



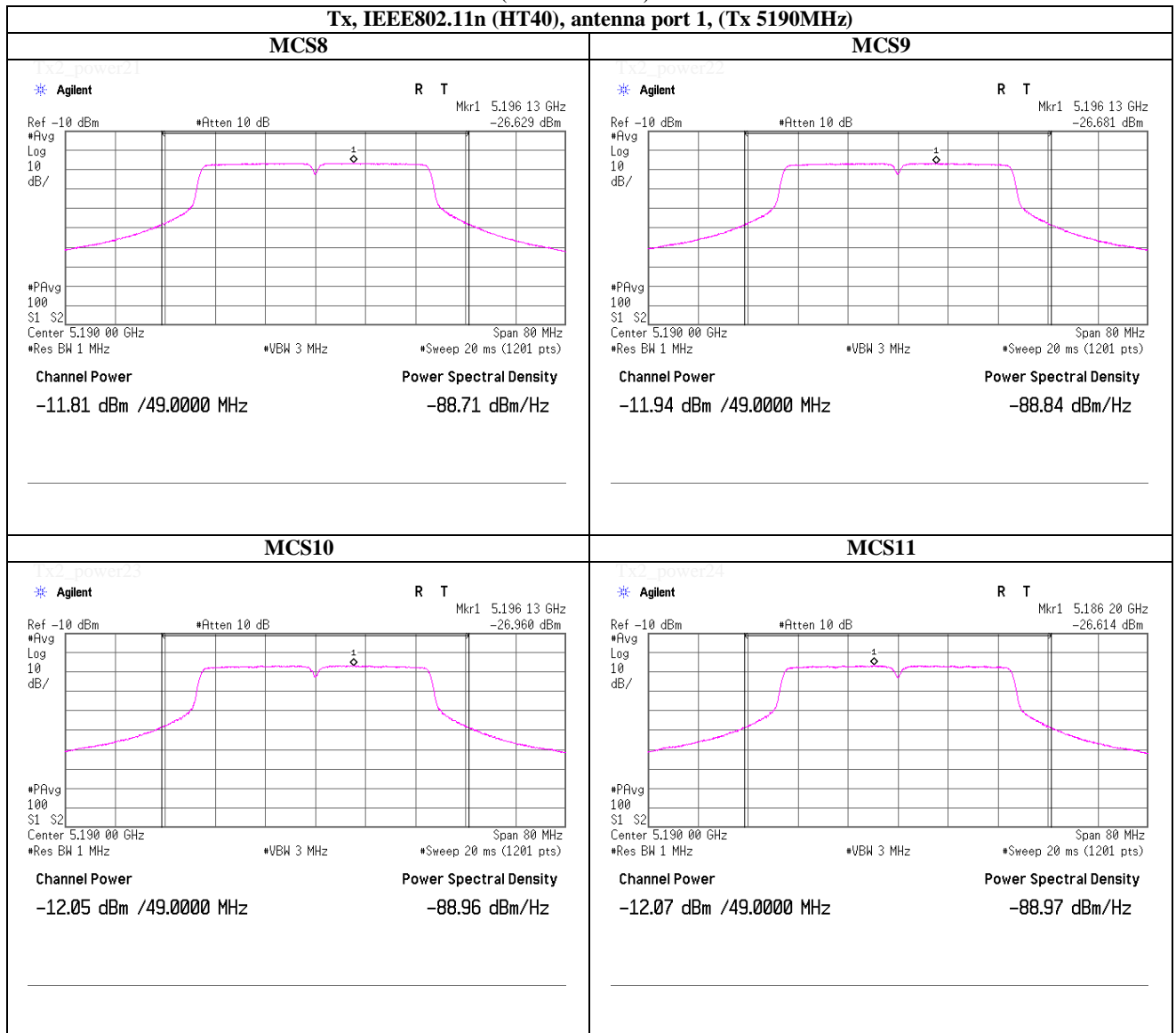
## Maximum Conducted Output Power (Conducted)

Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 8(MCS), Antenna port 2	
<p style="text-align: center;"><b>Tx, 5190MHz</b></p> <p> <b>Channel Power</b>                      -11.81 dBm /49.00000 MHz                 </p> <p> <b>Power Spectral Density</b>                      -88.71 dBm/Hz                 </p>	
<p style="text-align: center;"><b>Tx, 5230MHz</b></p> <p> <b>Channel Power</b>                      -11.78 dBm /49.00000 MHz                 </p> <p> <b>Power Spectral Density</b>                      -88.68 dBm/Hz                 </p>	

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone : +81 463 50 6400  
 Facsimile : +81 463 50 6401

## Maximum Conducted Output Power (Conducted)

(Reference chart)



