90	-27.71	-10.19

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.29dBm - 50dB = -27.71dBm.

Mode	TX channel 10	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9975.00	-59.99	-36.05	3.55	-32.50	-27.71	-4.79
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9975.00	-63.39	-40.85	3.55	-37.30	-27.71	-9.59

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 22.29dBm - 50dB = -27.71dBm.

Channel Bandwidth 10MHz

Mode	TX channel 11	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-61.91	-38.46	3.76	-34.70	-29.37	-5.33
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-61.75	-39.26	3.76	-35.50	-29.37	-6.13

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.63dBm - 50dB = -29.37dBm.

Mode	TX channel 15	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.21	-38.58	3.68	-34.90	-29.37	-5.53
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-63.17	-40.68	3.68	-37.00	-29.37	-7.63

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.63dBm - 50dB = -29.37dBm.

Mode	TX channel 19	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-62.27	-38.38	3.58	-34.80	-29.37	-5.43
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-62.70	-40.18	3.58	-36.60	-29.37	-7.23

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 20.63dBm - 50dB = -29.37dBm.

Channel Bandwidth 20MHz

Mode	TX channel 20	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-62.69	-39.27	3.77	-35.50	-26.07	-9.43
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-63.13	-40.67	3.77	-36.90	-26.07	-10.83

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 23.93dBm - 50dB = -26.07dBm.

Mode	TX channel 23	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.61	-38.98	3.68	-35.30	-26.07	-9.23
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-63.37	-40.88	3.68	-37.20	-26.07	-11.13

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 23.93dBm - 50dB = -26.07dBm.

Mode	TX channel 26	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9960.00	-62.73	-38.90	3.60	-35.30	-26.07	-9.23
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9960.00	-64.02	-41.50	3.60	-37.90	-26.07	-11.83

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 23.93dBm - 50dB = -26.07dBm.

Mode B2

Below 1GHz

Channel Bandwidth 5MHz

Mode	TX channel 10	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	37.78	-49.50	-37.21	-11.18	-48.39	-16.71	-31.68
2	78.60	-35.65	-32.43	-2.11	-34.54	-16.71	-17.83
3	185.51	-35.81	-38.32	3.62	-34.70	-16.71	-17.99
4	405.17	-59.33	-63.48	5.26	-58.22	-16.71	-41.51
5	722.02	-68.10	-71.96	4.97	-66.99	-16.71	-50.28
6	939.74	-63.22	-66.04	3.93	-62.11	-16.71	-45.40
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.54	-33.32	-36.77	-1.49	-38.26	-16.71	-21.55
2	187.45	-37.71	-44.62	3.88	-40.74	-16.71	-24.03
3	385.73	-58.03	-63.30	5.25	-58.05	-16.71	-41.34
4	626.77	-68.35	-67.57	4.65	-62.92	-16.71	-46.21
5	741.46	-64.32	-62.10	4.74	-57.36	-16.71	-40.65
6	937.80	-63.87	-58.19	3.92	-54.27	-16.71	-37.56

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.29dBm - 50dB = -16.71dBm.

Channel Bandwidth 10MHz

Mode	TX channel 19	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	33.89	-42.02	-46.21	5.30	-40.91	-18.37	-22.54
2	80.54	-33.39	-36.92	4.64	-32.28	-18.37	-13.91
3	185.51	-37.81	-41.00	4.30	-36.70	-18.37	-18.33
4	376.01	-57.62	-60.38	3.87	-56.51	-18.37	-38.14
5	494.59	-60.42	-62.98	3.67	-59.31	-18.37	-40.94
6	933.91	-63.65	-65.58	3.04	-62.54	-18.37	-44.17
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.54	-33.45	-43.03	4.64	-38.39	-18.37	-20.02
2	187.45	-37.99	-45.32	4.30	-41.02	-18.37	-22.65
3	383.79	-58.67	-62.40	3.85	-58.55	-18.37	-40.18
4	488.76	-59.76	-63.17	3.67	-59.50	-18.37	-41.13
5	792.00	-69.08	-64.18	3.22	-60.96	-18.37	-42.59
6	937.80	-62.57	-56.01	3.04	-52.97	-18.37	-34.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.63dBm - 50dB = -18.37dBm.

