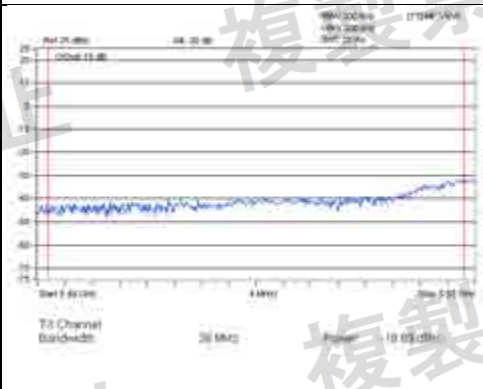
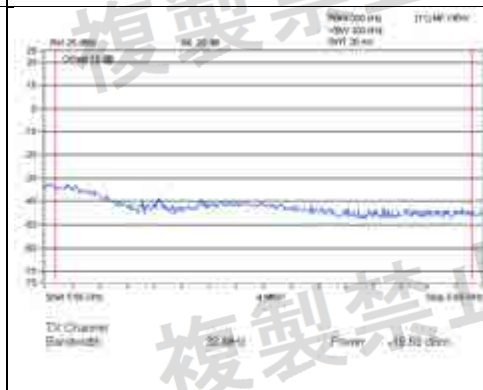
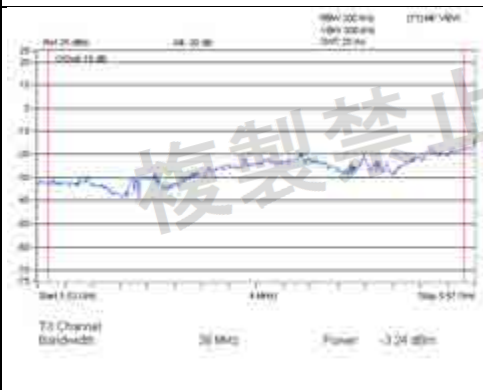
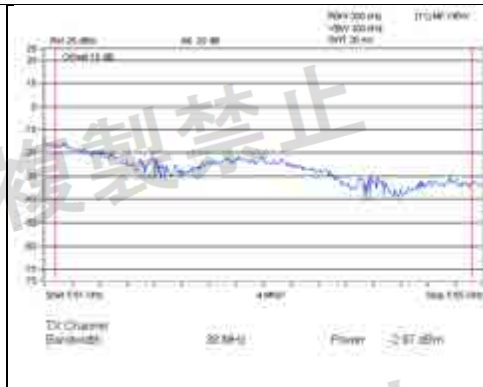
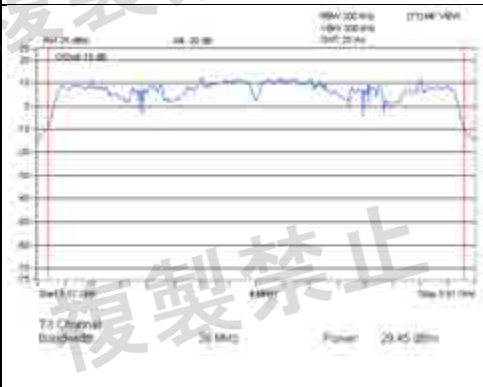
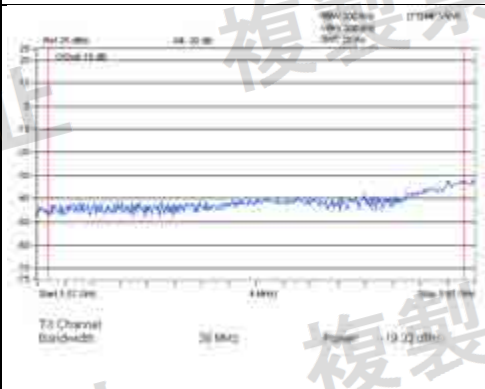
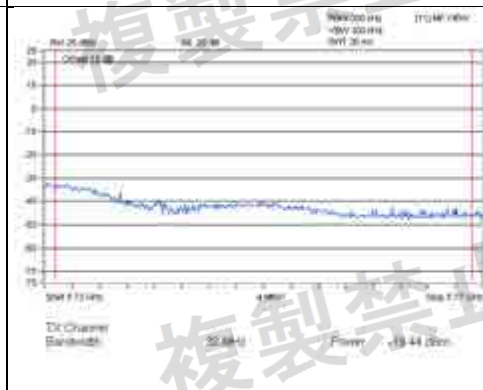
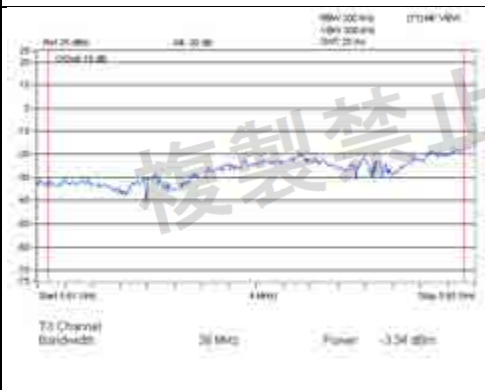
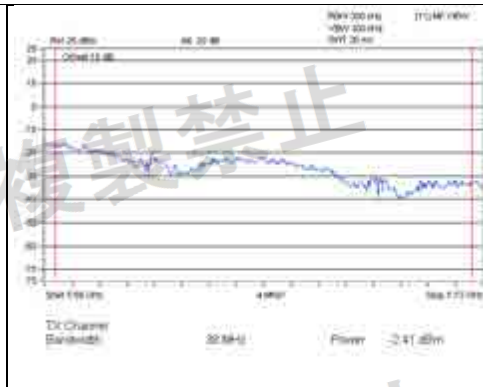
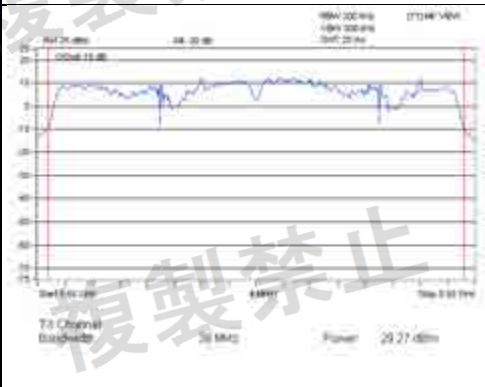


V normal



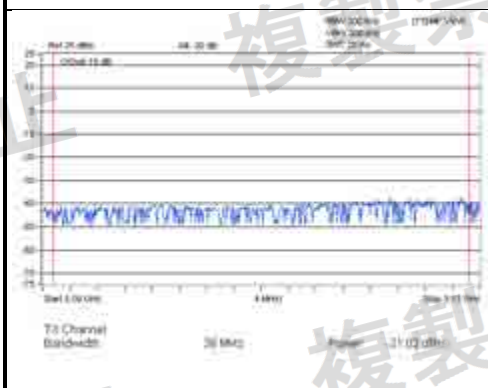
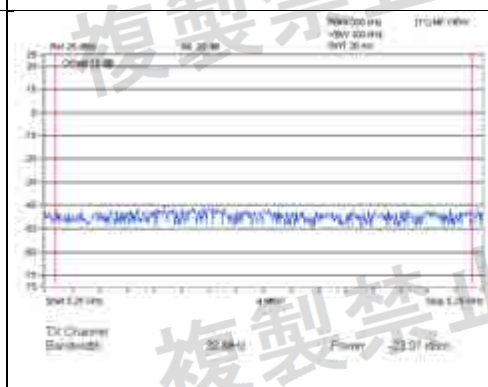
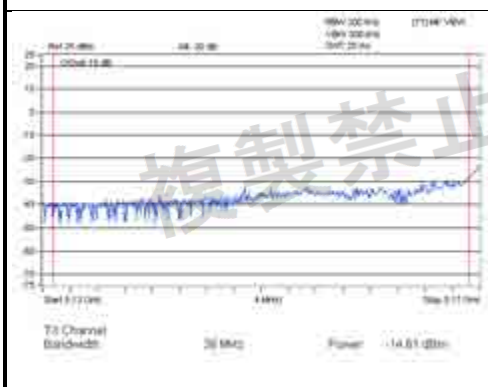
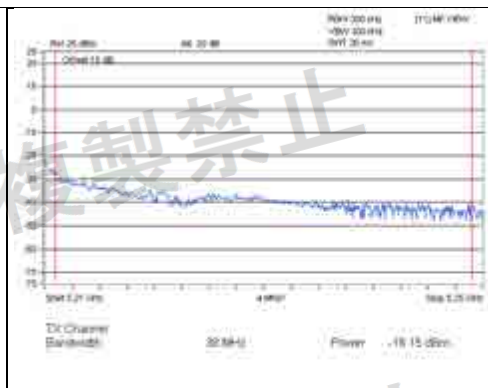
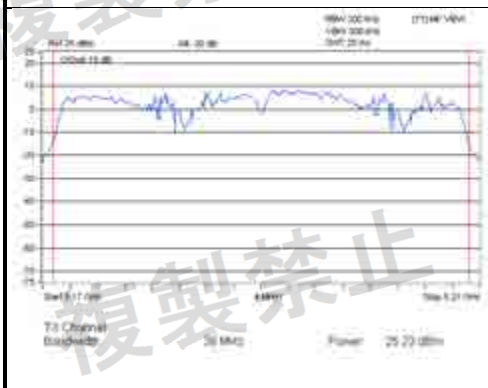
Channel 118

V normal



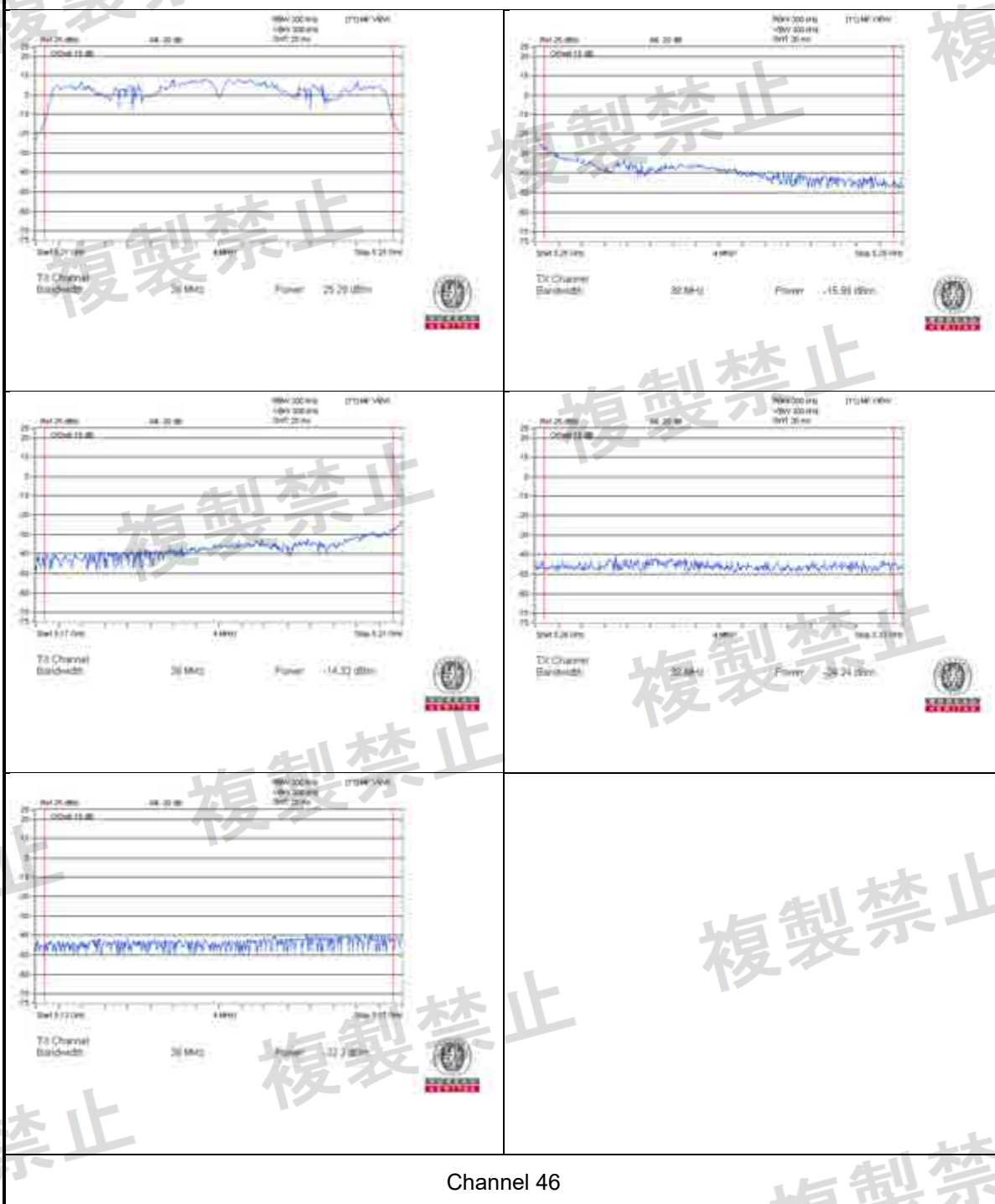
Channel 134

V_{max}

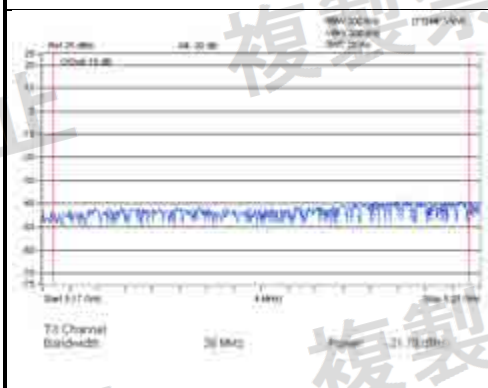
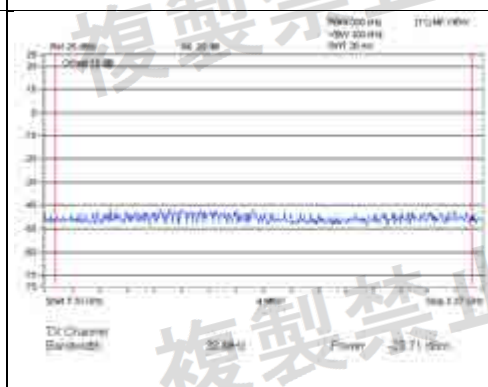
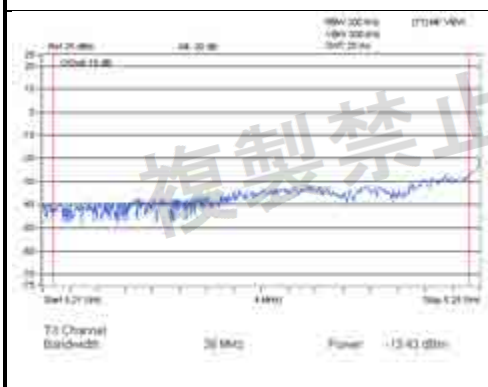
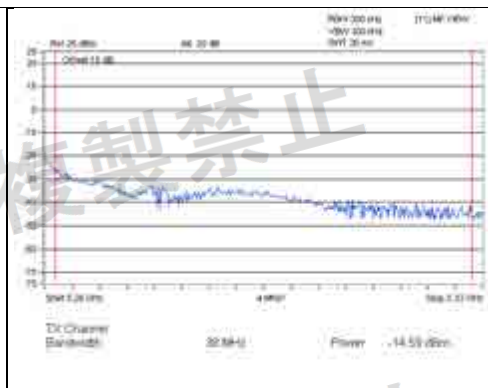


Channel 38

V_{max}

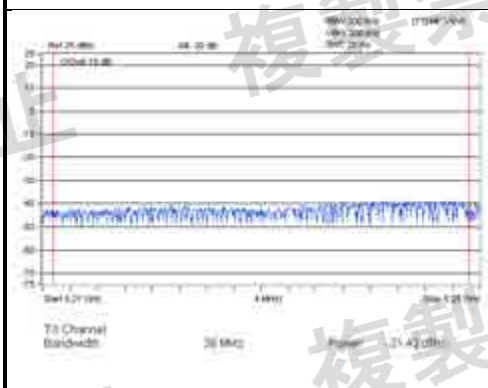
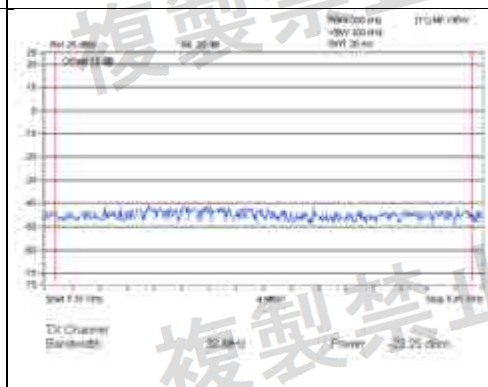
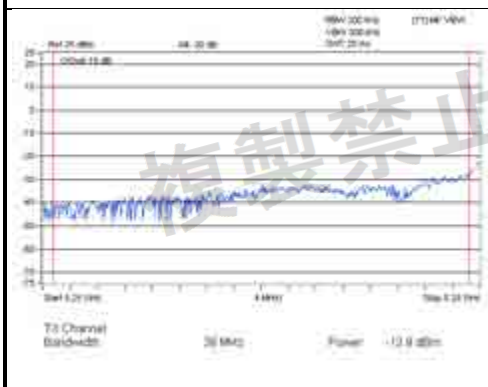
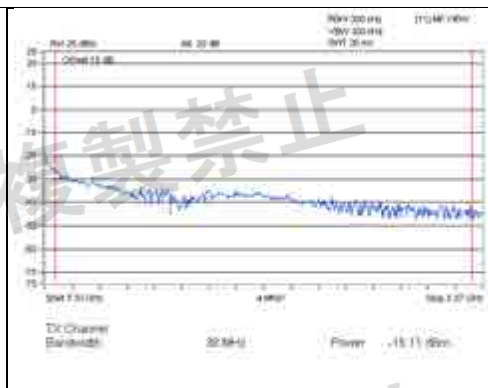
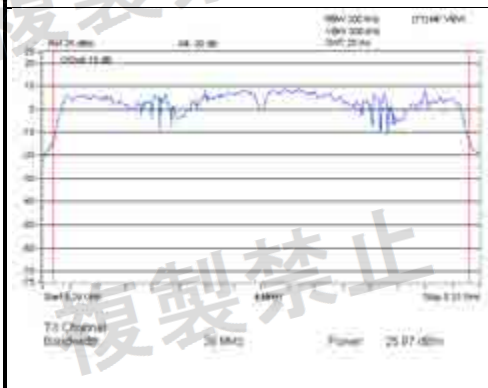


V_{max}



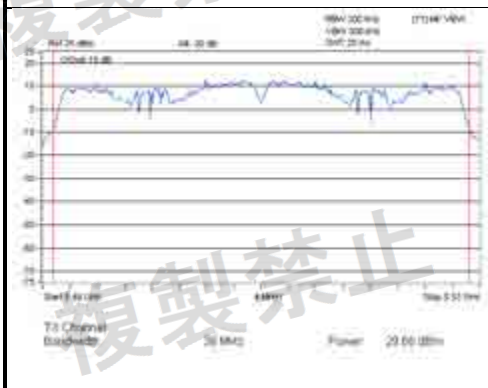
Channel 54

V_{max}

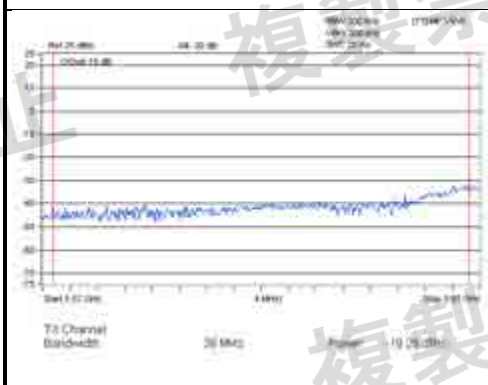
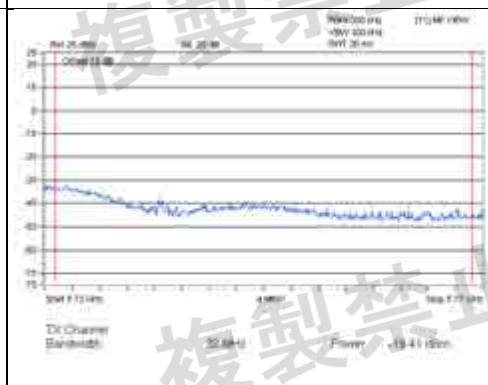
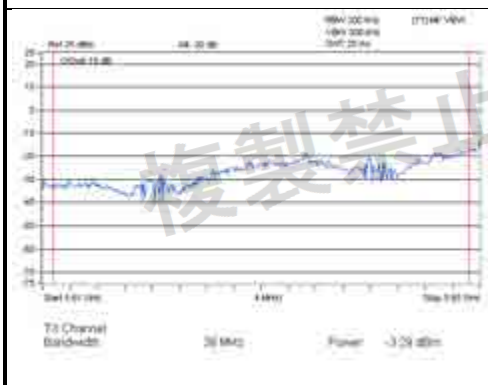
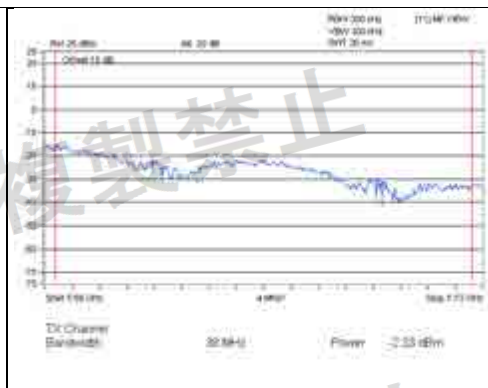
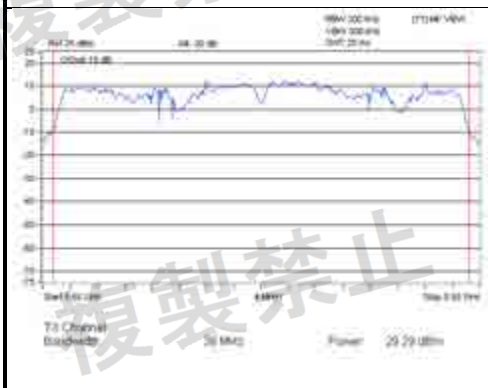


Channel 62

V_{max}

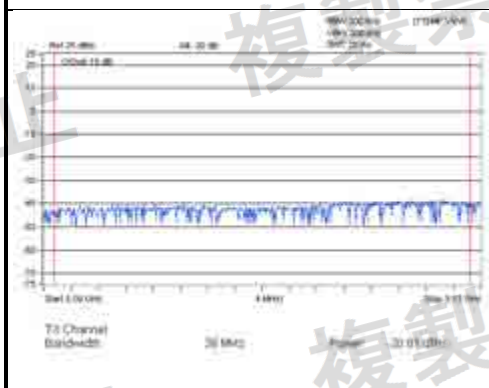
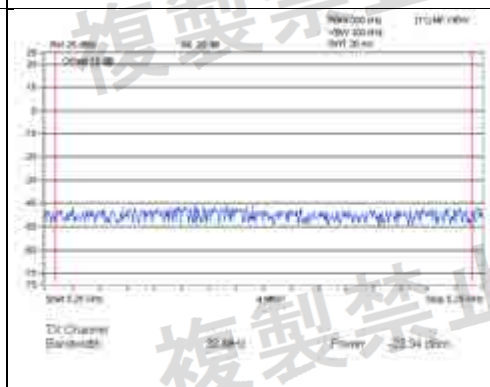
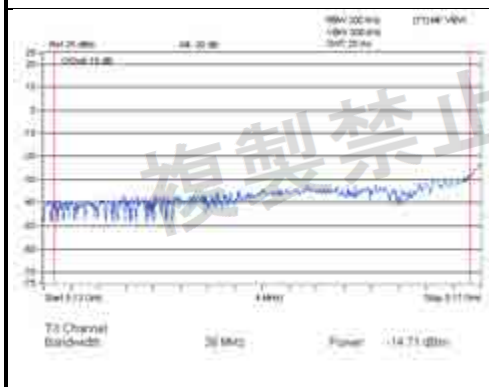
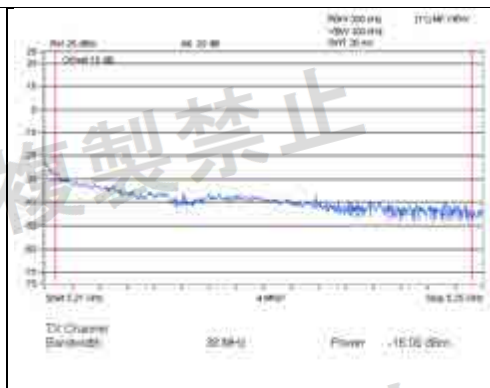


V_{max}



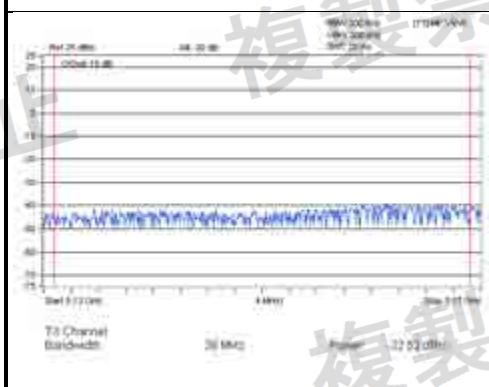
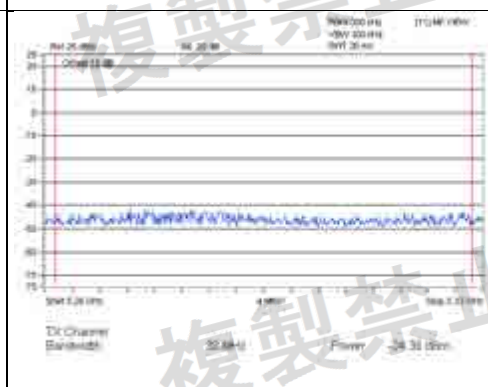
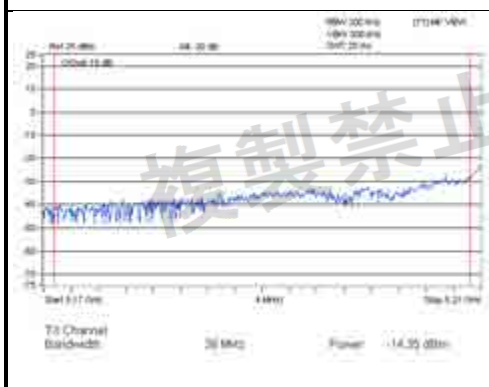
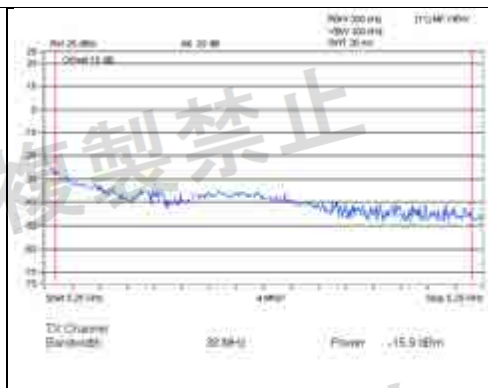
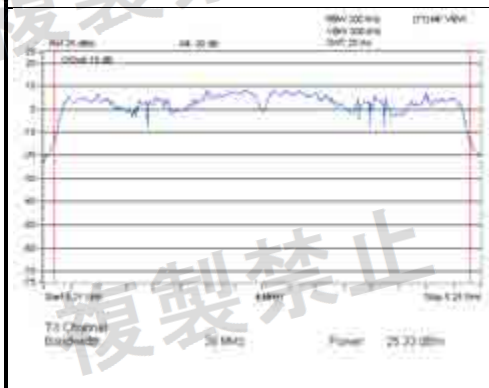
Channel 134

V_{min}



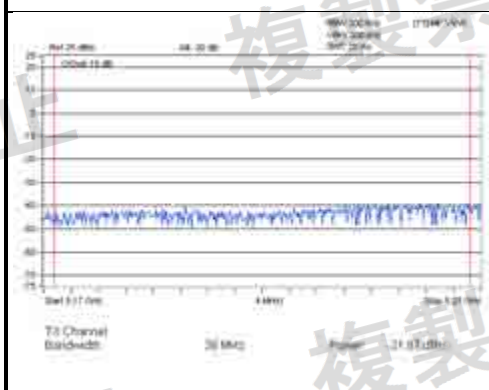
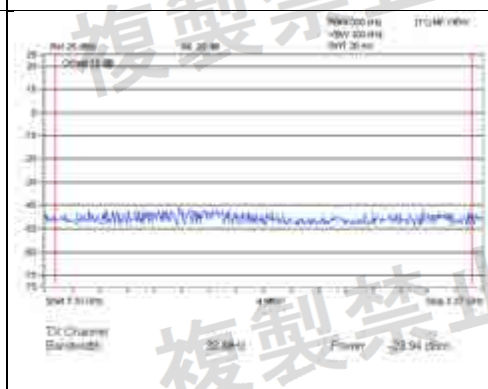
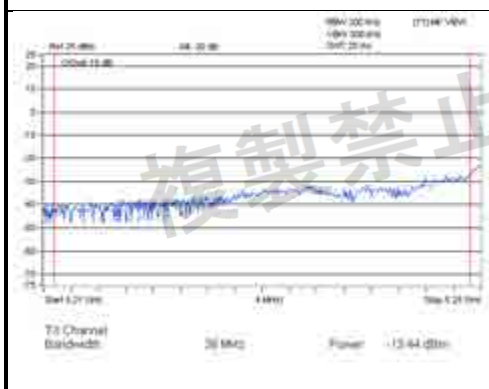
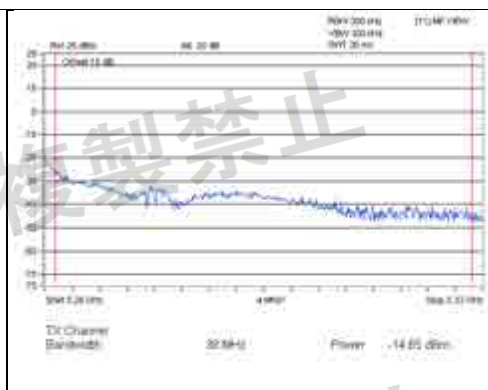
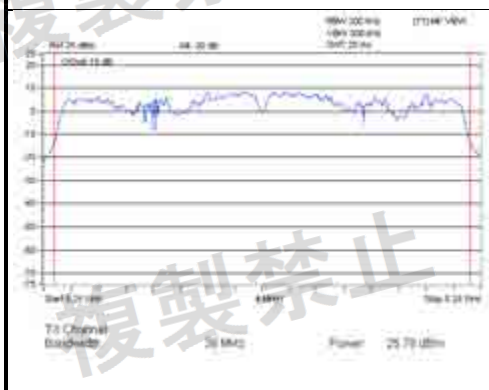
Channel 38