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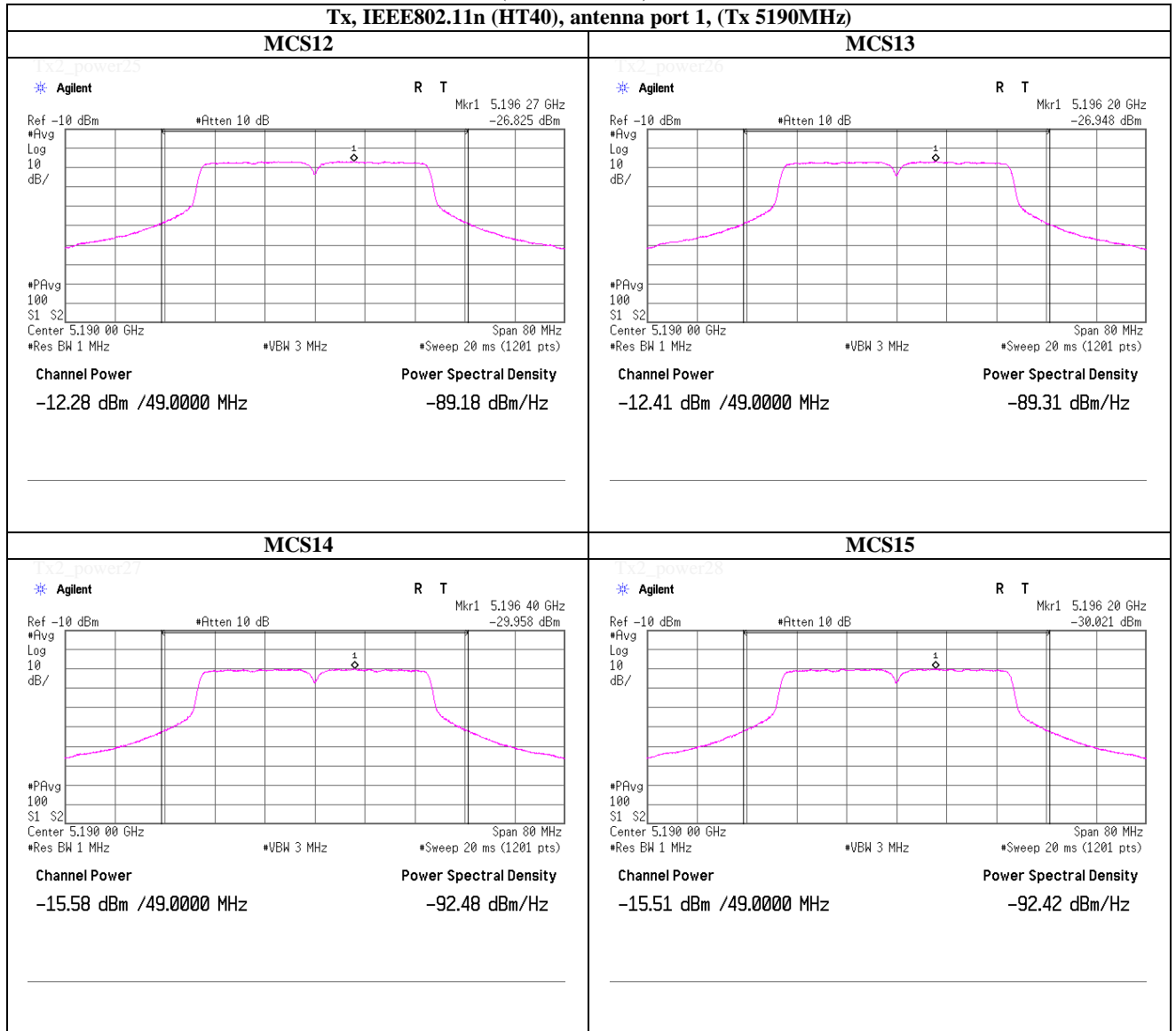
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## Maximum Conducted Output Power (Conducted)

(Reference chart)