Channel Bandwidth 20MHz

Mode	TX channel 26	Frequency Range	Below 1000 MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	37.78	-49.54	-53.73	5.30	-48.43	-15.07	-33.36
2	78.60	-34.99	-38.53	4.65	-33.88	-15.07	-18.81
3	185.51	-35.68	-38.87	4.30	-34.57	-15.07	-19.50
4	401.28	-58.41	-61.13	3.83	-57.30	-15.07	-42.23
5	687.03	-69.21	-71.46	3.36	-68.10	-15.07	-53.03
6	856.15	-68.94	-70.97	3.14	-67.83	-15.07	-52.76
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	33.89	-41.45	-55.47	5.30	-50.17	-15.07	-35.10
2	80.54	-33.23	-42.81	4.64	-38.17	-15.07	-23.10
3	187.45	-37.52	-44.85	4.30	-40.55	-15.07	-25.48
4	391.56	-56.95	-60.79	3.83	-56.96	-15.07	-41.89
5	634.55	-68.33	-65.65	3.44	-62.21	-15.07	-47.14
6	939.74	-63.11	-56.54	3.04	-53.50	-15.07	-38.43

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 34.93dBm - 50dB = -15.07dBm.

Above 1GHz
Channel Bandwidth 5MHz

Mode	TX channel 1	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-61.32	-37.85	3.75	-34.10	-16.71	-17.39
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9885.00	-62.06	-39.55	3.75	-35.80	-16.71	-19.09

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.29dBm - 50dB = -16.71dBm.

Mode	TX channel 5	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-61.29	-37.71	3.71	-34.00	-16.71	-17.29
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9925.00	-62.88	-40.41	3.71	-36.70	-16.71	-19.99

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.29dBm - 50dB = -16.71dBm.

Mode	TX channel 10	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9975.00	-63.29	-39.35	3.55	-35.80	-16.71	-19.09
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9975.00	-63.69	-41.15	3.55	-37.60	-16.71	-20.89

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 33.29dBm - 50dB = -16.71dBm.

Channel Bandwidth 10MHz

Mode	TX channel 11	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-63.71	-40.26	3.76	-36.50	-18.37	-18.13
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9890.00	-63.85	-41.36	3.76	-37.60	-18.37	-19.23

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.63dBm - 50dB = -18.37dBm.

Mode	TX channel 15	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-63.11	-39.48	3.68	-35.80	-18.37	-17.43
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-62.37	-39.88	3.68	-36.20	-18.37	-17.83

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.63dBm - 50dB = -18.37dBm.

Mode	TX channel 19	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-63.47	-39.58	3.58	-36.00	-18.37	-17.63
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-62.90	-40.38	3.58	-36.80	-18.37	-18.43

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 31.63dBm - 50dB = -18.37dBm.

Channel Bandwidth 20MHz

Mode	TX channel 20	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-63.69	-40.27	3.77	-36.50	-15.07	-21.43
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9900.00	-63.53	-41.07	3.77	-37.30	-15.07	-22.23

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 34.93dBm - 50dB = -15.07dBm.

Mode	TX channel 23	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-63.91	-40.28	3.68	-36.60	-15.07	-21.53
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9930.00	-64.47	-41.98	3.68	-38.30	-15.07	-23.23

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 34.93dBm - 50dB = -15.07dBm.

Mode	TX channel 26	Frequency Range	Above 1000MHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-63.17	-39.28	3.58	-35.70	-15.07	-20.63
Antenna Polarity & Test Distance: Vertical at 3 m							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9970.00	-64.10	-41.58	3.58	-38.00	-15.07	-22.93

Remarks:
1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Limit = EIRP 34.93dBm - 50dB = -15.07dBm.

