

3.6 Emissions in Non-Restricted Frequency Bands

3.6.1 Emissions in Non-Restricted Frequency Bands Limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

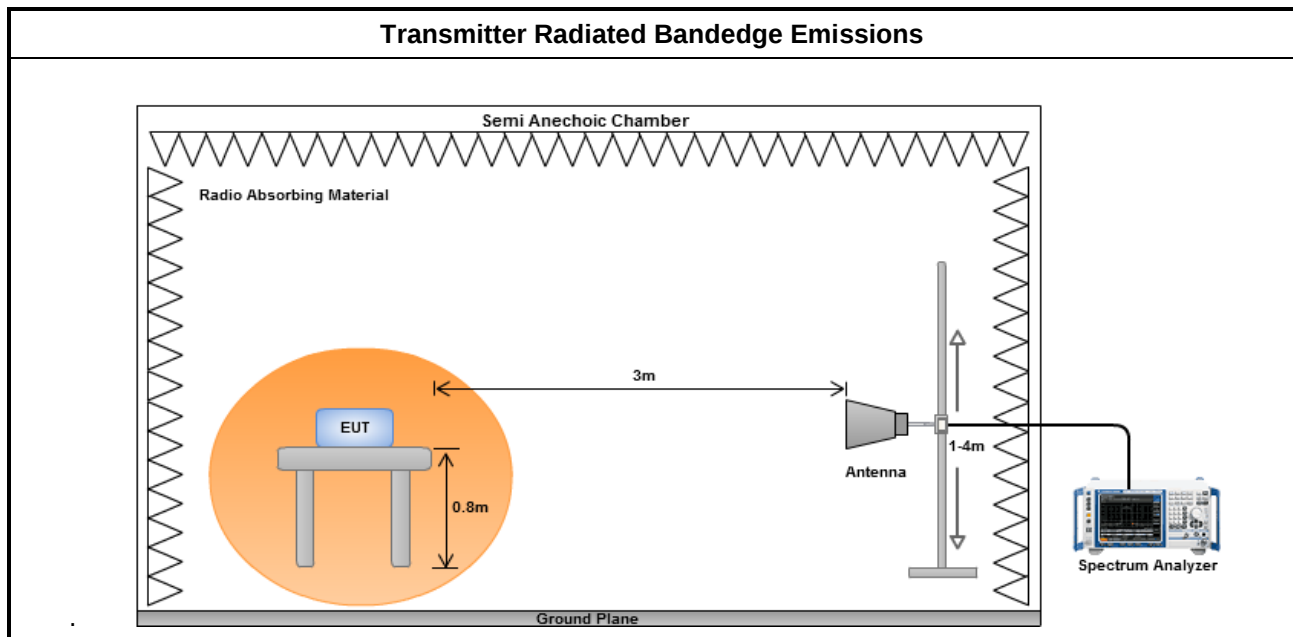
Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

3.6.4 Test Setup



3.6.5 Unwanted Emissions into Non-Restricted Frequency Bands

Test Configuration 1

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	11b			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	117.85	2398.98	67.63	50.22	30	PK	H
2390-2400	2437	116.90	2393.85	53.94	62.96	30	PK	H
2390-2400	2462	117.22	2397.02	49.57	67.65	30	PK	H

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	11g			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	107.60	2399.98	76.25	31.35	30	PK	H
2390-2400	2437	113.98	2397.24	63.99	49.99	30	PK	H
2390-2400	2462	106.73	2398.49	51.37	55.36	30	PK	H

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	HT20			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	104.29	2399.84	73.49	30.80	30	PK	H
2390-2400	2437	113.91	2399.83	63.04	50.87	30	PK	H
2390-2400	2462	105.48	2399.94	52.22	53.26	30	PK	H

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	HT40			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	100.43	2399.97	69.60	30.83	30	PK	H
2390-2400	2437	104.53	2399.50	61.94	42.59	30	PK	H
2390-2400	2462	102.18	2399.98	50.81	51.37	30	PK	H

Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical).

Test Configuration 3

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	11b			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	119.11	2398.97	72.96	46.15	30	PK	V
2390-2400	2437	119.89	2396.31	57.25	62.64	30	PK	V
2390-2400	2462	120.00	2392.29	51.93	68.07	30	PK	V

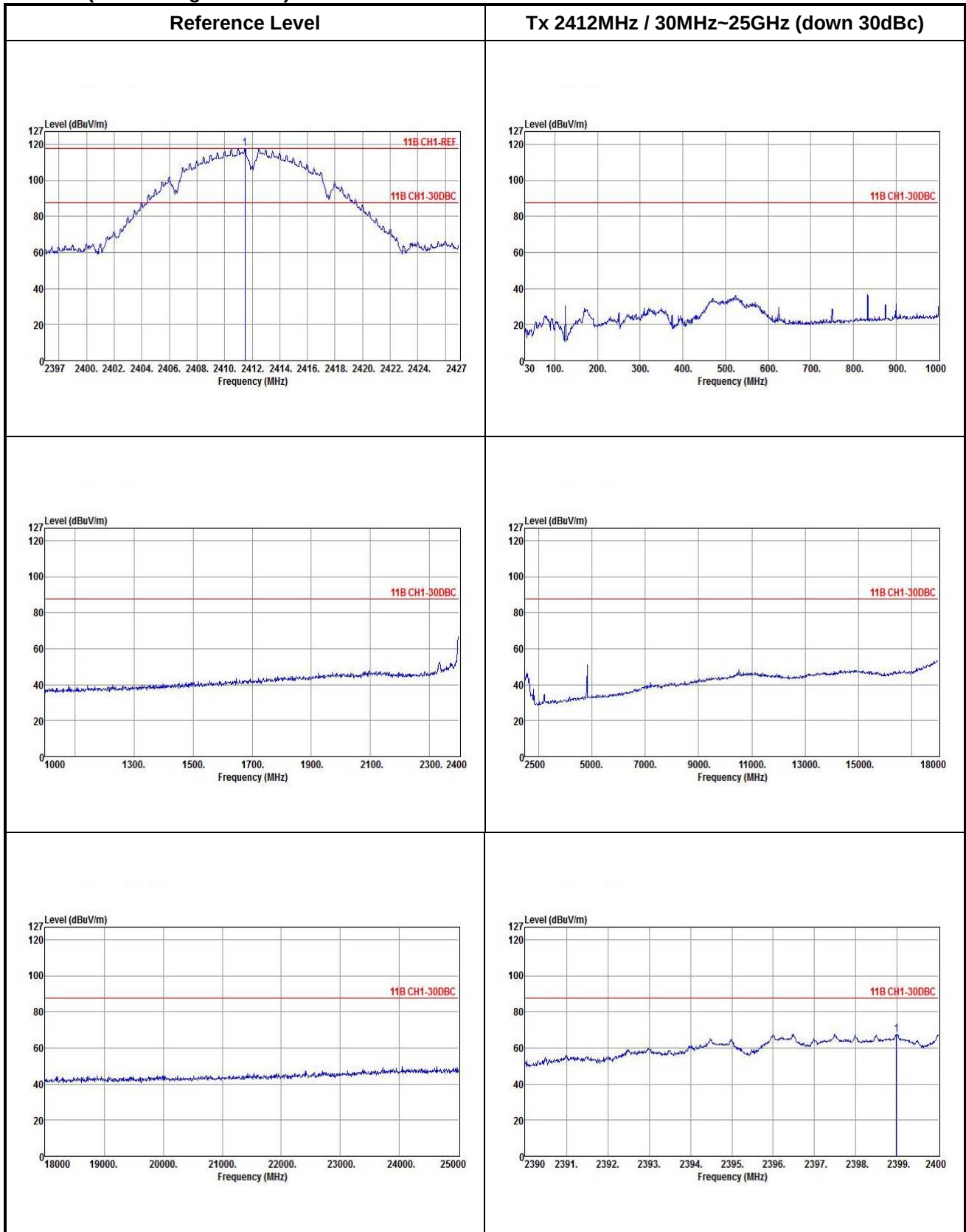
Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	11g			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	109.41	2399.90	77.65	31.76	30	PK	V
2390-2400	2437	117.13	2399.85	64.90	52.23	30	PK	V
2390-2400	2462	109.66	2396.37	52.21	57.45	30	PK	V

Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	HT20			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	107.03	2399.86	74.91	32.12	30	PK	V
2390-2400	2437	116.96	2397.61	65.92	51.04	30	PK	V
2390-2400	2462	108.30	2393.31	52.48	55.82	30	PK	V

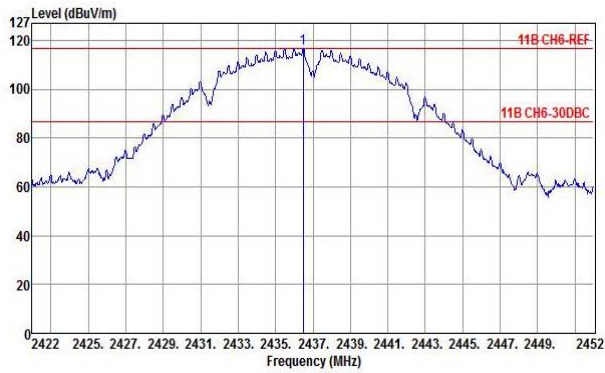
Unwanted Emissions into Non-Restricted Frequency Bands								
Modulation	HT40			N _{TX}	2			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2412	102.33	2399.97	71.31	31.02	30	PK	V
2390-2400	2437	107.23	2398.56	67.31	39.92	30	PK	V
2390-2400	2462	105.35	2396.04	53.50	51.85	30	PK	V

Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical).

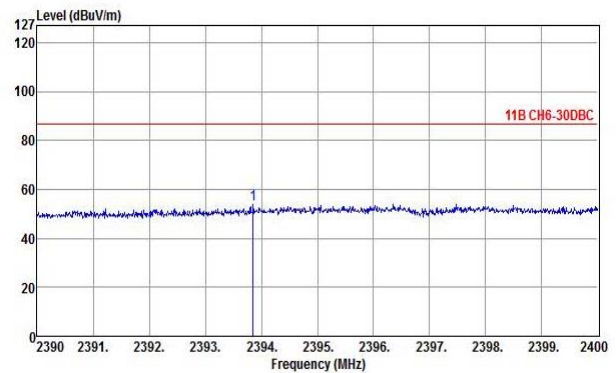
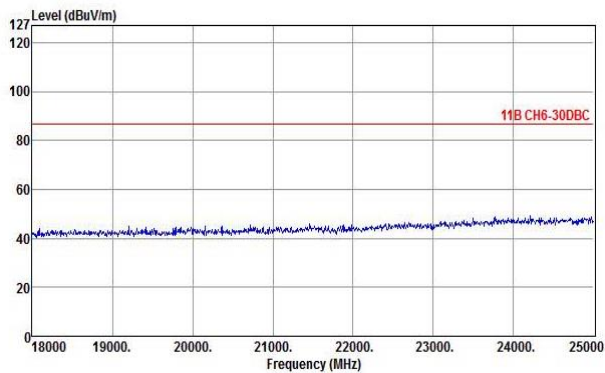
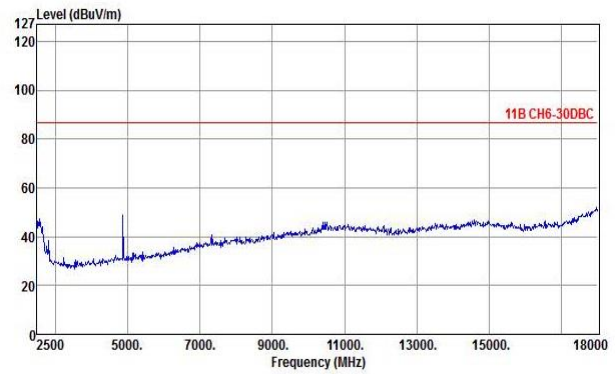
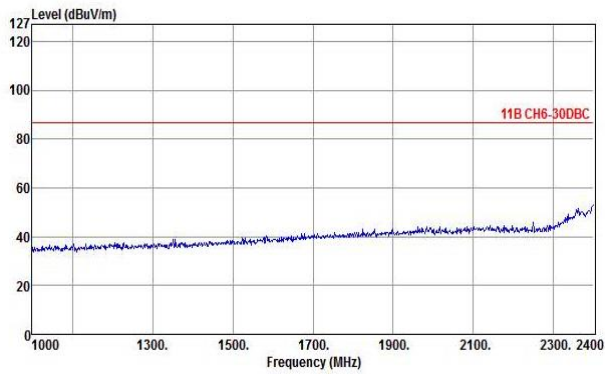
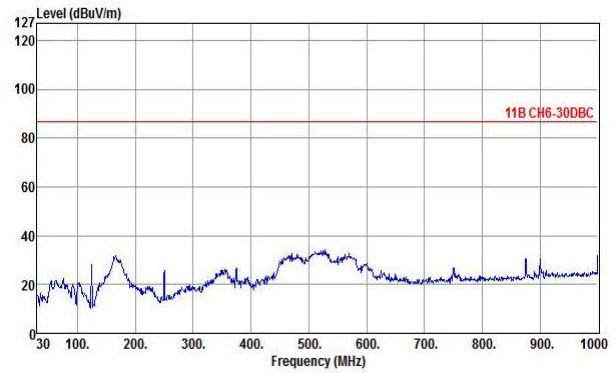
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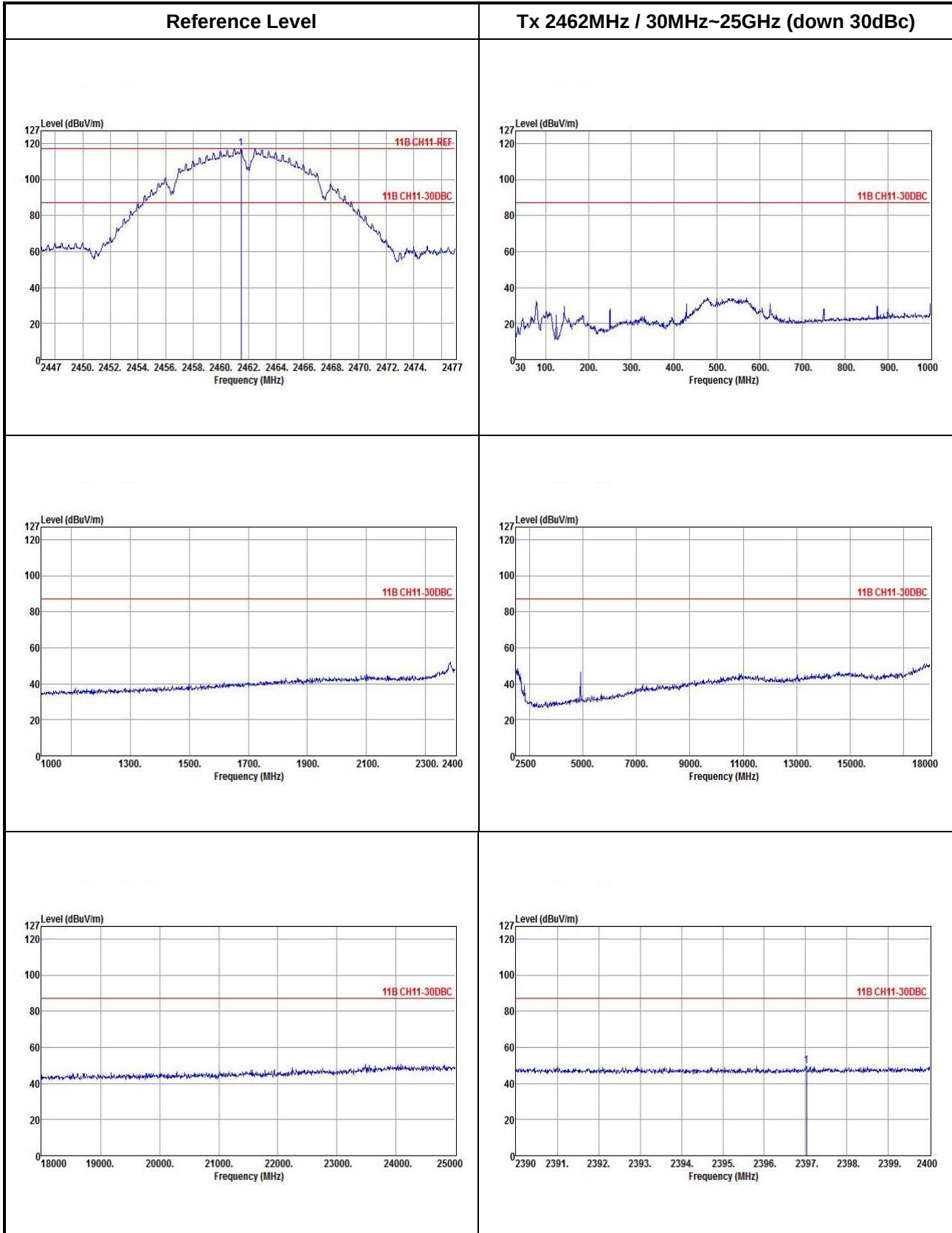