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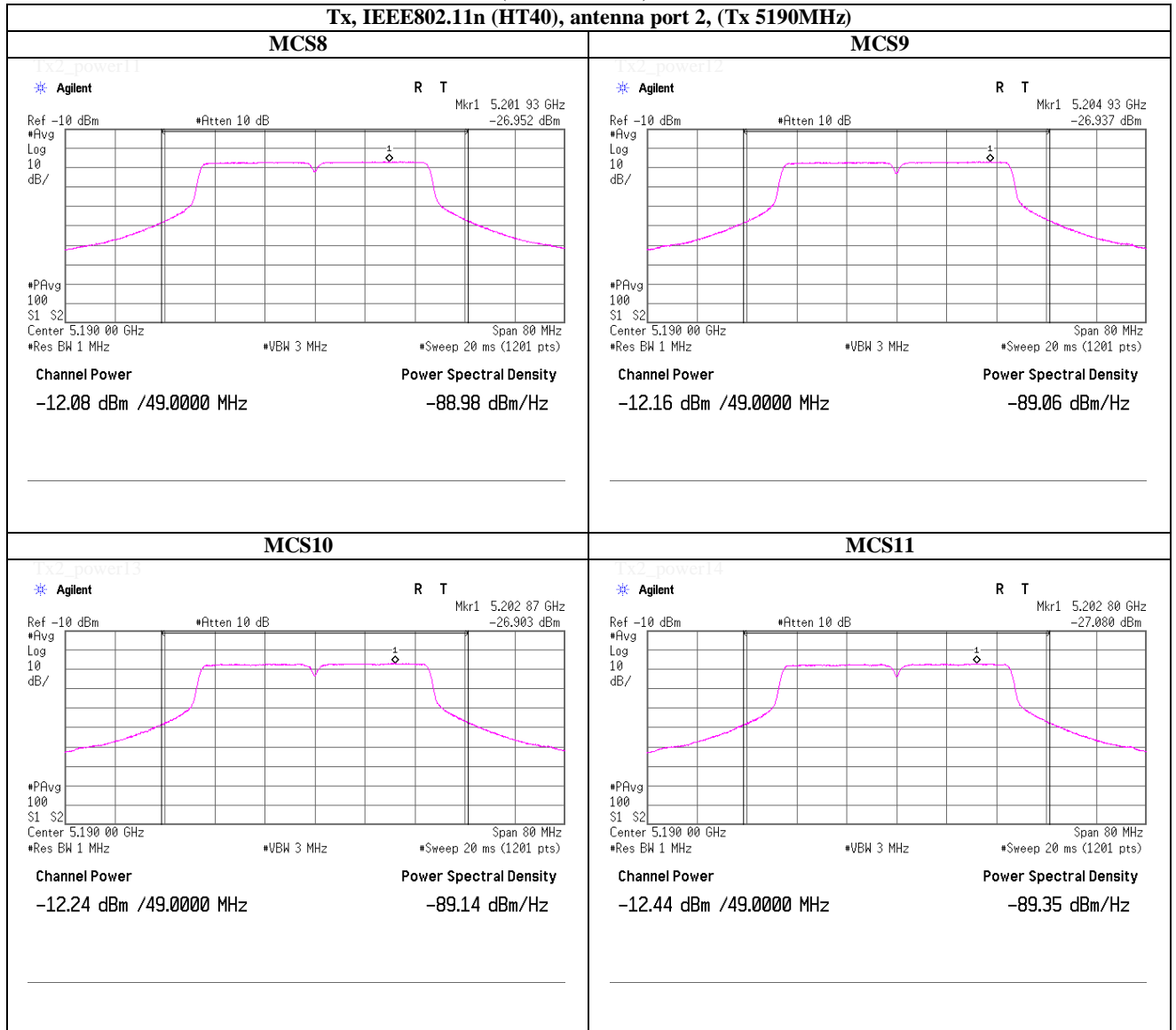
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## Maximum Conducted Output Power (Conducted)

(Reference chart)