4.7 Frequency Stability Measurement

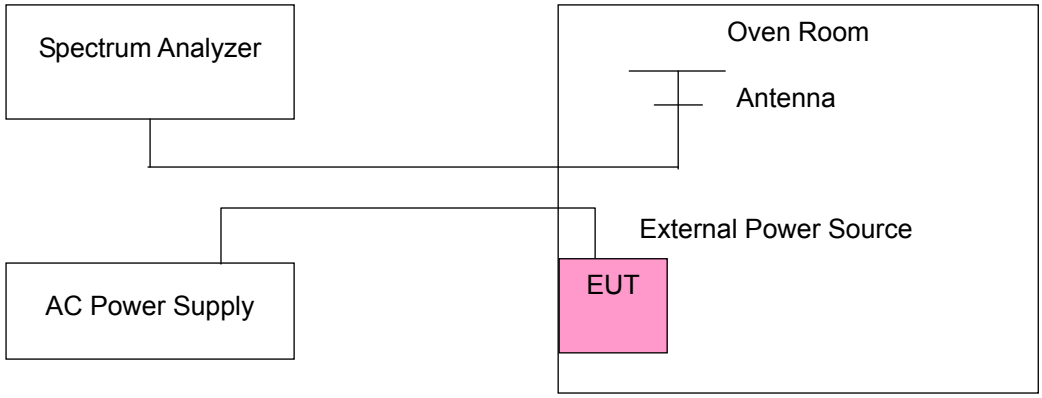
4.7.1 Limits of Frequency Stability Measurement

The test shall be performed at normal and extreme test conditions. From -30°C to +50°C and vary the primary supply voltage from 85% to 115% of the nominal value.

4.7.2 Test Procedure

- The EUT was switched on and allowed to warm up to its normal operating condition.
- The EUT output was connected to a spectrum analyser and the frequency stability was measured.
- Measurements were taken after a thermal balance was obtained.
- Normal and extreme test conditions were measured

4.7.3 Test Setup



4.7.4 Test Results

Mode A2

Channel Bandwidth 5MHz

Frequency Stability Versus Temp.									
Operating Frequency: 4942.5MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4942.5141	2.90000	4942.5149	3.00000	4942.5133	2.70000	4942.5148	3.00000
40	120	4942.5155	3.10000	4942.5125	2.50000	4942.5122	2.50000	4942.5124	2.50000
30	120	4942.5184	3.70000	4942.5186	3.80000	4942.5143	2.90000	4942.5155	3.10000
20	120	4942.4952	-1.00000	4942.4914	-1.70000	4942.4931	-1.40000	4942.4912	-1.80000
10	120	4942.4899	-2.00000	4942.4919	-1.60000	4942.494	-1.20000	4942.4923	-1.60000
0	120	4942.5227	4.60000	4942.5235	4.80000	4942.5229	4.60000	4942.5257	5.20000
-10	120	4942.5196	4.00000	4942.5226	4.60000	4942.5209	4.20000	4942.5209	4.20000
-20	120	4942.497	-0.60000	4942.5003	0.10000	4942.4968	-0.60000	4942.4966	-0.70000
-30	120	4942.5157	3.20000	4942.515	3.00000	4942.5152	3.10000	4942.5151	3.10000

Frequency Stability Versus Voltage									
Operating Frequency: 4942.5MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4942.4946	-1.10000	4942.4917	-1.70000	4942.4934	-1.30000	4942.491	-1.80000
	120	4942.4952	-1.00000	4942.4914	-1.70000	4942.4931	-1.40000	4942.4912	-1.80000
	102	4942.4951	-1.00000	4942.4923	-1.60000	4942.4925	-1.50000	4942.4909	-1.80000

Channel Bandwidth 10MHz

Frequency Stability Versus Temp.									
Operating Frequency: 4945MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4944.9928	-1.50000	4944.9902	-2.00000	4944.9931	-1.40000	4944.9901	-2.00000
40	120	4944.9769	-4.70000	4944.9808	-3.90000	4944.9784	-4.40000	4944.9794	-4.20000
30	120	4944.9954	-0.90000	4944.997	-0.60000	4944.9932	-1.40000	4944.9952	-1.00000
20	120	4945.023	4.70000	4945.0219	4.40000	4945.0248	5.00000	4945.0217	4.40000
10	120	4945.0169	3.40000	4945.0194	3.90000	4945.0171	3.50000	4945.0195	3.90000
0	120	4944.9998	0.00000	4945.0011	0.20000	4945.0007	0.10000	4945.0039	0.80000
-10	120	4945.0014	0.30000	4945.002	0.40000	4945.004	0.80000	4945.0045	0.90000
-20	120	4944.9922	-1.60000	4944.9904	-1.90000	4944.9906	-1.90000	4944.9903	-2.00000
-30	120	4945.0073	1.50000	4945.0085	1.70000	4945.0066	1.30000	4945.0075	1.50000