Reference Level

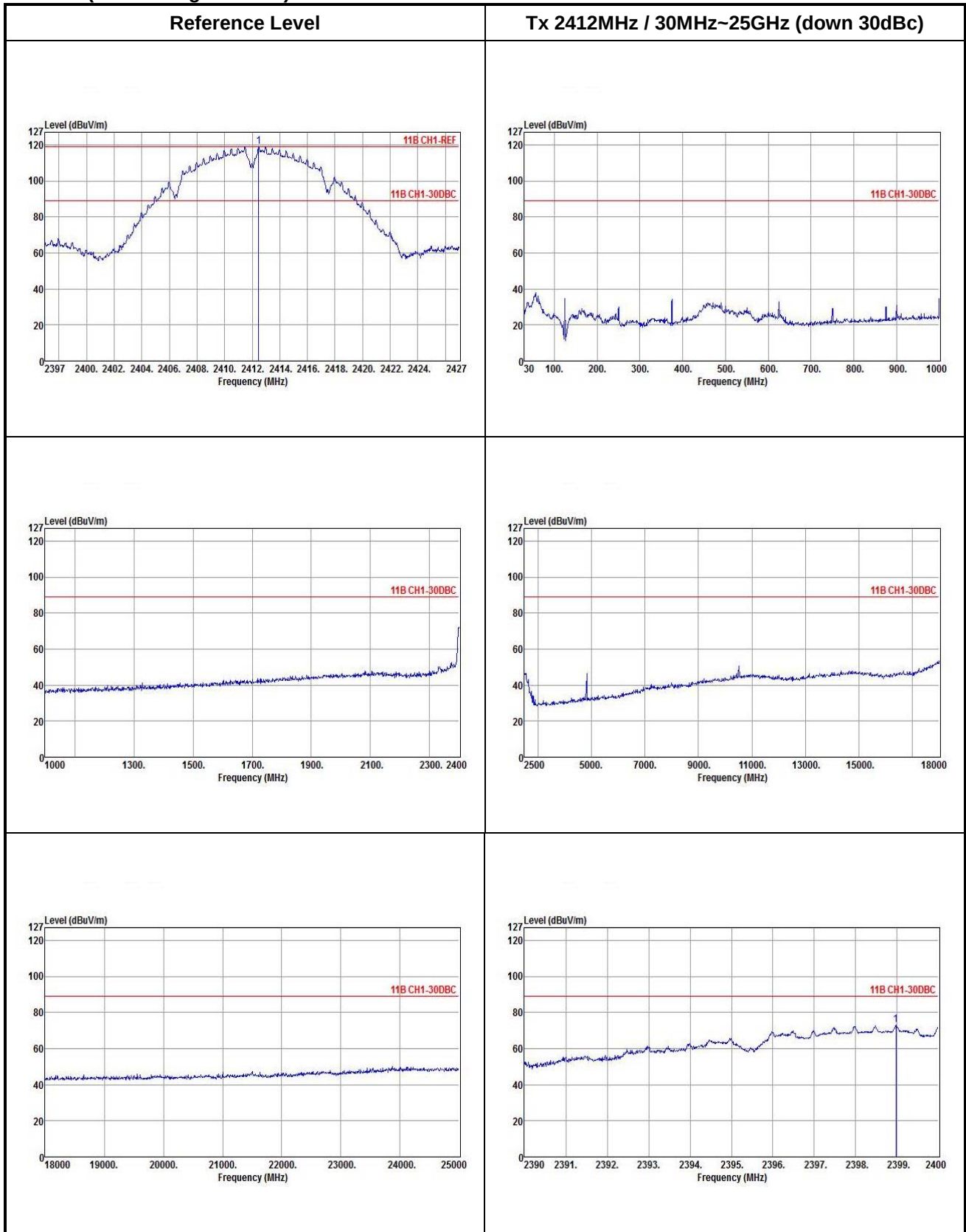


Tx 2437MHz / 30MHz~25GHz (down 30dBc)

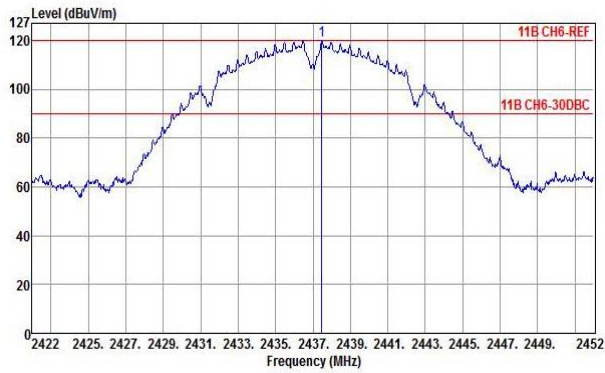




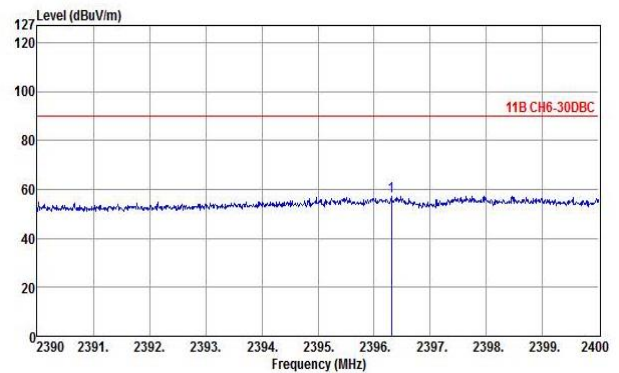
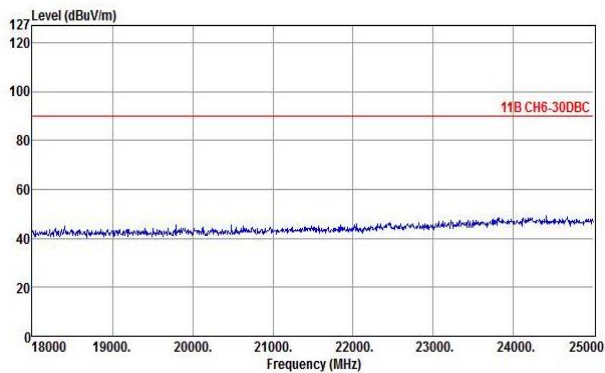
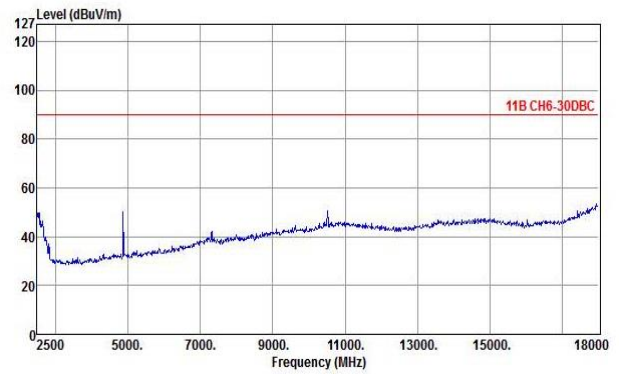
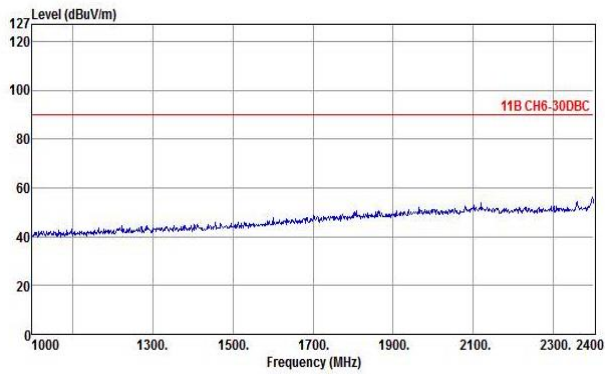
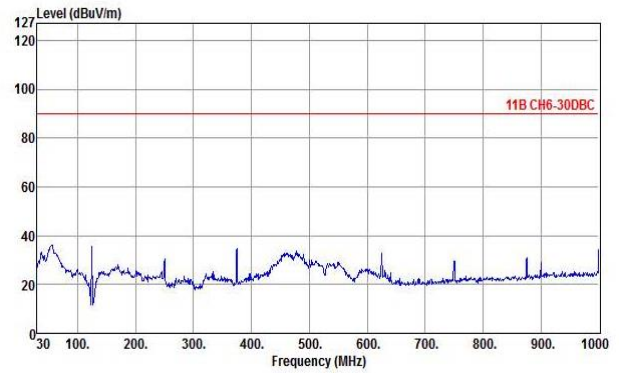
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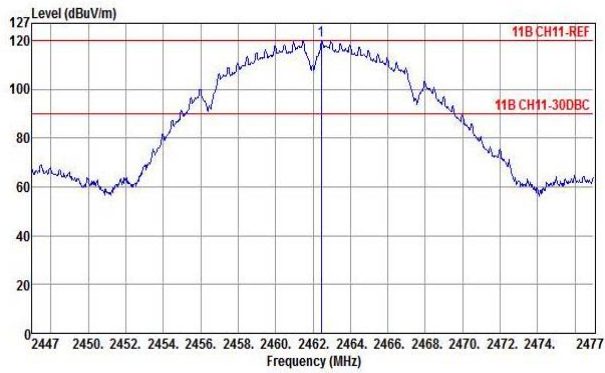
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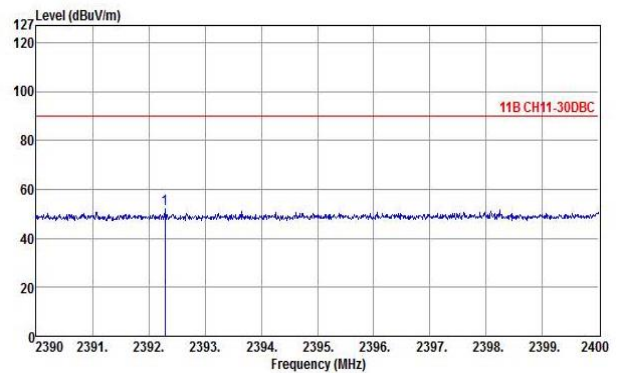
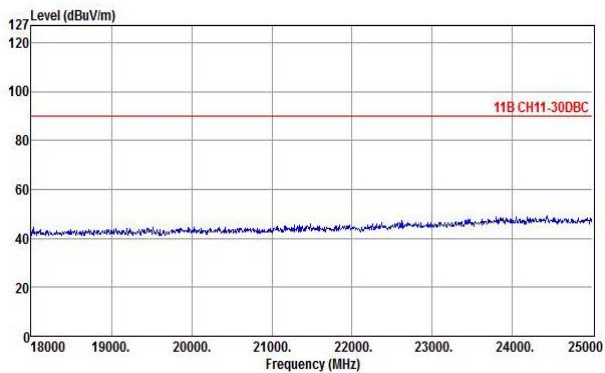
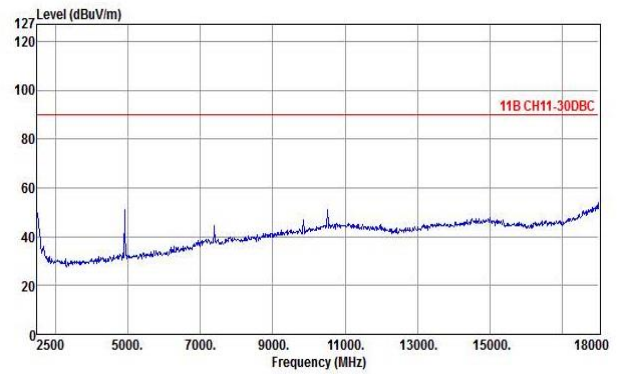
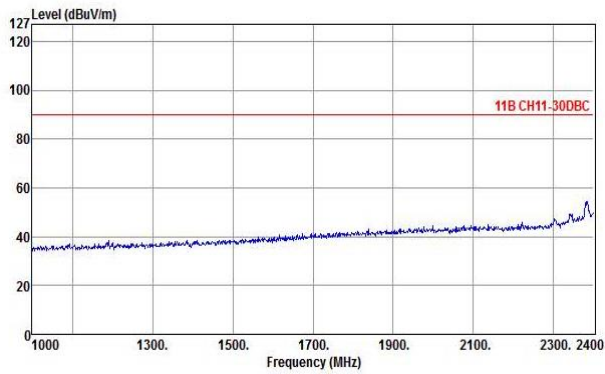
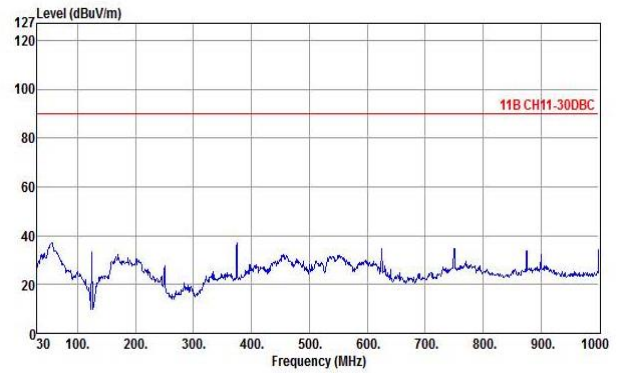
Tx 2437MHz / 30MHz~25GHz (down 30dBc)