V_{min}



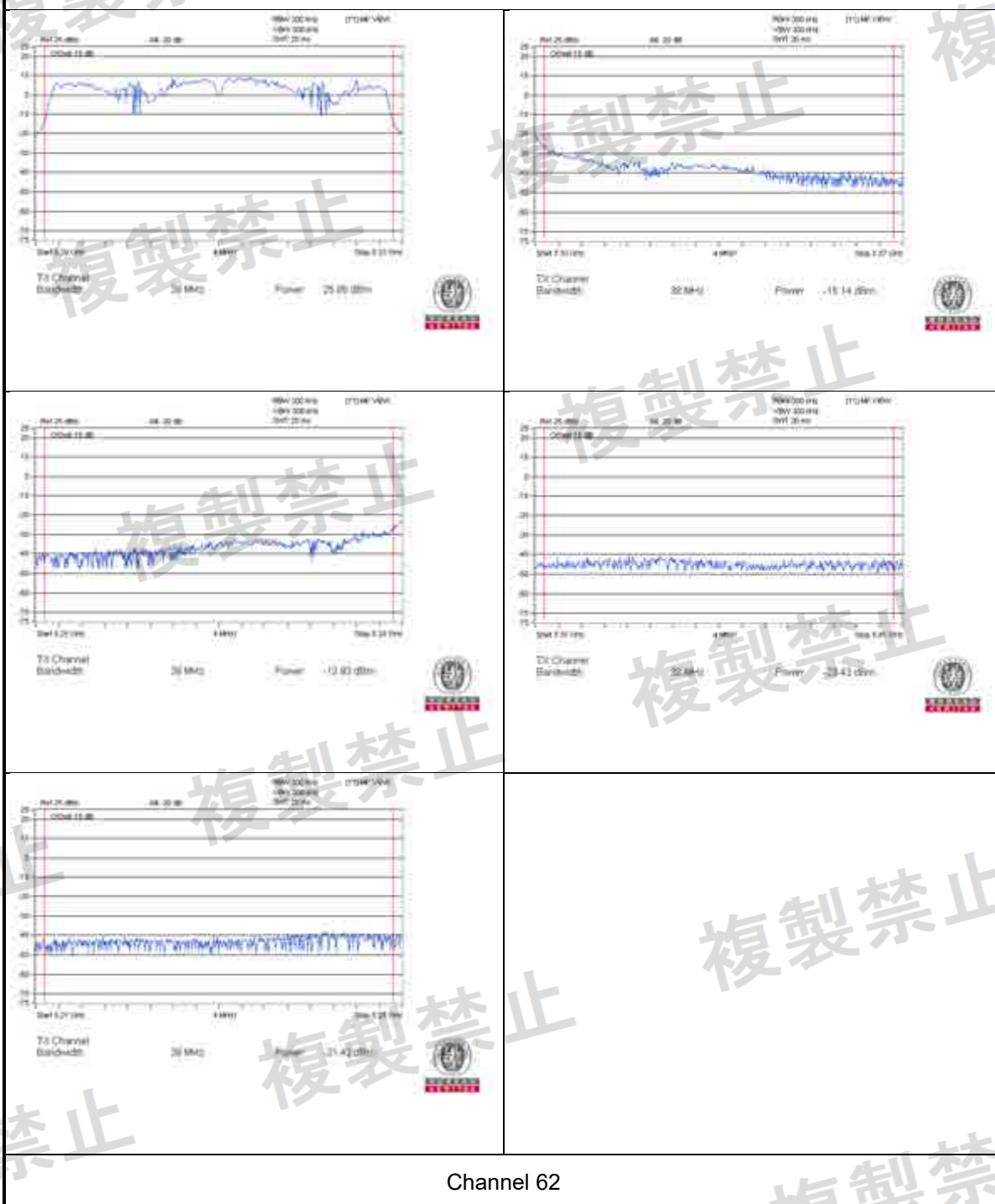
Channel 46

V_{min}

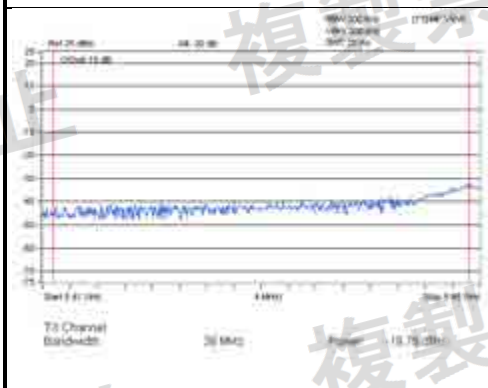
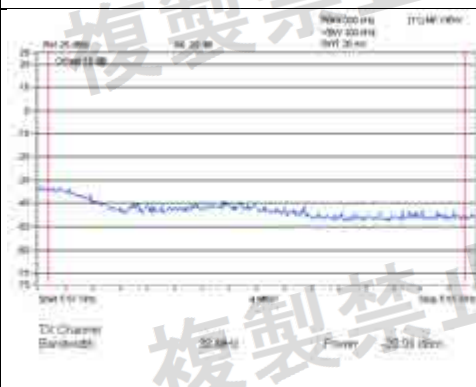
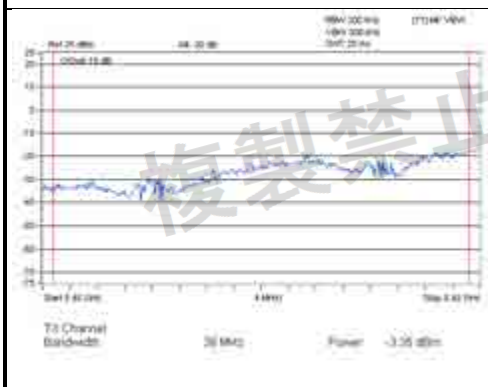
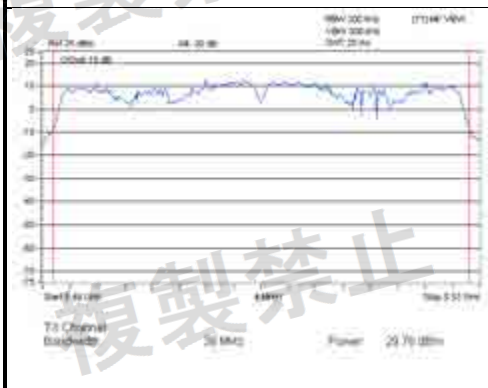


Channel 54

V_{min}

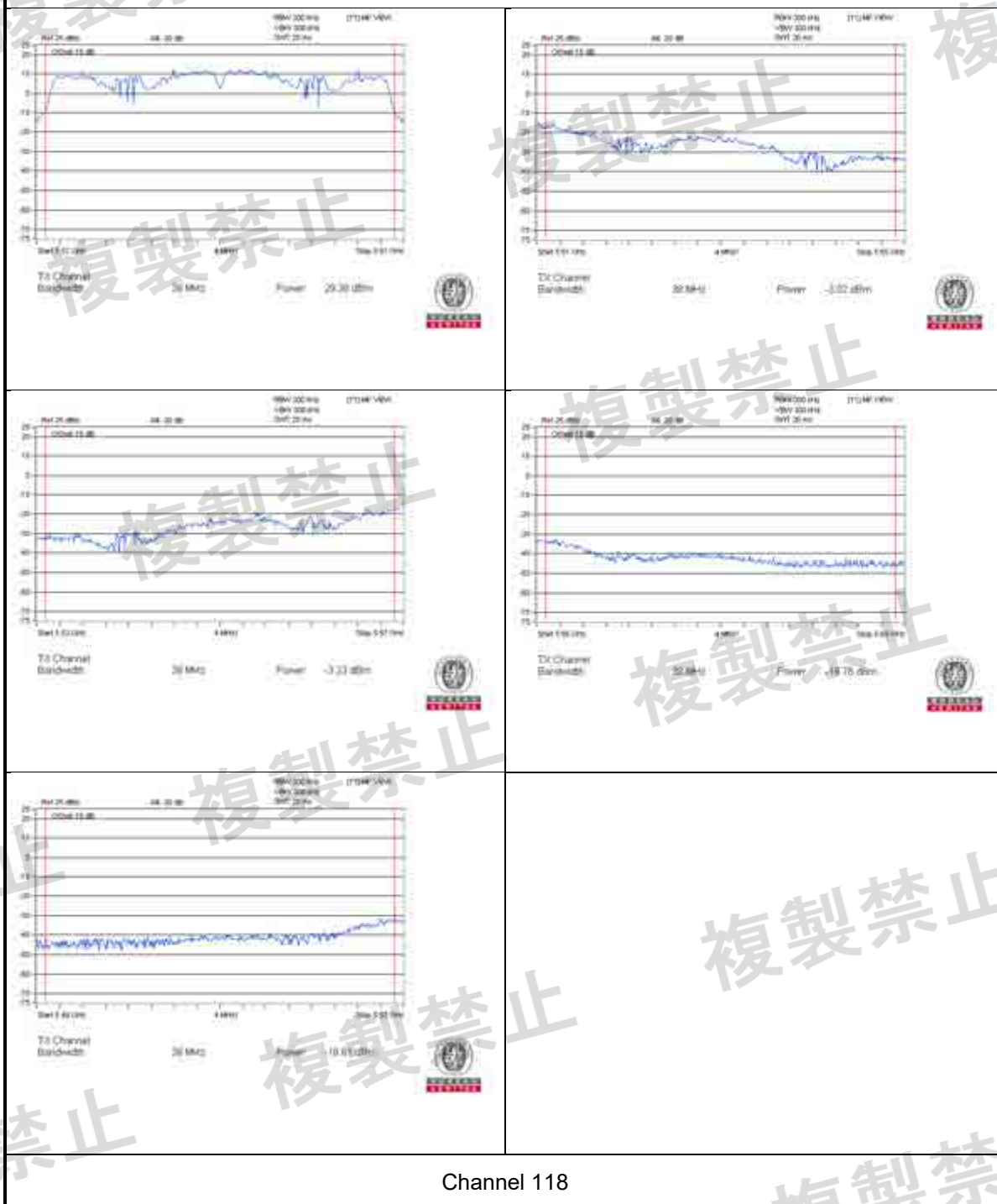


V_{min}

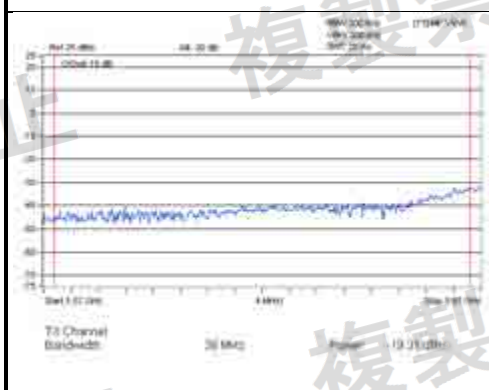
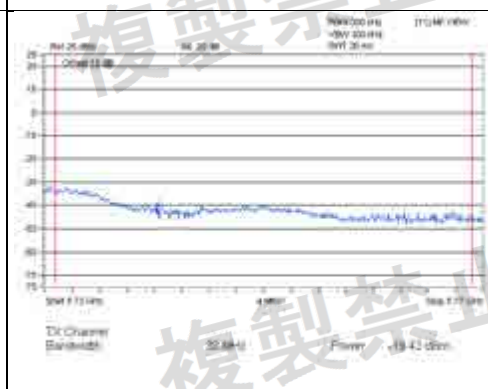
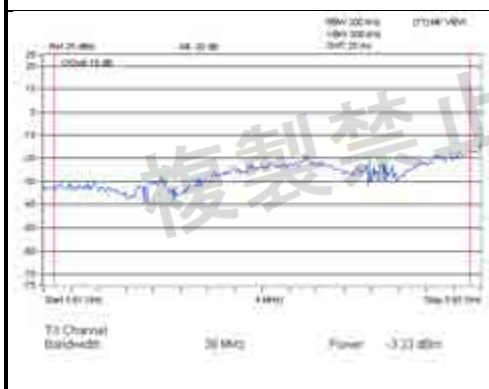
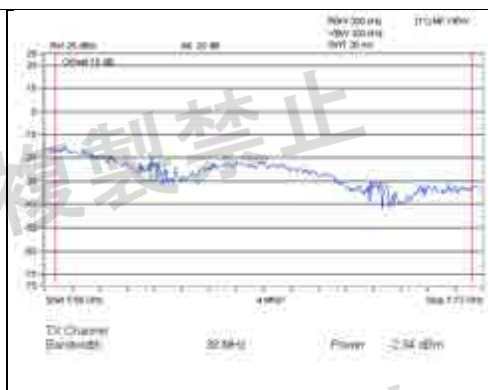
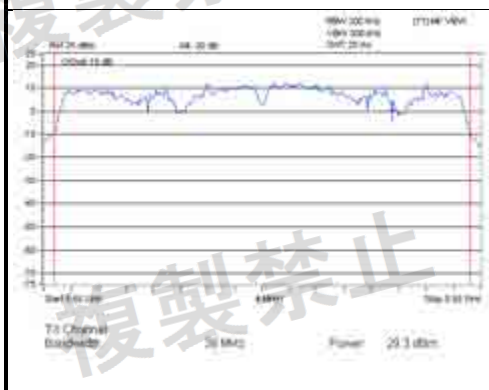


Channel 102

V_{min}



V_{min}



Channel 134

W52 & W53 Bands: 802.11ac (VHT80)

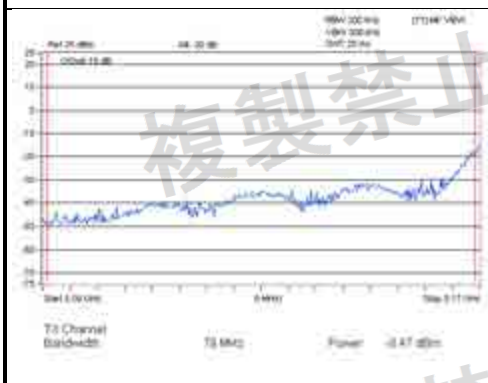
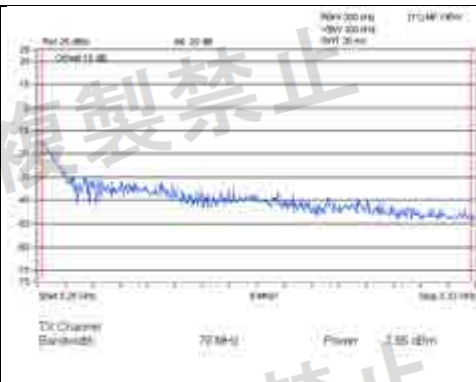
Environmental Conditions		25 deg.C, 60% RH		
Voltage	Channel	CH 42	CH 58	Limit (dBc)
V _{nom}	Mean Power of Carrier (dBm)	26.81	27.50	-
	Mean Power +80MHz Distance of Carrier (dBc)	34.47	34.09	25
	Mean Power -80MHz Distance of Carrier (dBc)	35.28	35.20	25
V _{max.}	Mean Power of Carrier (dBm)	26.97	27.50	-
	Mean Power +80MHz Distance of Carrier (dBc)	34.51	34.25	25
	Mean Power -80MHz Distance of Carrier (dBc)	35.45	35.26	25
V _{min.}	Mean Power of Carrier (dBm)	26.94	27.47	-
	Mean Power +80MHz Distance of Carrier (dBc)	34.38	34.00	25
	Mean Power -80MHz Distance of Carrier (dBc)	35.30	35.24	25

W56 Band: 802.11ac (VHT80)

Environmental Conditions		25 deg.C, 60% RH		
Voltage	Channel	CH 106	CH 122	Limit (dBc)
V _{nom}	Mean Power of Carrier (dBm)	30.54	30.45	-
	Mean Power +80MHz Distance of Carrier (dBc)	33.45	33.47	25
	Mean Power -80MHz Distance of Carrier (dBc)	34.13	34.24	25
V _{max.}	Mean Power of Carrier (dBm)	30.49	30.48	-
	Mean Power +80MHz Distance of Carrier (dBc)	33.39	33.45	25
	Mean Power -80MHz Distance of Carrier (dBc)	33.96	34.23	25
V _{min.}	Mean Power of Carrier (dBm)	30.52	30.48	-
	Mean Power +80MHz Distance of Carrier (dBc)	33.33	33.33	25
	Mean Power -80MHz Distance of Carrier (dBc)	34.07	34.28	25

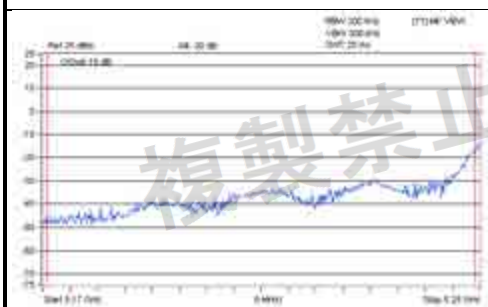
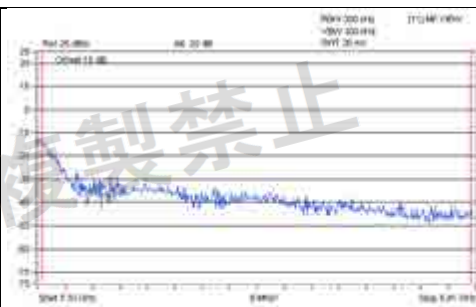
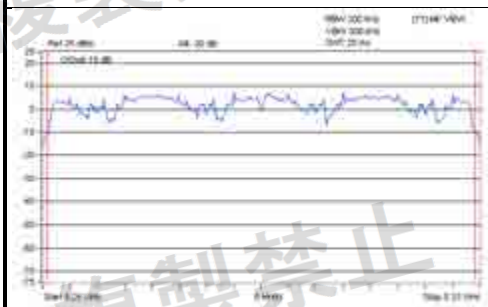
Note: 1. The spectrum plots are attached on the following pages.

V_{normal}

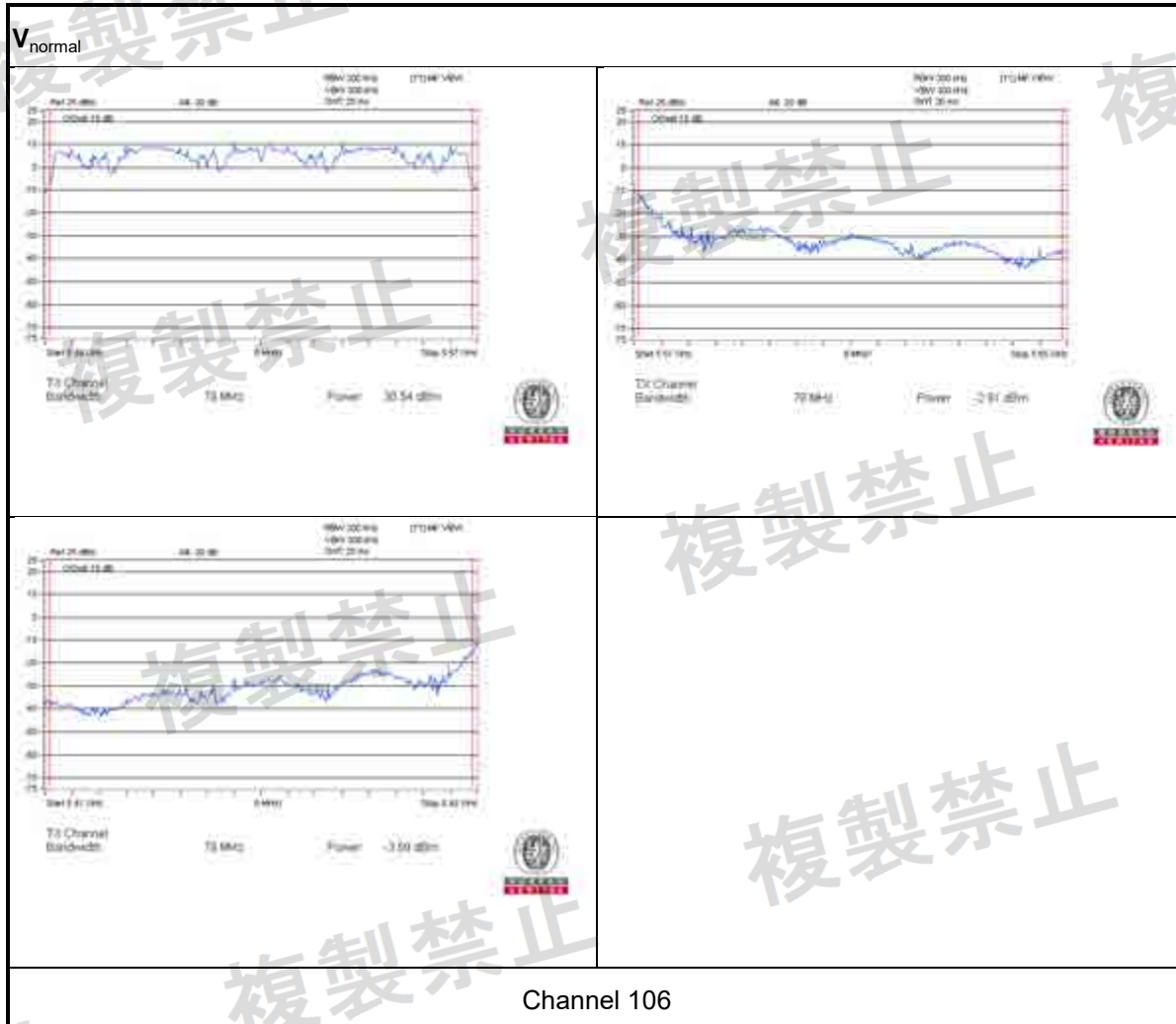


Channel 42

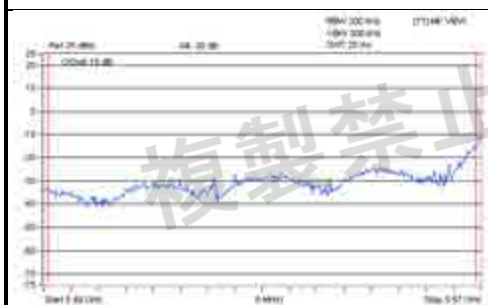
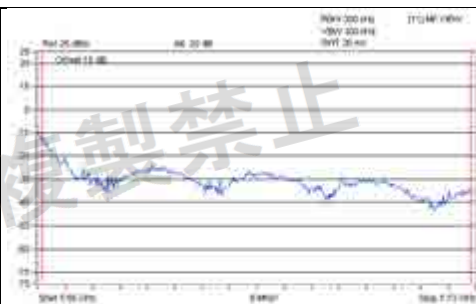
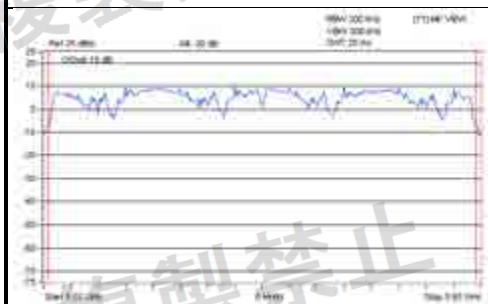
V_{normal}



Channel 58

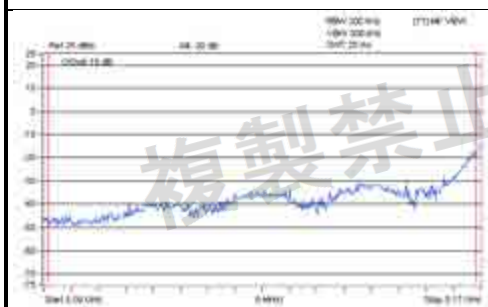
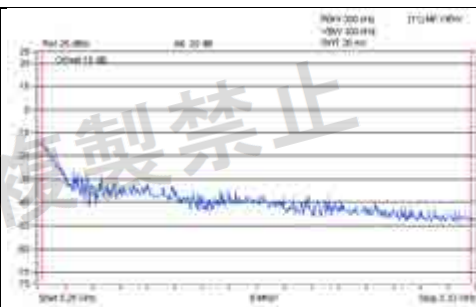
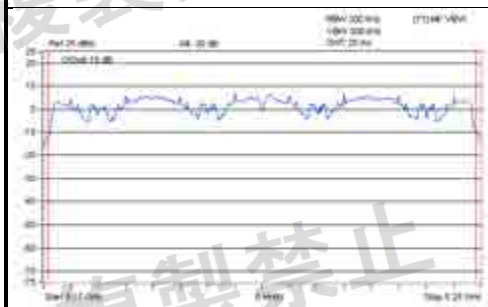


V_{normal}



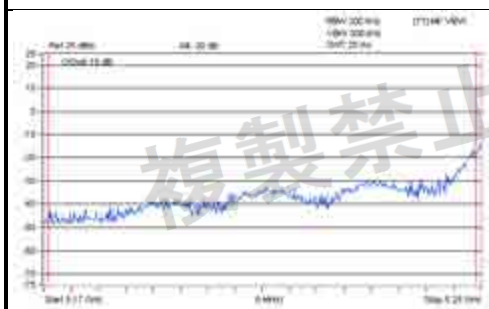
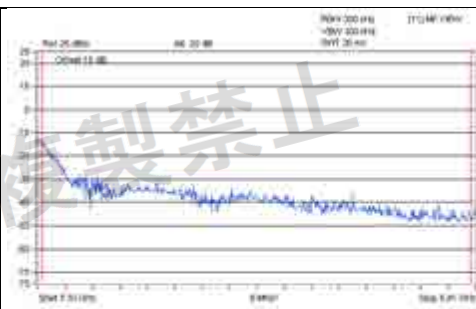
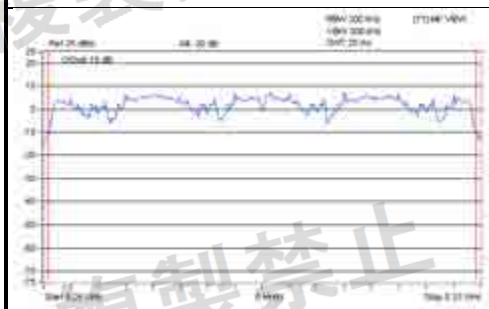
Channel 122

V_{max}.



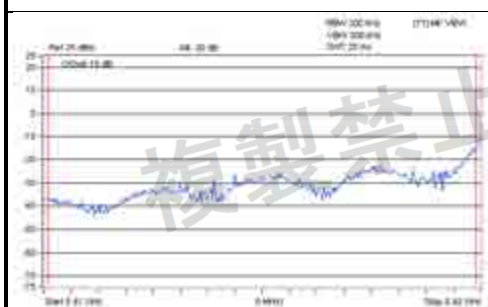
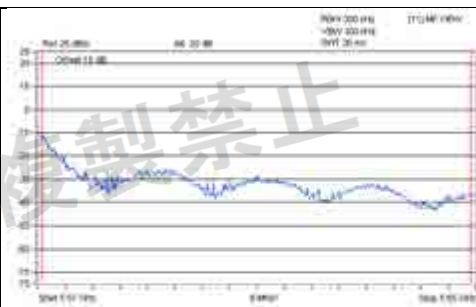
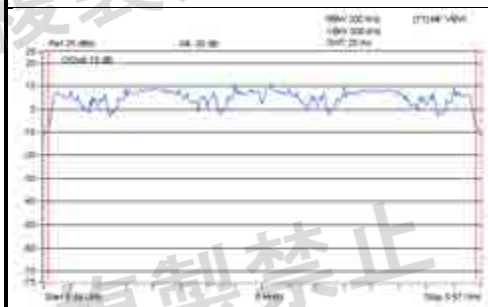
Channel 42

V_{max}.