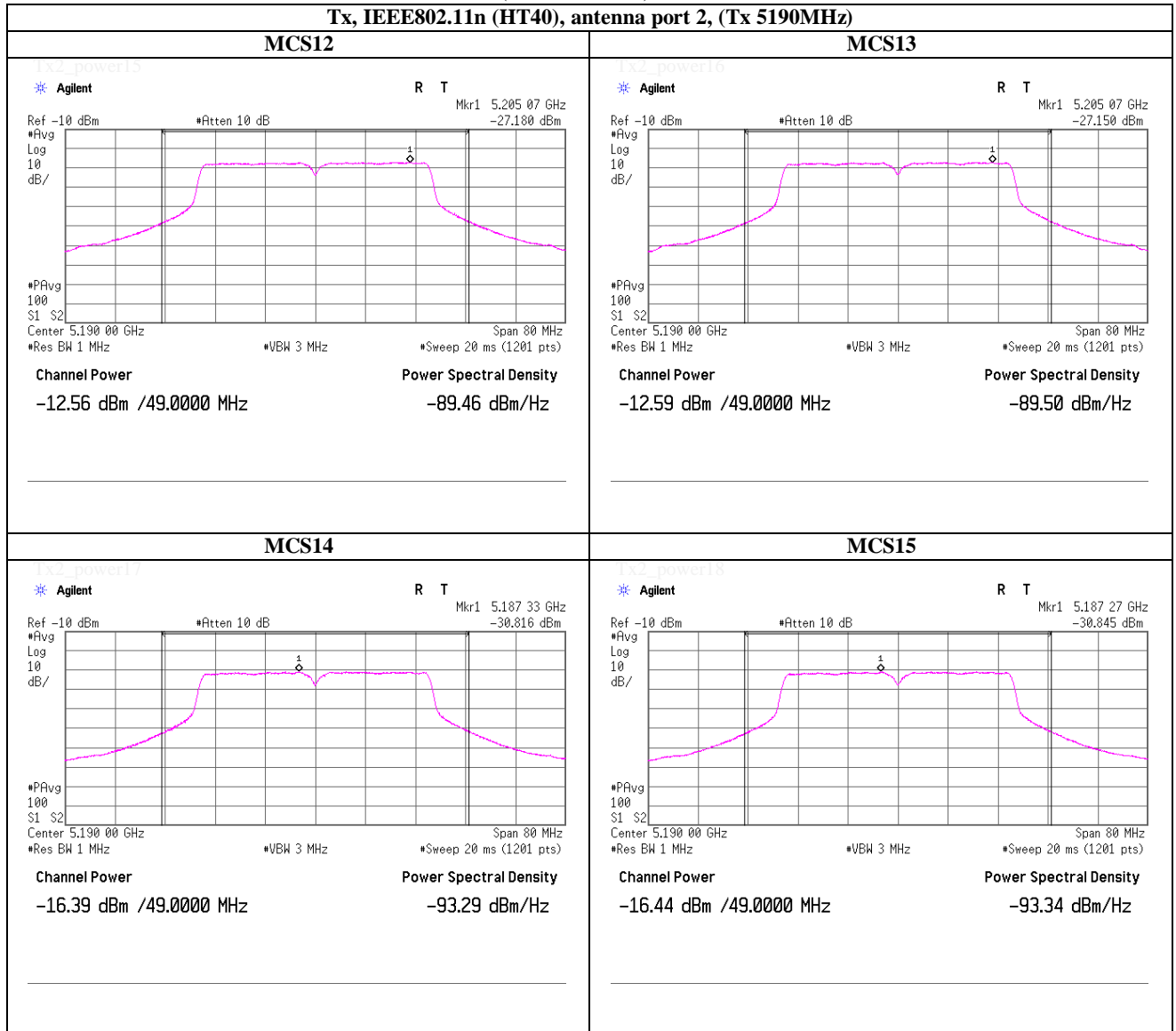


**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone : +81 463 50 6400  
 Facsimile : +81 463 50 6401

## Maximum Conducted Output Power (Conducted)

(Reference chart)