Frequency Stability Versus Voltage									
Operating Frequency: 4945MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4945.0228	4.60000	4945.0228	4.60000	4945.0255	5.20000	4945.0213	4.30000
	120	4945.023	4.70000	4945.0219	4.40000	4945.0248	5.00000	4945.0217	4.40000
	102	4945.0239	4.80000	4945.0214	4.30000	4945.0247	5.00000	4945.0214	4.30000

Channel Bandwidth 20MHz

Frequency Stability Versus Temp.									
Operating Frequency: 4950MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4950.0155	3.10000	4950.0128	2.60000	4950.016	3.20000	4950.0123	2.50000
40	120	4949.9882	-2.40000	4949.9874	-2.50000	4949.9845	-3.10000	4949.987	-2.60000
30	120	4950.0008	0.20000	4950.0008	0.20000	4950.0016	0.30000	4949.9999	0.00000
20	120	4950.0243	4.90000	4950.0246	5.00000	4950.0233	4.70000	4950.0227	4.60000
10	120	4950.0033	0.70000	4950.0051	1.00000	4950.005	1.00000	4950.0054	1.10000
0	120	4950.0146	2.90000	4950.0119	2.40000	4950.0133	2.70000	4950.0159	3.20000
-10	120	4950.0211	4.30000	4950.0213	4.30000	4950.0244	4.90000	4950.0218	4.40000
-20	120	4950.016	3.20000	4950.0158	3.20000	4950.0161	3.30000	4950.0154	3.10000
-30	120	4950.0177	3.60000	4950.0212	4.30000	4950.0176	3.60000	4950.0188	3.80000

Frequency Stability Versus Voltage									
Operating Frequency: 4950MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4950.0249	5.00000	4950.0239	4.80000	4950.0239	4.80000	4950.0219	4.40000
	120	4950.0243	4.90000	4950.0246	5.00000	4950.0233	4.70000	4950.0227	4.60000
	102	4950.0252	5.10000	4950.0236	4.80000	4950.0241	4.90000	4950.0219	4.40000

Mode B2

Channel Bandwidth 5MHz

Frequency Stability Versus Temp.									
Operating Frequency: 4942.5MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4942.4882	-2.40000	4942.4882	-2.40000	4942.4859	-2.90000	4942.4888	-2.30000
40	120	4942.4986	-0.30000	4942.4988	-0.20000	4942.4981	-0.40000	4942.4965	-0.70000
30	120	4942.5205	4.10000	4942.519	3.80000	4942.5218	4.40000	4942.5209	4.20000
20	120	4942.484	-3.20000	4942.4824	-3.60000	4942.4817	-3.70000	4942.4839	-3.30000
10	120	4942.4886	-2.30000	4942.4921	-1.60000	4942.4917	-1.70000	4942.492	-1.60000
0	120	4942.4974	-0.50000	4942.4988	-0.20000	4942.5007	0.10000	4942.4977	-0.50000
-10	120	4942.5079	1.60000	4942.5071	1.40000	4942.509	1.80000	4942.5074	1.50000
-20	120	4942.4922	-1.60000	4942.4923	-1.60000	4942.4929	-1.40000	4942.4919	-1.60000
-30	120	4942.4855	-2.90000	4942.4816	-3.70000	4942.4834	-3.40000	4942.4828	-3.50000

Frequency Stability Versus Voltage									
Operating Frequency: 4942.5MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4942.485	-3.00000	4942.4823	-3.60000	4942.4825	-3.50000	4942.4834	-3.40000
	120	4942.484	-3.20000	4942.4824	-3.60000	4942.4817	-3.70000	4942.4839	-3.30000
	102	4942.4849	-3.10000	4942.4828	-3.50000	4942.4824	-3.60000	4942.4837	-3.30000