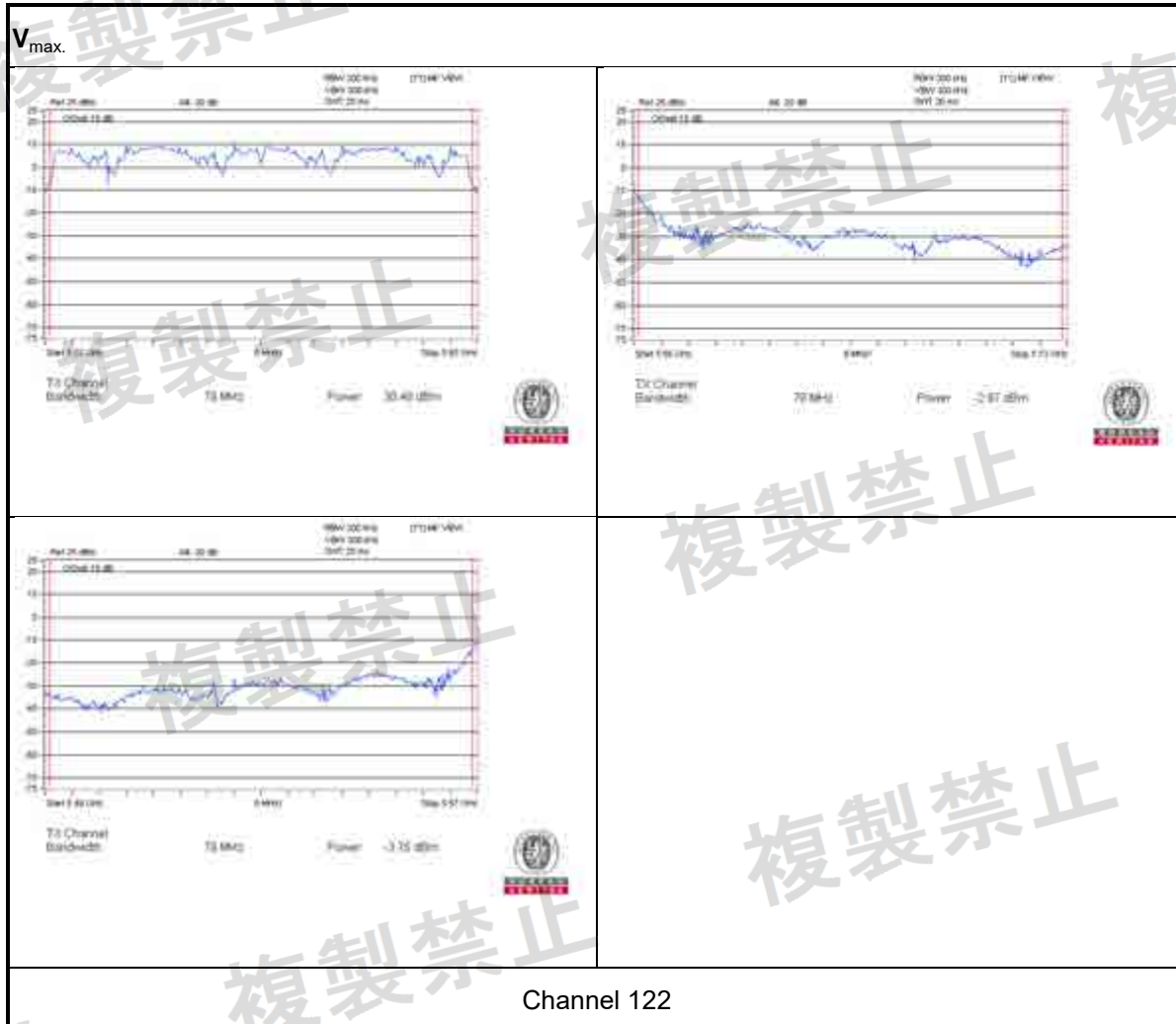


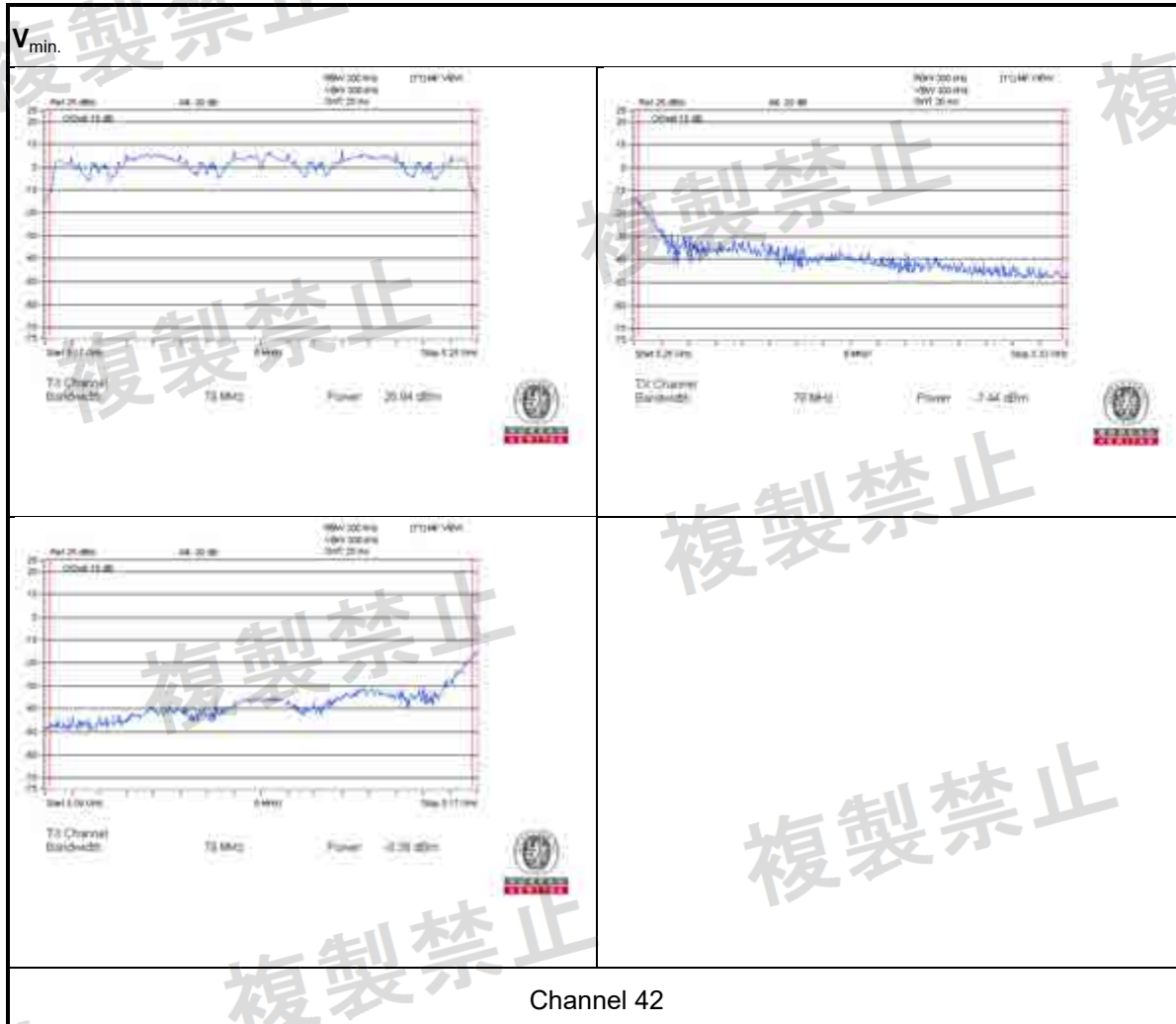
Channel 58

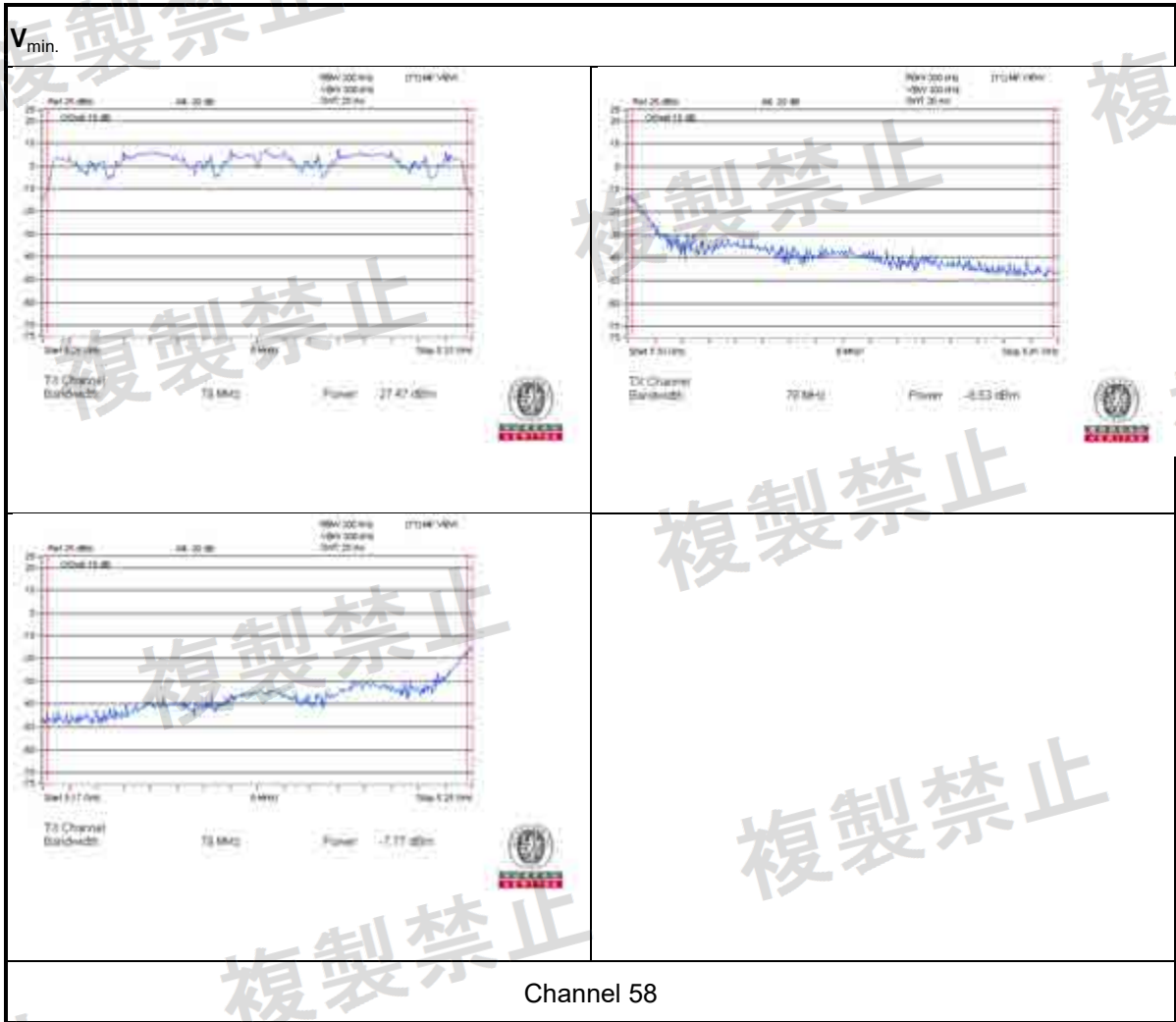
V_{max}.

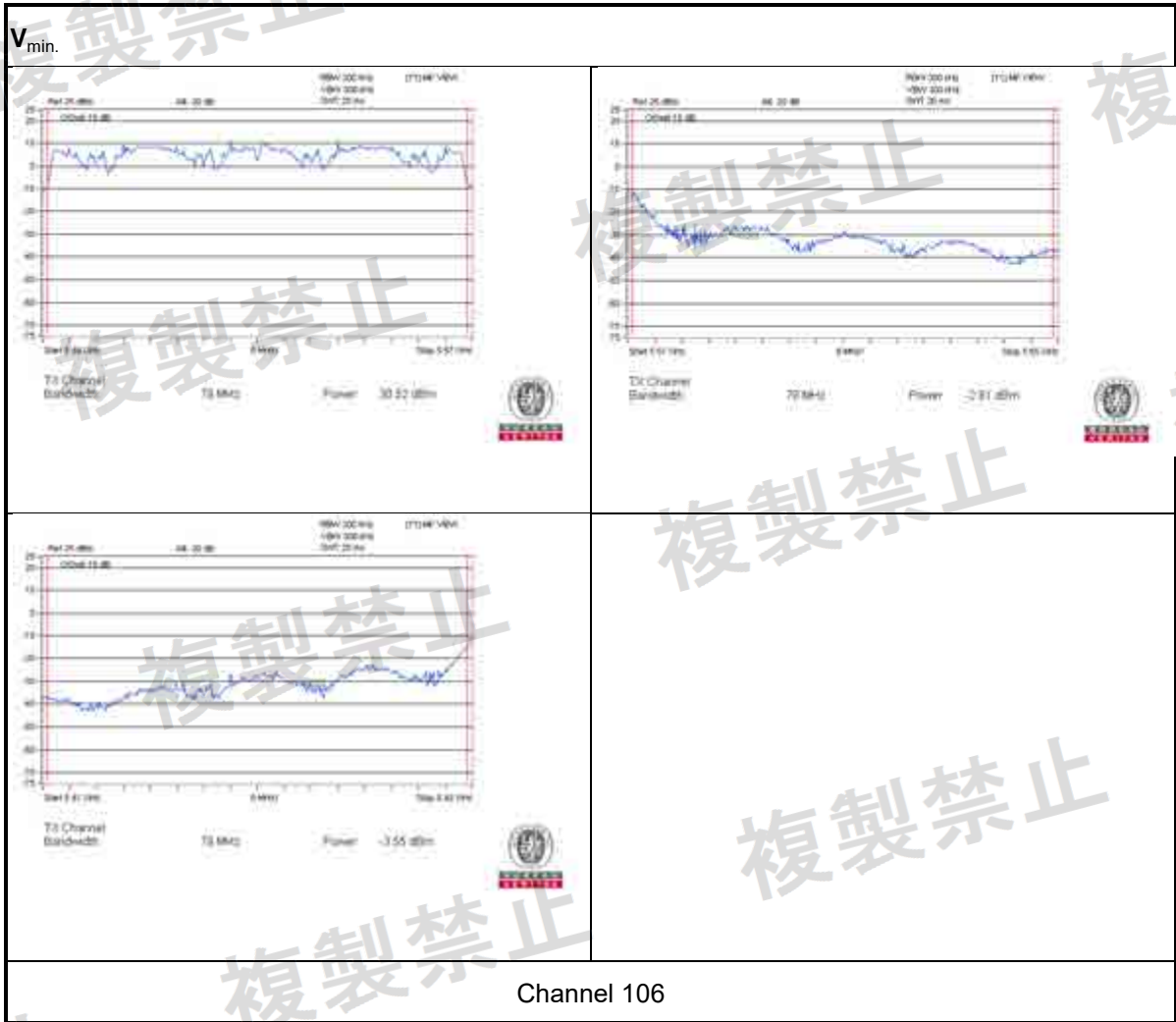


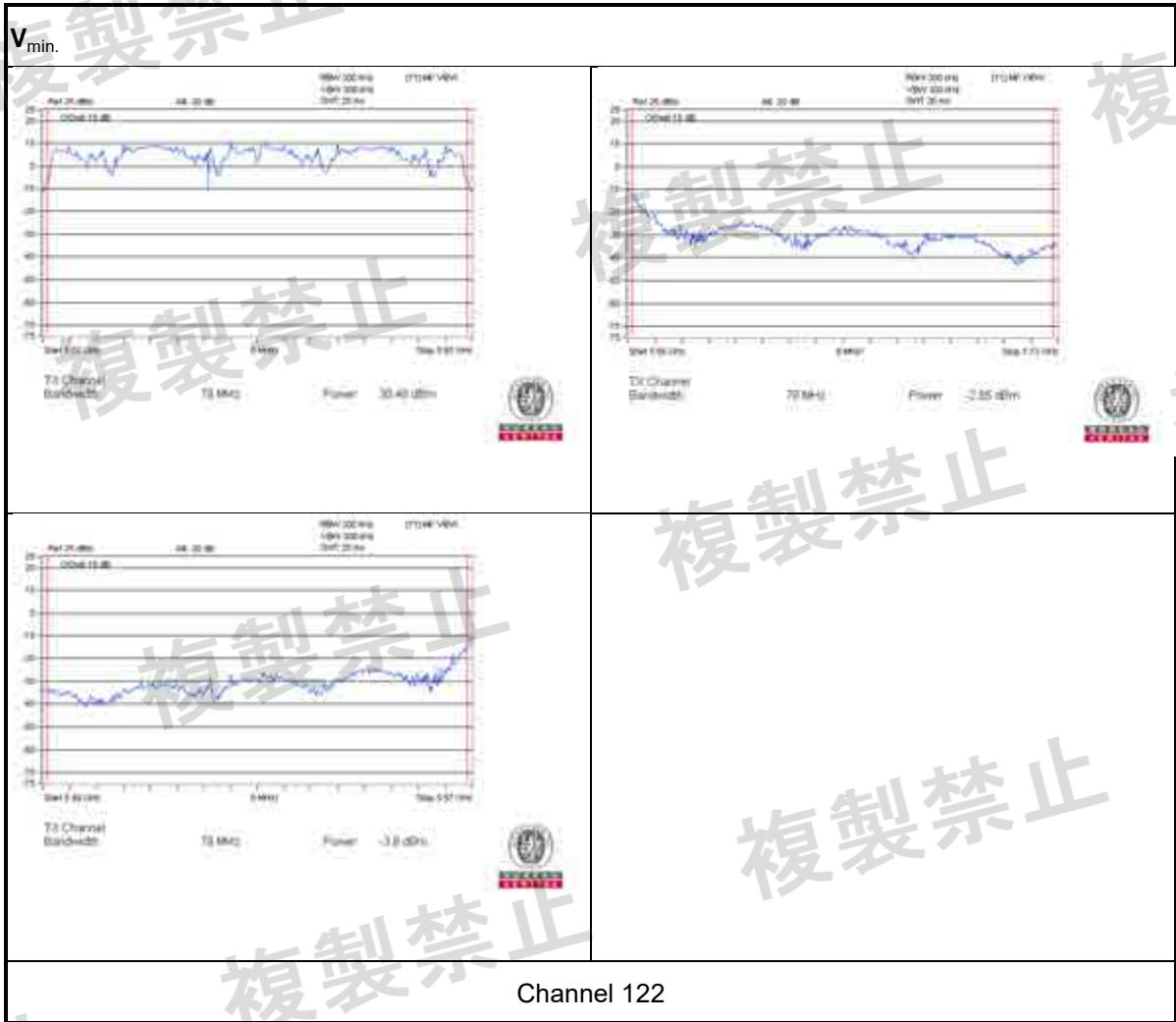
Channel 106











4.6 Antenna Power Measurement

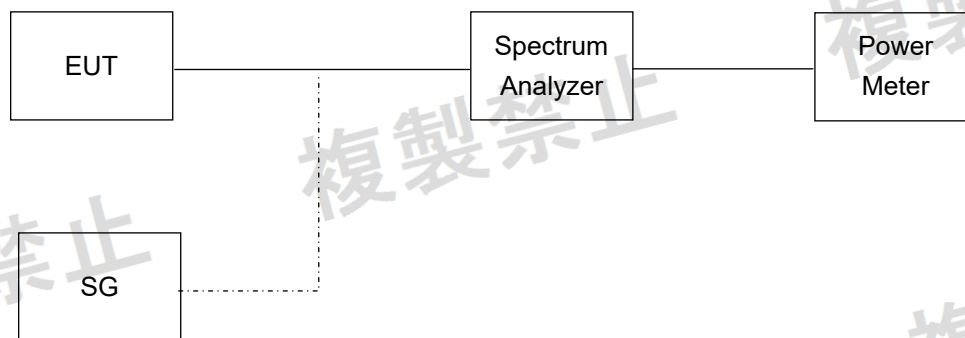
4.6.1 Limits of Antenna Power

W52 band			
Mode	802.11a / 802.11n (HT20) / 802.11ac (VHT20)	802.11n (HT40) / 802.11ac (VHT40)	802.11ac(VHT80)
Output power	10mW/MHz	5mW/MHz	2.5mW/MHz
EIRP	10mW/MHz	5mW/MHz	2.5mW/MHz

W53 band			
Mode	802.11a / 802.11n (HT20) / 802.11ac (VHT20)	802.11n (HT40) / 802.11ac (VHT40)	802.11ac(VHT80)
Output power	10mW/MHz	5mW/MHz	2.5mW/MHz
EIRP (with TPC)	10mW/MHz	5mW/MHz	2.5mW/MHz
EIRP (without TPC)	5mW/MHz	2.5mW/MHz	1.25mW/MHz

W56 band			
Mode	802.11a / 802.11n (HT20) / 802.11ac (VHT20)	802.11n (HT40) / 802.11ac (VHT40)	802.11ac(VHT80)
Output power	10mW/MHz	5mW/MHz	2.5mW/MHz
EIRP (with TPC)	50mW/MHz	25mW/MHz	12.5mW/MHz
EIRP (without TPC)	25mW/MHz	12.5mW/MHz	6.25mW/MHz

4.6.2 Test Setup



4.6.3 Test Results

W52 and W53 bands: 802.11a

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
36	5180	3.964	3.82	4.15
48	5240	4.047	3.9	4.16
52	5260	4.179	4.01	4.103
64	5320	4.01	3.973	3.927
Max. Limit (mW/MHz)		10		
Rated Power		4.2		
Tolerance of Antenna Power		0.84 ~ 5.04		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
36	5180	9.4	9.059	9.841
48	5240	9.597	9.248	9.865
52	5260	9.91	9.509	9.73
64	5320	9.509	9.421	9.312
Max. EIRP Limit (mW/MHz)		10		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W56 band: 802.11a

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
100	5500	9.101	8.833	9.228
120	5600	9.552	9.486	9.752
140	5700	8.997	9.101	8.752
Max. Limit (mW/MHz)		10		
Rated Power		10		
Tolerance of Antenna Power		5 ~ 15		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
100	5500	21.582	20.946	21.883
120	5600	22.651	22.495	23.126
140	5700	21.335	21.582	20.754
Max. EIRP Limit (mW/MHz)		50		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W52 and W53 bands: 802.11ac (VHT20)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
36	5180	3.882	3.909	3.733
48	5240	4.065	4.019	3.991
52	5260	3.847	3.891	3.891
64	5320	4.037	4.199	4.16
Max. Limit (mW/MHz)		10		
Rated Power		4.2		
Tolerance of Antenna Power		0.84 ~ 5.04		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
36	5180	9.206	9.27	8.852
48	5240	9.64	9.531	9.464
52	5260	9.123	9.227	9.227
64	5320	9.573	9.957	9.865
Max. EIRP Limit (mW/MHz)		10		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W56 band: 802.11ac (VHT20)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
100	5500	9.443	9.486	9.82
120	5600	9.73	9.888	9.73
140	5700	9.596	9.574	9.464
Max. Limit (mW/MHz)		10		
Rated Power		10		
Tolerance of Antenna Power		5 ~ 15		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
100	5500	22.393	22.495	23.287
120	5600	23.073	23.448	23.073
140	5700	22.756	22.704	22.443
Max. EIRP Limit (mW/MHz)		50		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W52 and W53 bands: 802.11ac (VHT40)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
38	5190	1.932	1.893	1.854
46	5230	1.85	1.829	1.85
54	5270	1.959	1.955	1.915
62	5310	2.042	2.071	2.042
Max. Limit (mW/MHz)		5		
Rated Power		2.1		
Tolerance of Antenna Power		0.42 ~ 5.2		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
38	5190	4.581	4.489	4.397
46	5230	4.387	4.337	4.387
54	5270	4.646	4.636	4.541
62	5310	4.842	4.911	4.842
Max. EIRP Limit (mW/MHz)		5		

Note: 1. The radiated RF output power density is a "calculated" value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W56 band: 802.11ac (VHT40)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
102	5510	4.765	4.593	4.888
118	5590	4.689	4.798	4.733
134	5670	4.933	4.722	4.798
Max. Limit (mW/MHz)		5		
Rated Power		5		
Tolerance of Antenna Power		2.5 ~ 7.5		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
102	5510	11.3	10.892	11.591
118	5590	11.119	11.378	11.224
134	5670	11.698	11.198	11.378
Max. EIRP Limit (mW/MHz)		25		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W52 & W53 bands: 802.11ac (VHT80)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
42	5210	1	0.964	0.984
58	5290	1.031	1.003	1.047
Max. Limit (mW/MHz)		2.5		
Rated Power		1		
Tolerance of Antenna Power		0.2 ~ 1.2		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
42	5210	2.371	2.286	2.333
58	5290	2.445	2.378	2.483
Max. EIRP Limit (mW/MHz)		2.5		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

W56 bands: 802.11ac (VHT80)

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
106	5530	2.056	2.104	2.037
122	5610	2.265	2.265	2.203
Max. Limit (mW/MHz)		2.5		
Rated Power		2.5		
Tolerance of Antenna Power		1.25 ~ 3.75		

PIFA antenna with antenna gain: 3.75 dBi

Environmental Conditions	25 deg.C, 60% RH			
Channel Number	Frequency (MHz)	Radiated RF Output Power Density (mW/MHz)		
		V _{normal}	V _{max.}	V _{min.}
106	5530	4.876	4.989	4.83
122	5610	5.371	5.371	5.224
Max. EIRP Limit (mW/MHz)		12.5		

Note: 1. The radiated RF output power density is a “calculated” value derived from the conducted value.

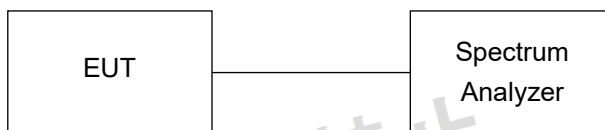
2. Formula: Radiated RF output power density = Conducted RF output power density + Maximum Antenna Gain.

4.7 Spurious Emission for Receiver

4.7.1 Limits of Spurious Emission for Receiver

Frequencies (MHz)	Limit
Below 1GHz	$\leq 4\text{nW}$ (-54dBm)
Above 1GHz	$\leq 20\text{nW}$ (-47dBm)

4.7.2 Test Setup



4.7.3 Test Result

W52 and W53 bands: 802.11a / 802.11ac (VHT20)

Environmental Conditions		25 deg.C, 60% RH					
Test Channel		CH36 (5180MHz)		CH48 (5240MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	809.270	0.008356nW	332.510	0.006823nW	4nW/100kHz	Pass
	Above 1GHz	21675.000	0.97051nW	24631.250	1.004616nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	35.940	0.007499nW	148.820	0.00826nW	4nW/100kHz	Pass
	Above 1GHz	24584.370	1.04472nW	25043.750	0.864968nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	768.040	0.006324nW	118.870	0.00695nW	4nW/100kHz	Pass
	Above 1GHz	21615.620	0.959401nW	21668.750	0.948418nW	20nW/MHz	Pass
Test Channel		CH52 (5260MHz)		CH64 (5320MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	582.650	0.006966nW	193.080	0.006714nW	4nW/100kHz	Pass
	Above 1GHz	24559.370	1.018591nW	24609.370	0.903649nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	840.430	0.007852nW	693.230	0.006714nW	4nW/100kHz	Pass
	Above 1GHz	24621.870	1.161449nW	24831.250	1.318257nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	456.800	0.006808nW	951.250	0.007586nW	4nW/100kHz	Pass
	Above 1GHz	24581.250	0.922571nW	21578.120	0.948418nW	20nW/MHz	Pass

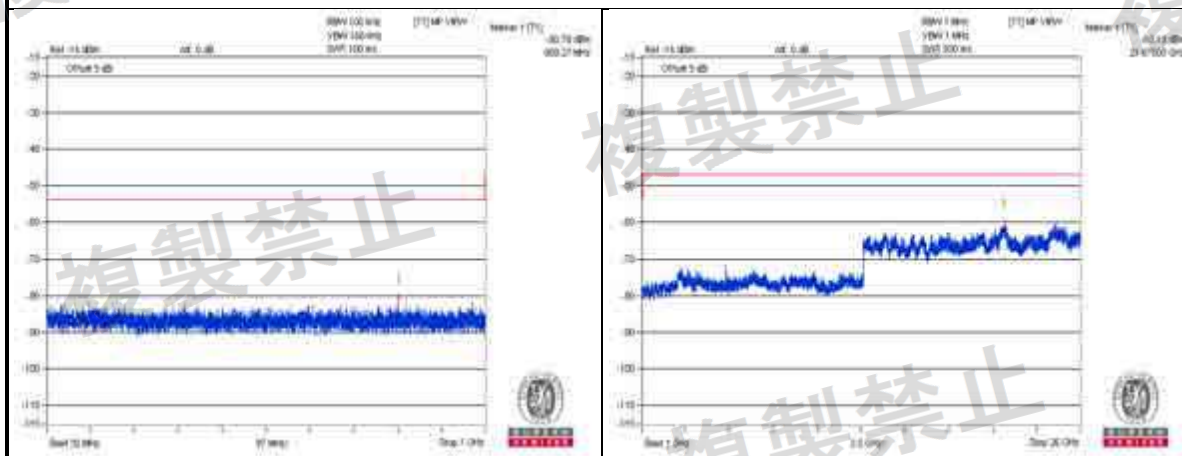
- Note: 1. The worst value in each frequency range v.s. each channel has been marked by boldface.
2. The spectrum plots are attached on the following pages.

W56 band: 802.11a / 802.11ac (VHT20)

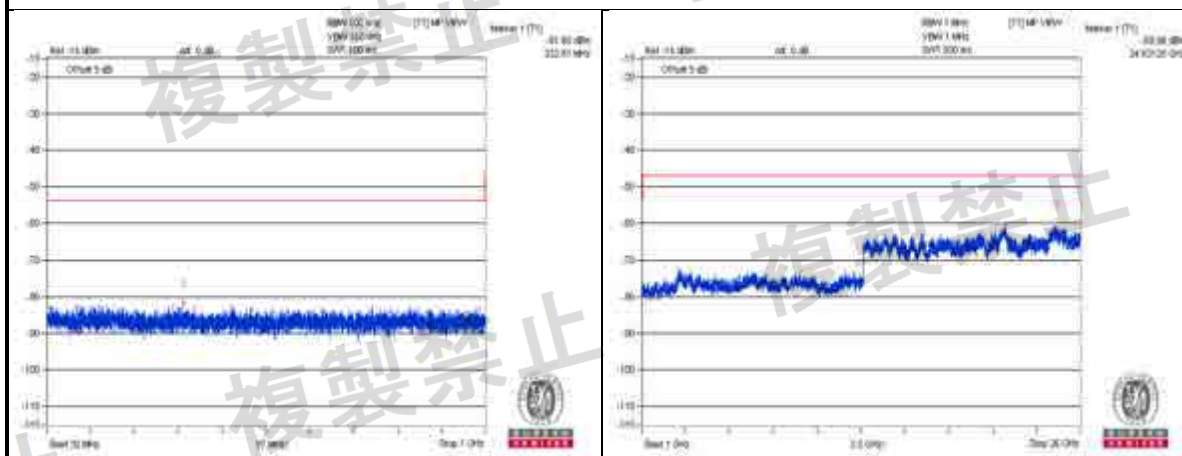
Environmental Conditions		25 deg.C, 60% RH					
Test Channel		CH100 (5500MHz)		CH120 (5600MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V _{normal}	Below 1GHz	106.260	0.00618nW	662.920	0.007178nW	4nW/100kHz	Pass
	Above 1GHz	21590.620	1.030386nW	21793.750	1.035142nW	20nW/MHz	Pass
V _{max.}	Below 1GHz	669.590	0.007727nW	384.170	0.006808nW	4nW/100kHz	Pass
	Above 1GHz	21628.120	1.030386nW	21543.750	1.056818nW	20nW/MHz	Pass
V _{min.}	Below 1GHz	977.200	0.007482nW	304.510	0.006699nW	4nW/100kHz	Pass
	Above 1GHz	24375.000	0.905733nW	21681.250	1.106624nW	20nW/MHz	Pass
Test Channel		CH140 (5700MHz)				Limit	Result
Test Condition	Frequency Range	Frequency (MHz)		Measured Value (nW)			
V _{normal}	Below 1GHz	32.420		0.007328nW		4nW/100kHz	Pass
	Above 1GHz	24575.000		0.966051nW		20nW/MHz	Pass
V _{max.}	Below 1GHz	665.100		0.006577nW		4nW/100kHz	Pass
	Above 1GHz	21590.620		1.104079nW		20nW/MHz	Pass
V _{min.}	Below 1GHz	56.430		0.007943nW		4nW/100kHz	Pass
	Above 1GHz	24637.500		1.025652nW		20nW/MHz	Pass

Note: 1. The worst value in each frequency range v.s. each channel has been marked by boldface.
2. The spectrum plots are attached on the following pages.