**Tx, IEEE802.11n (HT40), antenna port 2, (Tx 5190MHz)**



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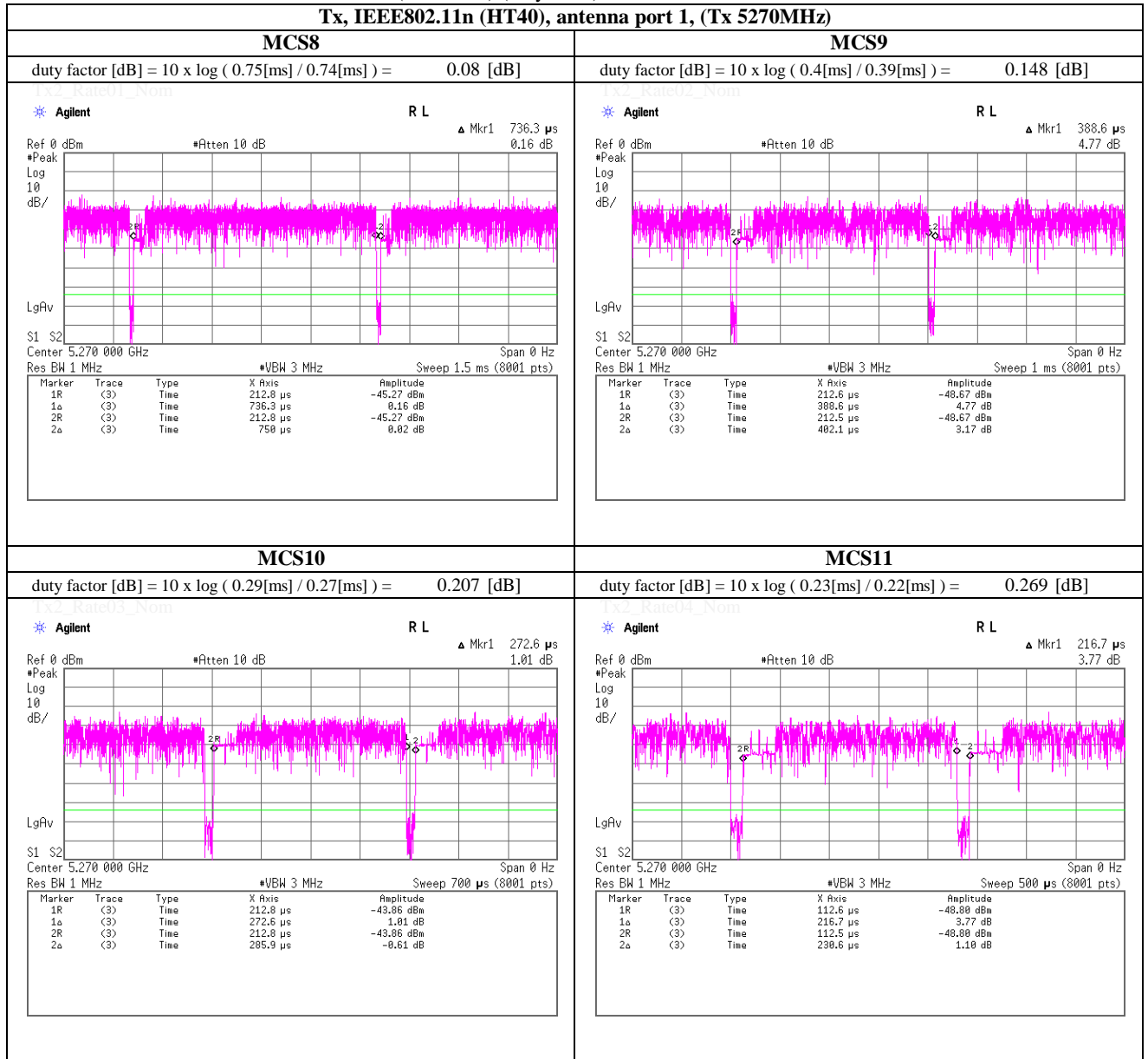
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## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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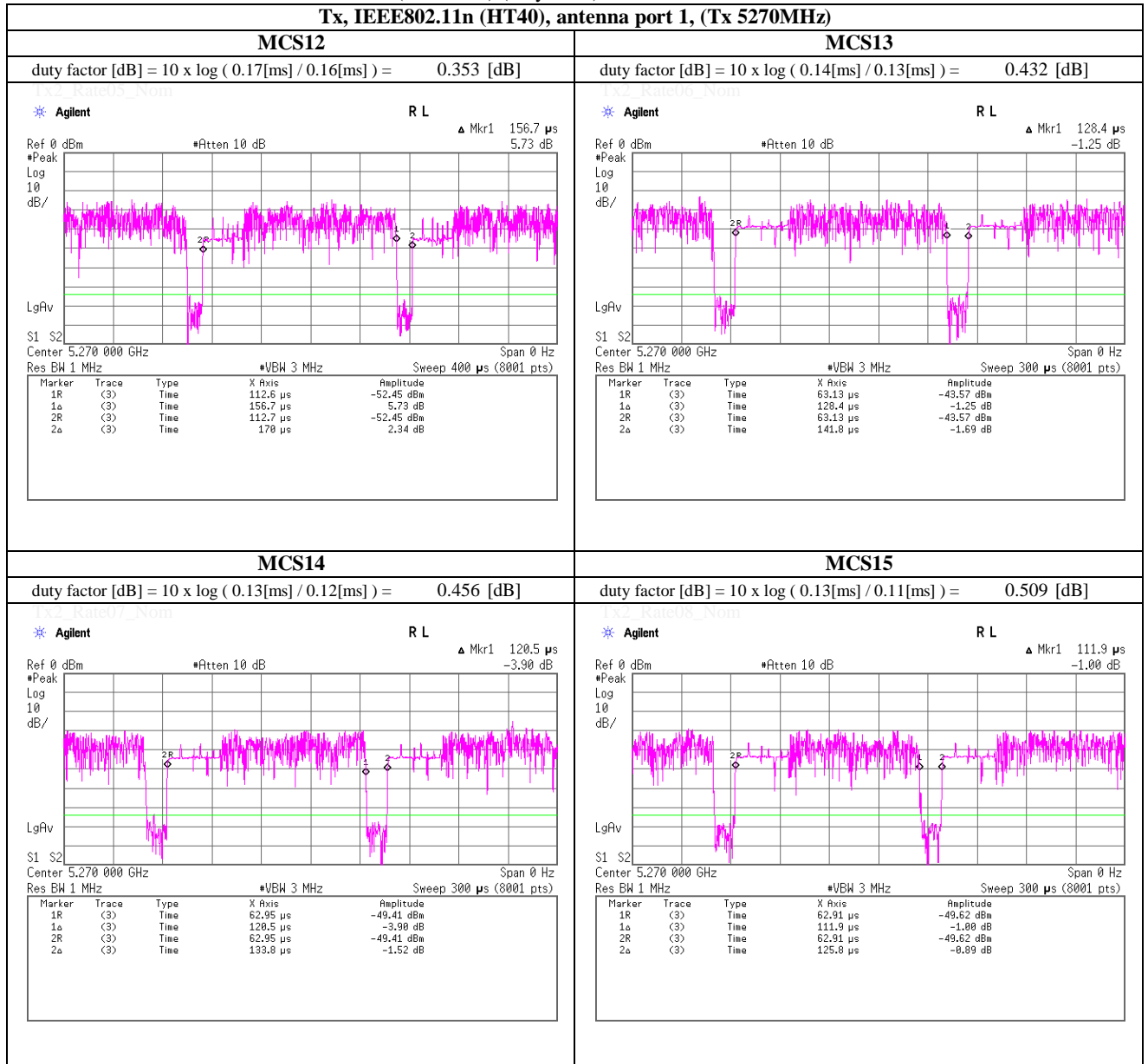