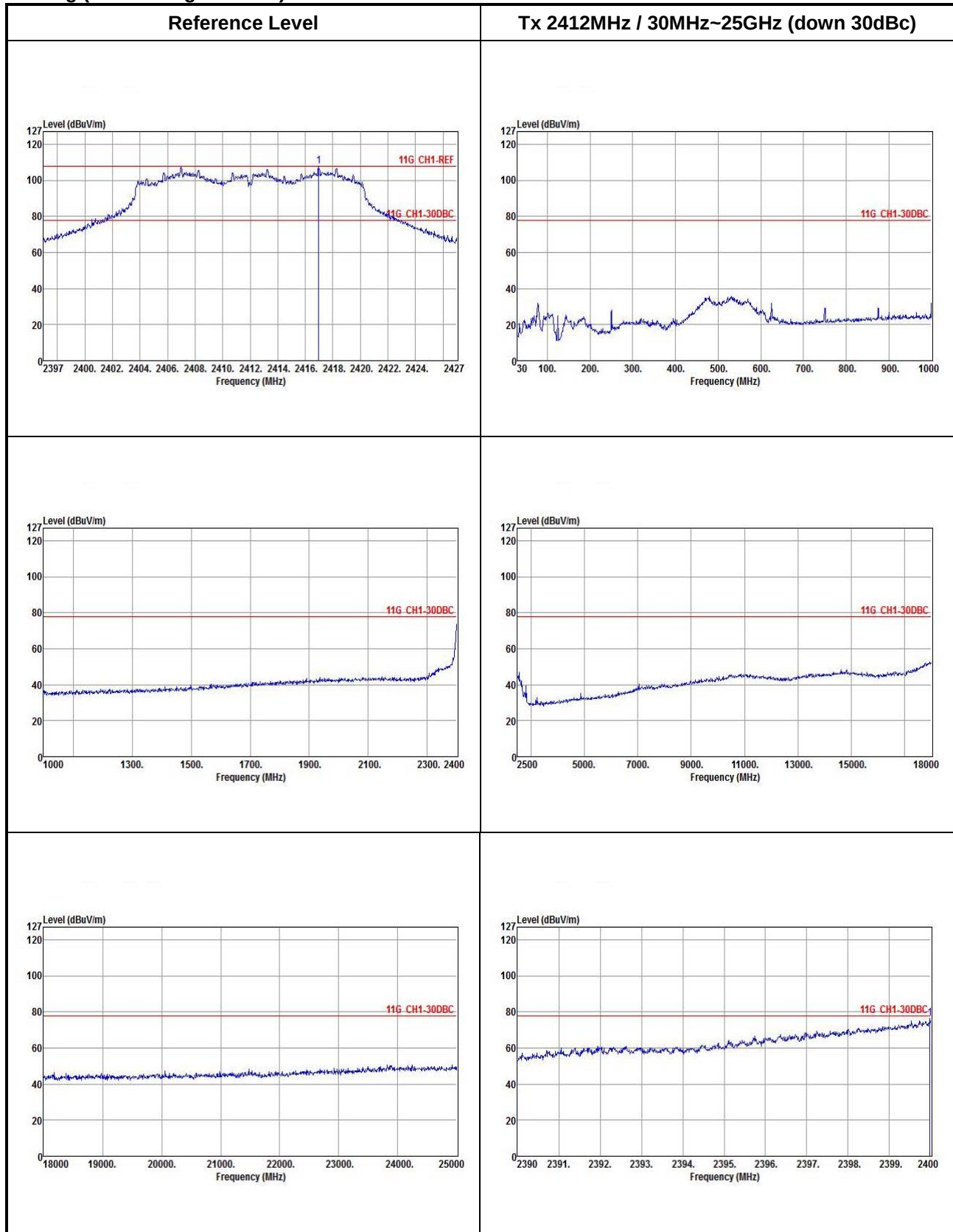
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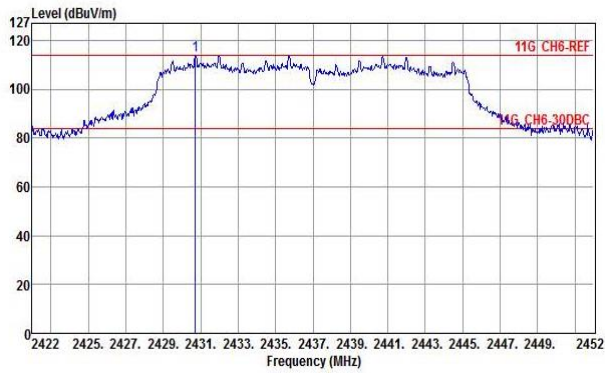
Tx 2462MHz / 30MHz~25GHz (down 30dBc)



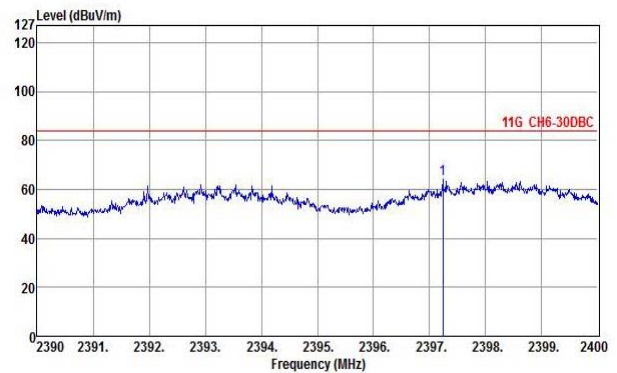
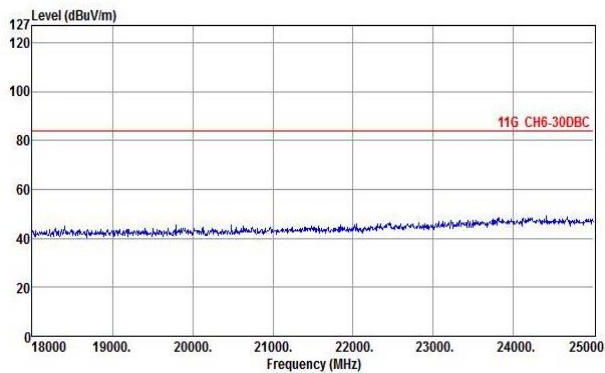
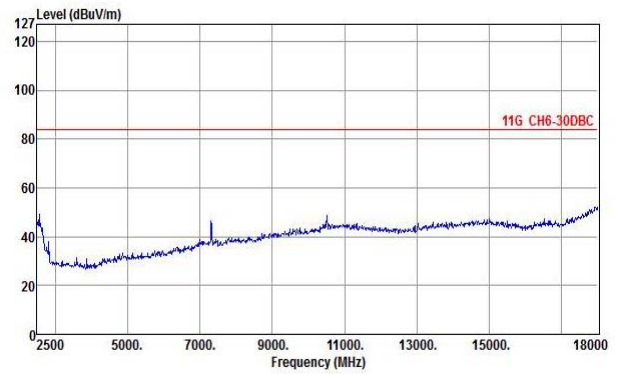
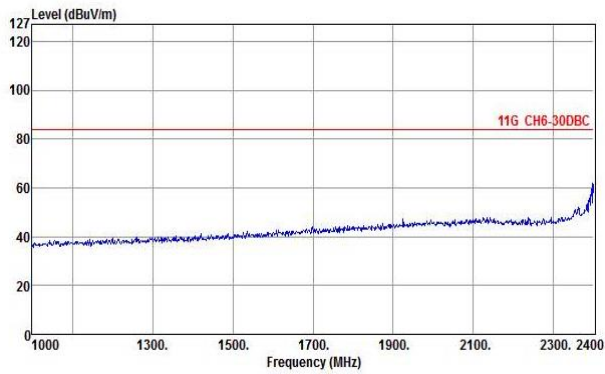
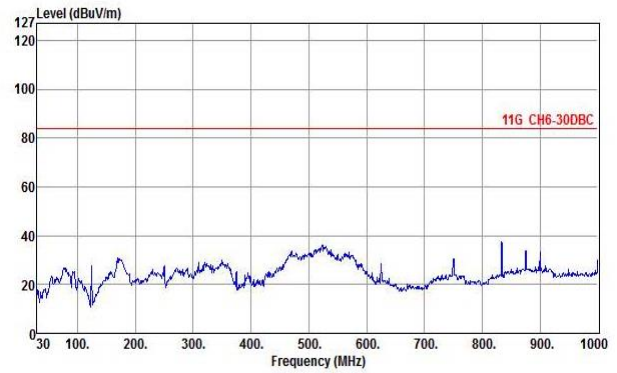
802.11g (Test Configuration 1)