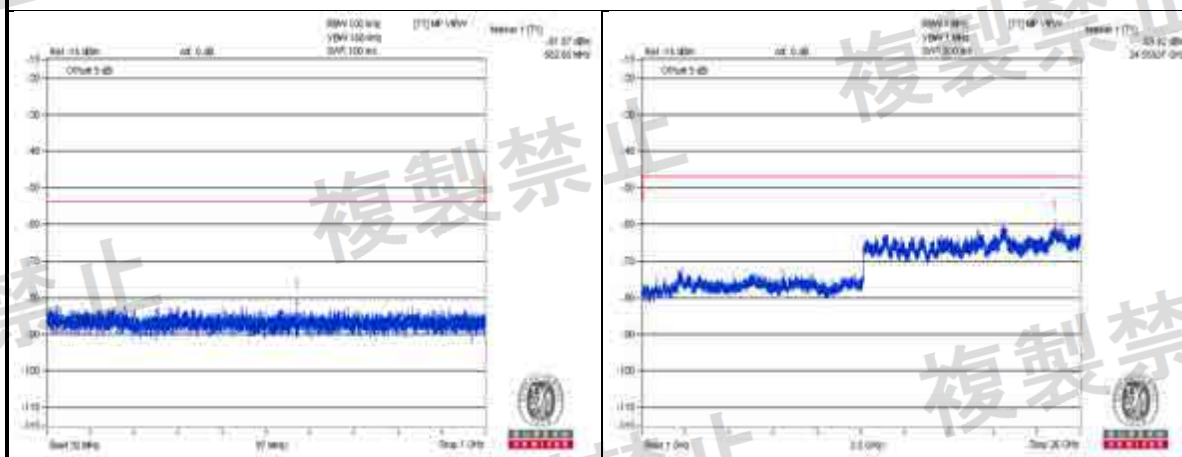
Vnormal



Channel 36

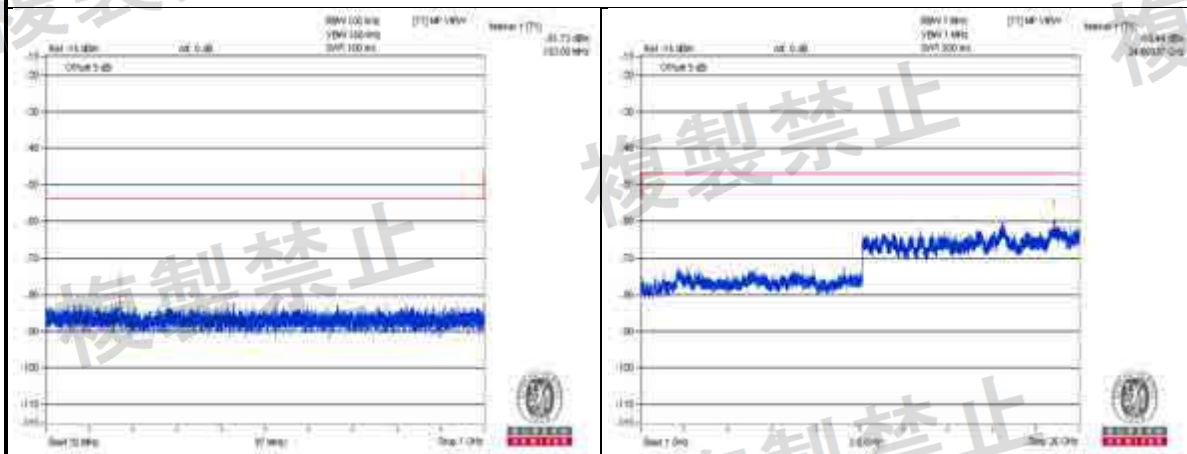


Channel 48

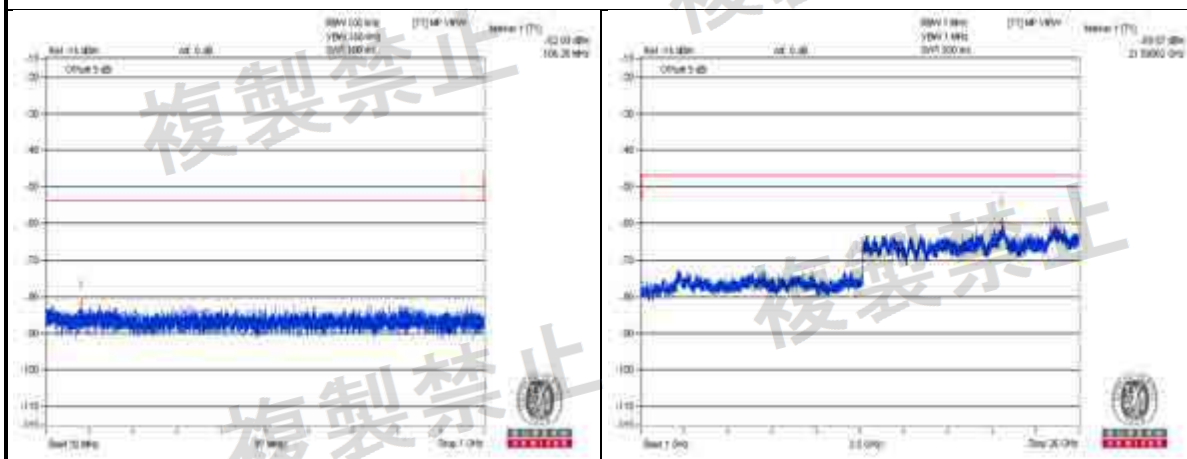


Channel 52

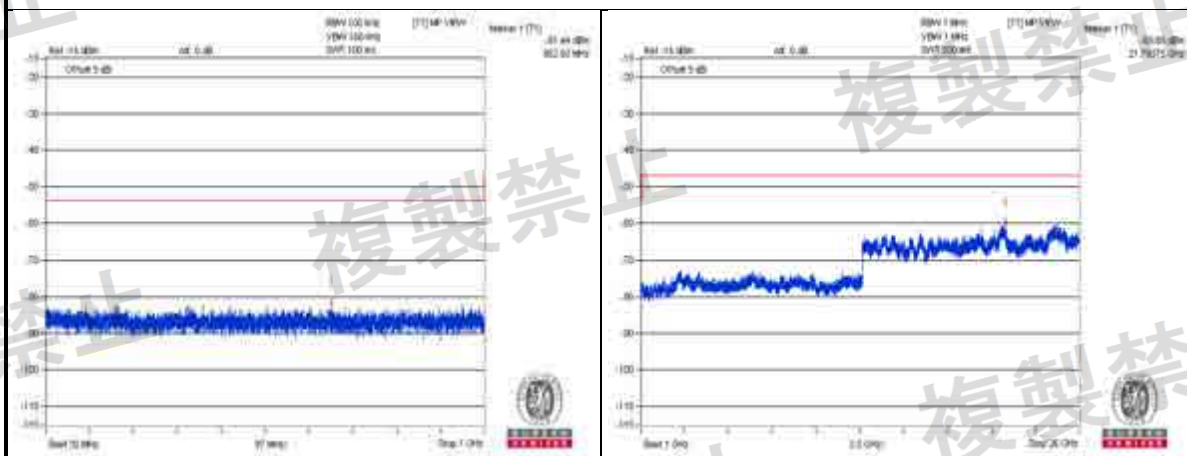
Vnormal



Channel 64

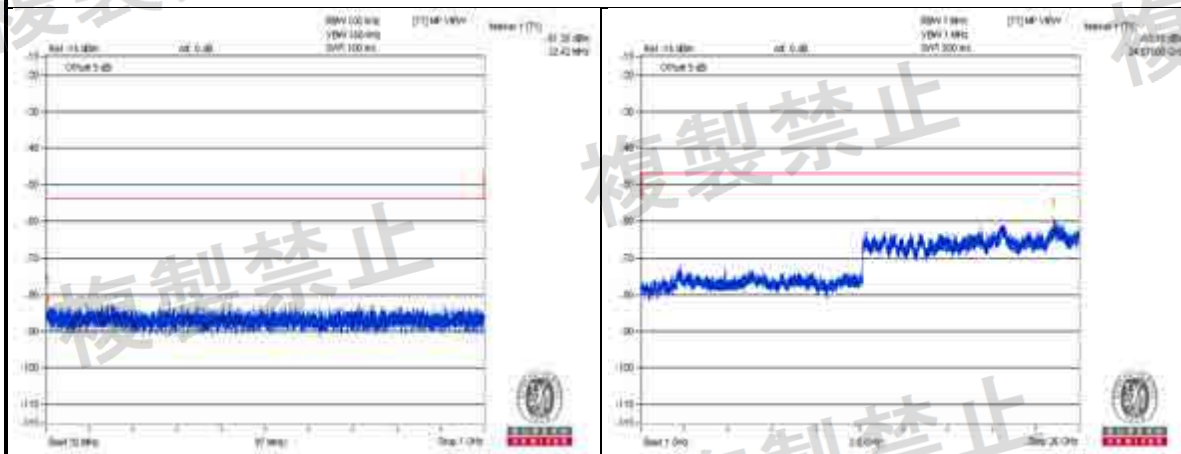


Channel 100



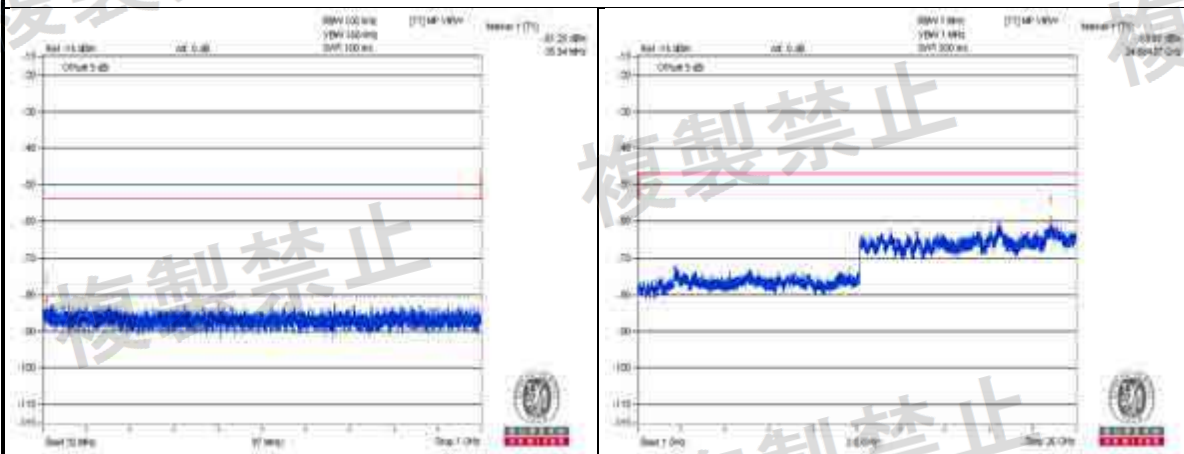
Channel 120

Vnormal

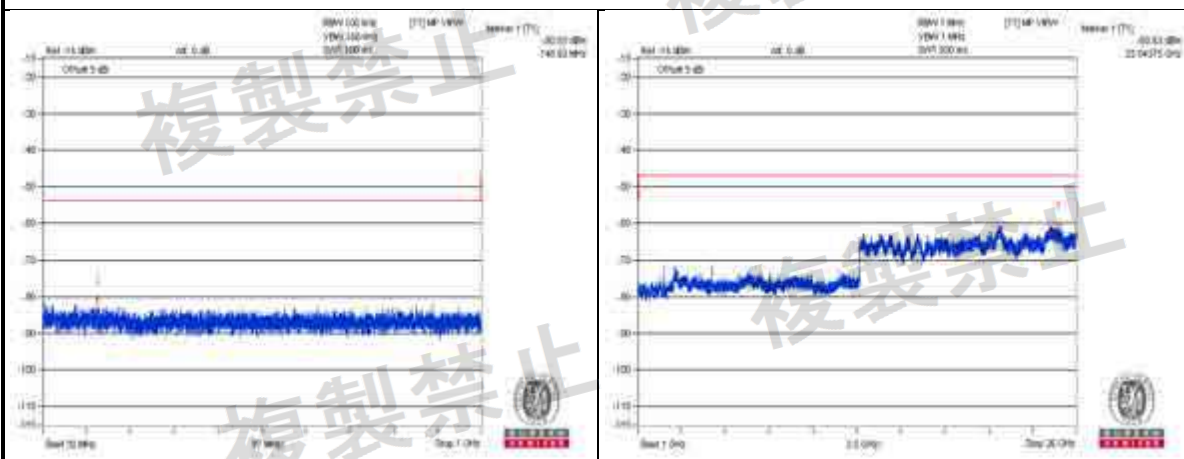


Channel 140

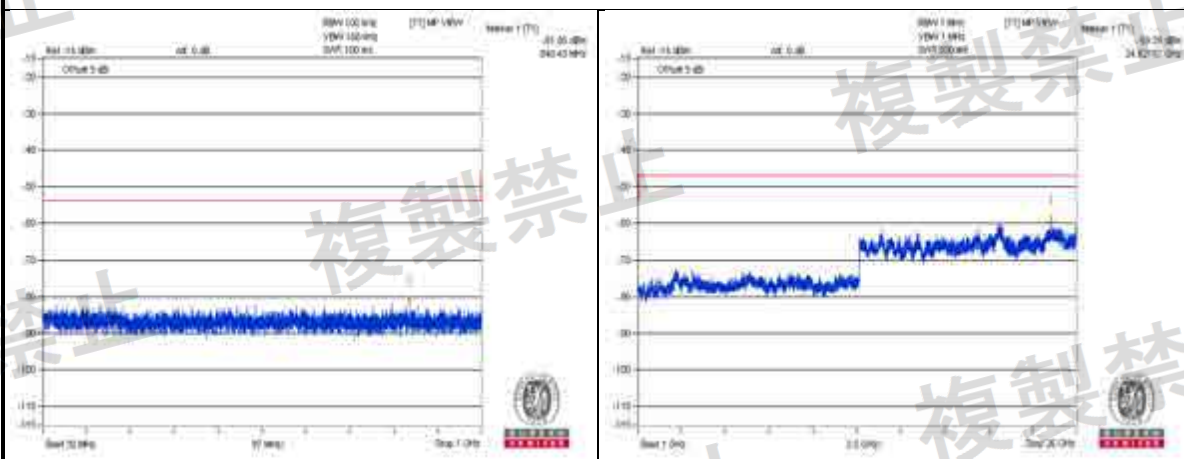
Vmax.



Channel 36

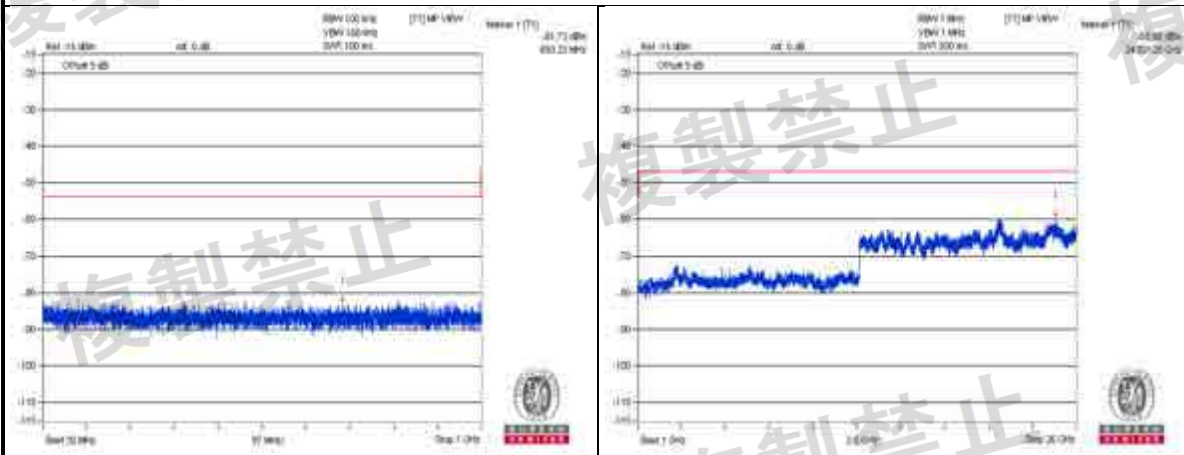


Channel 48

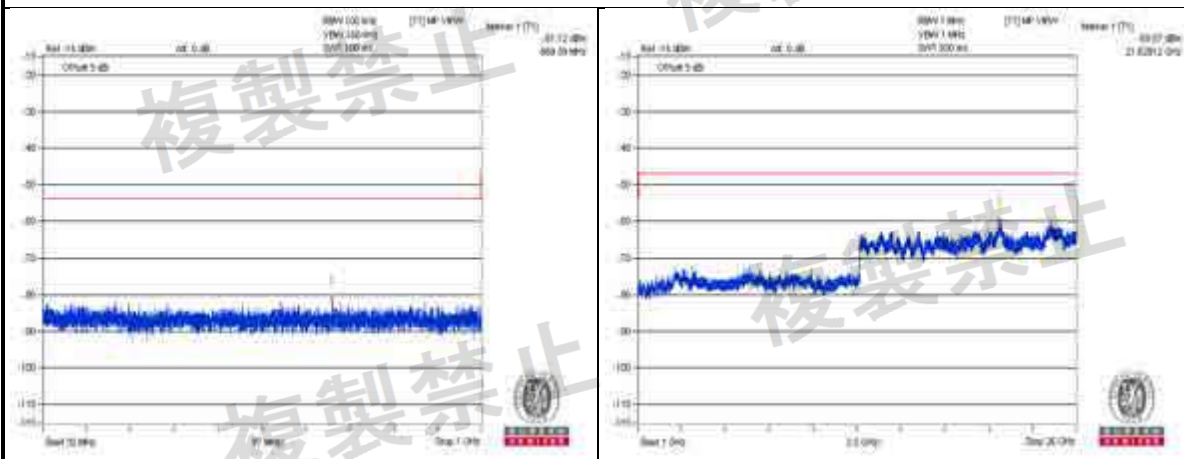


Channel 52

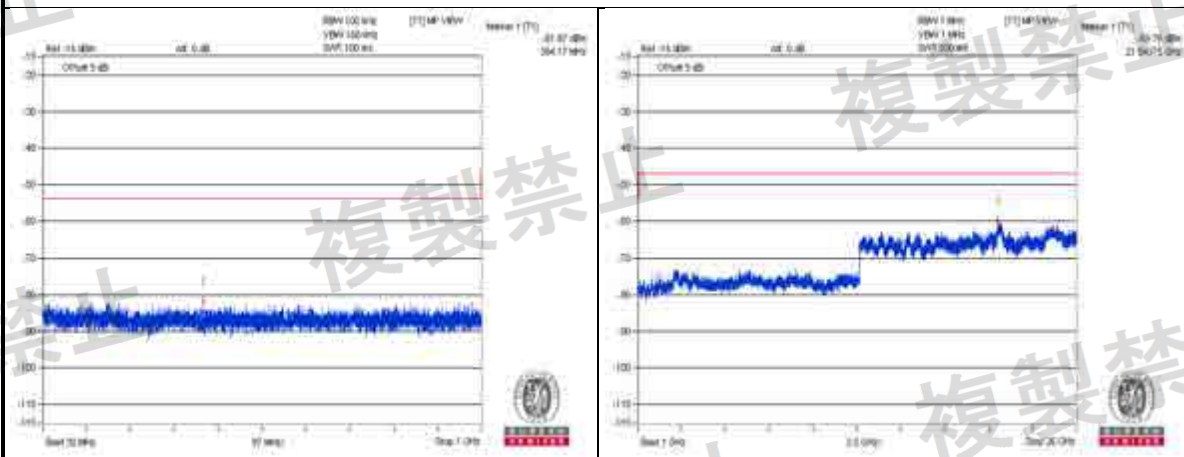
Vmax.



Channel 64

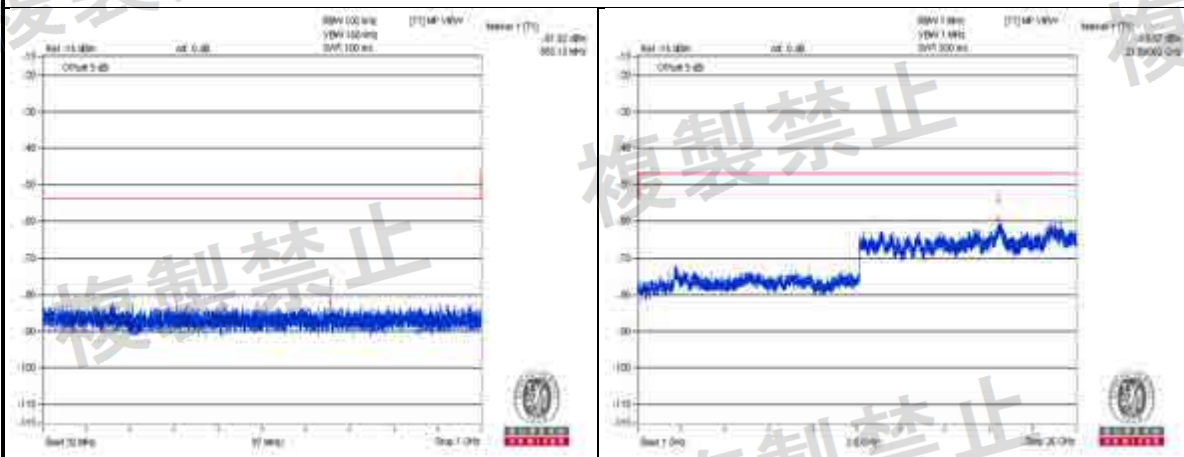


Channel 100



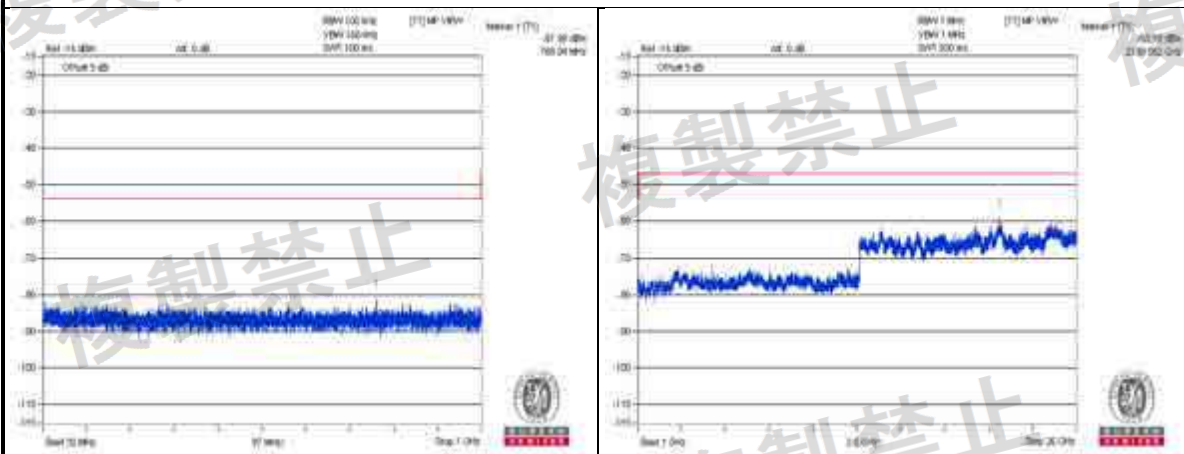
Channel 120

Vmax.

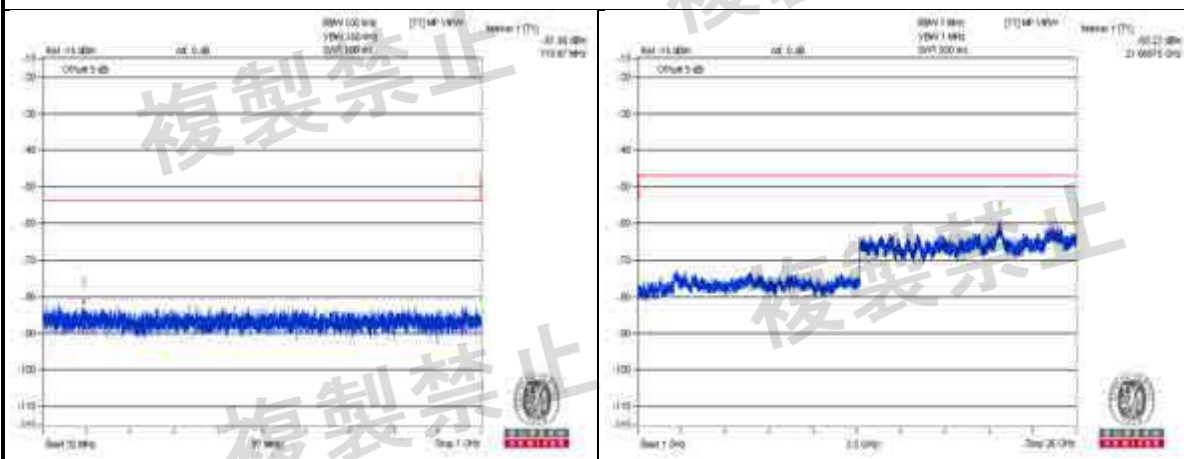


Channel 140

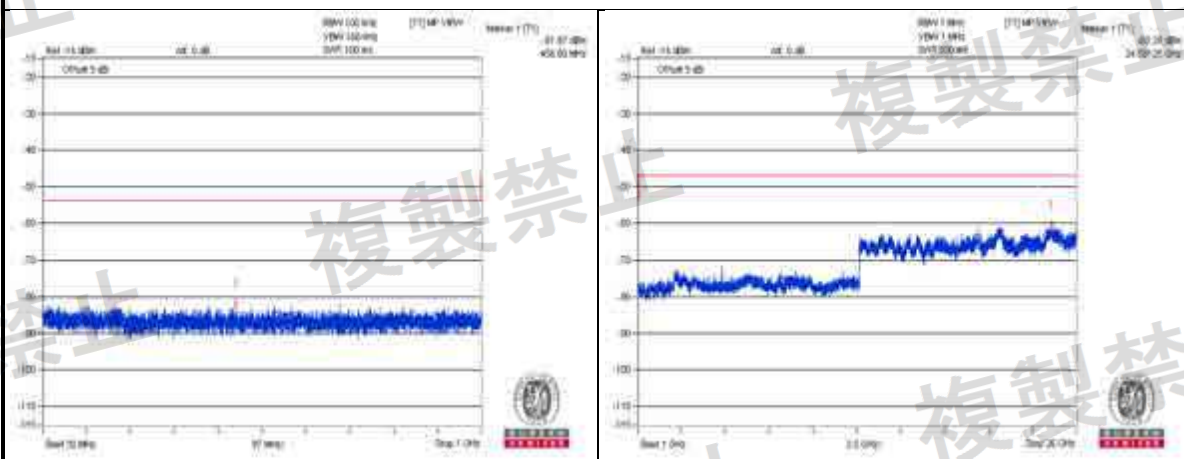
Vmin.



Channel 36

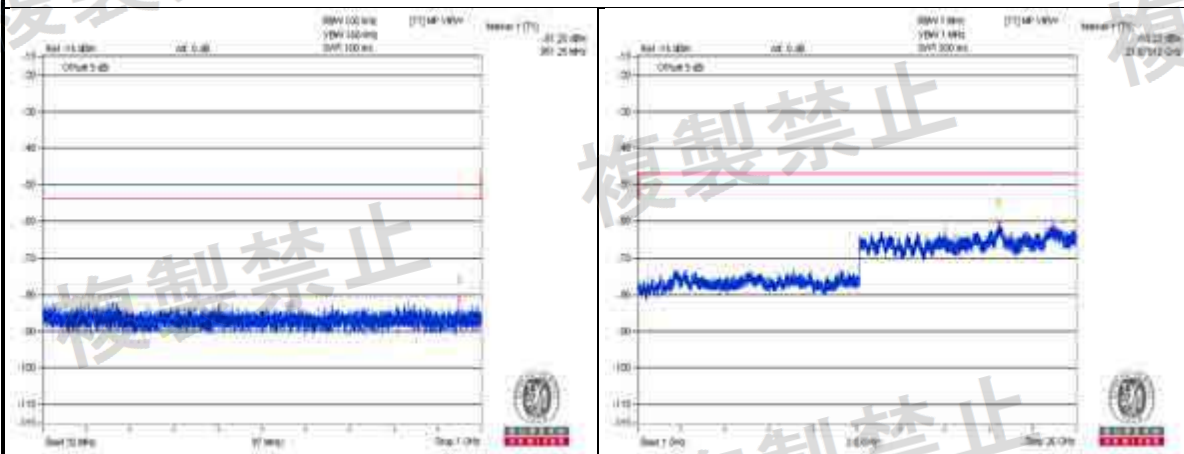


Channel 48

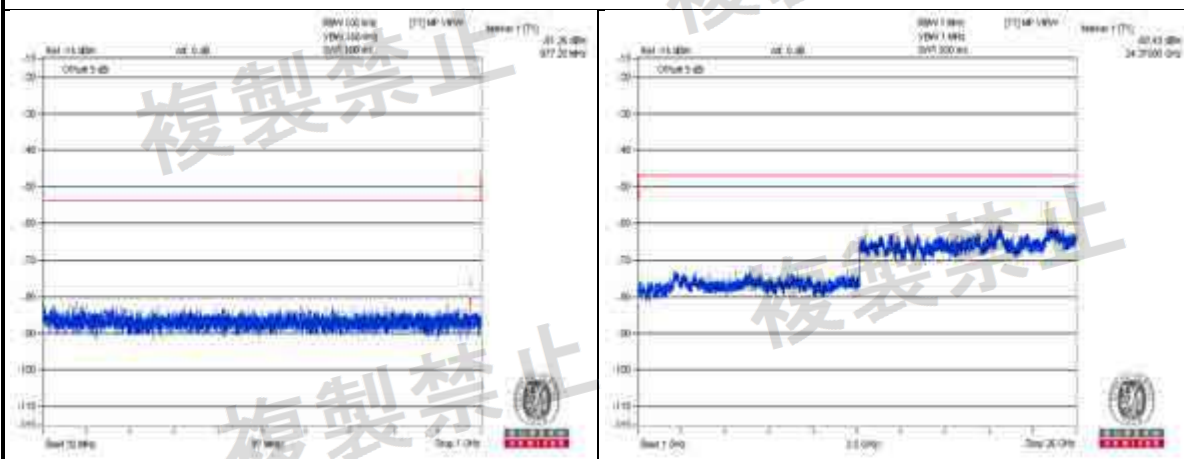


Channel 52

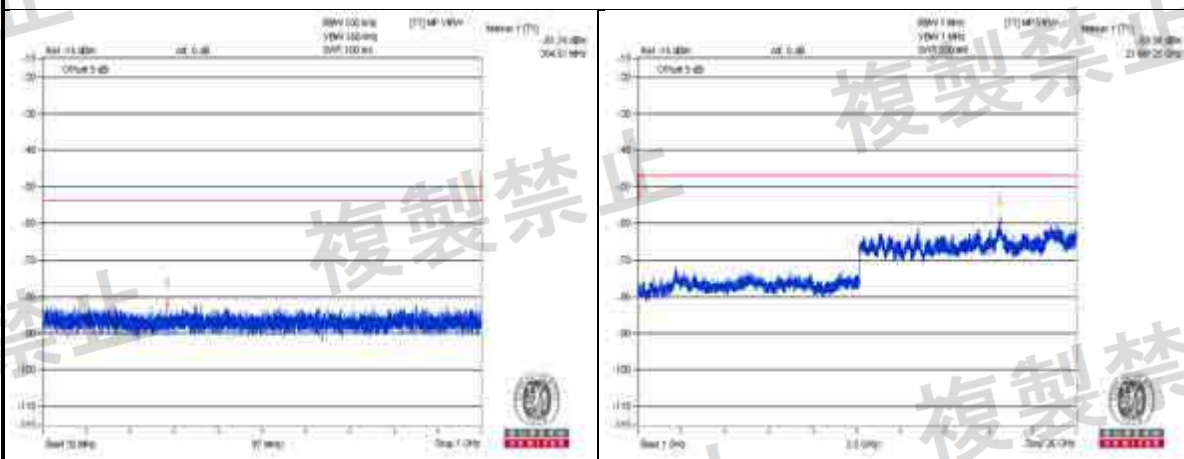
Vmin.



Channel 64

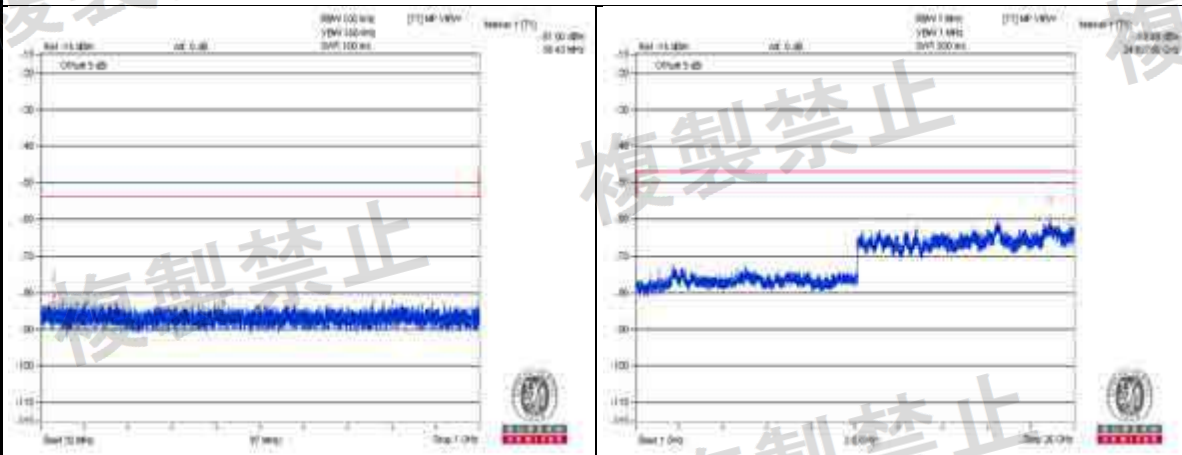


Channel 100



Channel 120

Vmin.