Channel Bandwidth 10MHz

Frequency Stability Versus Temp.									
Operating Frequency: 4945MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4945.0167	3.40000	4945.0154	3.10000	4945.016	3.20000	4945.0133	2.70000
40	120	4944.9946	-1.10000	4944.9955	-0.90000	4944.9951	-1.00000	4944.9949	-1.00000
30	120	4944.9836	-3.30000	4944.9857	-2.90000	4944.986	-2.80000	4944.9825	-3.50000
20	120	4945.006	1.20000	4945.0081	1.60000	4945.0069	1.40000	4945.0082	1.70000
10	120	4945.0063	1.30000	4945.0063	1.30000	4945.0041	0.80000	4945.0071	1.40000
0	120	4944.9917	-1.70000	4944.9901	-2.00000	4944.9912	-1.80000	4944.99	-2.00000
-10	120	4944.9777	-4.50000	4944.9778	-4.50000	4944.9758	-4.90000	4944.9741	-5.20000
-20	120	4944.9986	-0.30000	4944.9947	-1.10000	4944.9953	-1.00000	4944.9955	-0.90000
-30	120	4944.9774	-4.60000	4944.9734	-5.40000	4944.9756	-4.90000	4944.9736	-5.30000

Frequency Stability Versus Voltage									
Operating Frequency: 4945MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4945.0063	1.30000	4945.0083	1.70000	4945.0077	1.60000	4945.0084	1.70000
	120	4945.006	1.20000	4945.0081	1.60000	4945.0069	1.40000	4945.0082	1.70000
	102	4945.0063	1.30000	4945.0089	1.80000	4945.007	1.40000	4945.0077	1.60000

Channel Bandwidth 20MHz

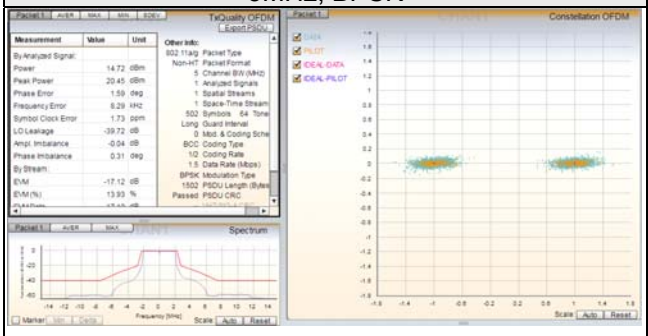
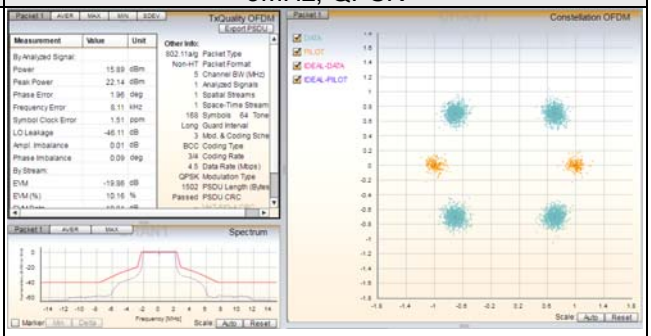
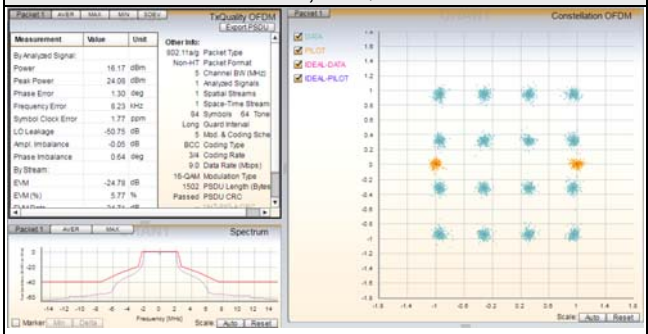
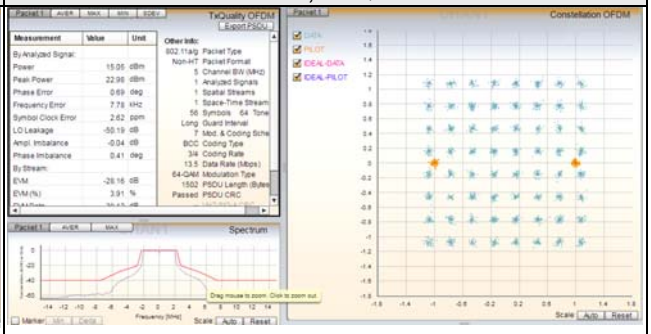
Frequency Stability Versus Temp.									
Operating Frequency: 4950MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	120	4950.0094	1.90000	4950.0134	2.70000	4950.0121	2.40000	4950.012	2.40000
40	120	4949.977	-4.60000	4949.9783	-4.40000	4949.9777	-4.50000	4949.9797	-4.10000
30	120	4949.9994	-0.10000	4949.9977	-0.50000	4949.9982	-0.40000	4950.0014	0.30000
20	120	4950.0078	1.60000	4950.0071	1.40000	4950.0103	2.10000	4950.0097	2.00000
10	120	4949.9937	-1.30000	4949.9932	-1.40000	4949.9965	-0.70000	4949.9943	-1.20000
0	120	4949.9804	-4.00000	4949.9796	-4.10000	4949.9809	-3.90000	4949.98	-4.00000
-10	120	4950.0252	5.10000	4950.023	4.60000	4950.0249	5.00000	4950.0243	4.90000
-20	120	4949.9869	-2.60000	4949.9829	-3.50000	4949.985	-3.00000	4949.9861	-2.80000
-30	120	4949.9883	-2.40000	4949.9911	-1.80000	4949.9916	-1.70000	4949.9917	-1.70000