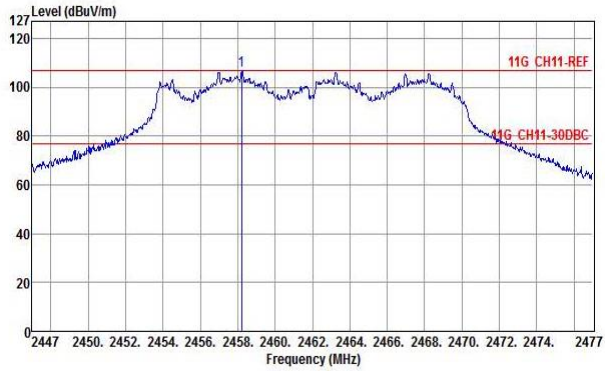
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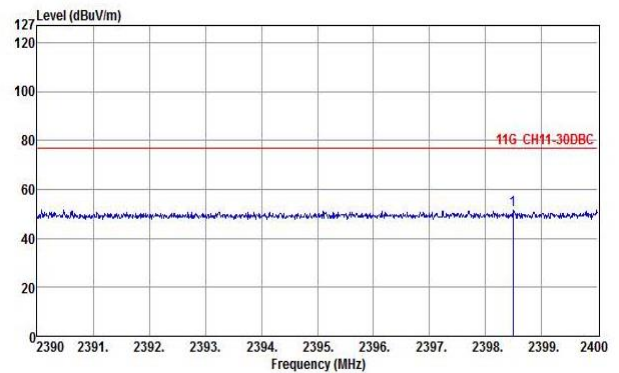
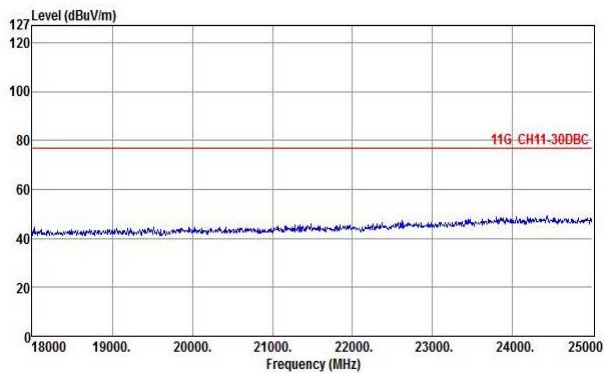
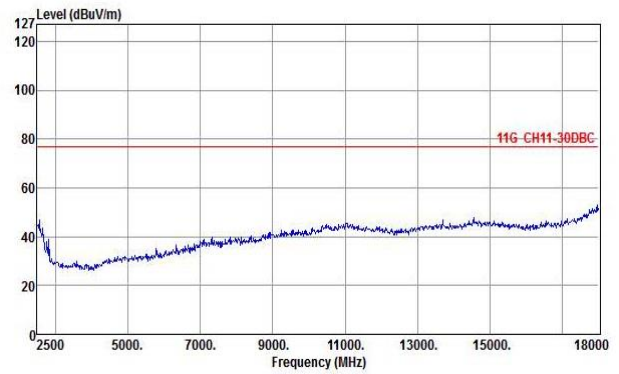
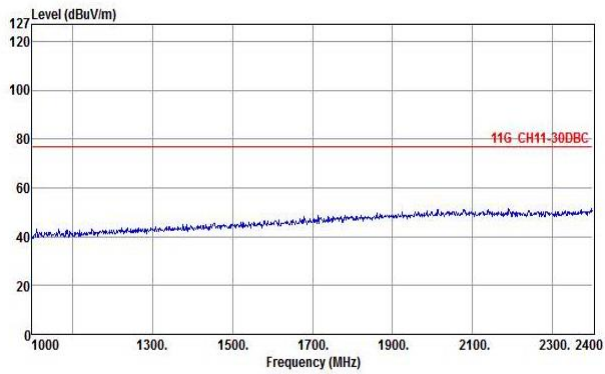
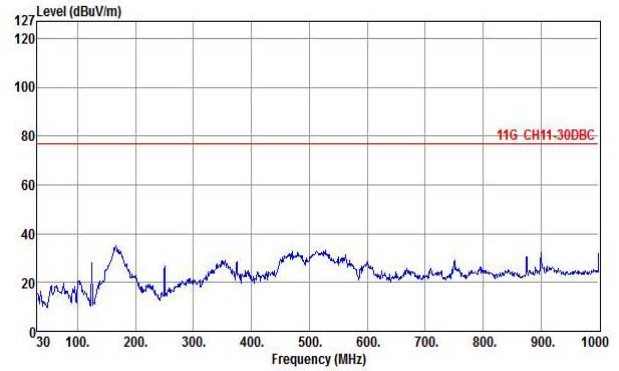
Tx 2437MHz / 30MHz~25GHz (down 30dBc)



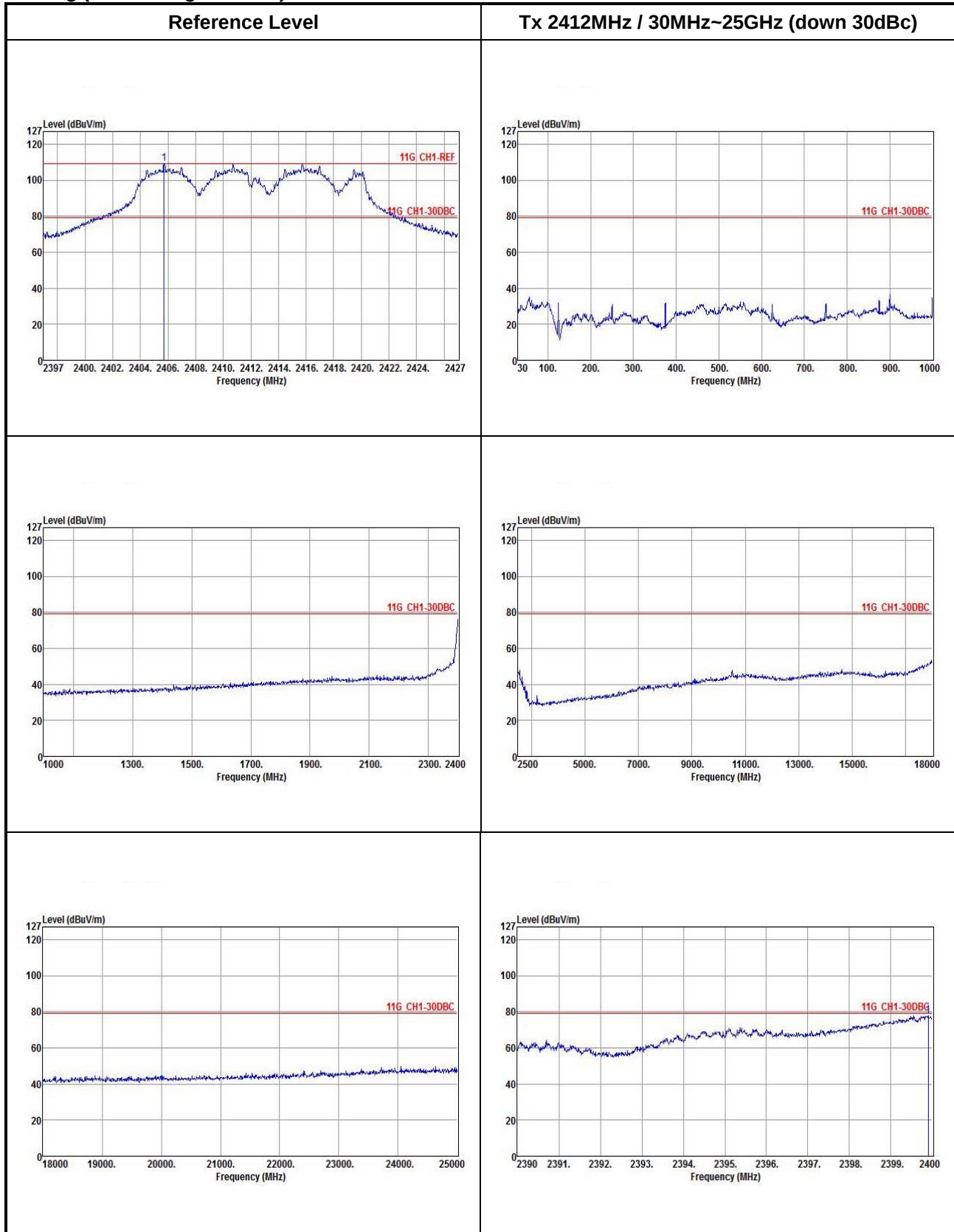
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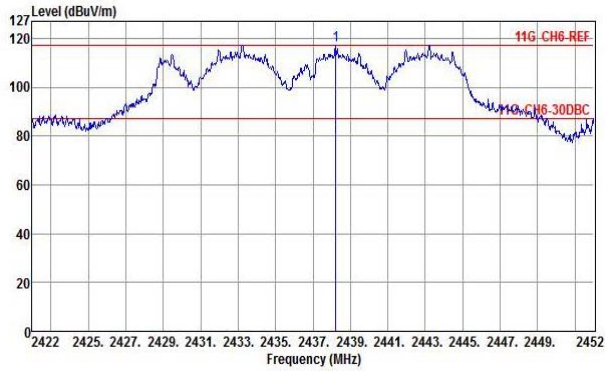
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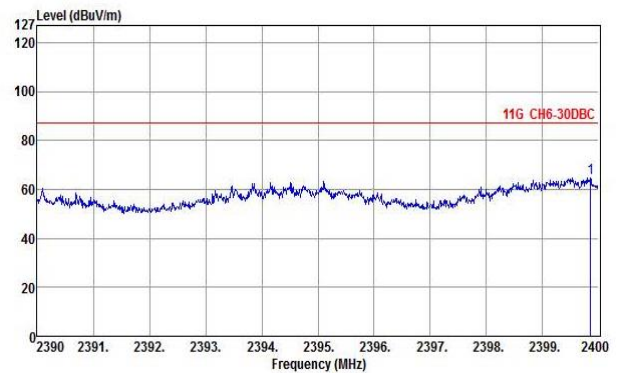
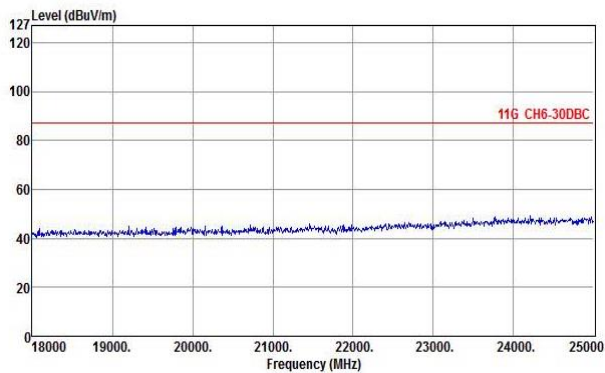
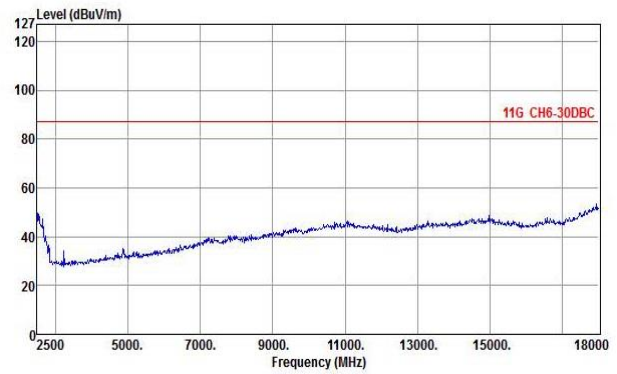
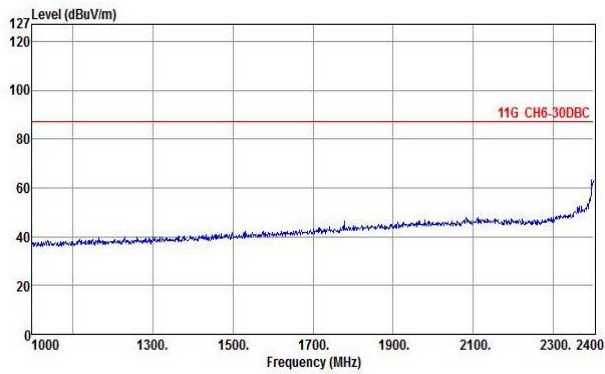
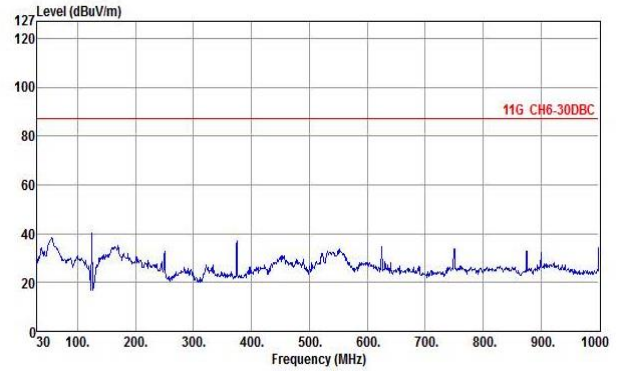
802.11g (Test Configuration 3)