Channel 140

W52 and W53 bands: 802.11ac (VHT40)

Environmental Conditions		25 deg.C, 60% RH					
Test Channel		CH38 (5190MHz)		CH46 (5230MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	40.420	0.008472nW	353.130	0.00695nW	4nW/ 100kHz	Pass
	Above 1GHz	21753.120	1.064143nW	24346.870	1.035142nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	175.500	0.007727nW	431.450	0.006761nW	4nW/ 100kHz	Pass
	Above 1GHz	24640.620	1.235947nW	21715.620	0.950605nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	37.630	0.007516nW	34.850	0.006761nW	4nW/ 100kHz	Pass
	Above 1GHz	24565.620	1.04472nW	21681.250	0.864968nW	20nW/MHz	Pass
Test Channel		CH54 (5270MHz)		CH 62 (5310MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	589.440	0.00695nW	141.910	0.008204nW	4nW/ 100kHz	Pass
	Above 1GHz	21596.870	0.984011nW	24478.120	0.984011nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	380.530	0.007727nW	787.320	0.008147nW	4nW/ 100kHz	Pass
	Above 1GHz	21678.120	0.977237nW	21628.120	1.054387nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	882.870	0.007047nW	827.700	0.006427nW	4nW/ 100kHz	Pass
	Above 1GHz	24615.620	1.116863nW	21718.750	0.963829nW	20nW/MHz	Pass

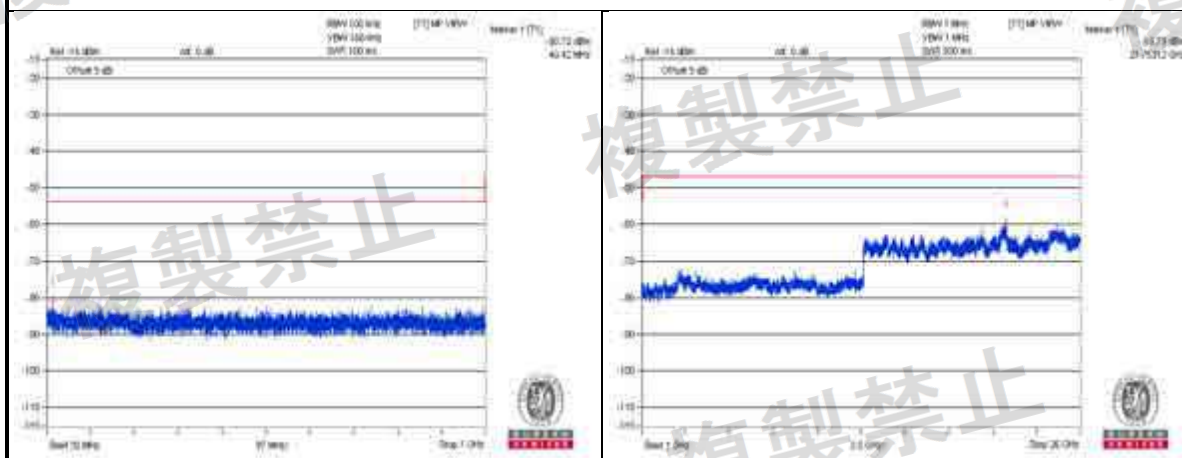
Note: 1. The worst value in each frequency range v.s. each channel has been marked by boldface.

W56 band: 802.11ac (VHT40)

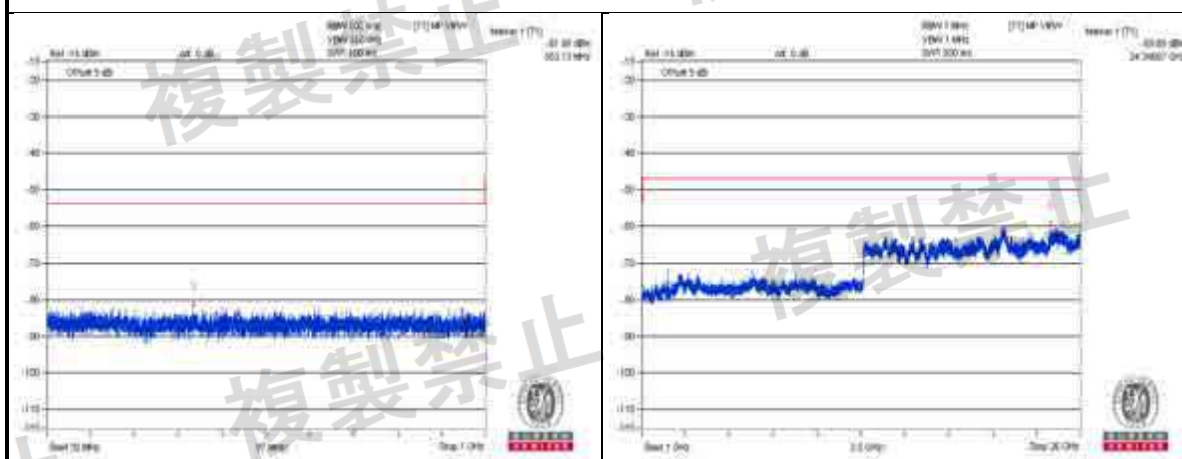
Environmental Conditions		25 deg.C, 60% RH					
Test Channel		CH102 (5510MHz)		CH118 (5590MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V _{normal}	Below 1GHz	47.700	0.007907nW	94.740	0.006776nW	4nW/ 100kHz	Pass
	Above 1GHz	21634.370	1.44544nW	21656.250	0.92045nW	20nW/MHz	Pass
V _{max.}	Below 1GHz	173.680	0.007482nW	343.430	0.007834nW	4nW/ 100kHz	Pass
	Above 1GHz	24375.000	0.914113nW	24606.250	1.047129nW	20nW/MHz	Pass
V _{min.}	Below 1GHz	30.240	0.008551nW	174.160	0.006792nW	4nW/ 100kHz	Pass
	Above 1GHz	21709.370	0.981748nW	24650.000	0.957194nW	20nW/MHz	Pass
Test Channel		CH134 (5670MHz)				Limit	Result
Test Condition	Frequency Range	Frequency (MHz)		Measured Value (nW)			
V _{normal}	Below 1GHz	934.400		0.008241nW		4nW/ 100kHz	Pass
	Above 1GHz	24634.370		1.030386nW		20nW/MHz	Pass
V _{max.}	Below 1GHz	712.030		0.007482nW		4nW/ 100kHz	Pass
	Above 1GHz	21634.370		1.037528nW		20nW/MHz	Pass
V _{min.}	Below 1GHz	844.800		0.007328nW		4nW/ 100kHz	Pass
	Above 1GHz	21662.500		1.042317nW		20nW/MHz	Pass

Note: 1. The worst value in each frequency range v.s. each channel has been marked by boldface.
2. The spectrum plots are attached on the following pages.

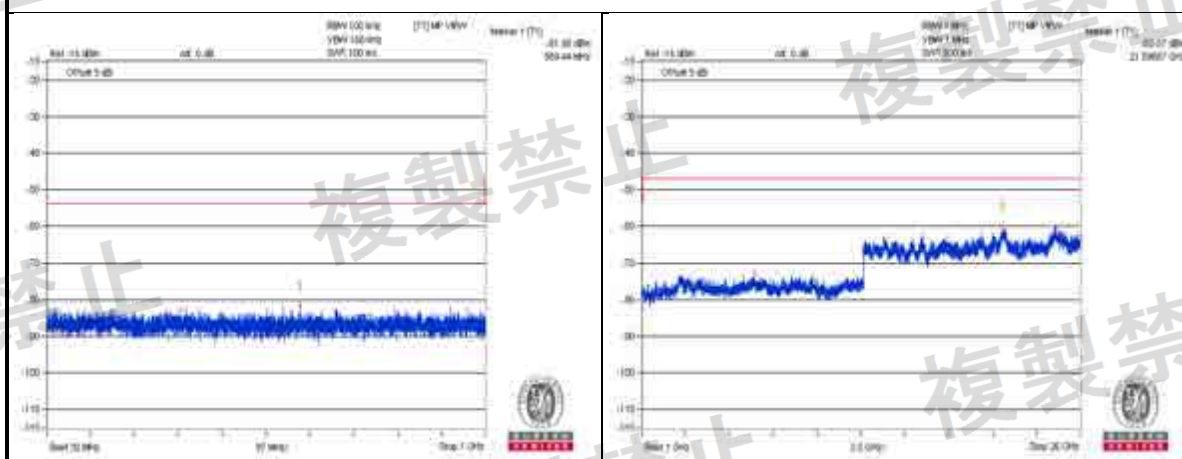
Vnormal



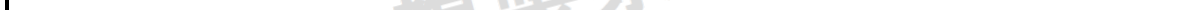
Channel 38



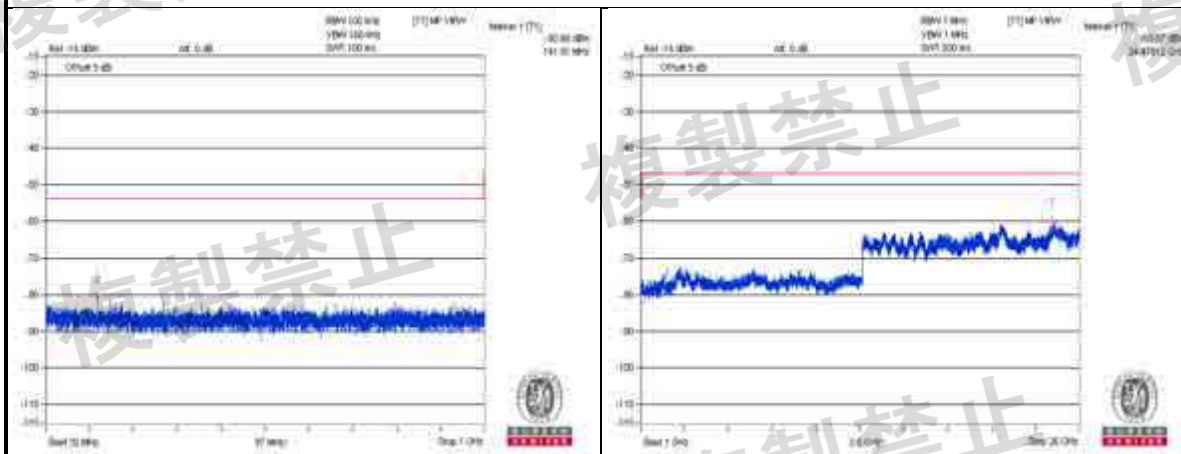
Channel 46



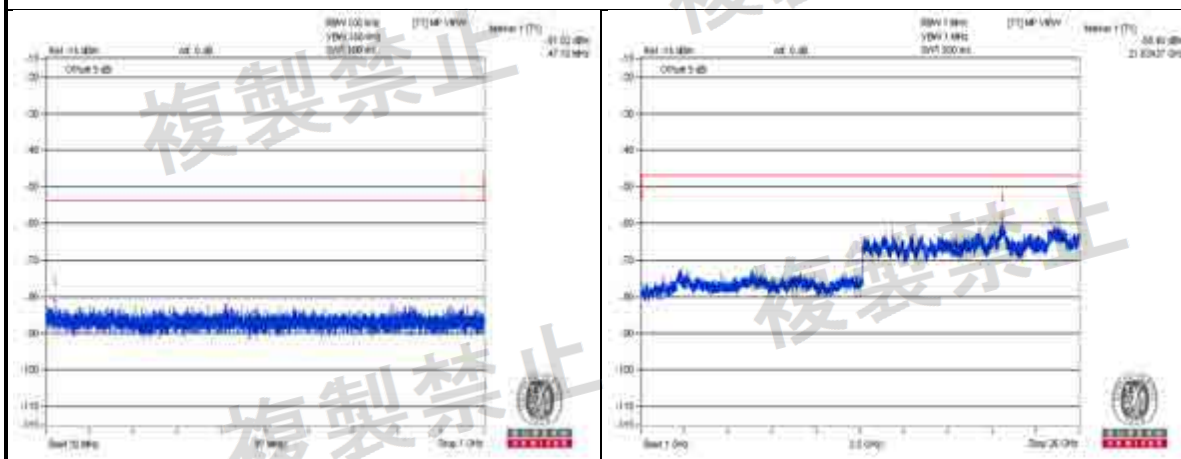
Channel 54



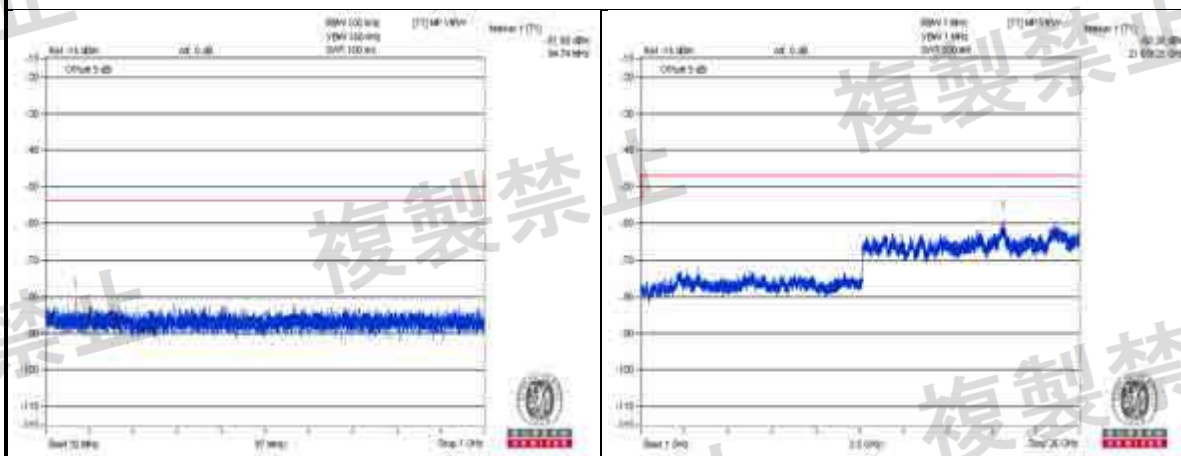
Vnormal



Channel 62

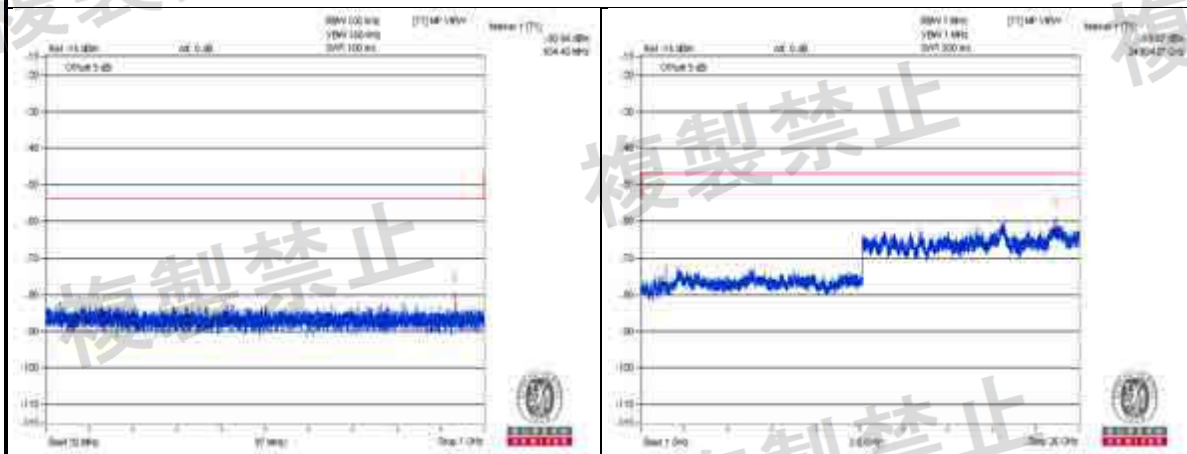


Channel 102



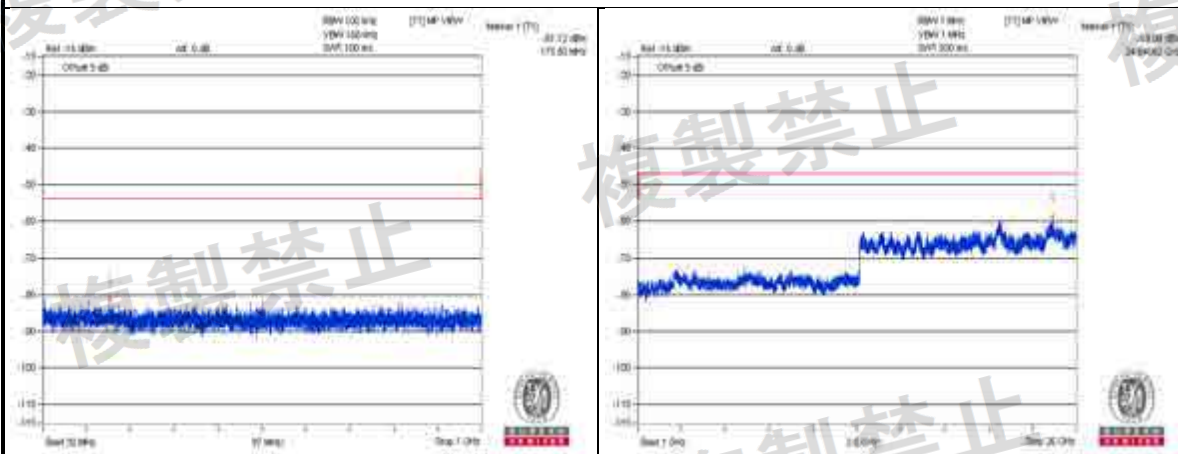
Channel 118

Vnormal

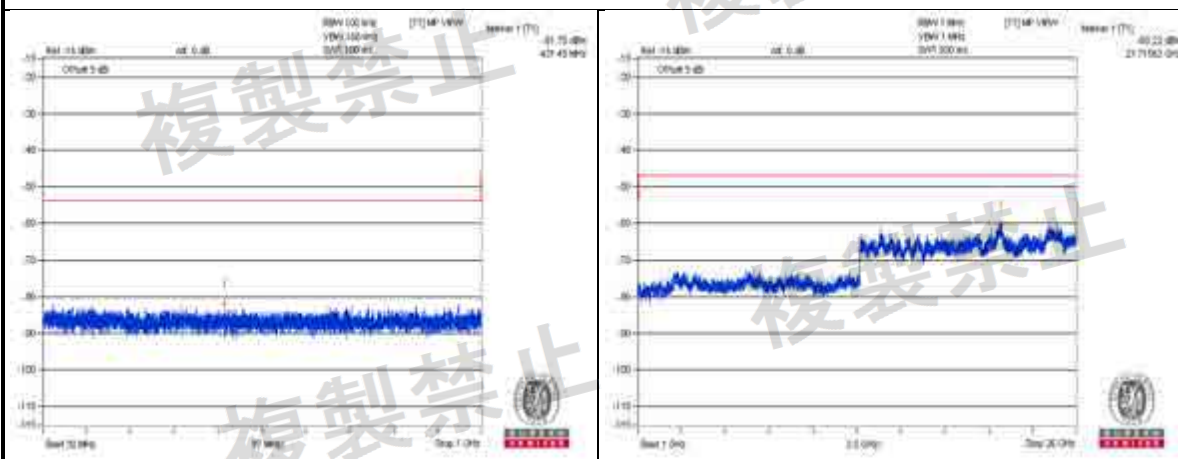


Channel 134

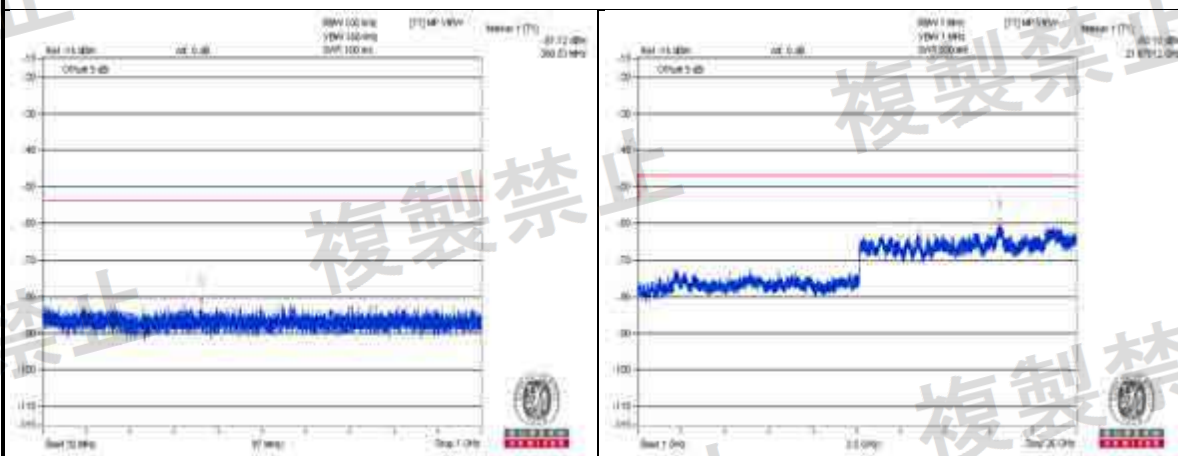
Vmax.



Channel 38

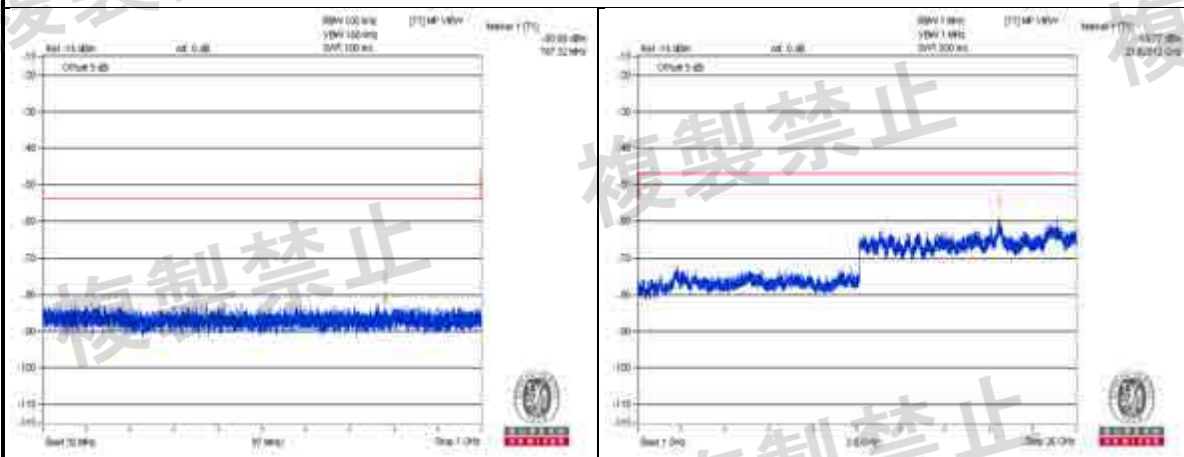


Channel 46

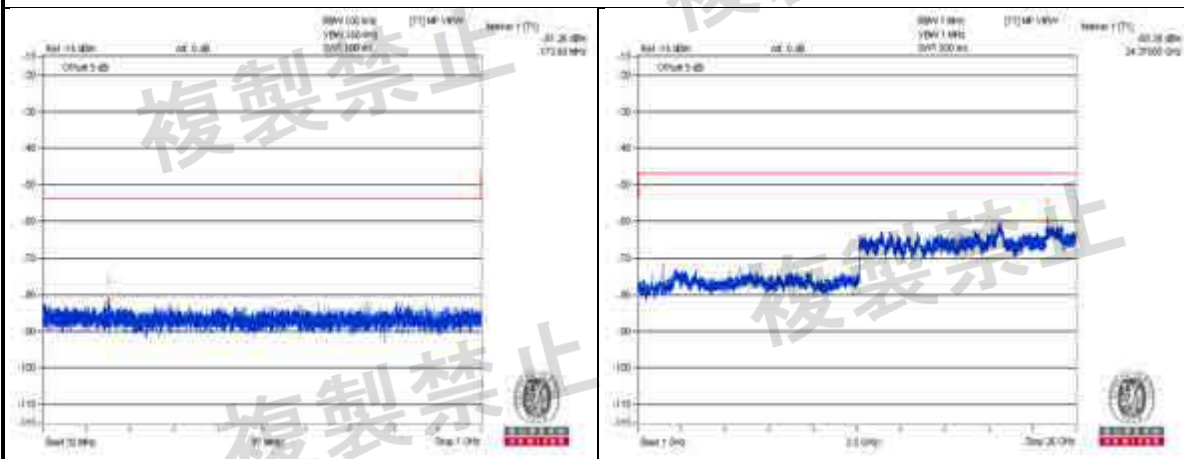


Channel 54

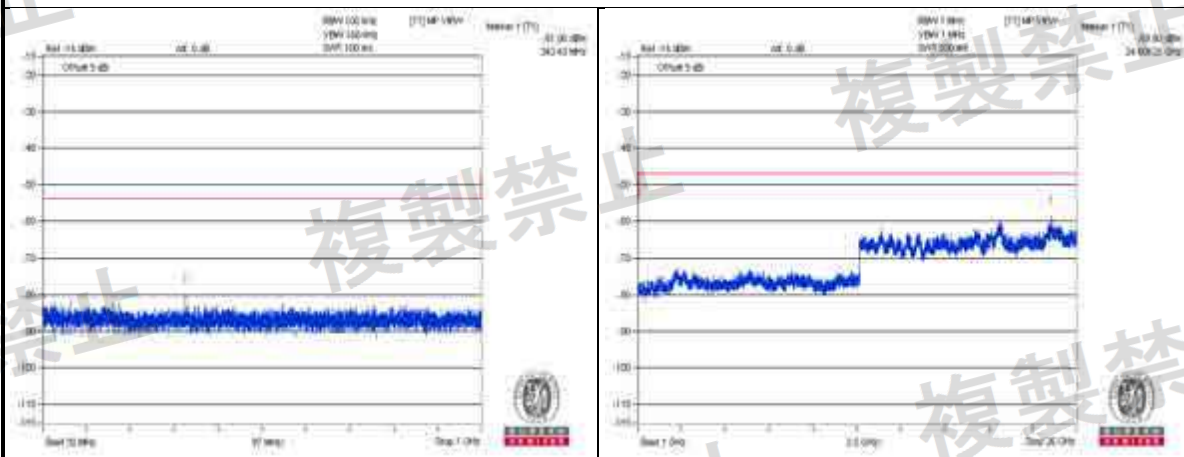
Vmax.



Channel 62

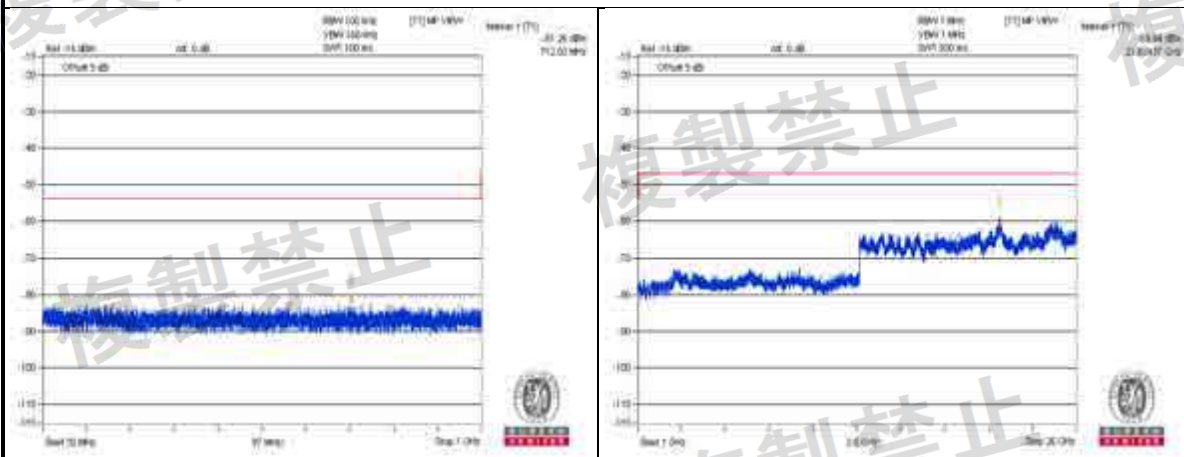


Channel 102



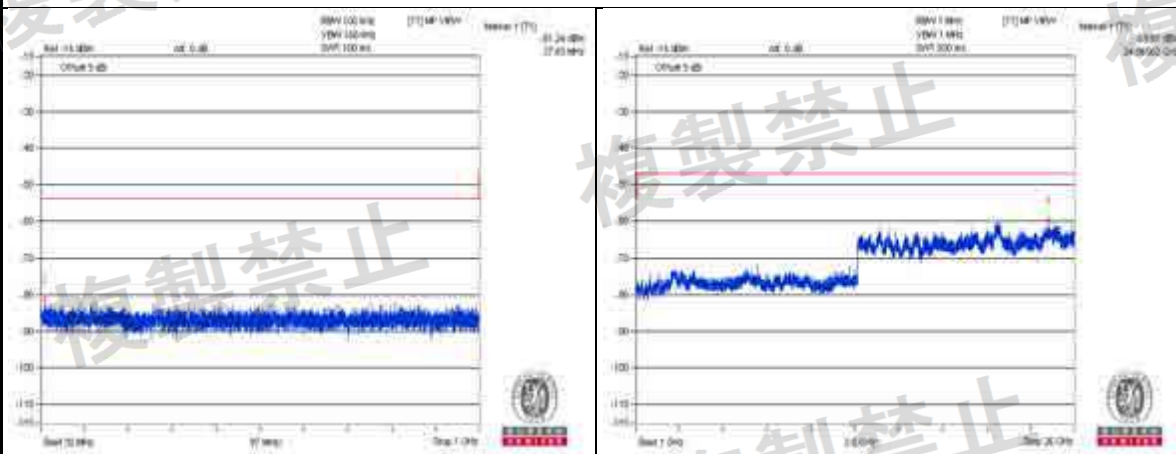
Channel 118

Vmax.

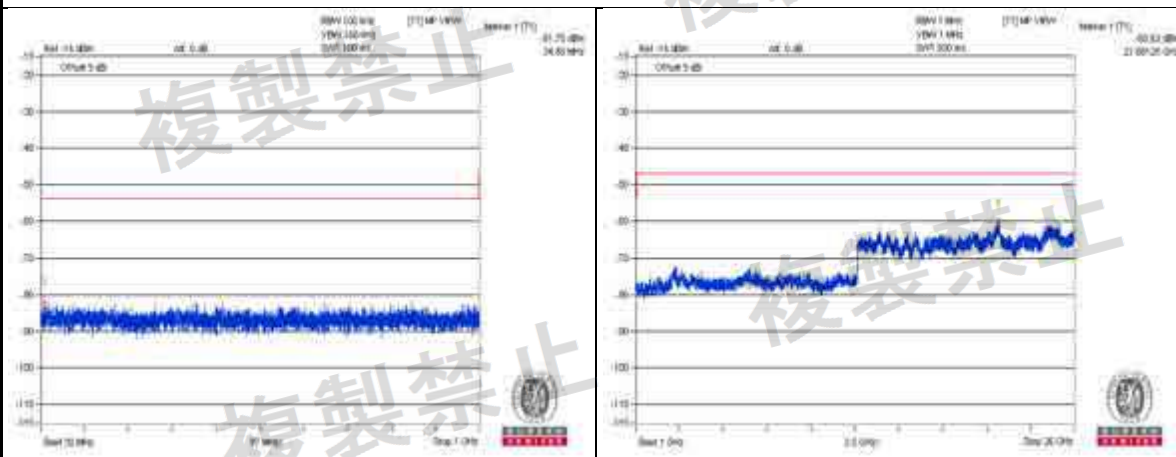


Channel 134

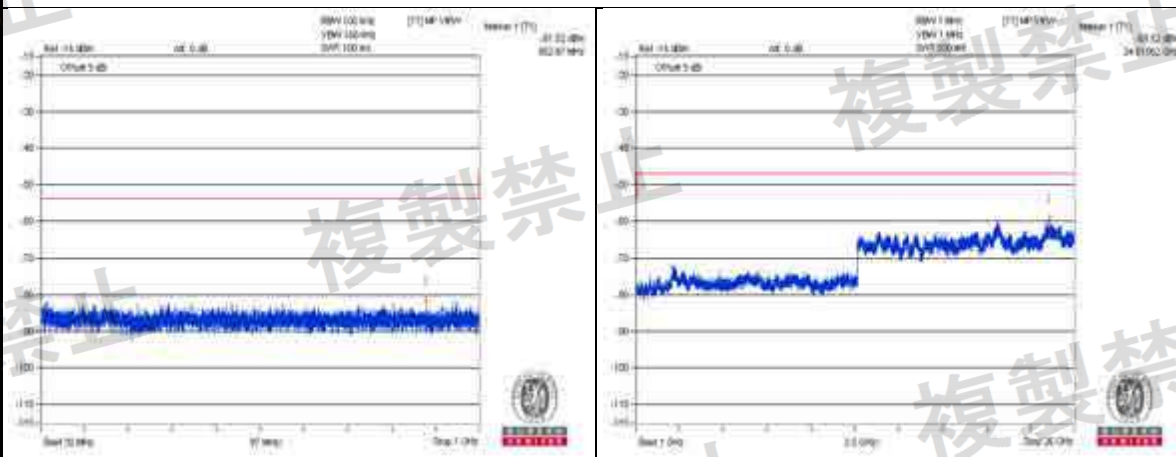
Vmin.