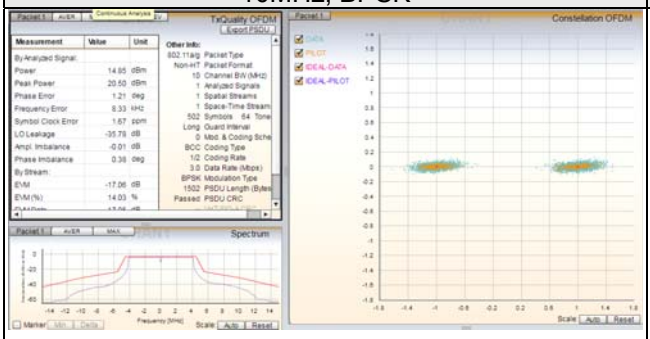
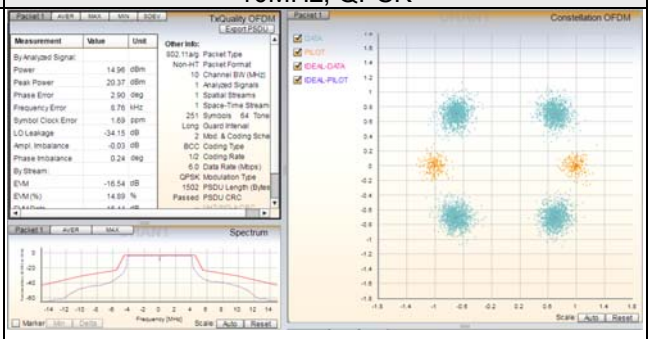
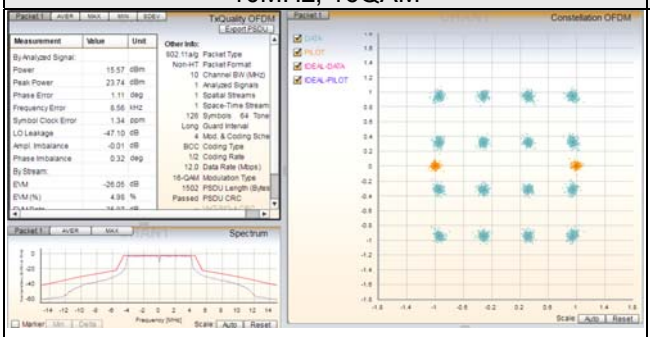
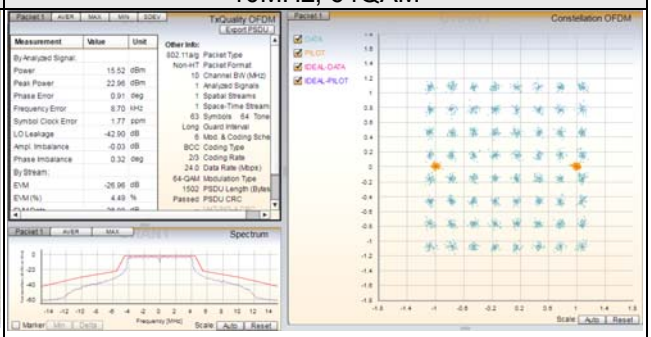
Frequency Stability Versus Voltage									
Operating Frequency: 4950MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	138	4950.008	1.60000	4950.0066	1.30000	4950.011	2.20000	4950.0102	2.10000
	120	4950.0078	1.60000	4950.0071	1.40000	4950.0103	2.10000	4950.0097	2.00000
	102	4950.0082	1.70000	4950.0075	1.50000	4950.0095	1.90000	4950.0089	1.80000