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## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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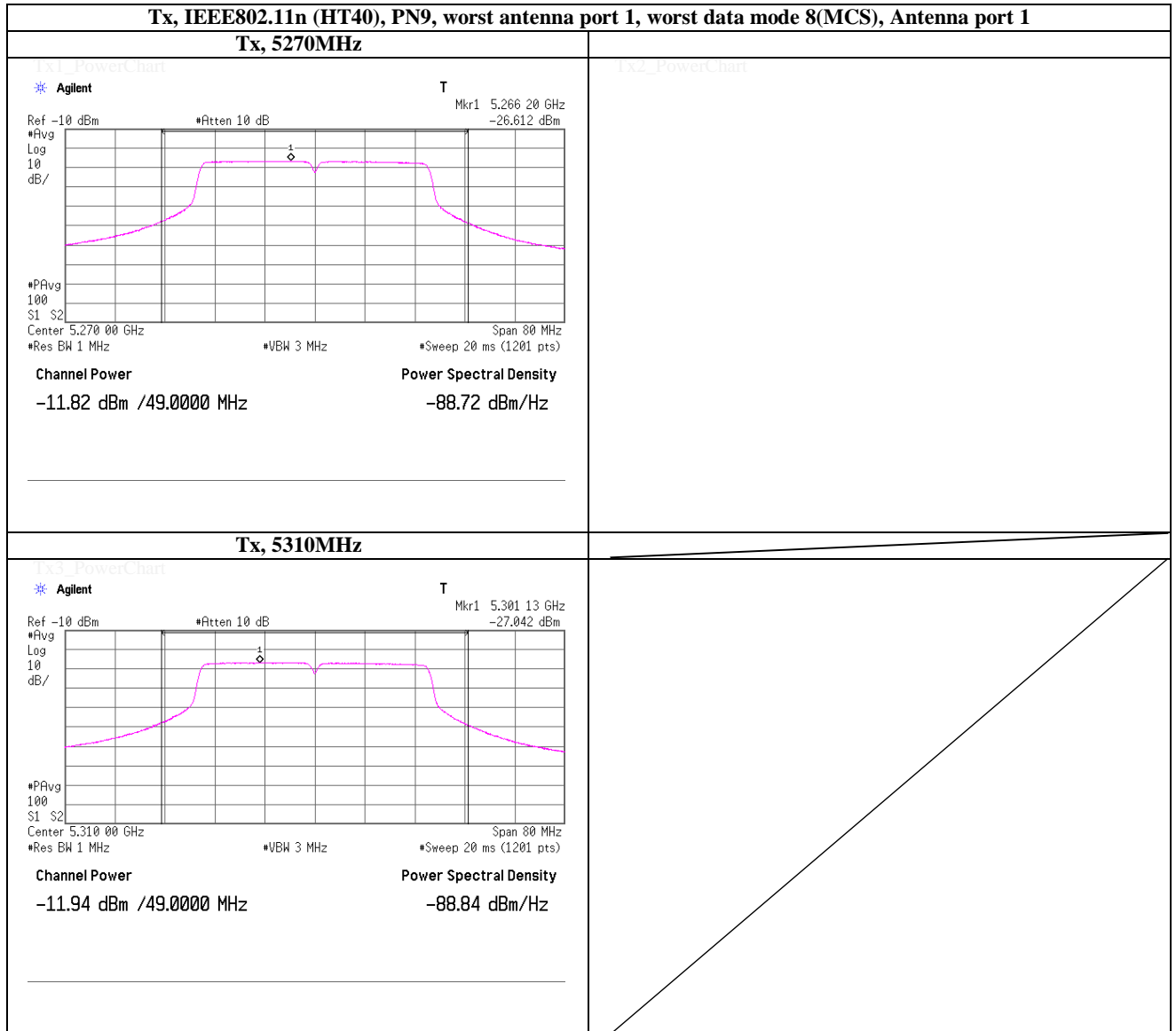
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**Maximum Conducted Output Power (Conducted)**

Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 8(MCS), Antenna port 2	
<p style="text-align: center;"><b>Tx, 5270MHz</b></p> <p> <b>Channel Power</b>                      -12.29 dBm /49.00000 MHz                 </p> <p> <b>Power Spectral Density</b>                      -89.19 dBm/Hz                 </p>	
<p style="text-align: center;"><b>Tx, 5310MHz</b></p> <p> <b>Channel Power</b>                      -12.77 dBm /49.00000 MHz                 </p> <p> <b>Power Spectral Density</b>                      -89.67 dBm/Hz                 </p>	

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**Maximum Conducted Output Power (Conducted)**

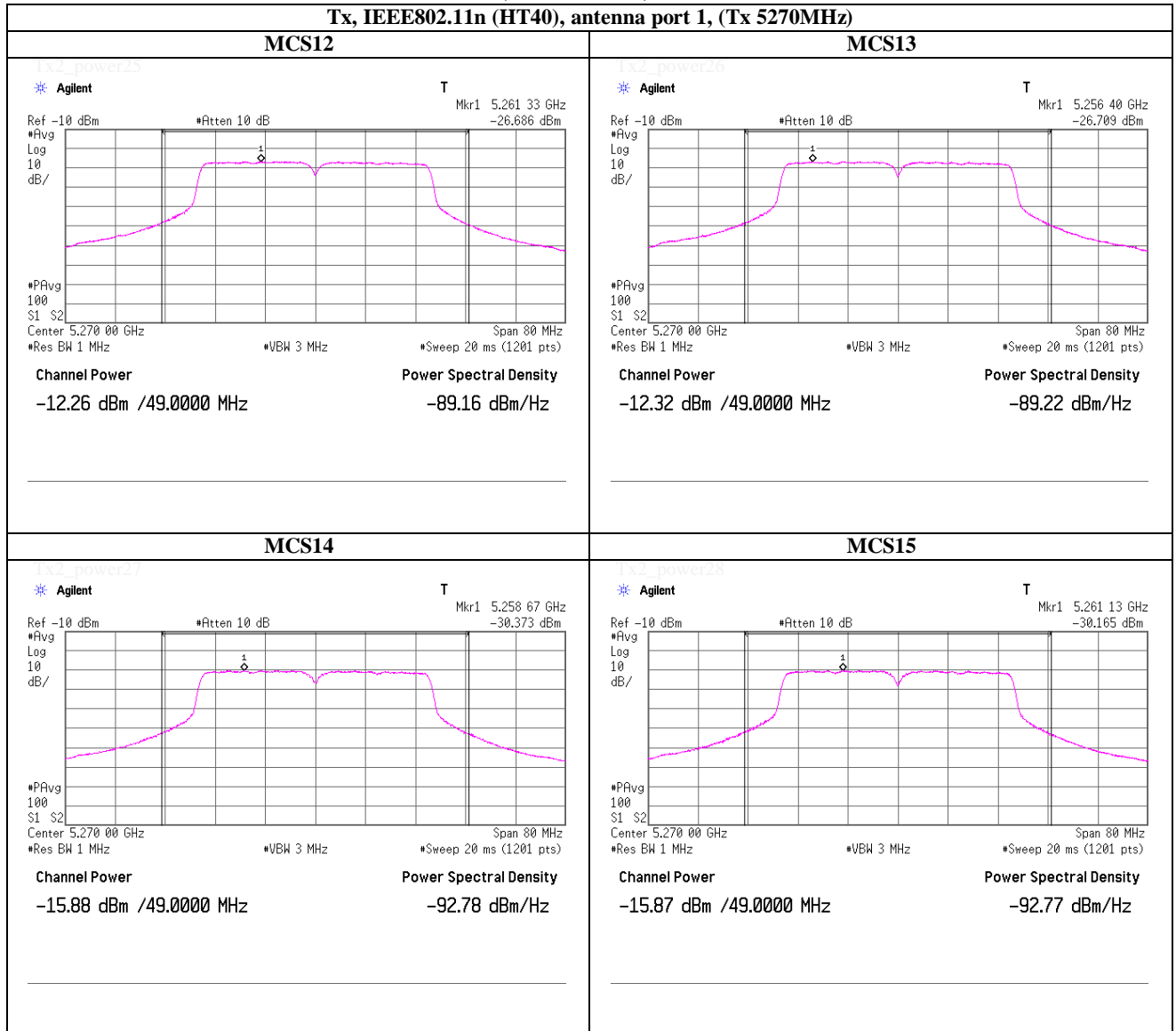




## Maximum Conducted Output Power (Conducted)

(Reference chart)

**Tx, IEEE802.11n (HT40), antenna port 1, (Tx 5270MHz)**



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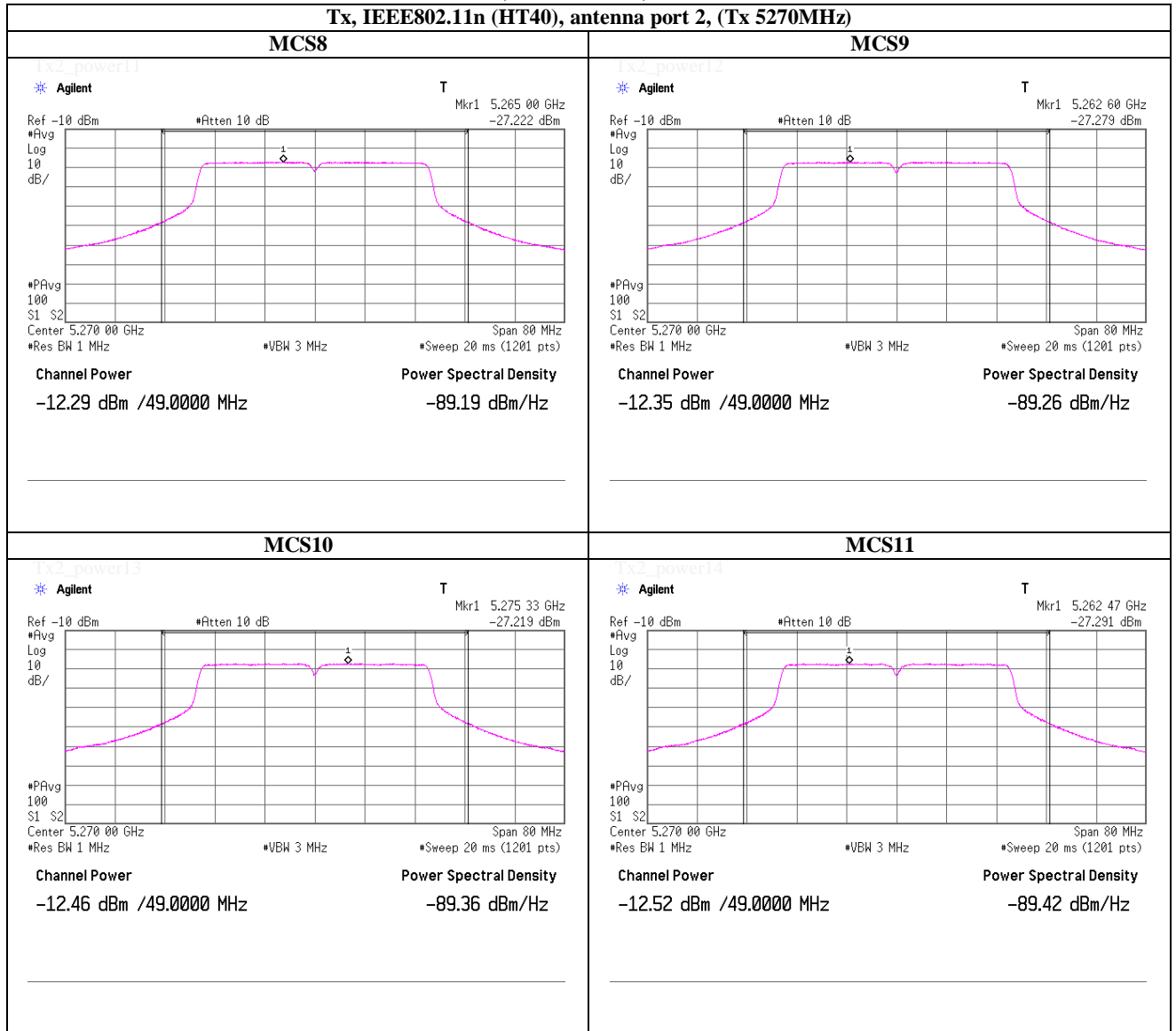
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## Maximum Conducted Output Power (Conducted)