Channel 38

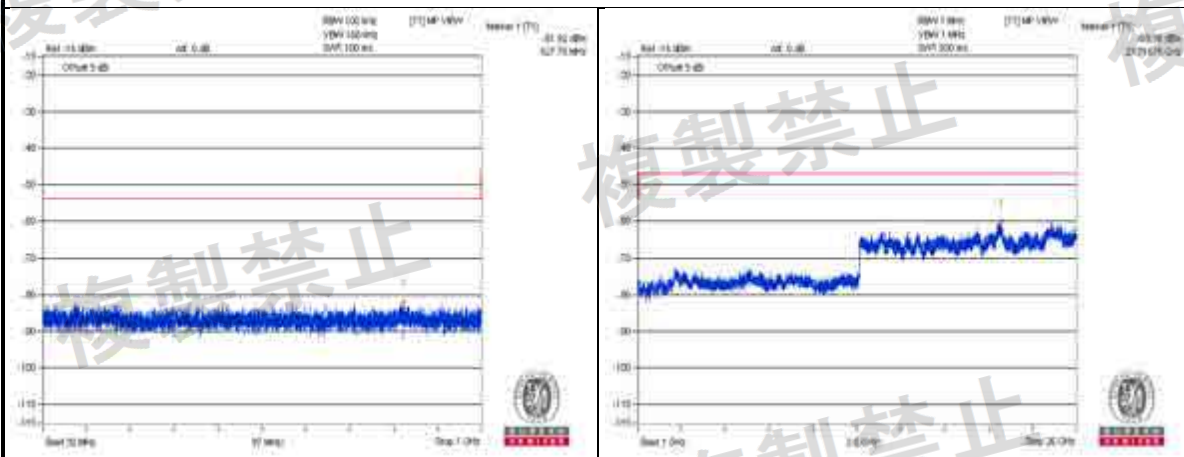


Channel 46

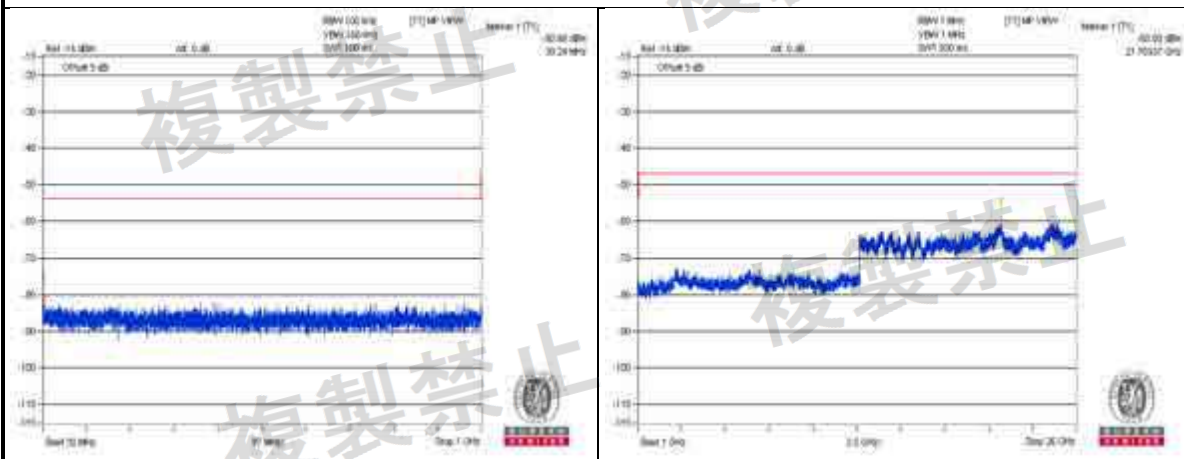


Channel 54

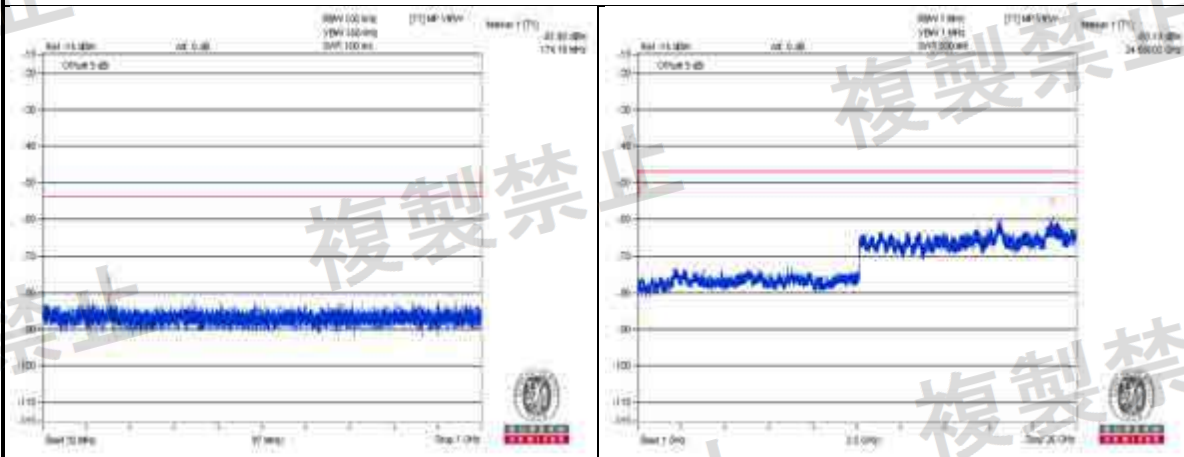
Vmin.



Channel 62

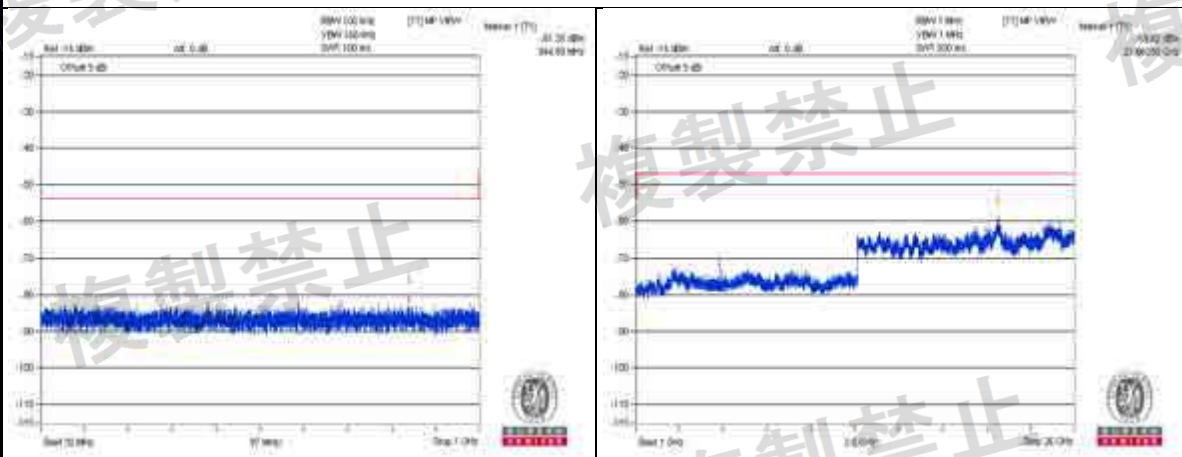


Channel 102



Channel 118

Vmin.



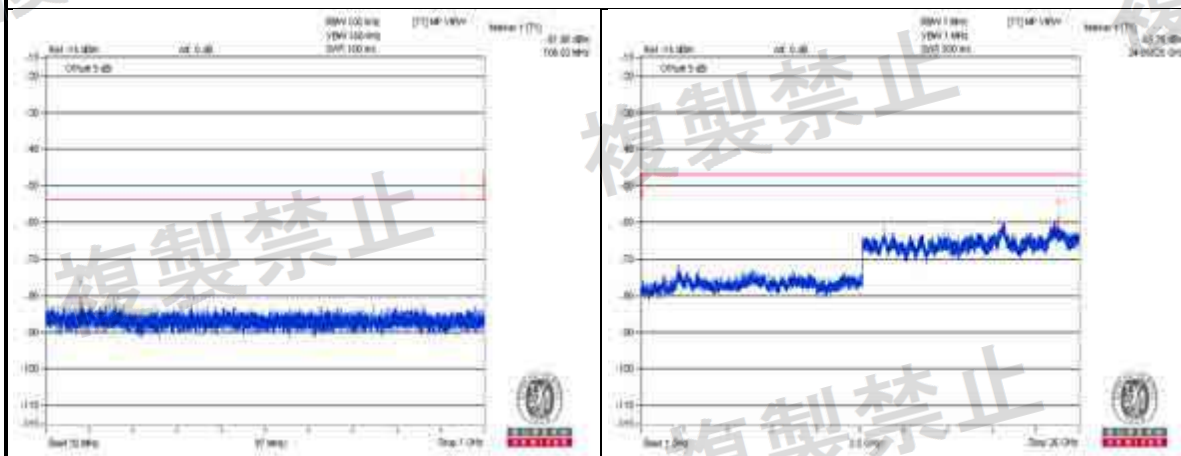
Channel 134

W52, W53 and W56 bands: 802.11ac (VHT80)

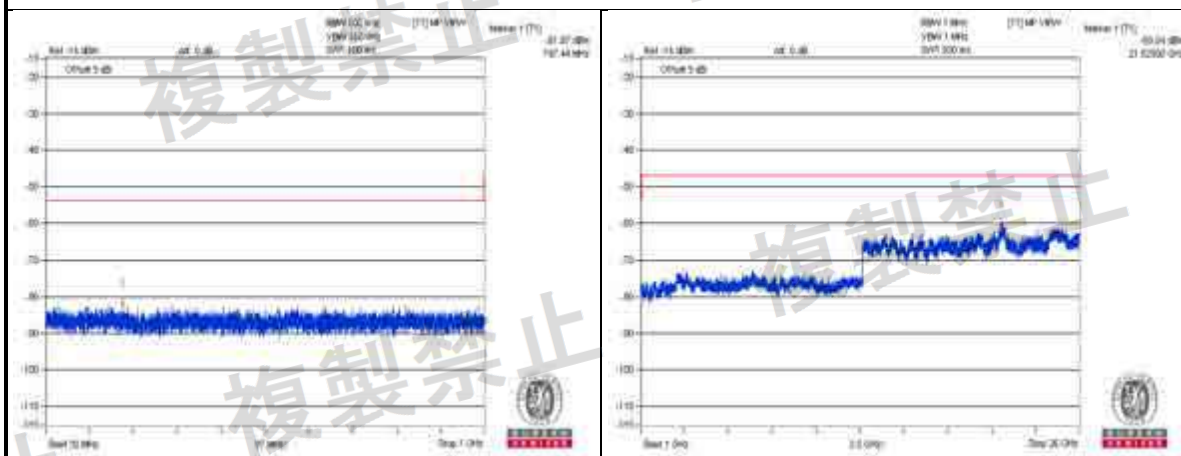
Environmental Conditions		25 deg.C, 60% RH					
Test Channel		CH42 (5210MHz)		CH58 (5290MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	106.020	0.006516nW	197.440	0.006501nW	4nW/ 100kHz	Pass
	Above 1GHz	24856.250	1.059254nW	21525.000	0.990832nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	978.290	0.008166nW	39.700	0.006934nW	4nW/ 100kHz	Pass
	Above 1GHz	24668.750	1.111732nW	21593.750	0.977237nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	169.430	0.007261nW	742.580	0.006339nW	4nW/ 100kHz	Pass
	Above 1GHz	21650.000	1.172195nW	21621.870	1.161449nW	20nW/MHz	Pass
Test Channel		CH106 (5530MHz)		CH122 (5610MHz)		Limit	Result
Test Condition	Frequency Range	Frequency (MHz)	Measured Value (nW)	Frequency (MHz)	Measured Value (nW)		
V_{normal}	Below 1GHz	326.690	0.007482nW	63.460	0.007362nW	4nW/ 100kHz	Pass
	Above 1GHz	21581.250	1.011579nW	21631.250	1.086426nW	20nW/MHz	Pass
$V_{max.}$	Below 1GHz	58.370	0.006902nW	164.220	0.007362nW	4nW/ 100kHz	Pass
	Above 1GHz	1718.750	1.096478nW	21615.620	0.9977nW	20nW/MHz	Pass
$V_{min.}$	Below 1GHz	166.520	0.007727nW	777.380	0.007691nW	4nW/ 100kHz	Pass
	Above 1GHz	21693.750	1.207814nW	21593.750	0.901571nW	20nW/MHz	Pass

Note: 1. The worst value in each frequency range v.s. each channel has been marked by boldface.
2. The spectrum plots are attached on the following pages.

Vnormal

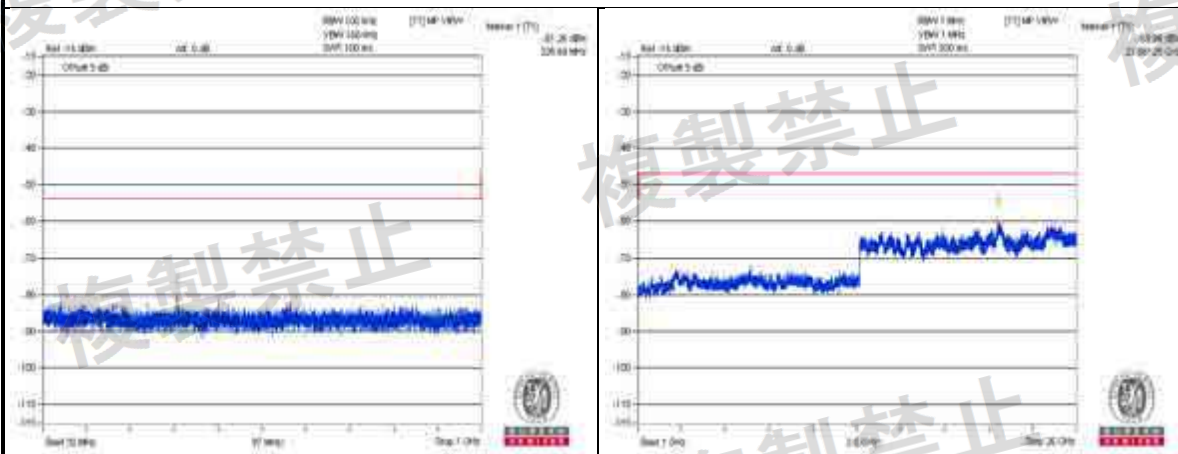


Channel 42

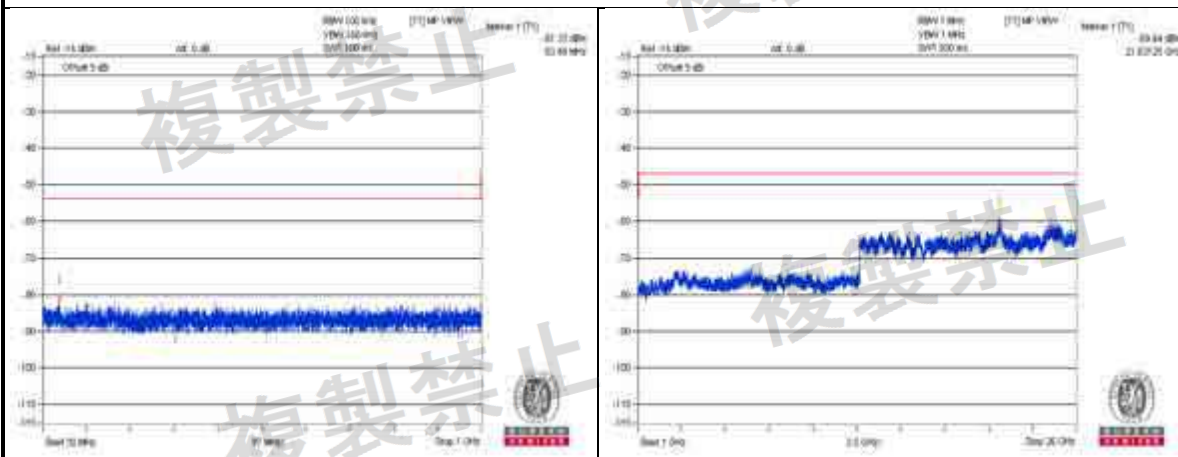


Channel 58

Vnormal

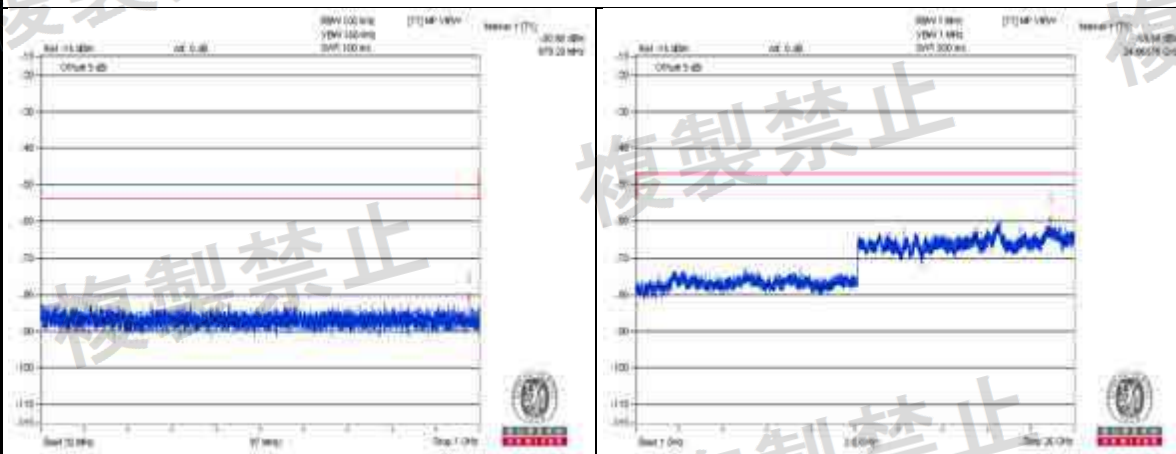


Channel 106

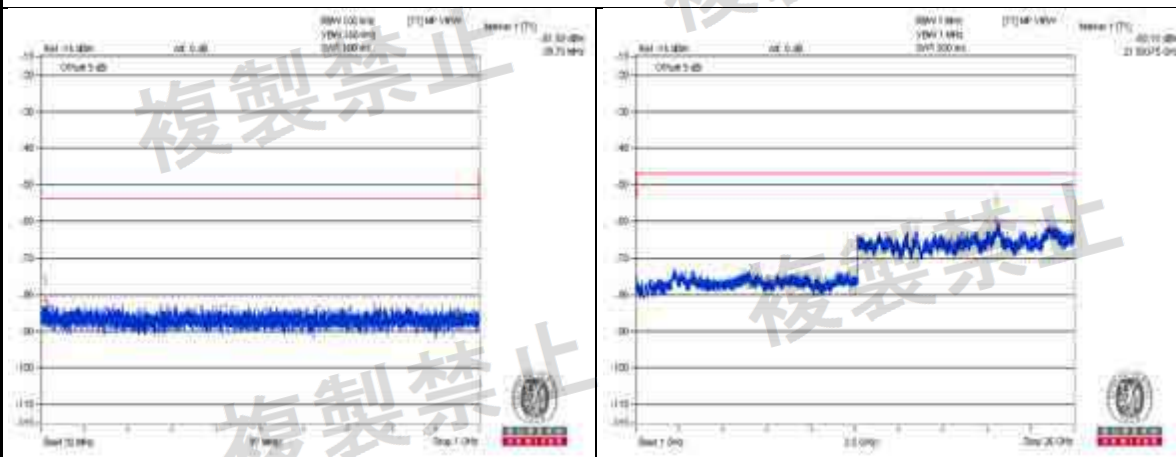


Channel 122

Vmax.

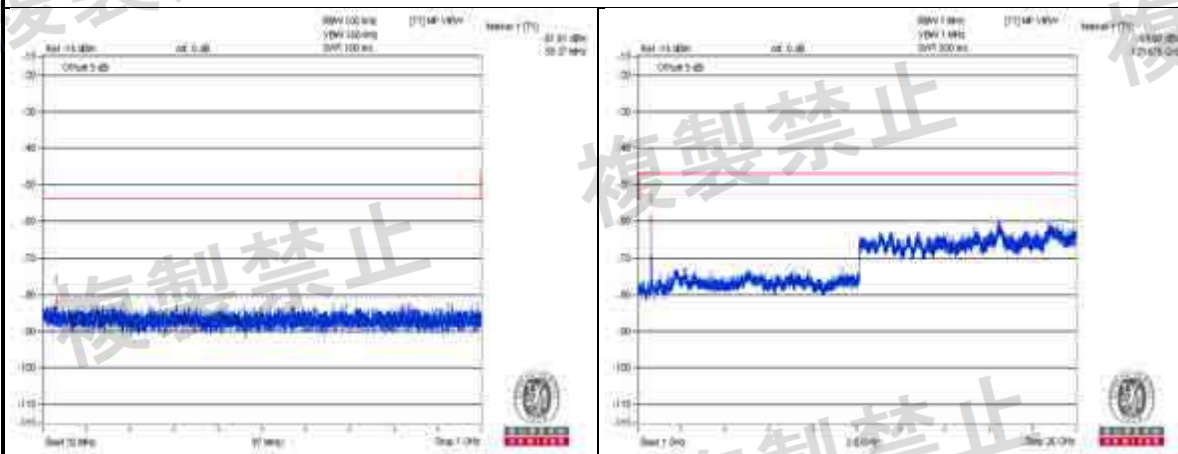


Channel 42

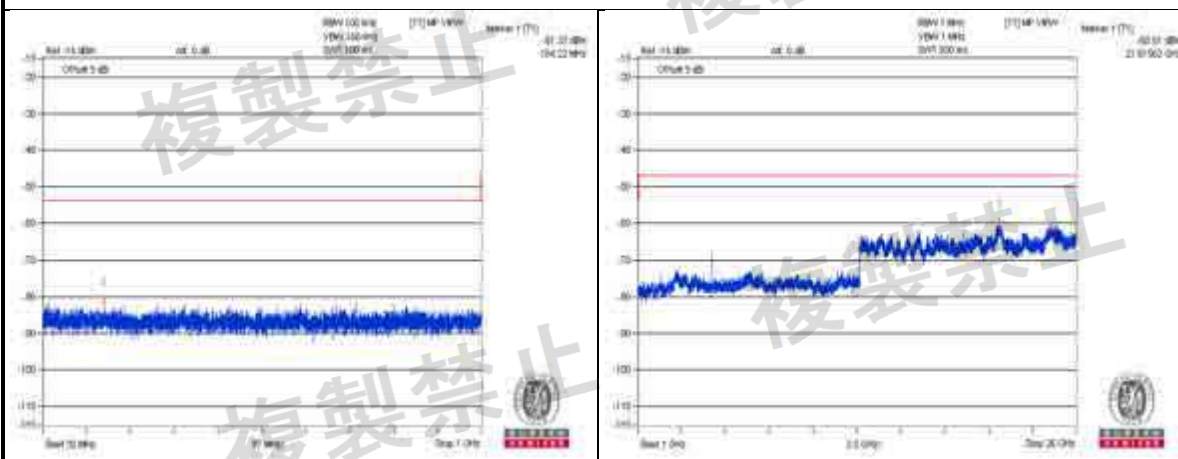


Channel 58

Vmax.

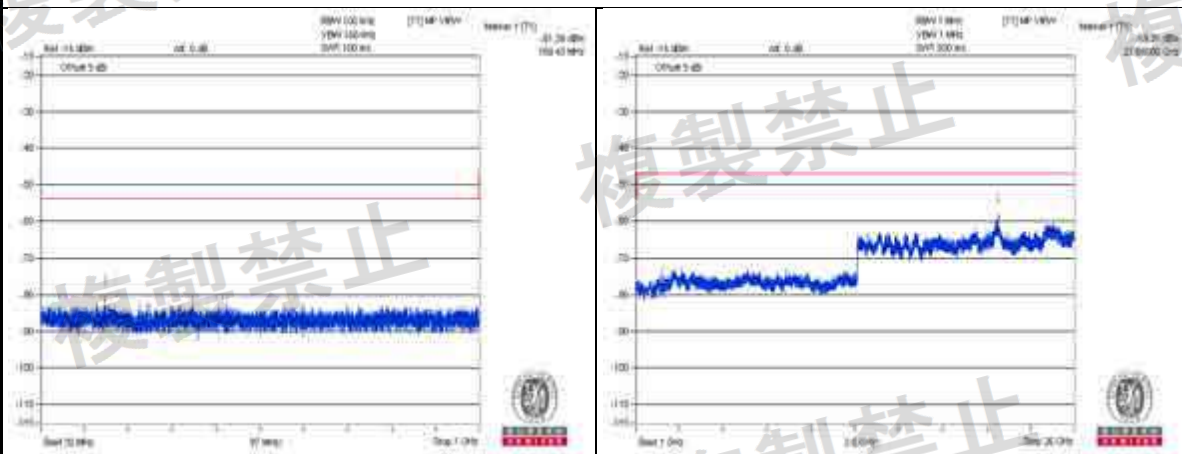


Channel 106

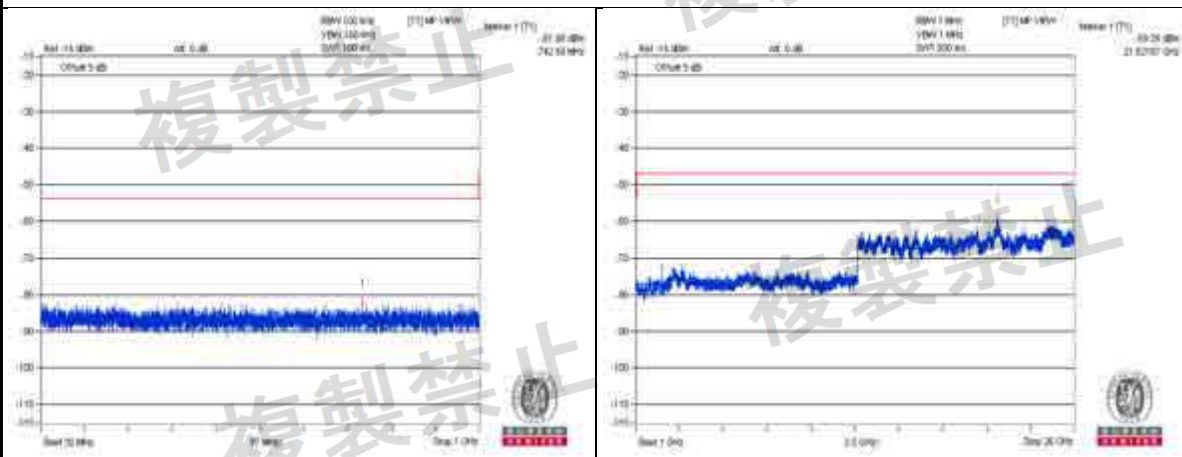


Channel 122

Vmin.

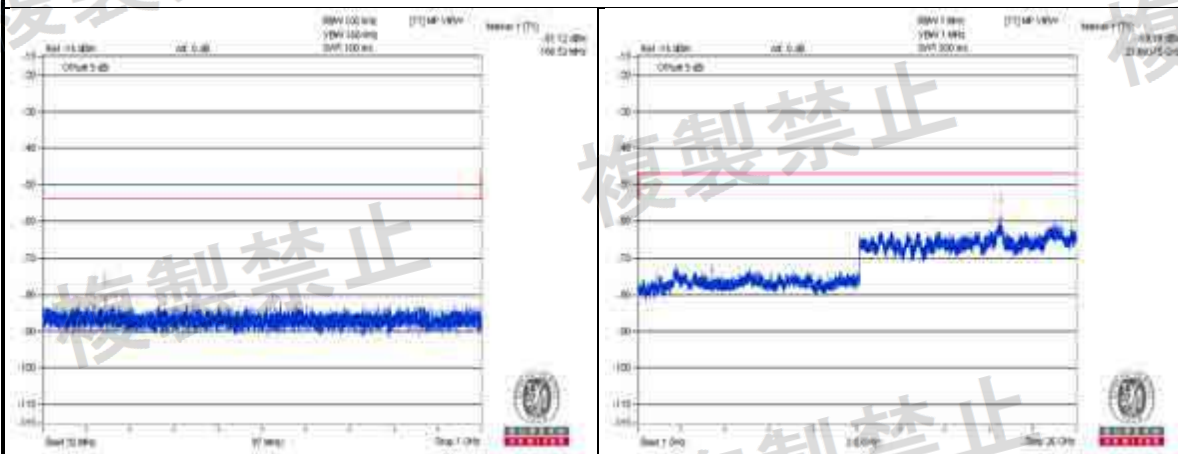


Channel 42

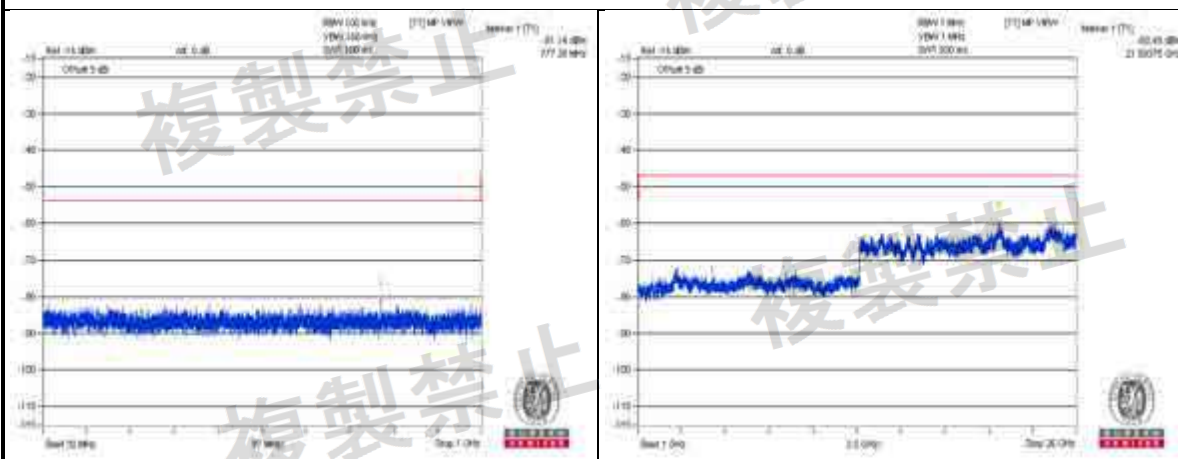


Channel 58

Vmin.