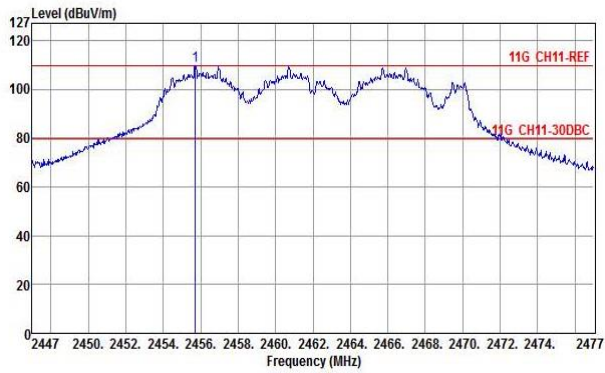
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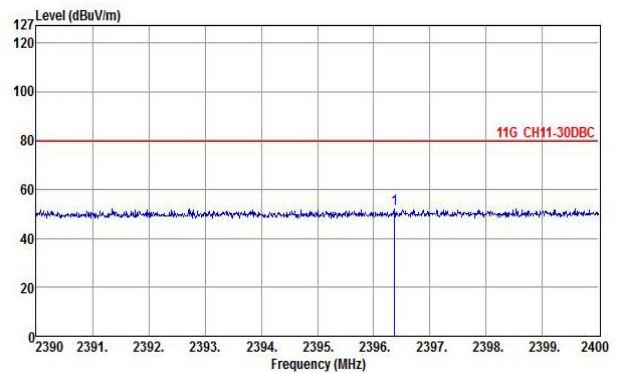
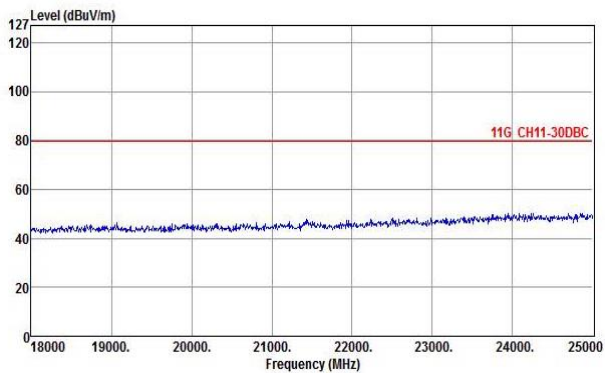
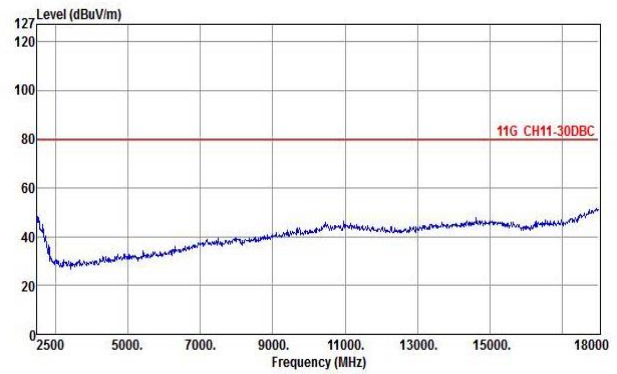
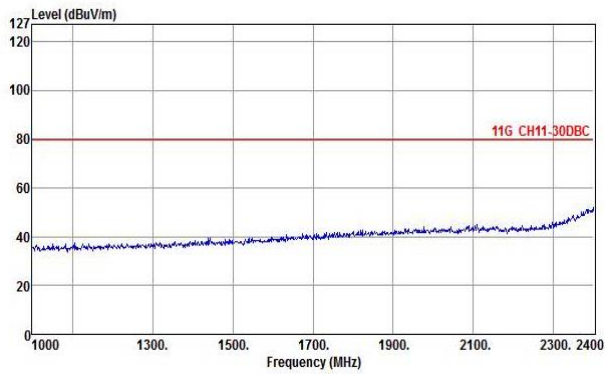
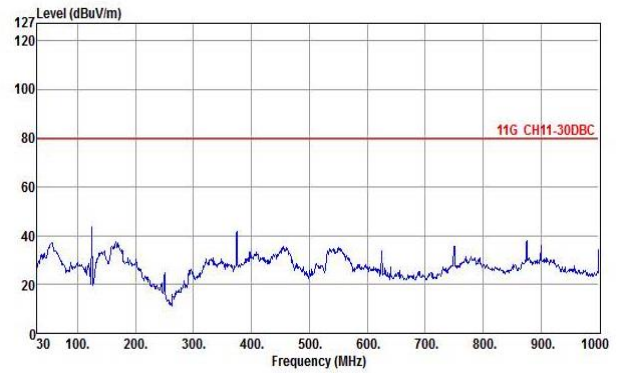
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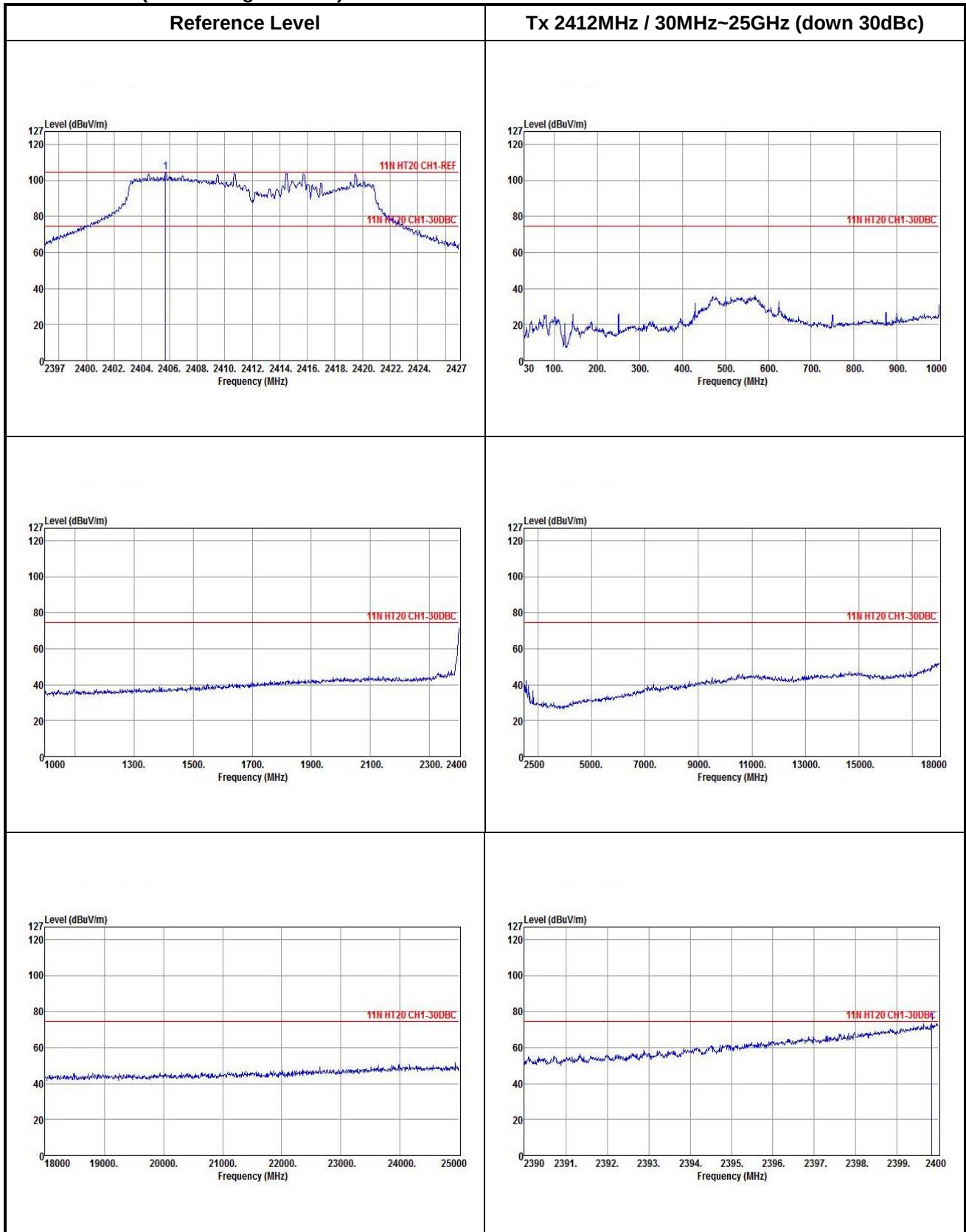
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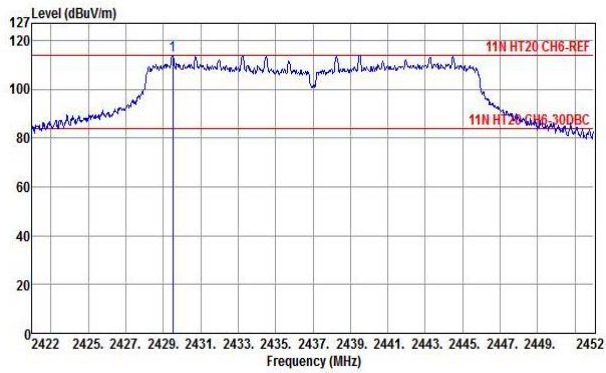
Tx 2462MHz / 30MHz~25GHz (down 30dBc)



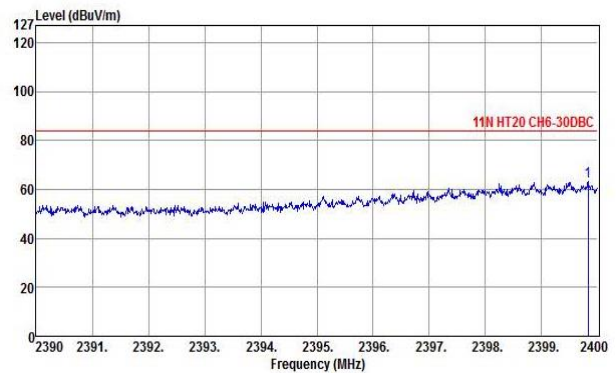
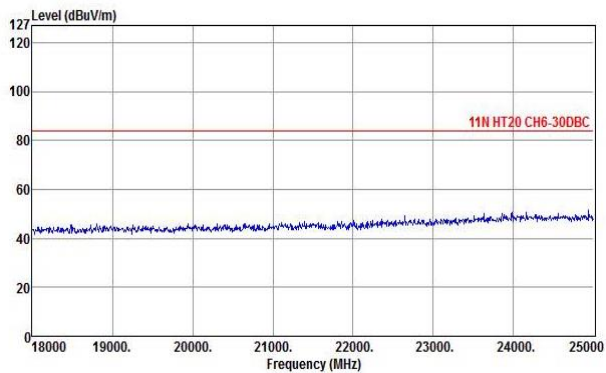
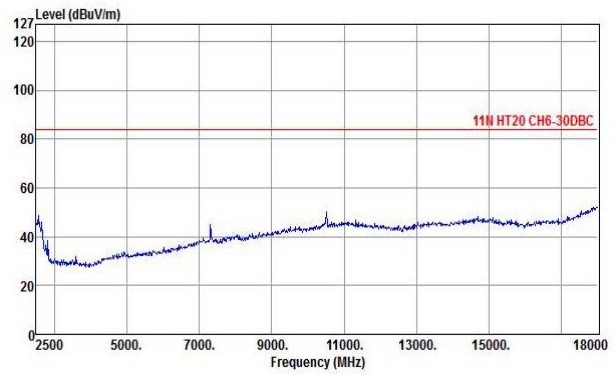
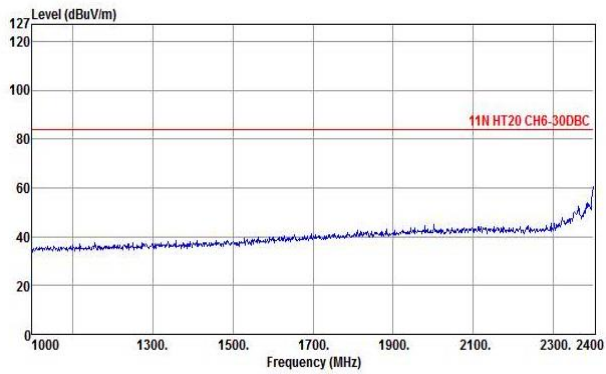
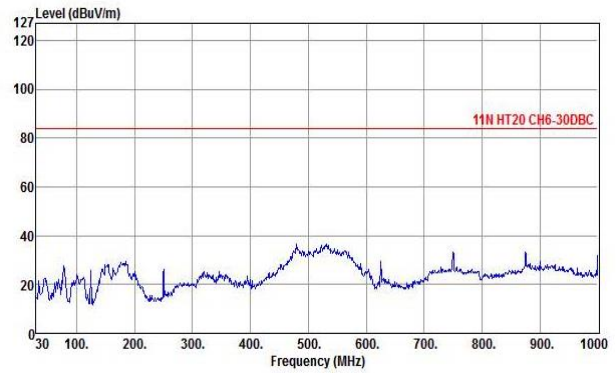
802.11n HT20 (Test Configuration 1)