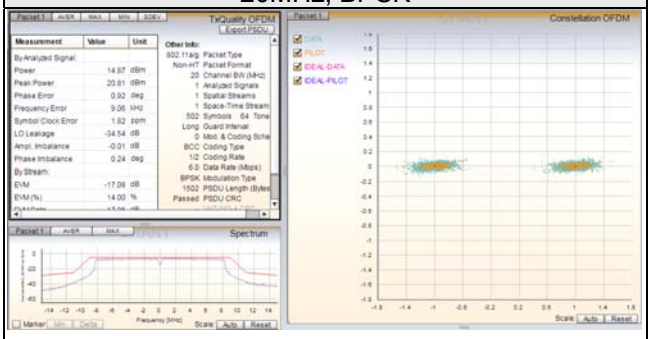
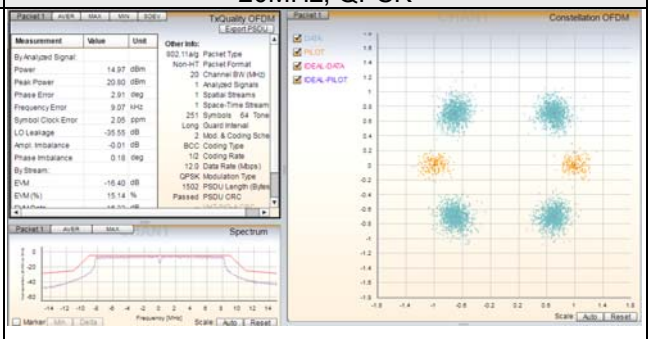
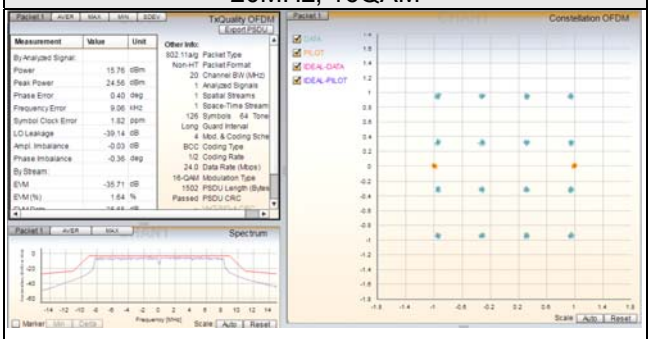
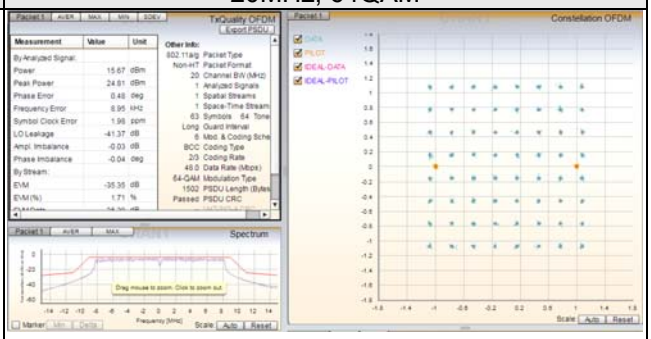
5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Annex A –Modulation Characteristics

5MHz, BPSK	5MHz, QPSK
	
5MHz, 16QAM	**5MHz, 64QAM**
	

10MHz, BPSK	10MHz, QPSK
	
10MHz, 16QAM	**10MHz, 64QAM**
	

20MHz, BPSK	20MHz, QPSK
	
20MHz, 16QAM	**20MHz, 64QAM**
	

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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