Channel 106



Channel 122

4.8 Burst Length

4.8.1 Limits of Burst Length

Frequencies (MHz)	Limit
Transmitter Operating	$\leq 4\text{ms}$

4.8.2 Test Setup



4.8.3 Test Result

W52 & W53 bands: 802.11a

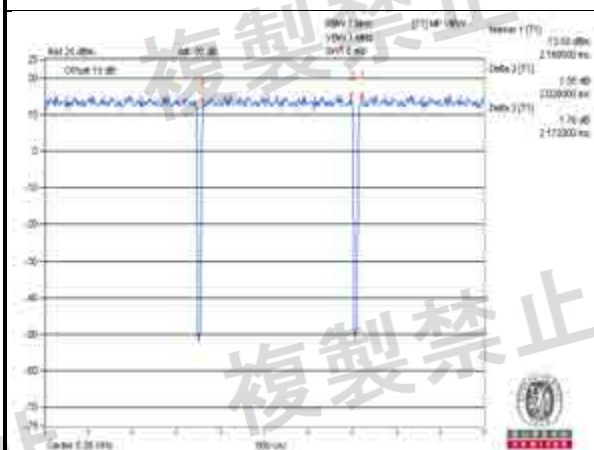
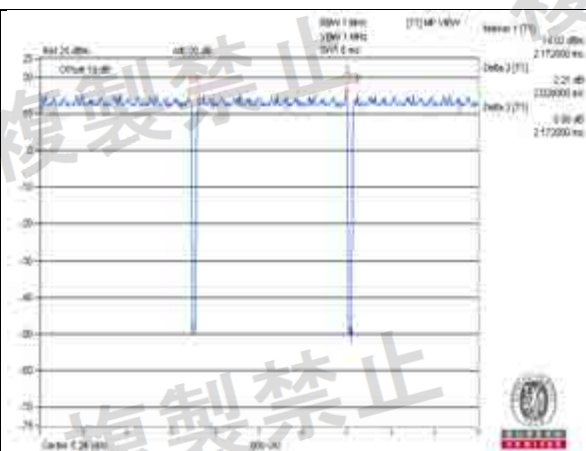
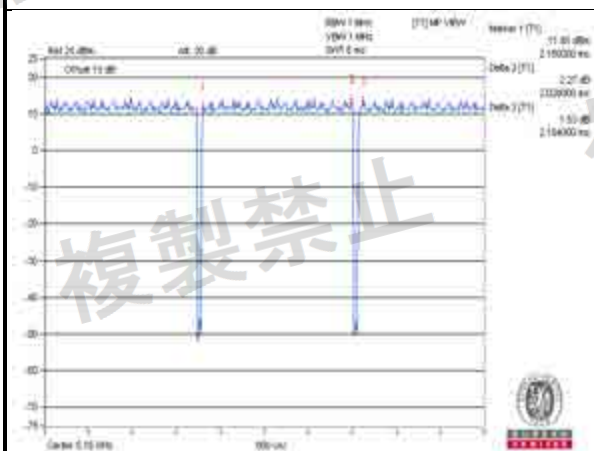
Environmental Conditions	25 deg.C, 60% RH			
Test Condition	Burst Length (ms)			
	CH 36 5180MHz	CH 48 5240MHz	CH 52 5260MHz	CH 64 5320MHz
V_{normal}	2.02	2.02	2.02	2.00
$V_{max.}$	2.01	2.05	2.01	2.02
$V_{min.}$	2.02	2.02	2.01	2.01

W56 band: 802.11a

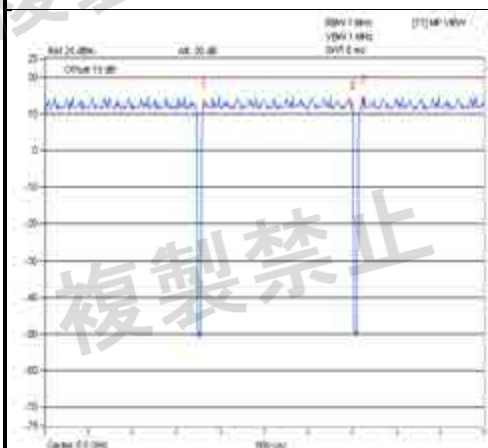
Environmental Conditions	25 deg.C, 60% RH		
Test Condition	Burst Length (ms)		
	CH 100 5500MHz	CH 120 5600MHz	CH140 5700MHz
V_{normal}	2.02	1.99	2.04
$V_{max.}$	2.04	2.02	2.02
$V_{min.}$	2.01	2.04	2.00

Note: The spectrum plots are attached on the following pages.

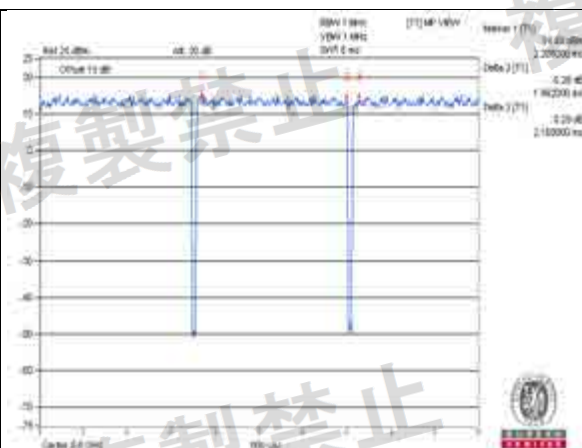
Vnormal



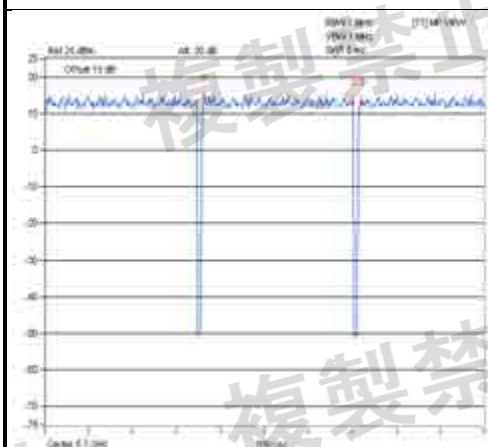
Vnormal



Channel 100

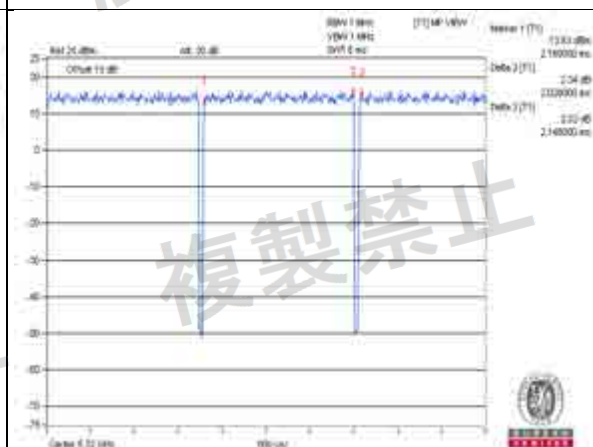
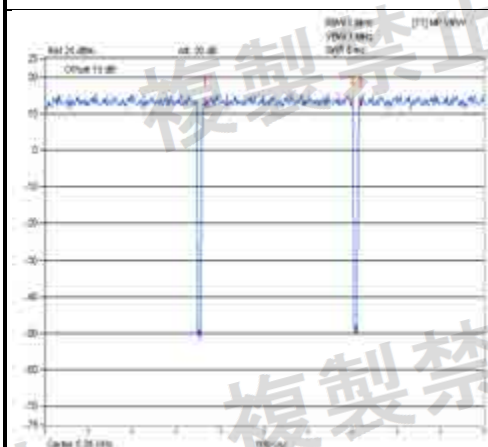
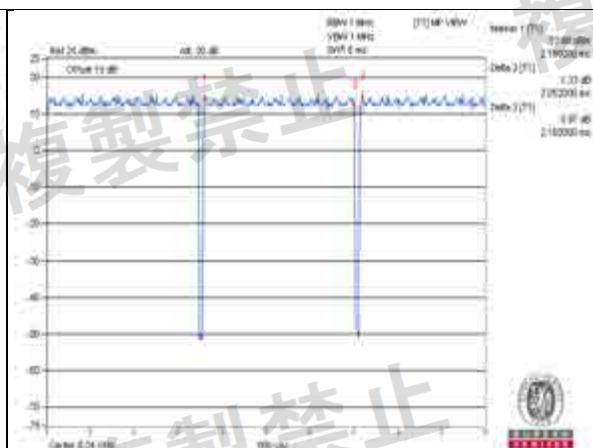
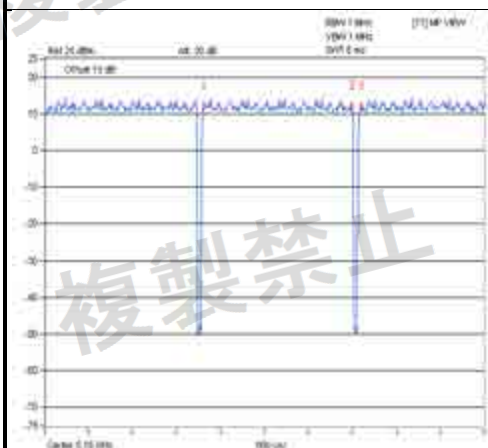


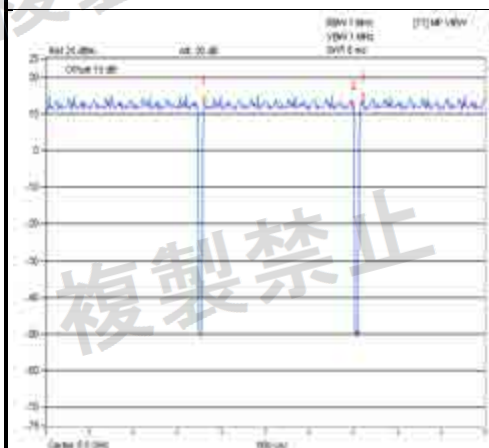
Channel 120



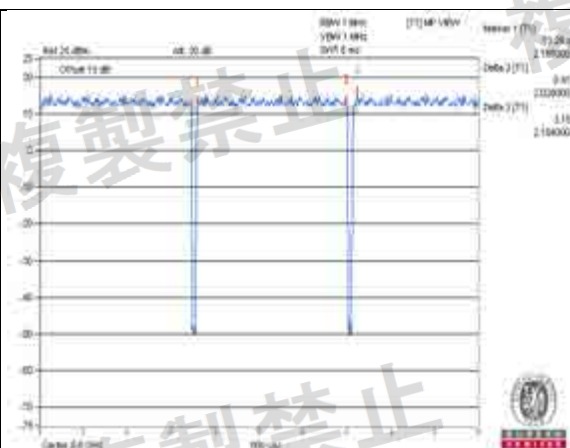
Channel 140

Vmax.

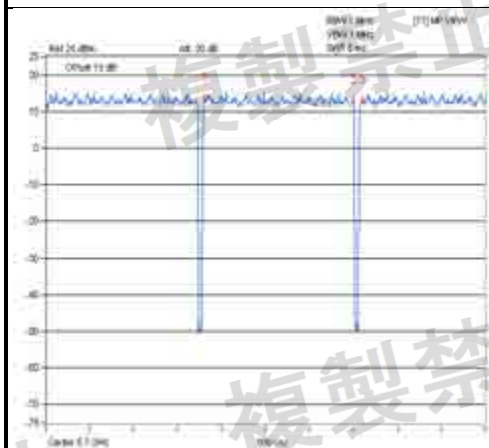


V_{max} .

Channel 100

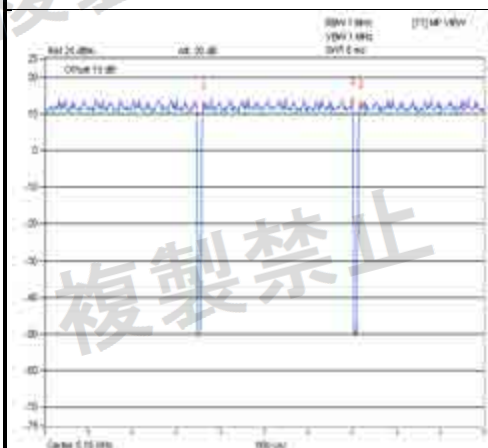


Channel 120

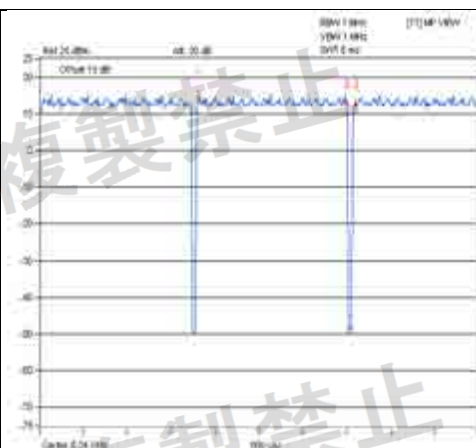


Channel 140

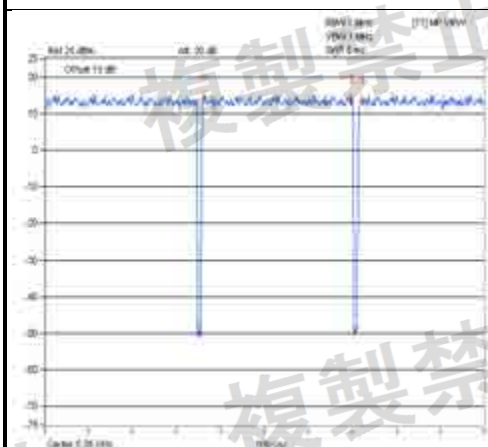
Vmin.



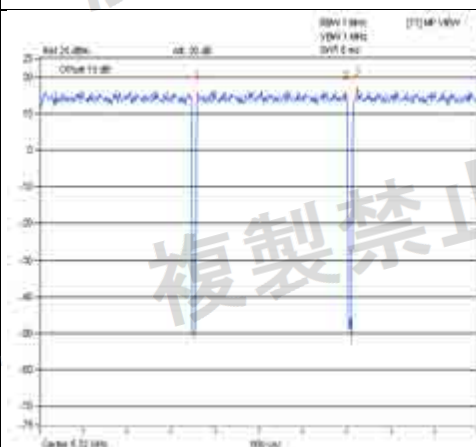
Channel 36



Channel 48

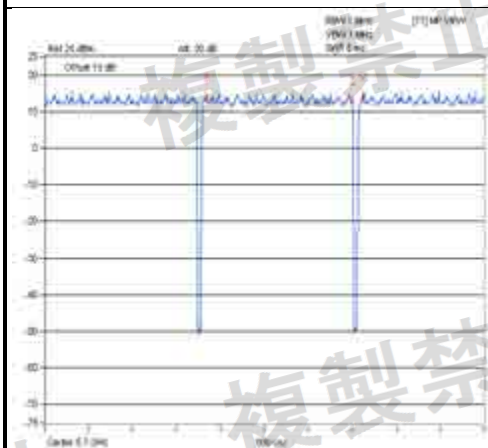
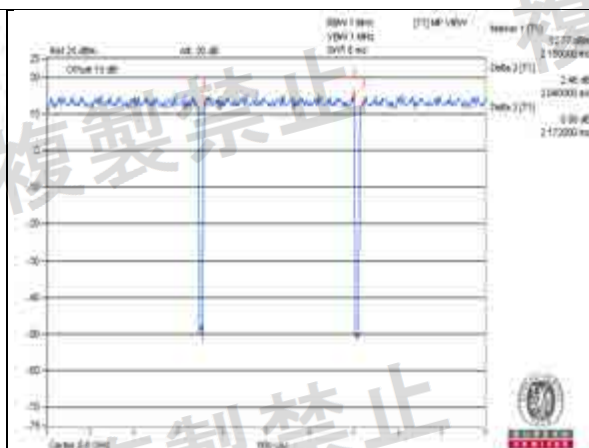
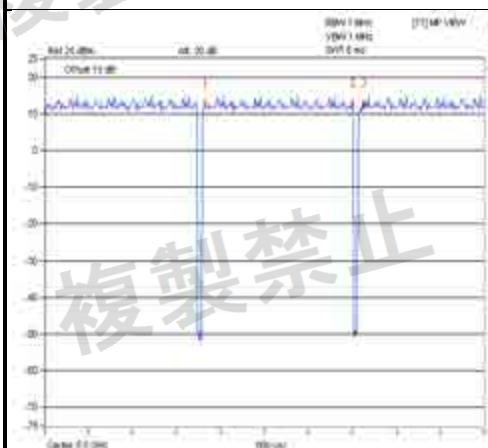


Channel 52



Channel 64

Vmin.



W52 & W53 bands: 802.11ac (VHT20)

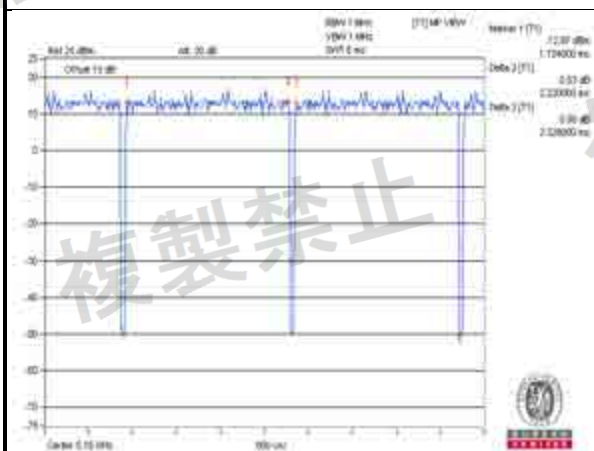
Environmental Conditions	25 deg.C, 60% RH			
Test Condition	Burst Length (ms)			
	CH 36 5180MHz	CH 48 5240MHz	CH 52 5260MHz	CH 64 5320MHz
V_{normal}	2.22	2.20	2.22	2.20
$V_{max.}$	2.19	2.22	2.19	2.22
$V_{min.}$	2.22	2.20	2.20	2.22

W56 band: 802.11ac (VHT20)

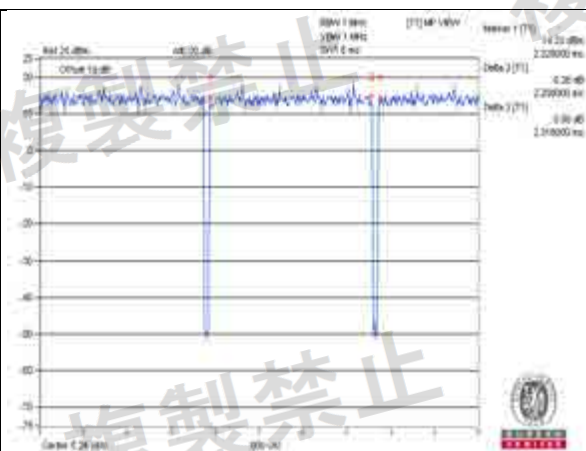
Environmental Conditions	25 deg.C, 60% RH		
Test Condition	Burst Length (ms)		
	CH 100 5500MHz	CH 120 5600MHz	CH140 5700MHz
V_{normal}	2.20	2.22	2.22
$V_{max.}$	2.20	2.20	2.22
$V_{min.}$	2.20	2.20	2.20

Note: The spectrum plots are attached on the following pages.

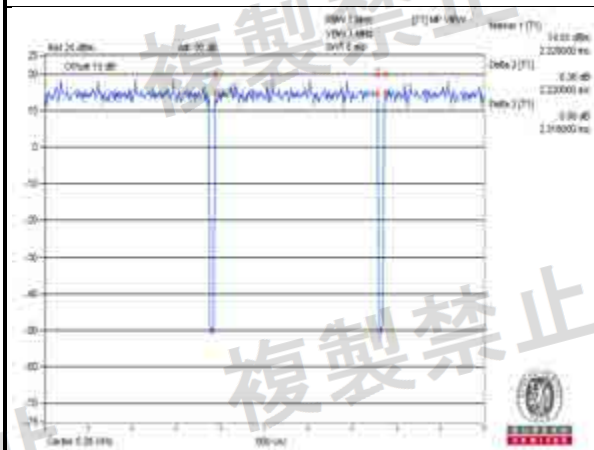
Vnormal



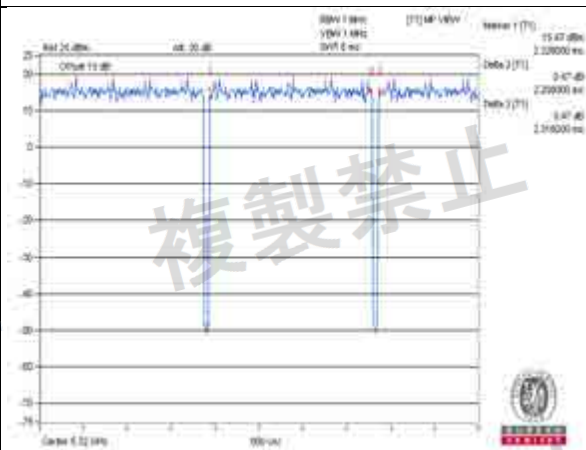
Channel 36



Channel 48

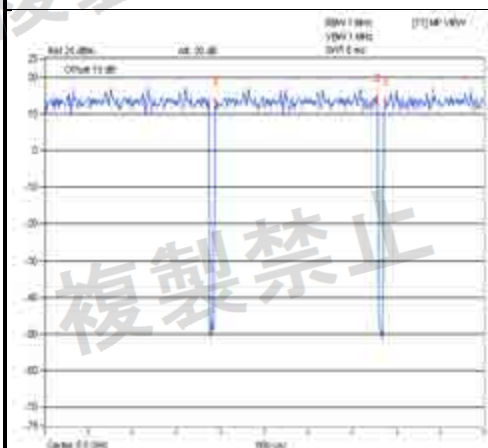


Channel 52

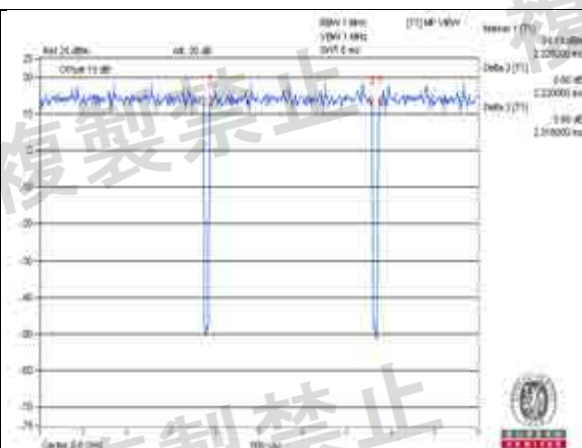


Channel 64

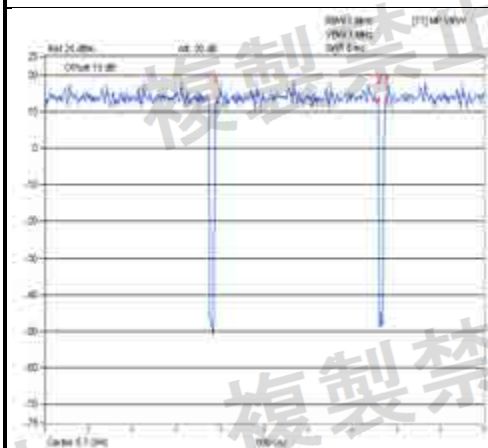
Vnormal



Channel 100

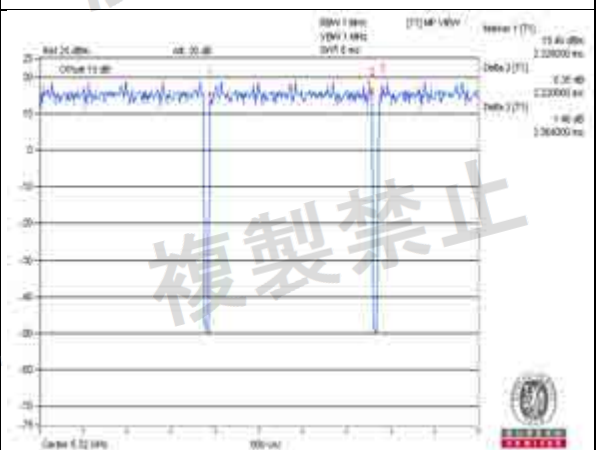
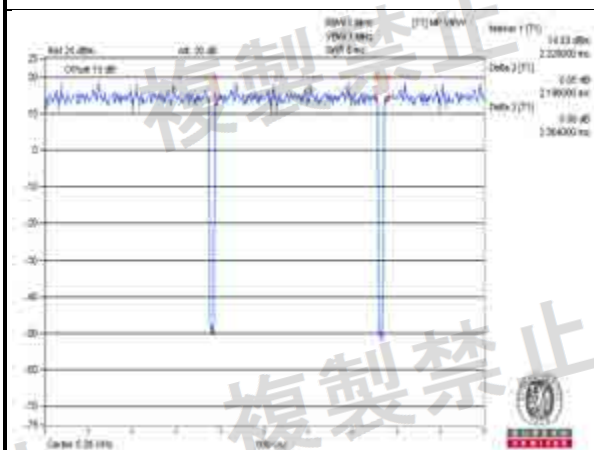
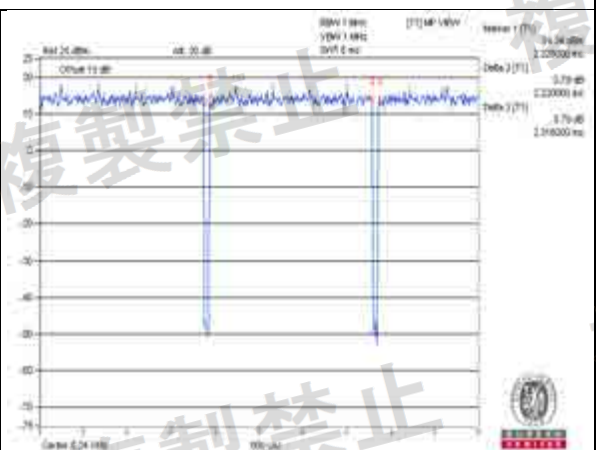
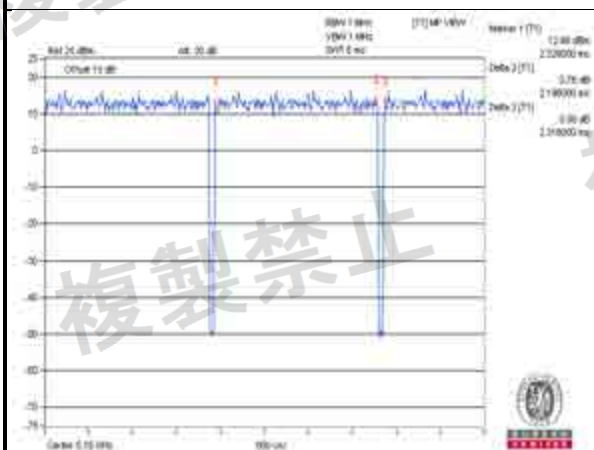


Channel 120

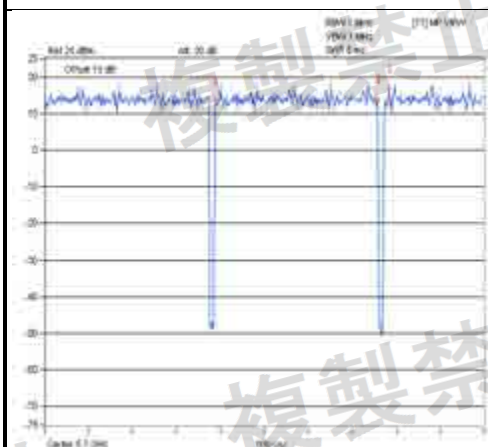
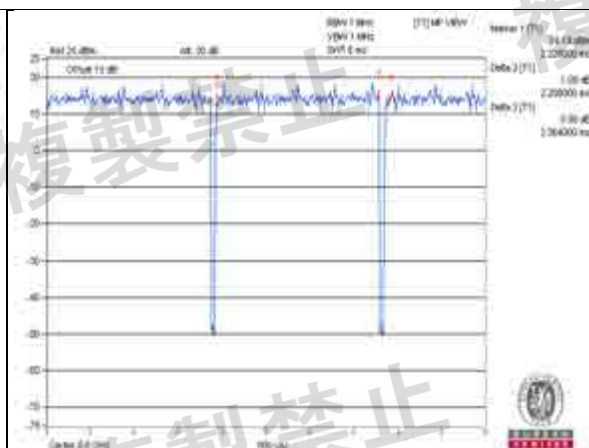
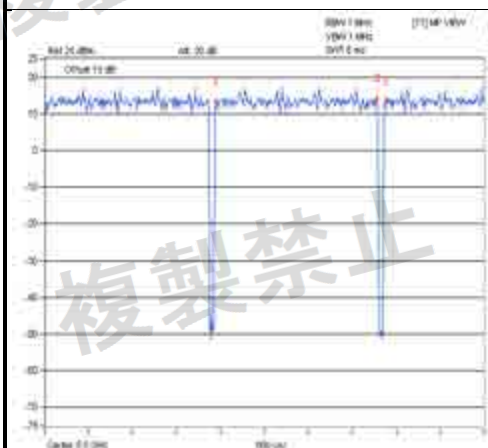


Channel 140

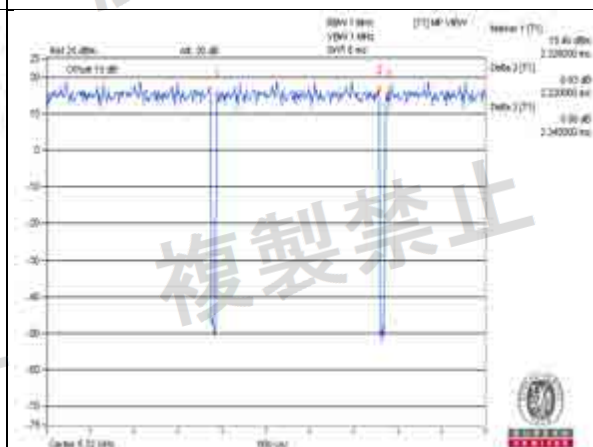
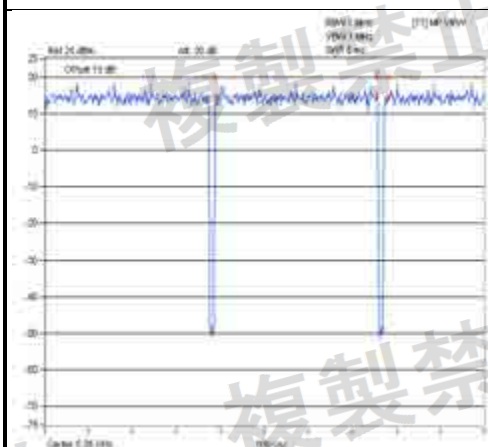
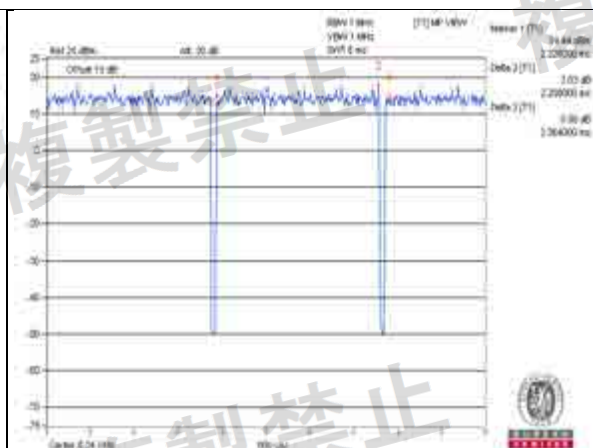
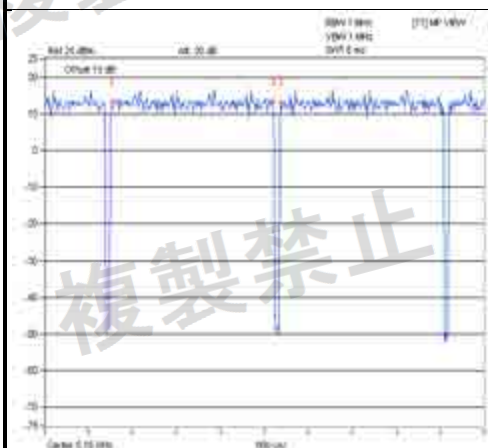
Vmax.