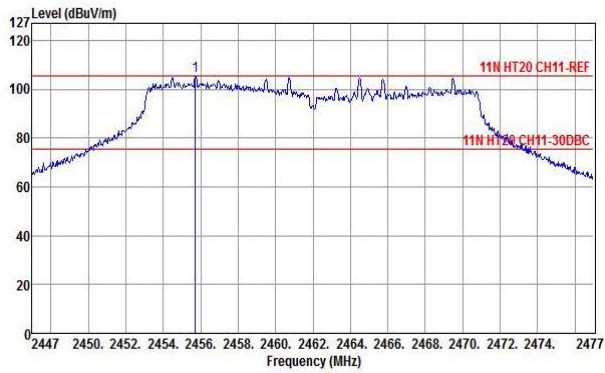
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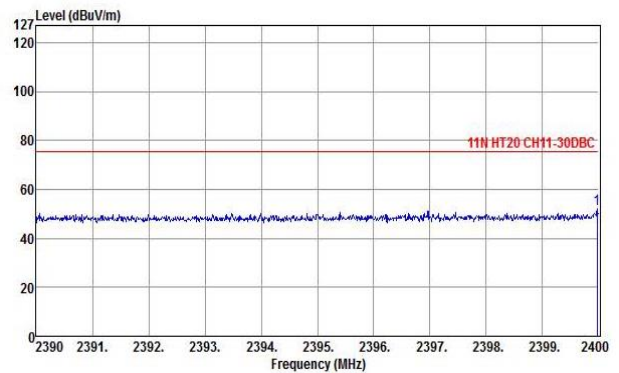
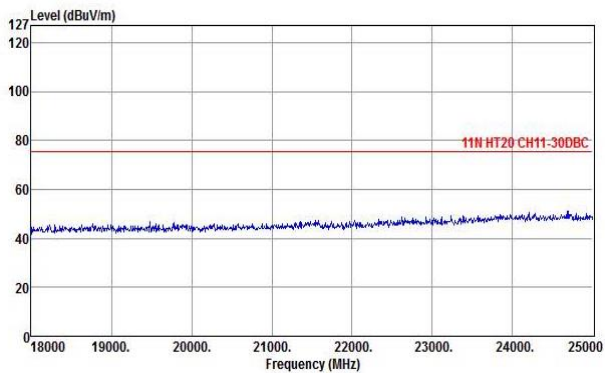
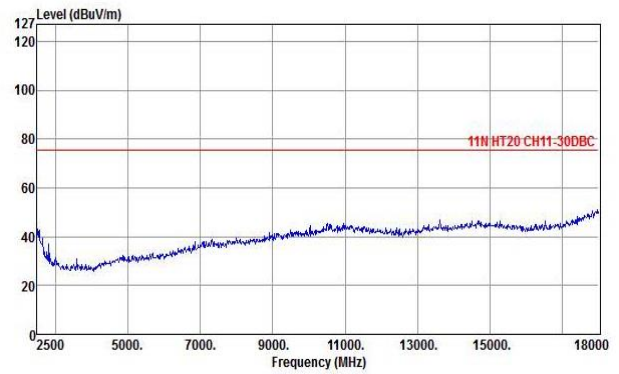
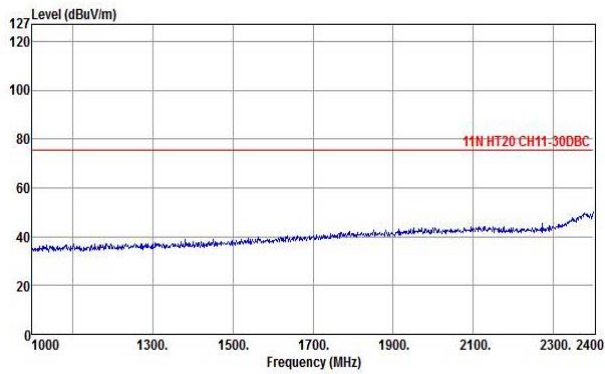
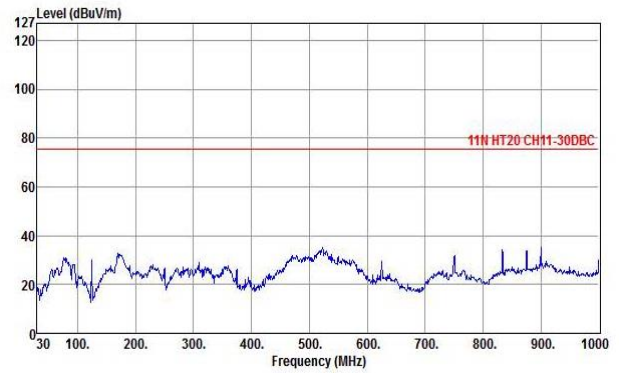
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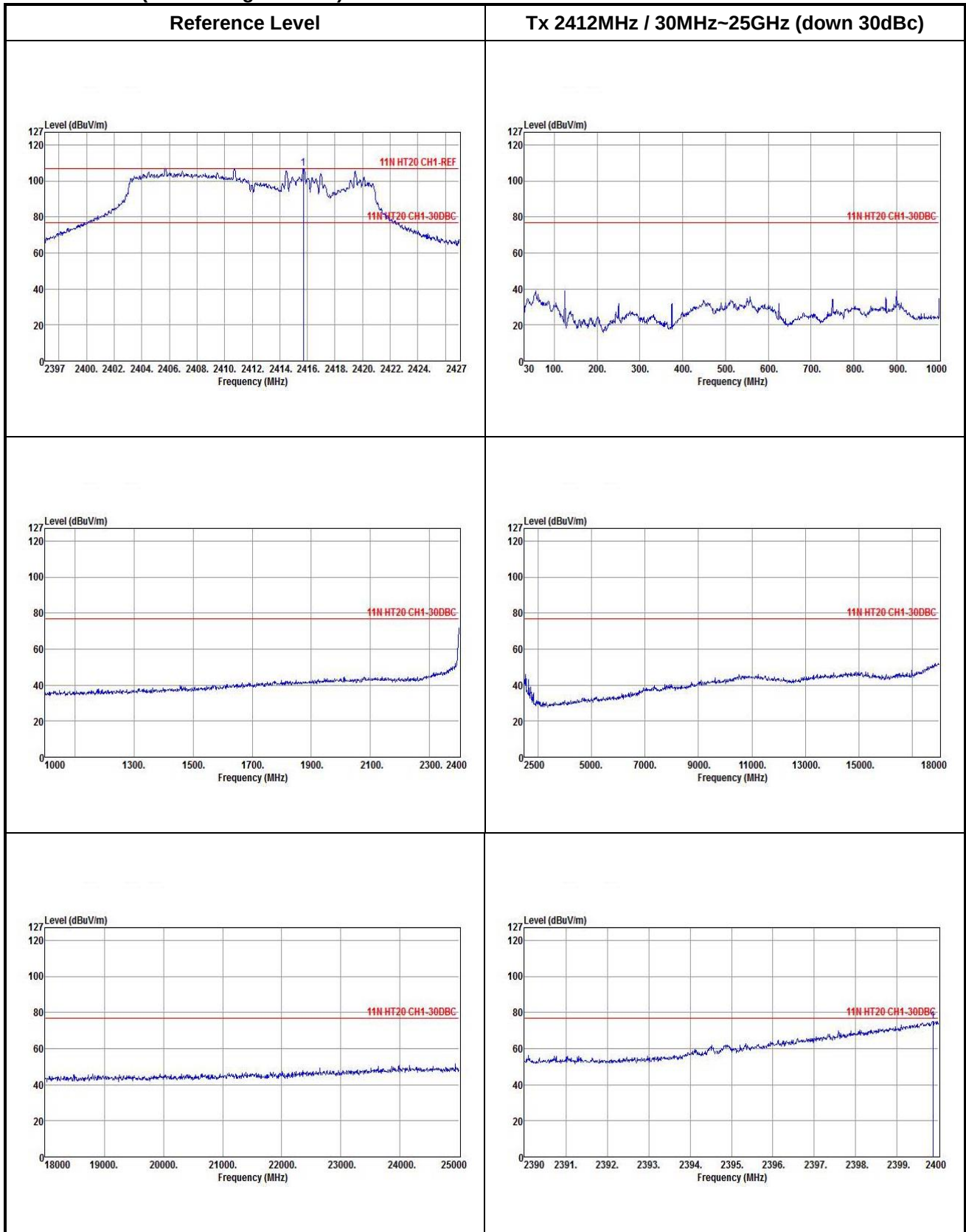
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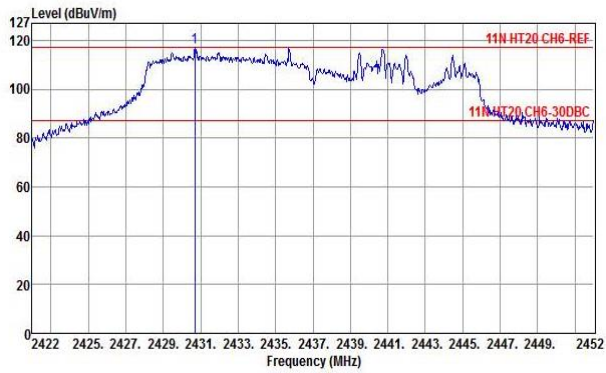
Tx 2462MHz / 30MHz~25GHz (down 30dBc)



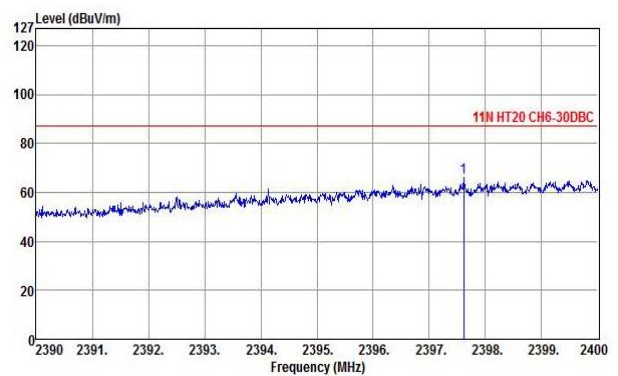
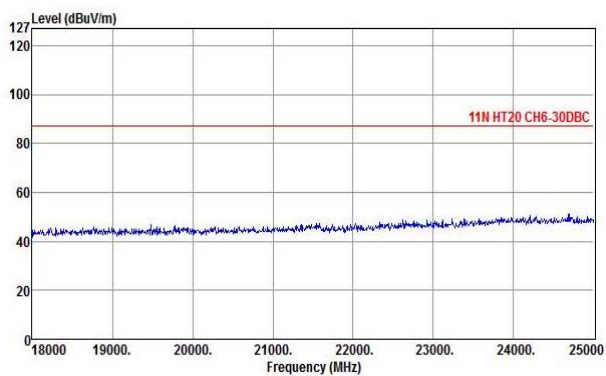
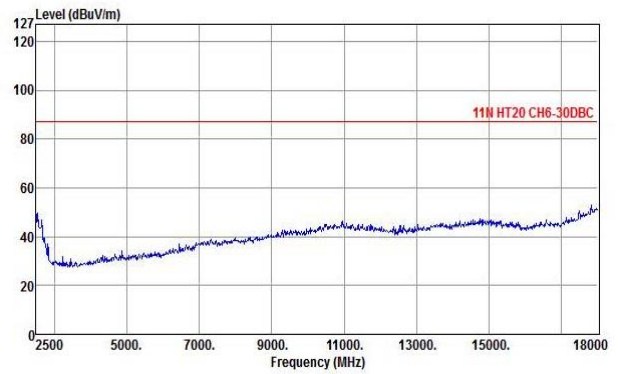
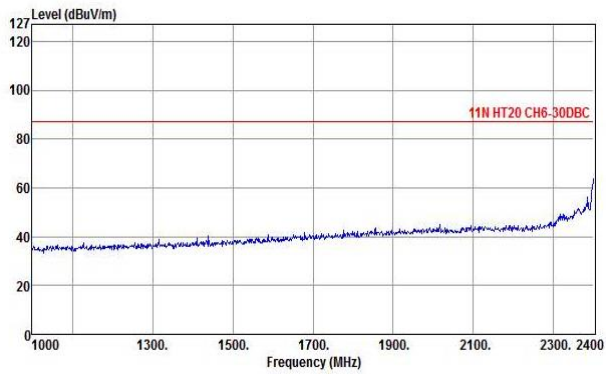
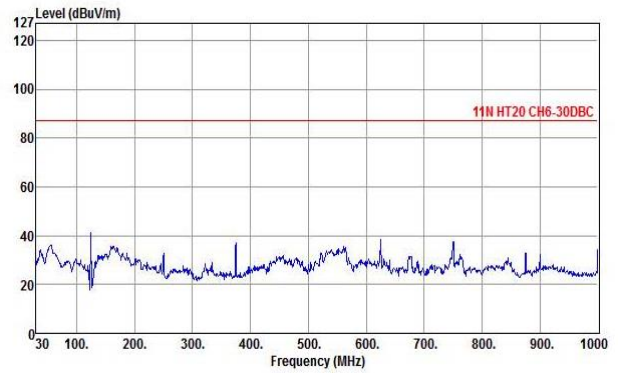
802.11n HT20 (Test Configuration 3)



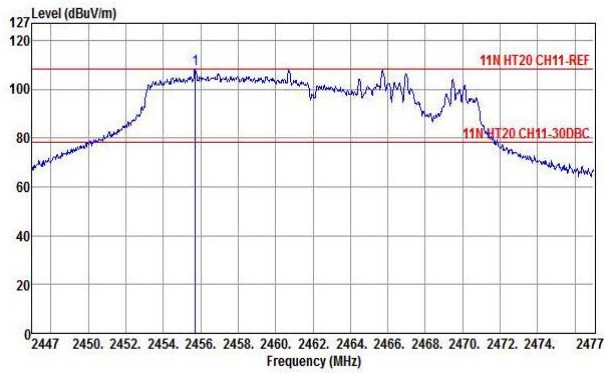
Reference Level



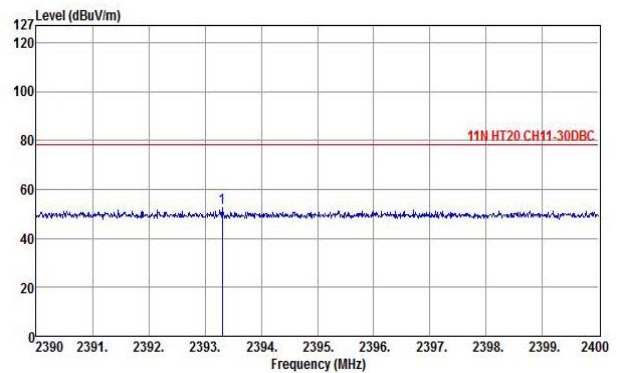
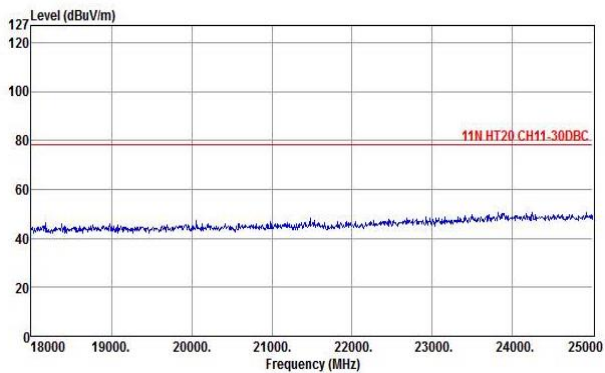
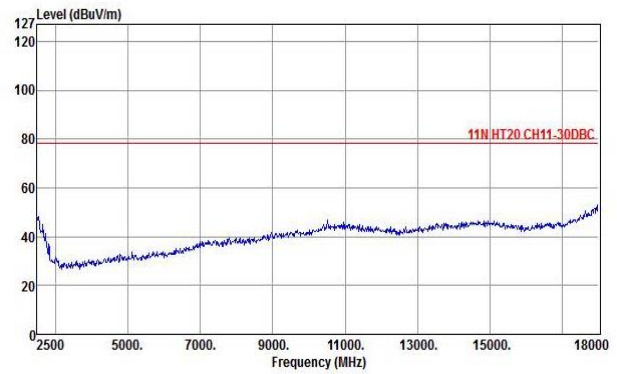
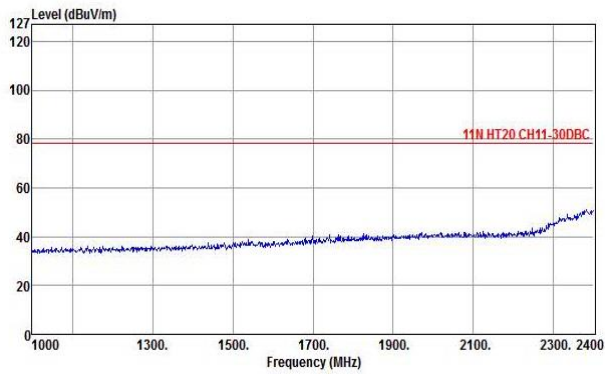
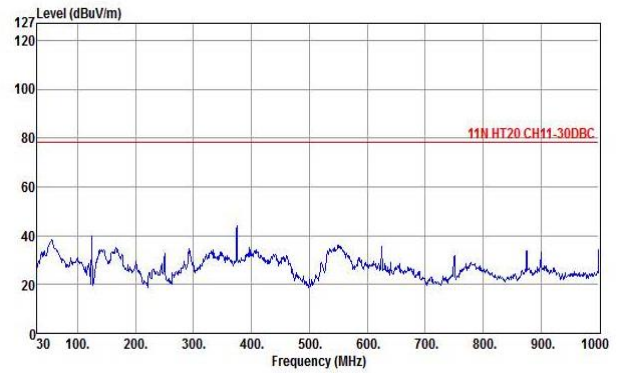
Tx 2437MHz / 30MHz~25GHz (down 30dBc)



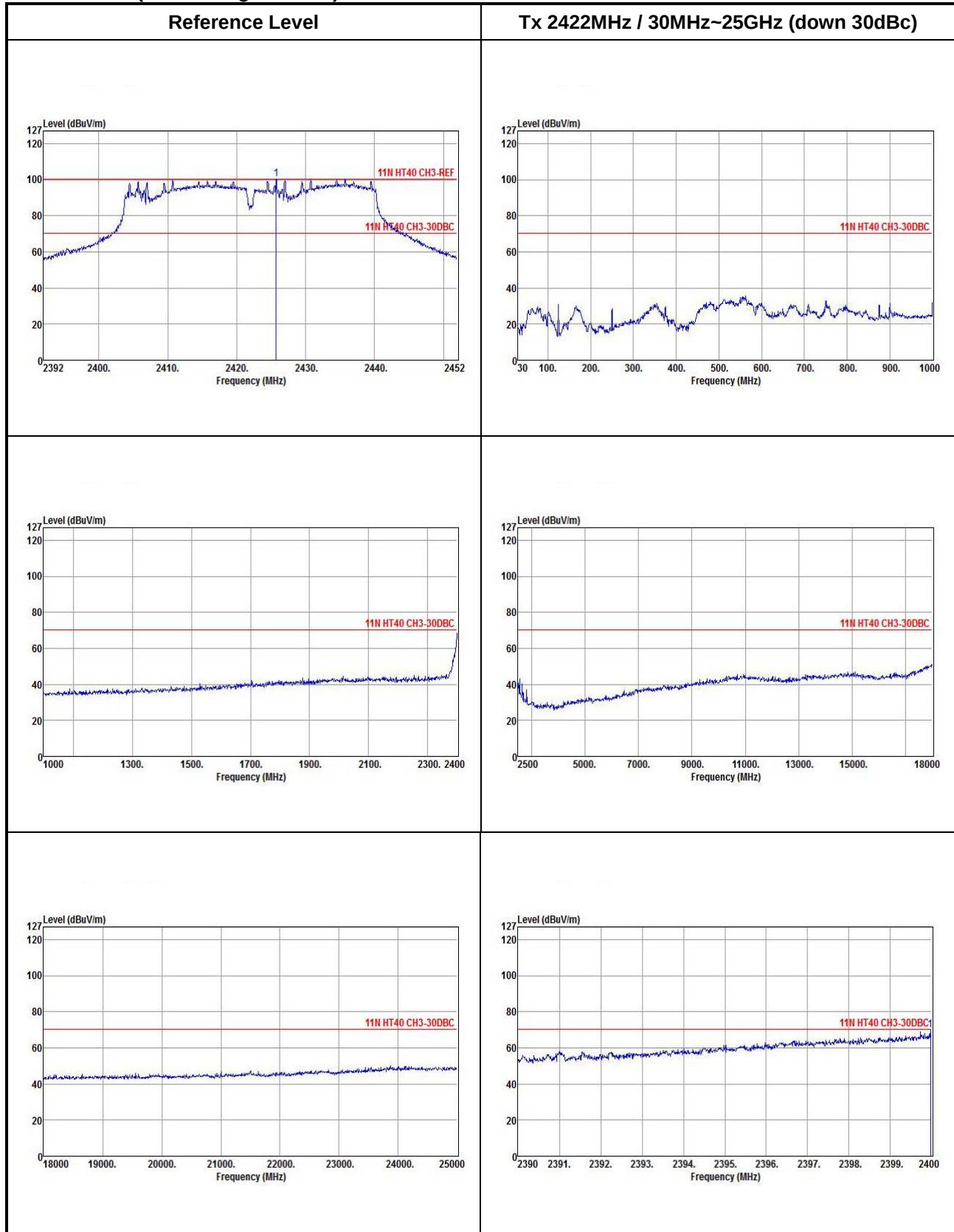
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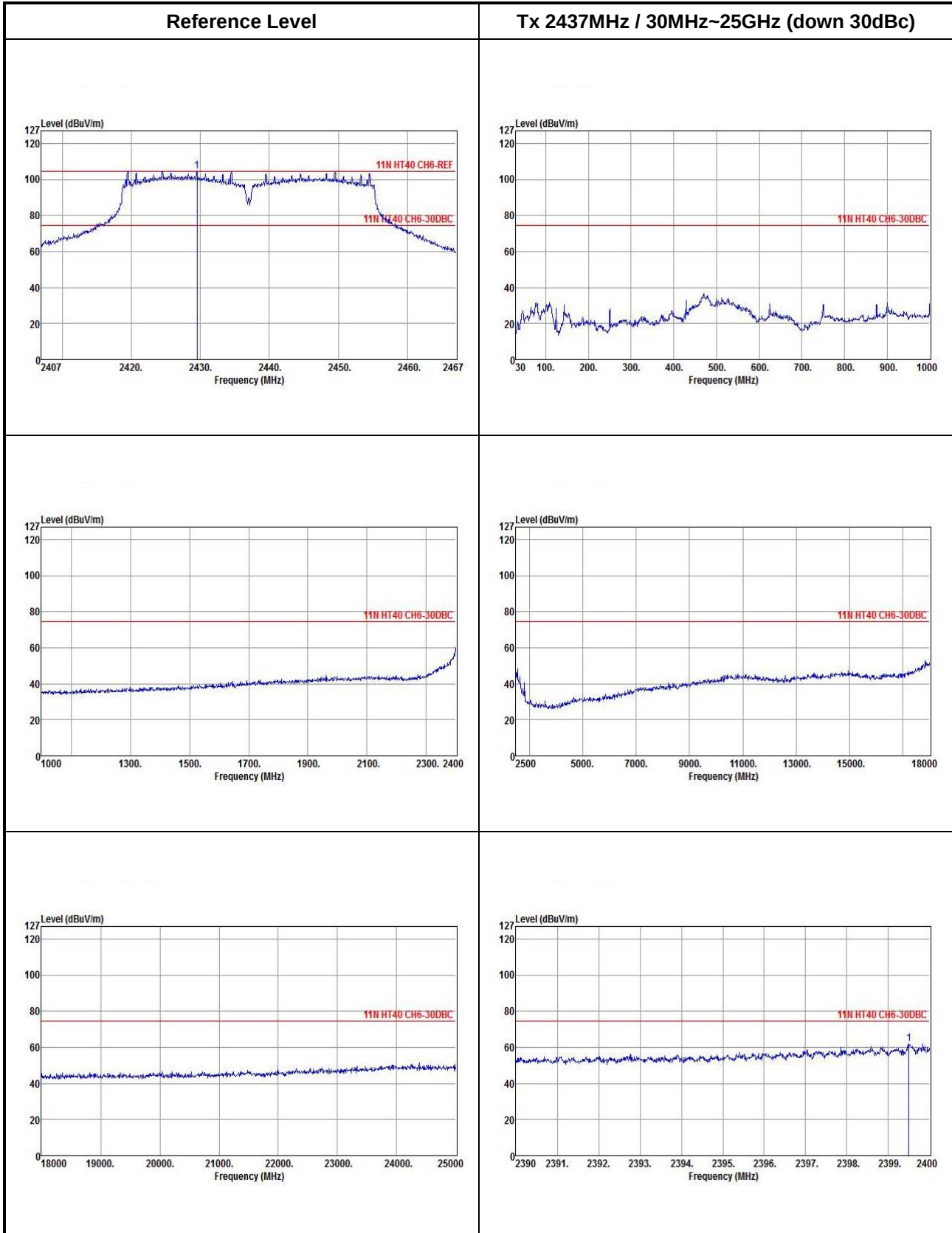


Tx 2462MHz / 30MHz~25GHz (down 30dBc)

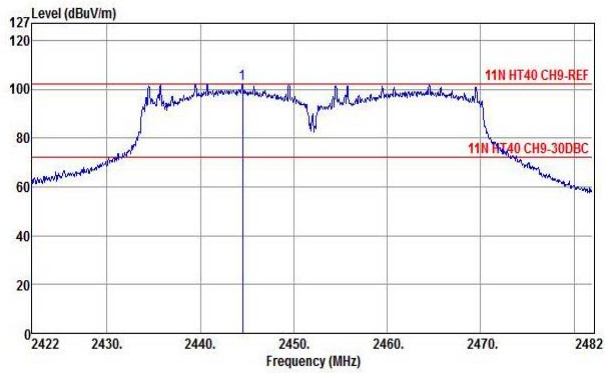


802.11n HT40 (Test Configuration 1)

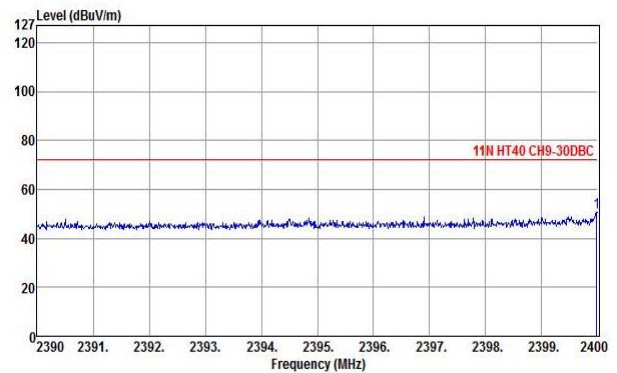
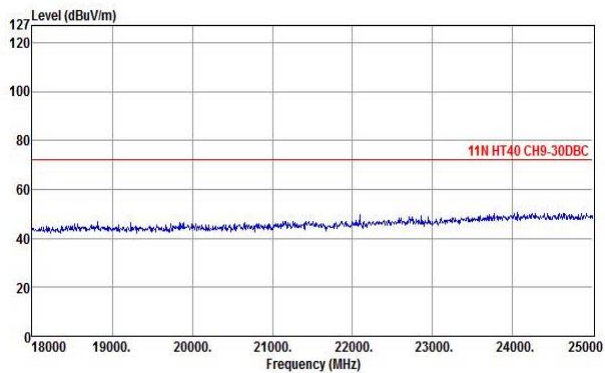
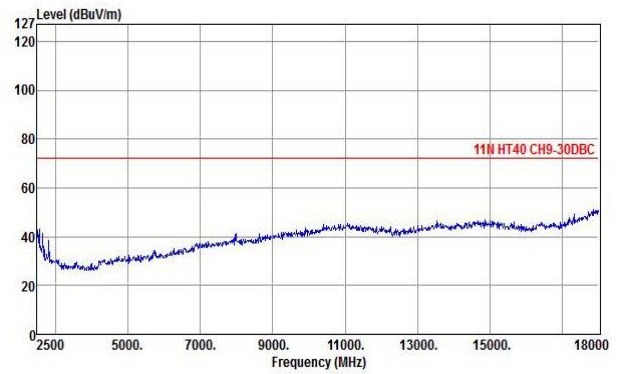
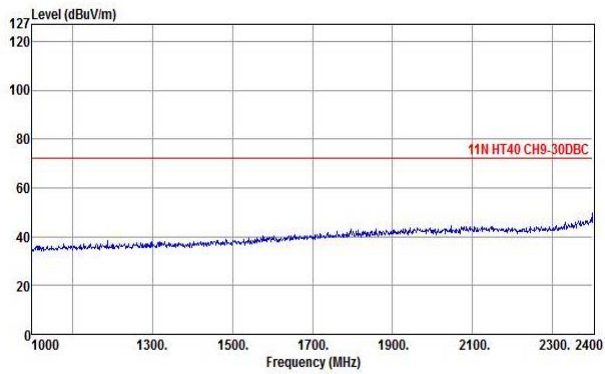
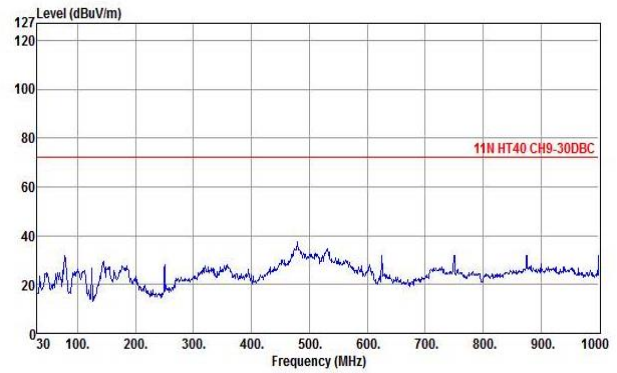