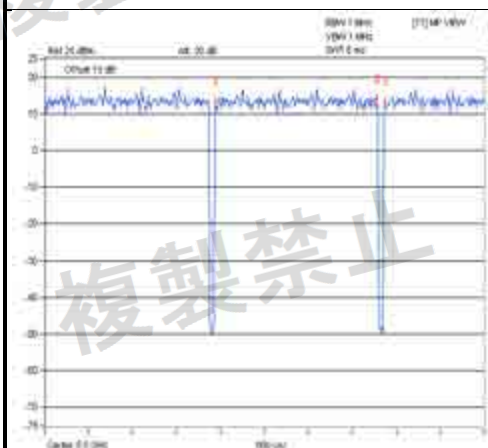
Vmax.



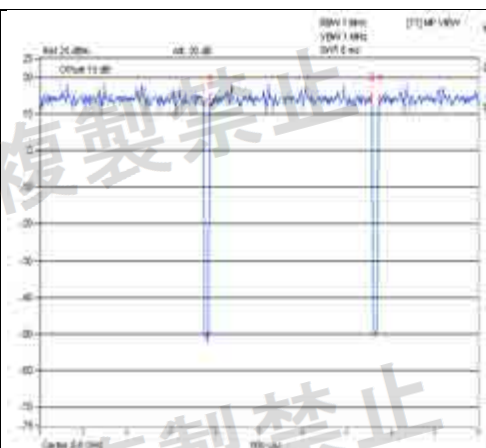
Vmin.



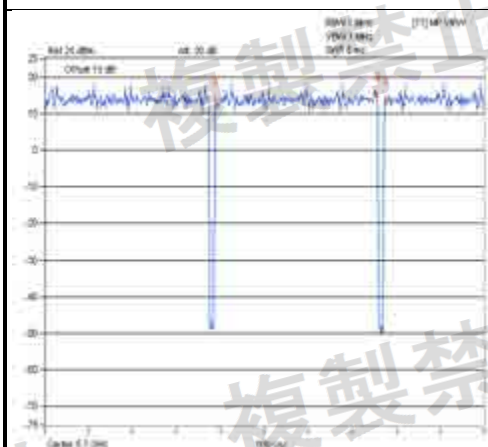
Vmin.



Channel 100



Channel 120



Channel 140

W52 & W53 bands: 802.11ac (VHT40)

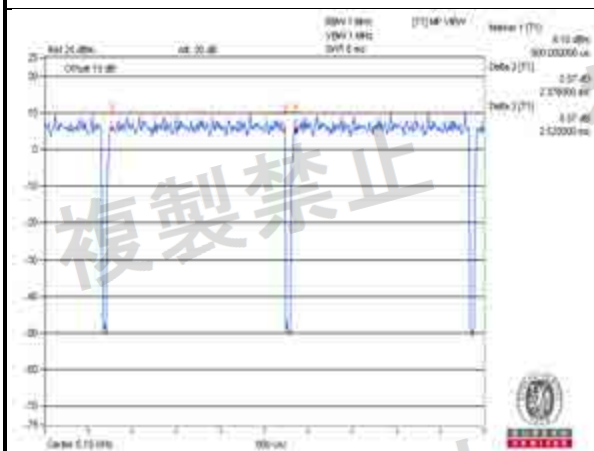
Environmental Conditions	25 deg.C, 60% RH			
Test Condition	Burst Length (ms)			
	CH 38 5190MHz	CH 46 5230MHz	CH 54 5270MHz	CH 62 5310MHz
V_{normal}	2.37	2.37	2.43	2.42
$V_{max.}$	2.38	2.41	2.36	2.40
$V_{min.}$	2.36	2.38	2.37	2.38

W56 band: 802.11ac (VHT40)

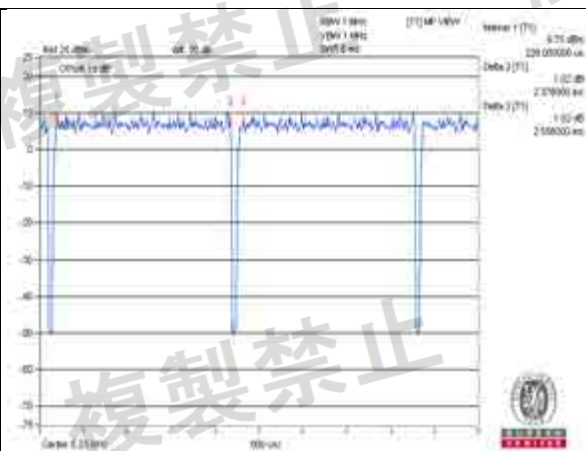
Environmental Conditions	25 deg.C, 60% RH		
Test Condition	Burst Length (ms)		
	CH 102 5510MHz	CH 118 5590MHz	CH 134 5670MHz
V_{normal}	2.40	2.36	2.37
$V_{max.}$	2.36	2.38	2.36
$V_{min.}$	2.37	2.40	2.37

Note: The spectrum plots are attached on the following pages.

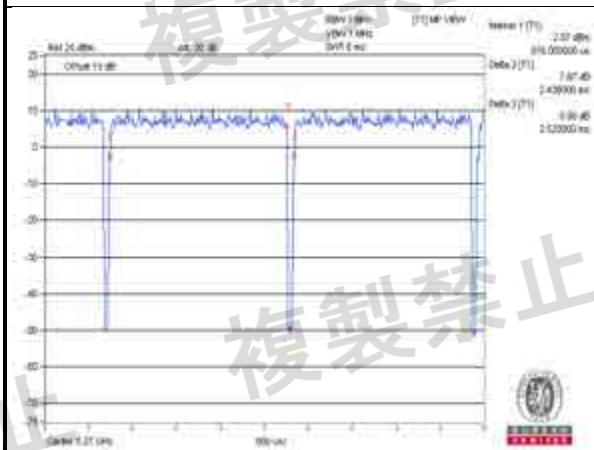
Vnormal



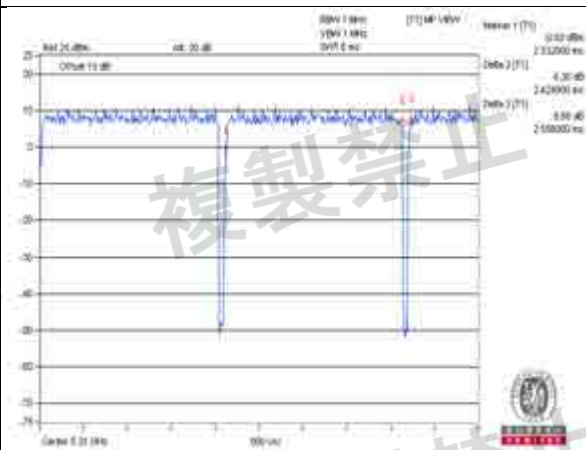
Channel 38



Channel 46

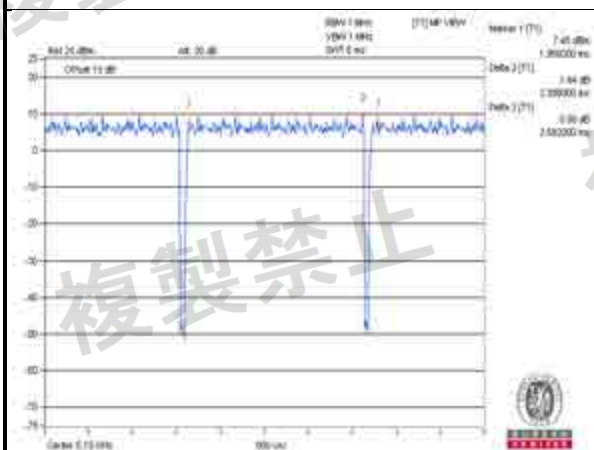


Channel 54

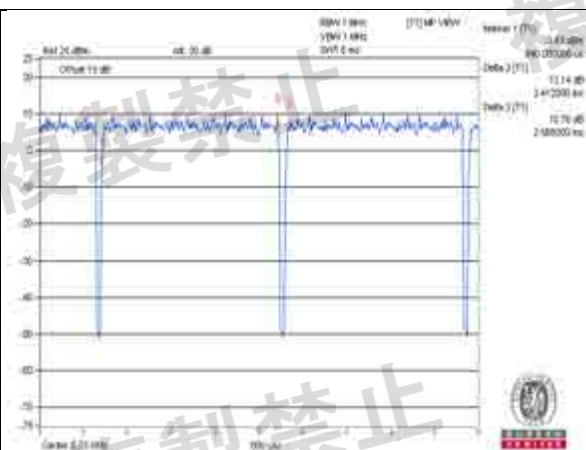


Channel 62

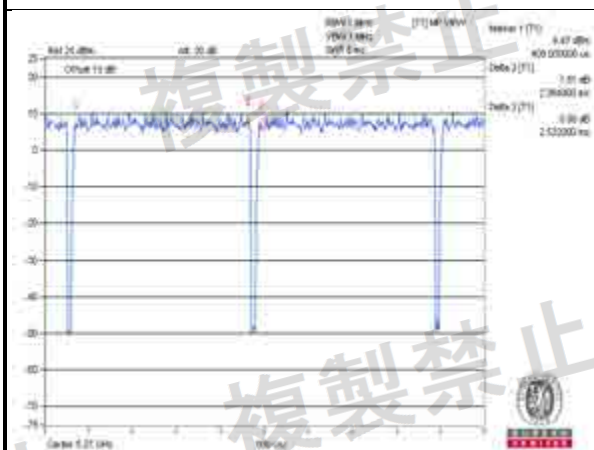
Vmax.



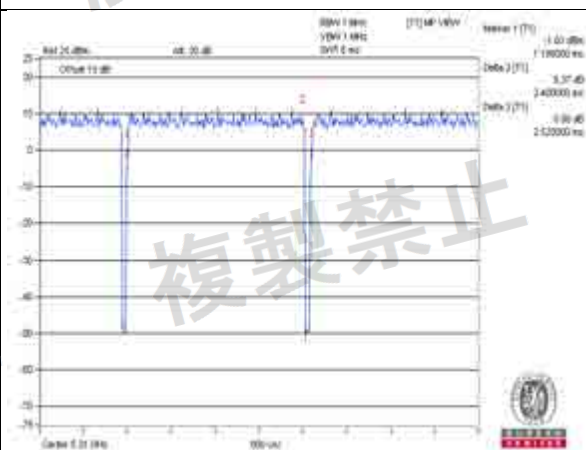
Channel 38



Channel 46

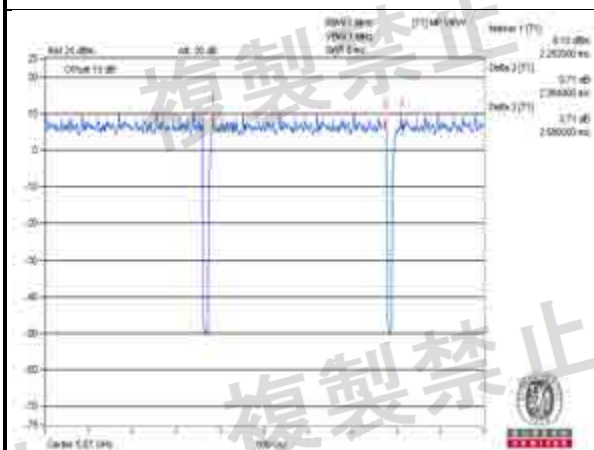
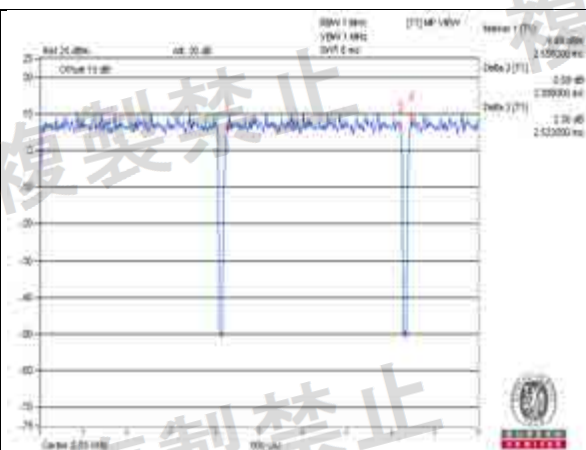
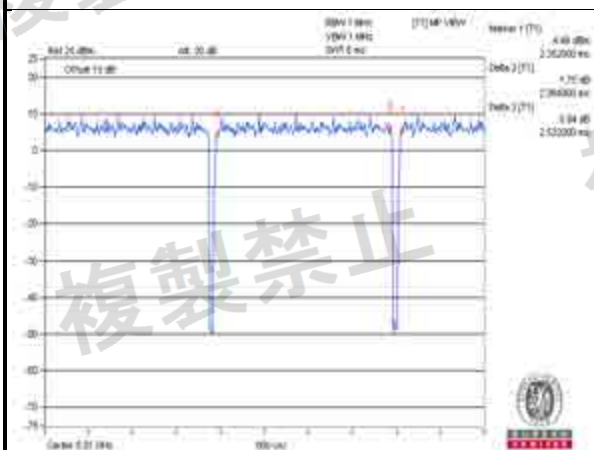


Channel 54

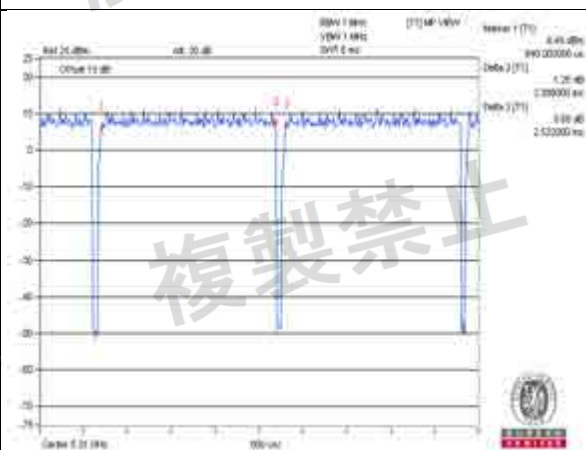
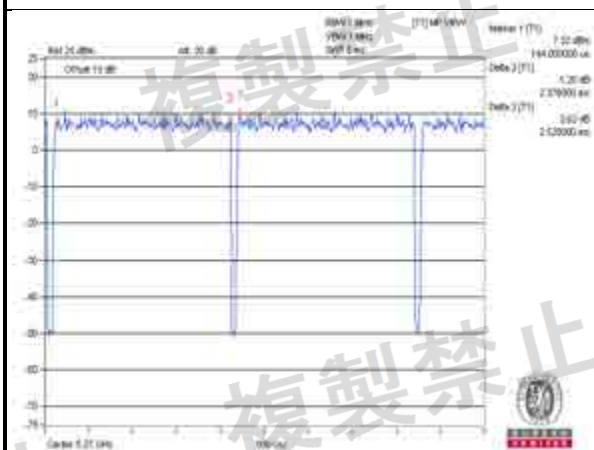
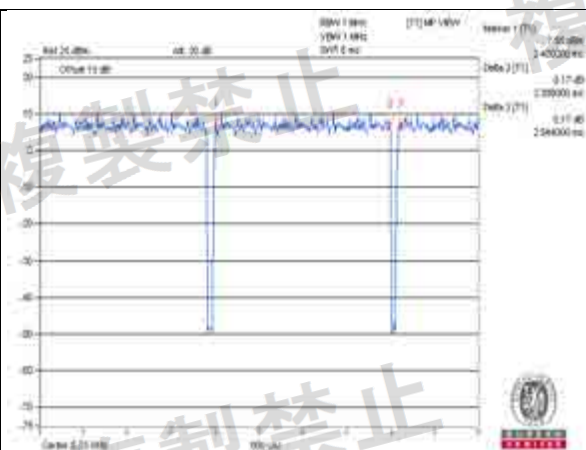
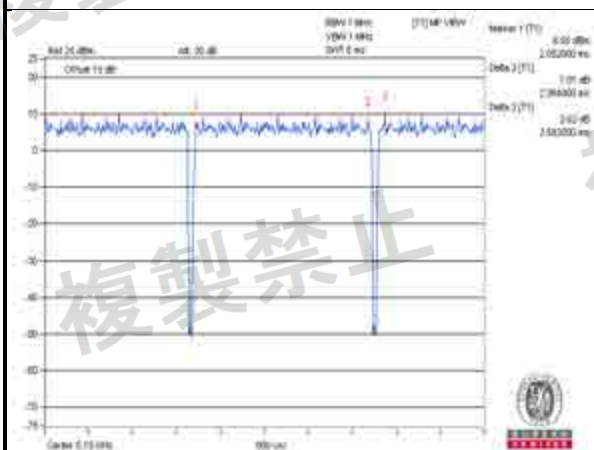


Channel 62

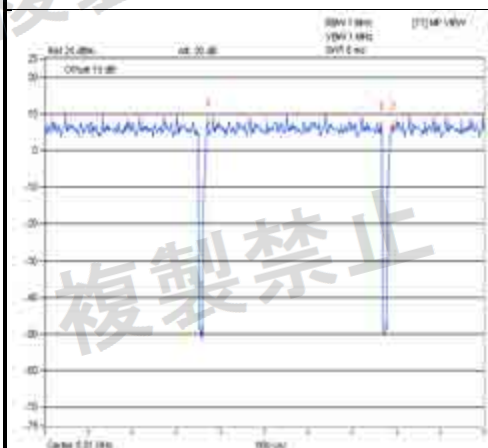
Vmax.



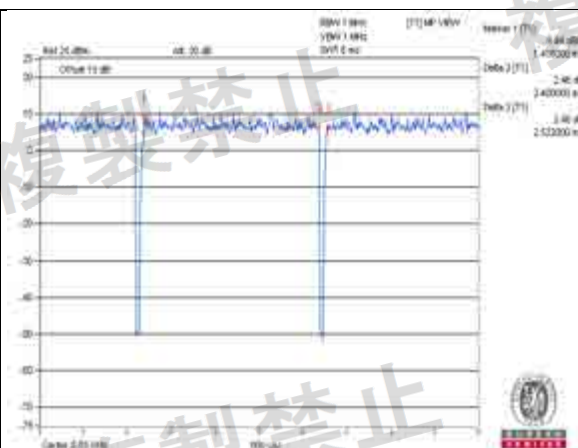
Vmin.



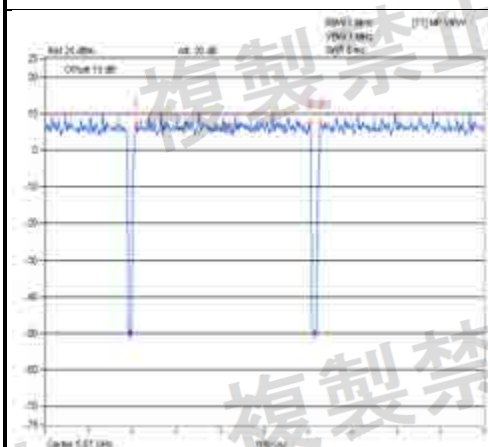
Vmin.



Channel 102



Channel 118



Channel 134

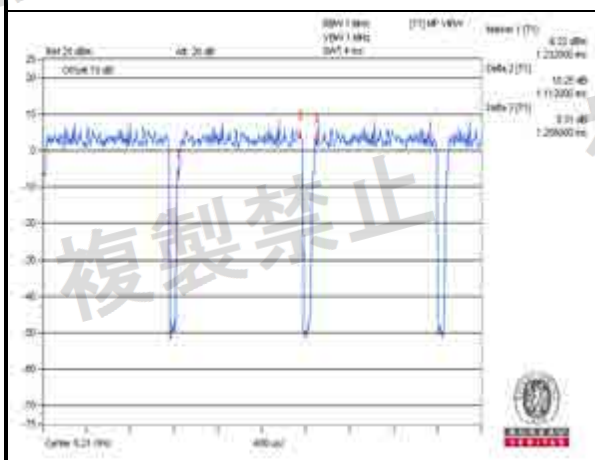
W52 & W53 bands: 802.11ac (VHT80)

Environmental Conditions	25 deg.C, 60% RH	
Test Condition	Burst Length (ms)	
	CH 42 5210MHz	CH 58 5290MHz
V_{normal}	1.09	1.12
$V_{max.}$	1.11	1.12
$V_{min.}$	1.08	1.13

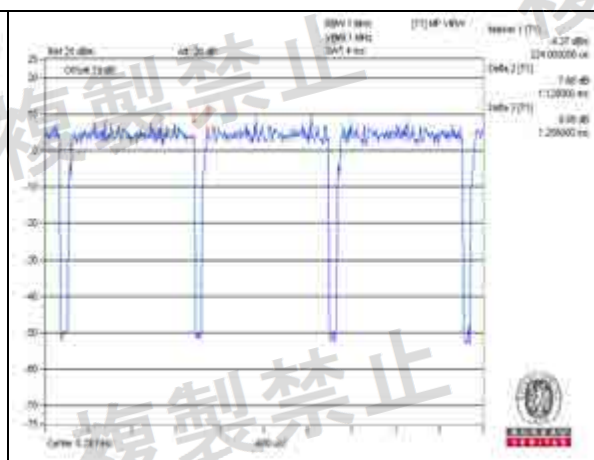
W56 band: 802.11ac (VHT80)

Environmental Conditions	25 deg.C, 60% RH	
Test Condition	Burst Length (ms)	
	CH 106 5530MHz	CH 122 5610MHz
V_{normal}	1.12	1.13
$V_{max.}$	1.10	1.12
$V_{min.}$	1.11	1.12

Note: The spectrum plots are attached on the following pages.



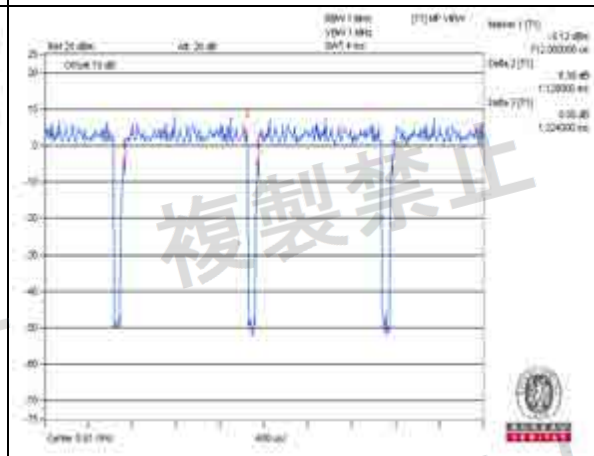
Channel 42



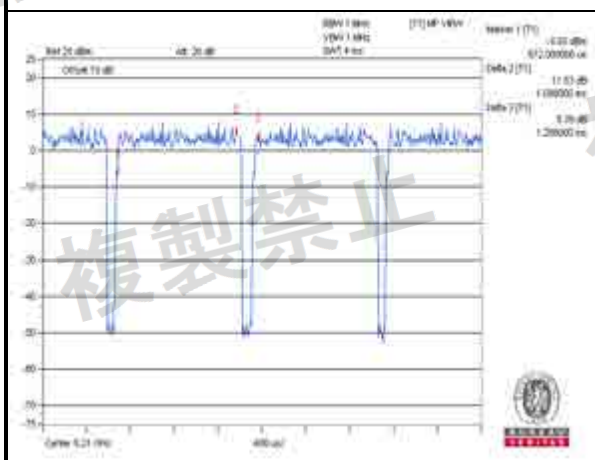
Channel 58



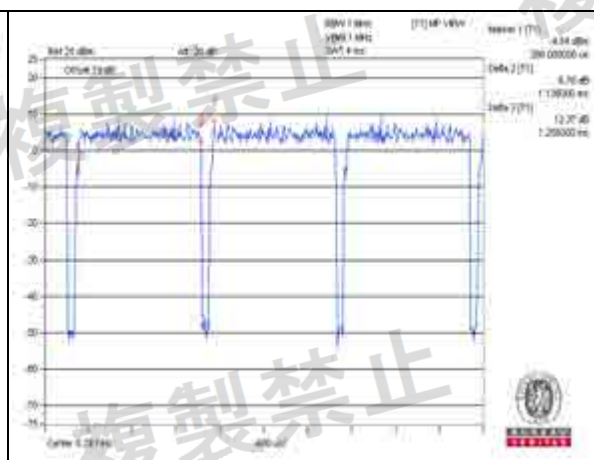
Channel 106



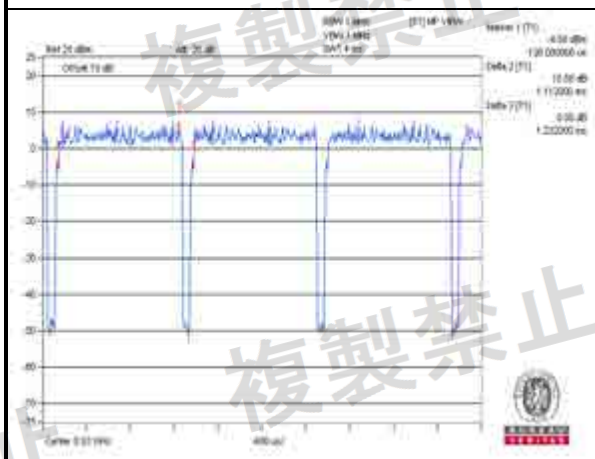
Channel 122



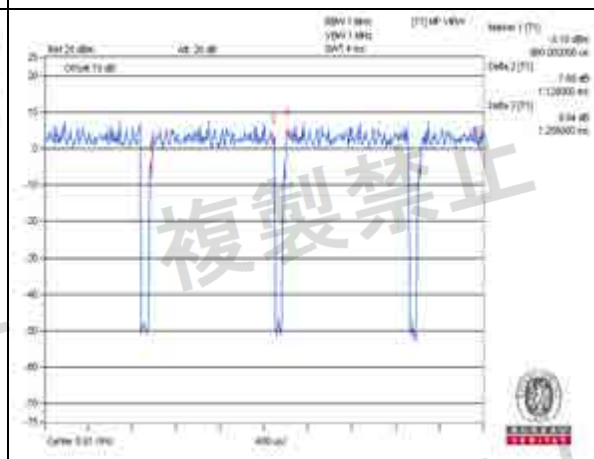
Channel 42



Channel 58



Channel 106



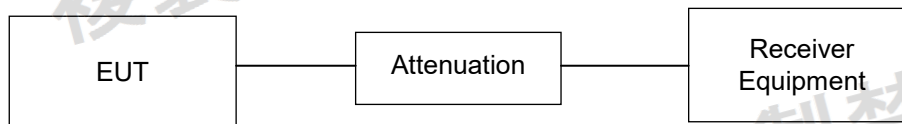
Channel 122

4.9 Interference Prevention Function

4.9.1 Limits of Interference Prevention Function

Radio equipment used mainly on the same premises and automatically transmits or receives identification code.

4.9.2 Test Setup

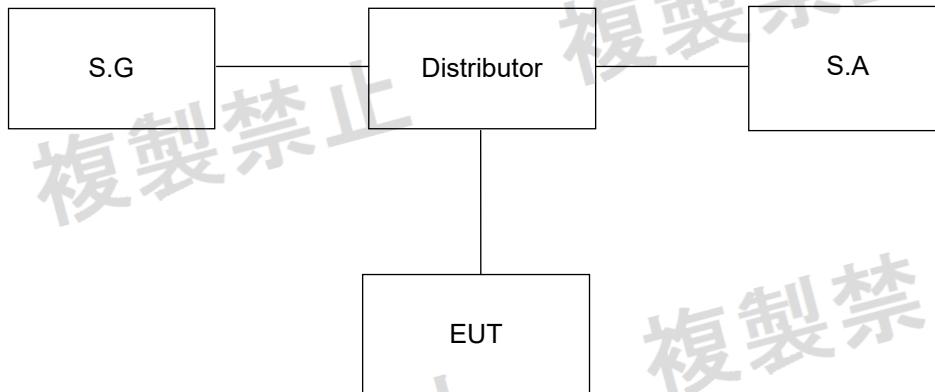


4.9.3 Test Results

Environmental Conditions	25 deg.C, 60% RH
Link Mode	Test Result
WiFi	Pass

4.10 Carrier Sense Capability

4.10.1 Measuring System Block Diagram



4.10.2 Measuring Operation Procedures

- Turn the standard signal generator output OFF. Leave the equipment under test to be ready for transmission and verify the transmission with the spectrum analyzer.
- Set the equipment under test to the receiving state.
- Turn the standard signal generator ON and leave the equipment under test to be ready for transmission and verify with the spectrum analyzer that no transmission is being made.

4.10.3 Level of the Ambient Carrier

802.11a / 802.11n (HT20) / 802.11ac (VHT20)

Frequency (MHz)	Pcs (dBm)
5180	-48.04
5240	-48.14
5260	-48.17
5320	-48.27
5500	-48.56
5600	-48.72
5700	-48.87

Note:

Pcs (dBm) = 22.79 + Gr - 20log(F).

Gr: Antenna gain (**3.46dBi**).

F: Transmission frequency (MHz).

802.11n (HT40) / 802.11ac (VHT40)

Frequency (MHz)	Pcs (dBm)
5190	-48.06
5230	-48.12
5270	-48.19
5310	-48.25
5510	-48.58
5590	-48.70
5670	-48.82

Note:

Pcs (dBm) = 22.79 + Gr - 20log(F).

Gr: Antenna gain (**3.46dBi**).

F: Transmission frequency (MHz).

802.11ac (VHT80)

Frequency (MHz)	Pcs (dBm)
5210	-48.09
5290	-48.22
5530	-48.61
5610	-48.73

Note:

Pcs (dBm) = 22.79 + Gr - 20log(F).

Gr: Antenna gain (**3.46dBi**).

F: Transmission frequency (MHz).

4.10.4 Test Result

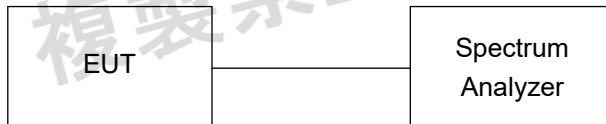
Pass

4.11. Number of Carriers within 1 MHz Bandwidth in OFDM

4.11.1 Limit of Number of Carriers

For each 1MHz bandwidth in OFDM, there should be at least 1 carrier.

4.11.2 Test Setup



4.11.3 Test Result

About OFDM Technical, one OFDM Channel will have 52 sub-carriers. At present, we observe this product via the spectrum, and we know that there are 3 carriers in 1 MHz bandwidth in OFDM.

5 Photographs of the Test Configuration



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 accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linkou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---