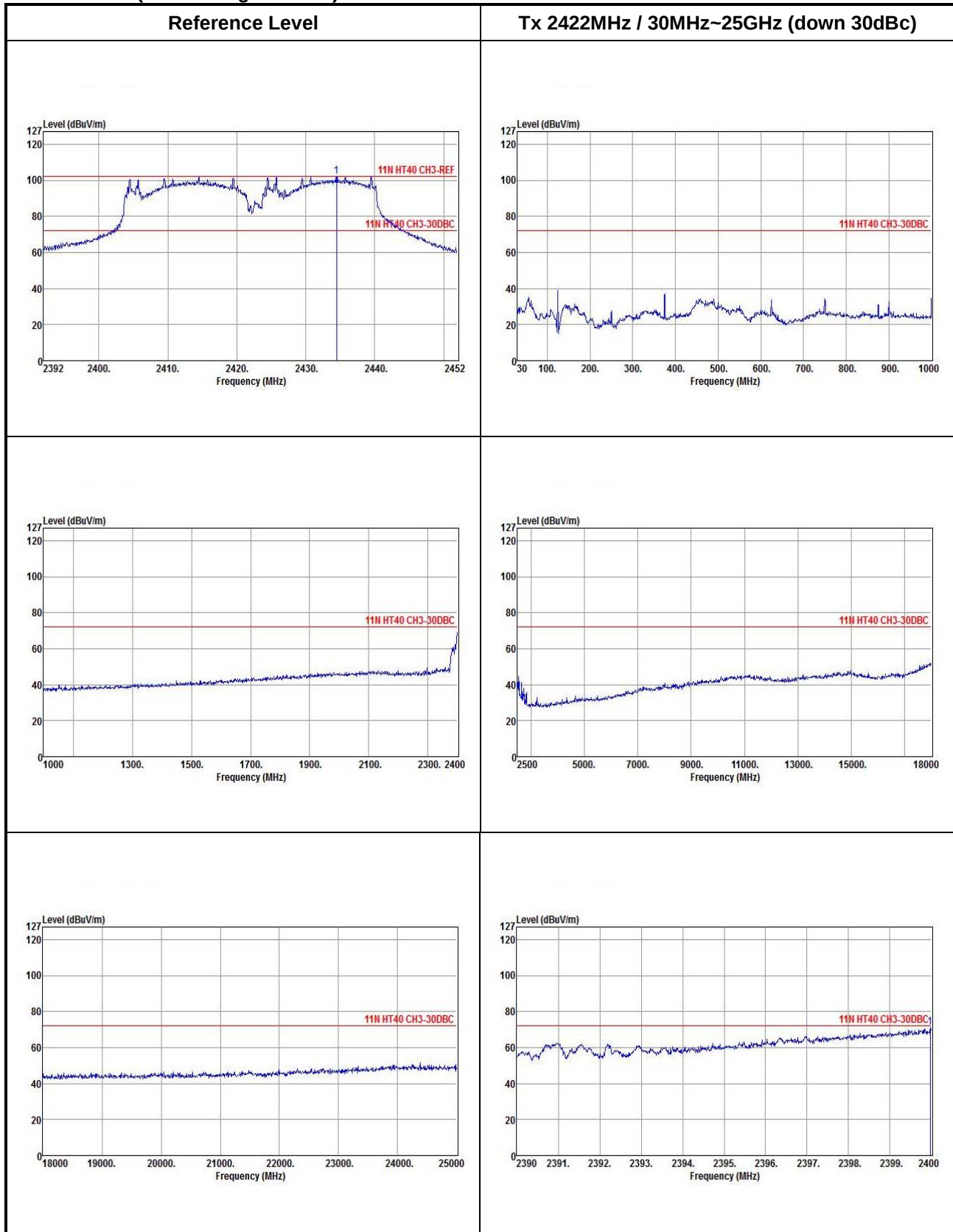
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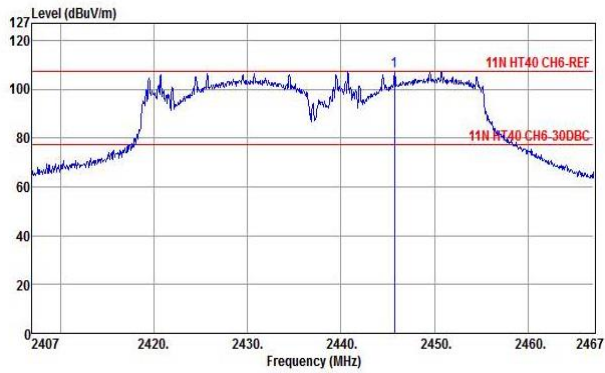
Tx 2452MHz / 30MHz~25GHz (down 30dBc)



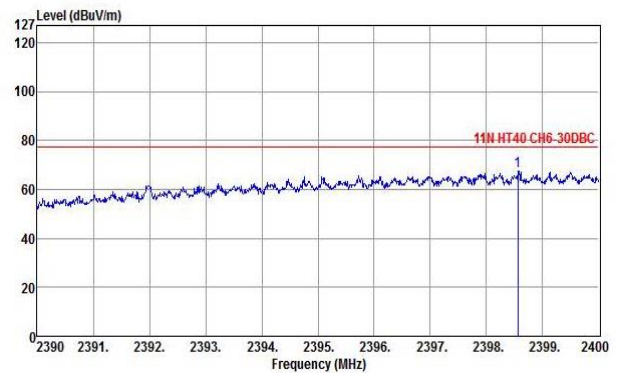
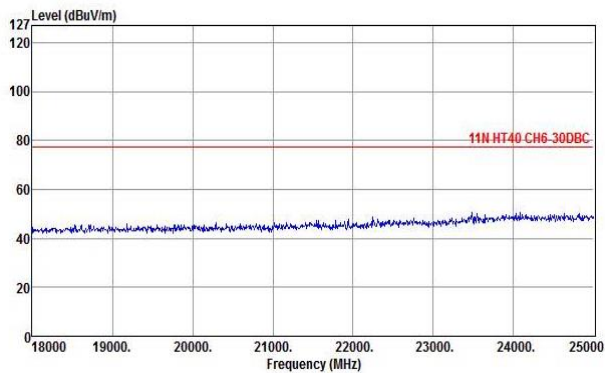
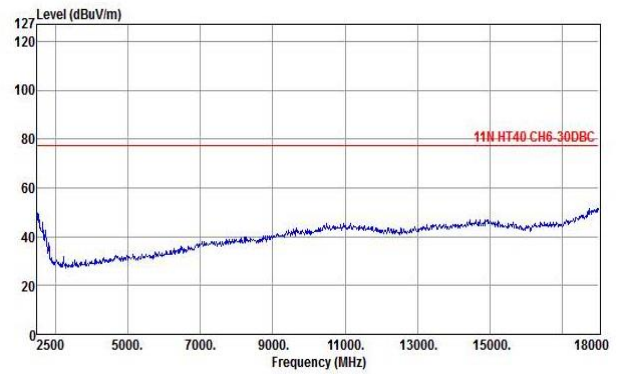
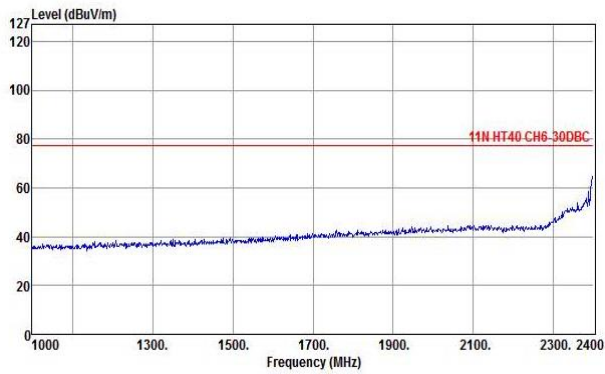
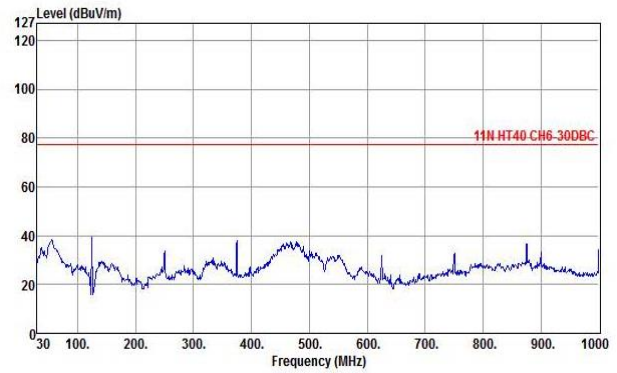
802.11n HT40 (Test Configuration 3)



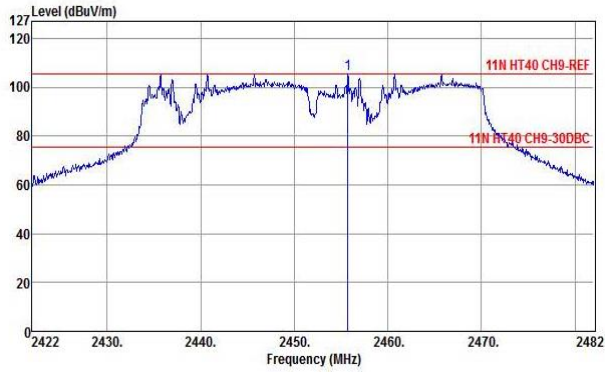
Reference Level



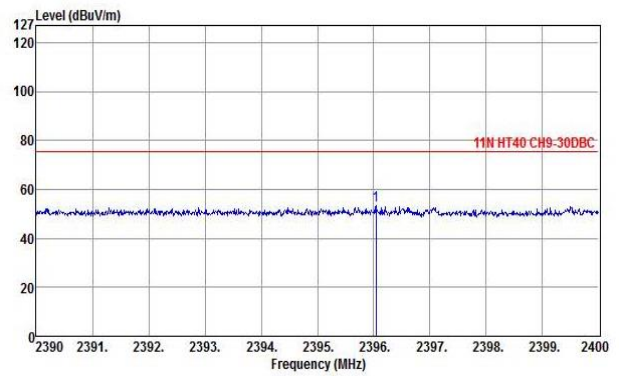
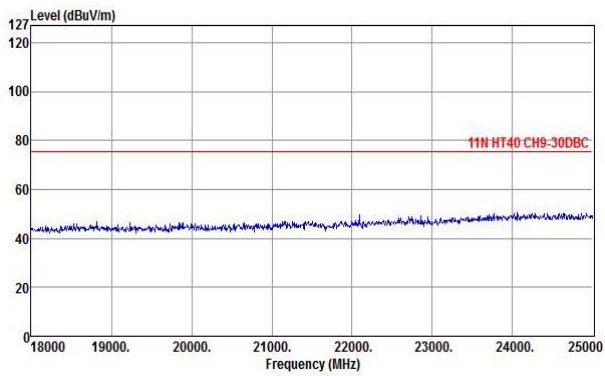
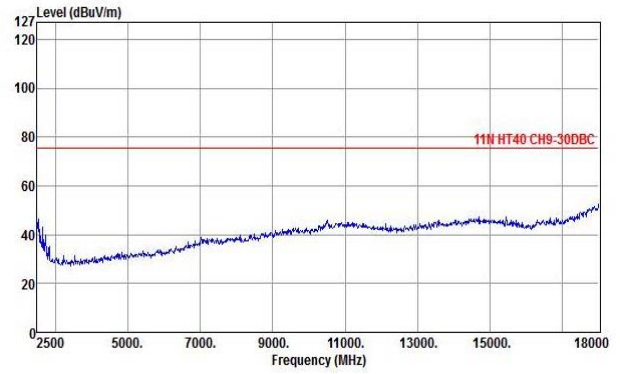
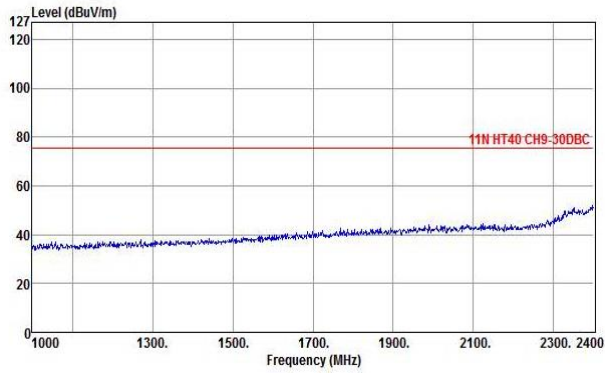
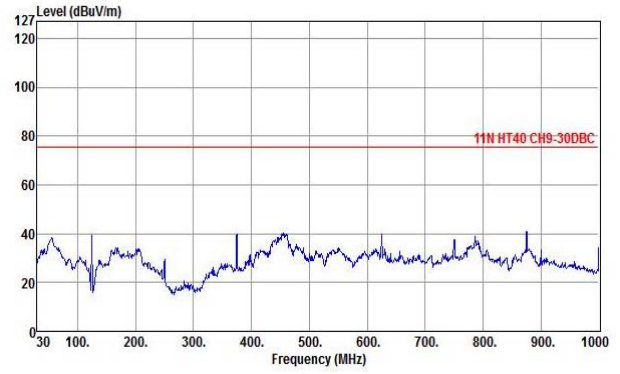
Tx 2437MHz / 30MHz~25GHz (down 30dBc)



Reference Level



Tx 2452MHz / 30MHz~25GHz (down 30dBc)



4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan,
R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd
St., Kwei Shan Hsiang, Tao Yuan
Hsien 333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan Hsiang, Tao Yuan
Hsien 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==