(Reference chart)



**UL Japan, Inc.**

**Shonan EMC Lab.**

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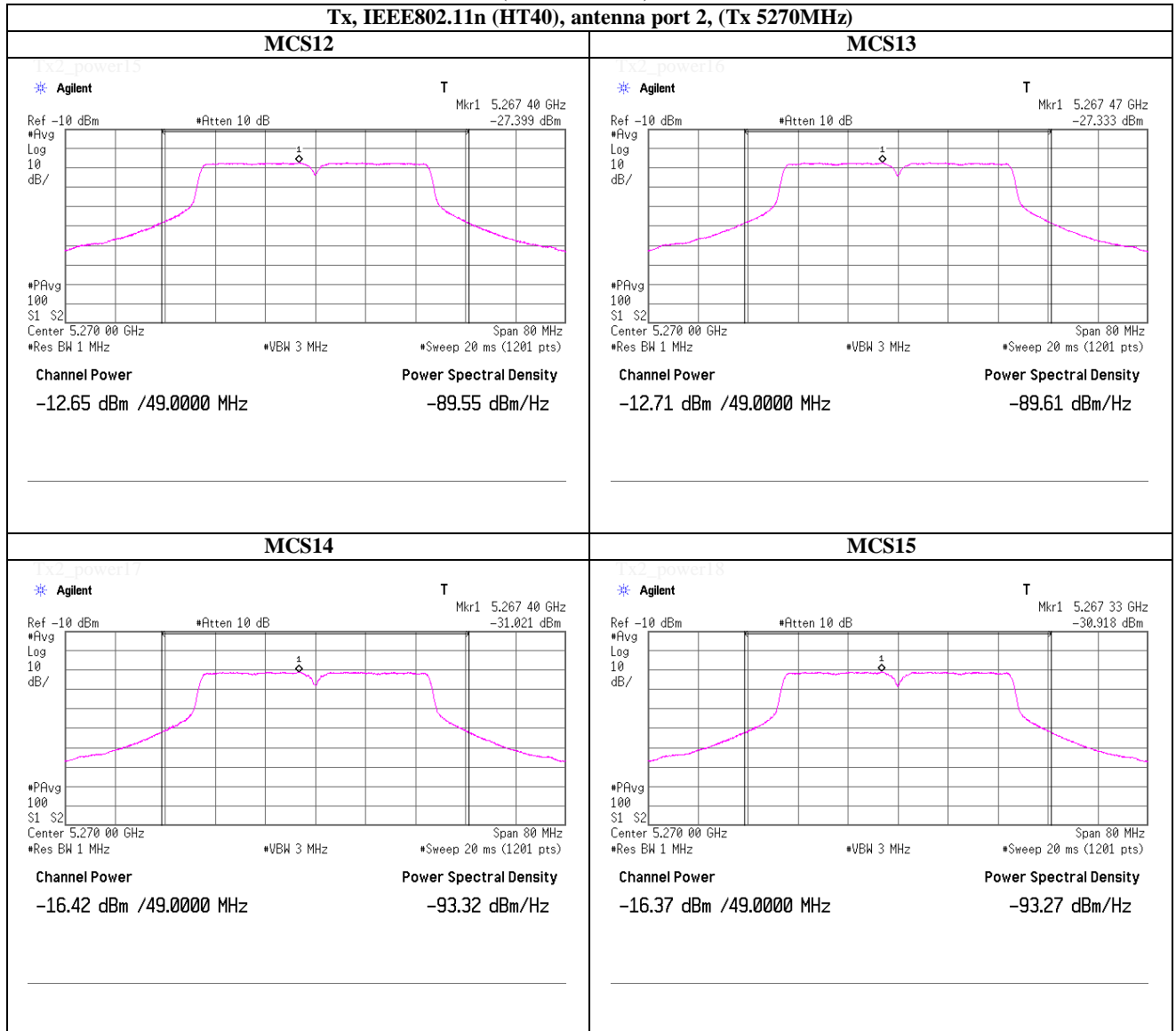
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Facsimile : +81 463 50 6401

## Maximum Conducted Output Power (Conducted)

(Reference chart)

**Tx, IEEE802.11n (HT40), antenna port 2, (Tx 5270MHz)**



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## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11n (HT40), antenna port 1, (Tx 5510MHz)**



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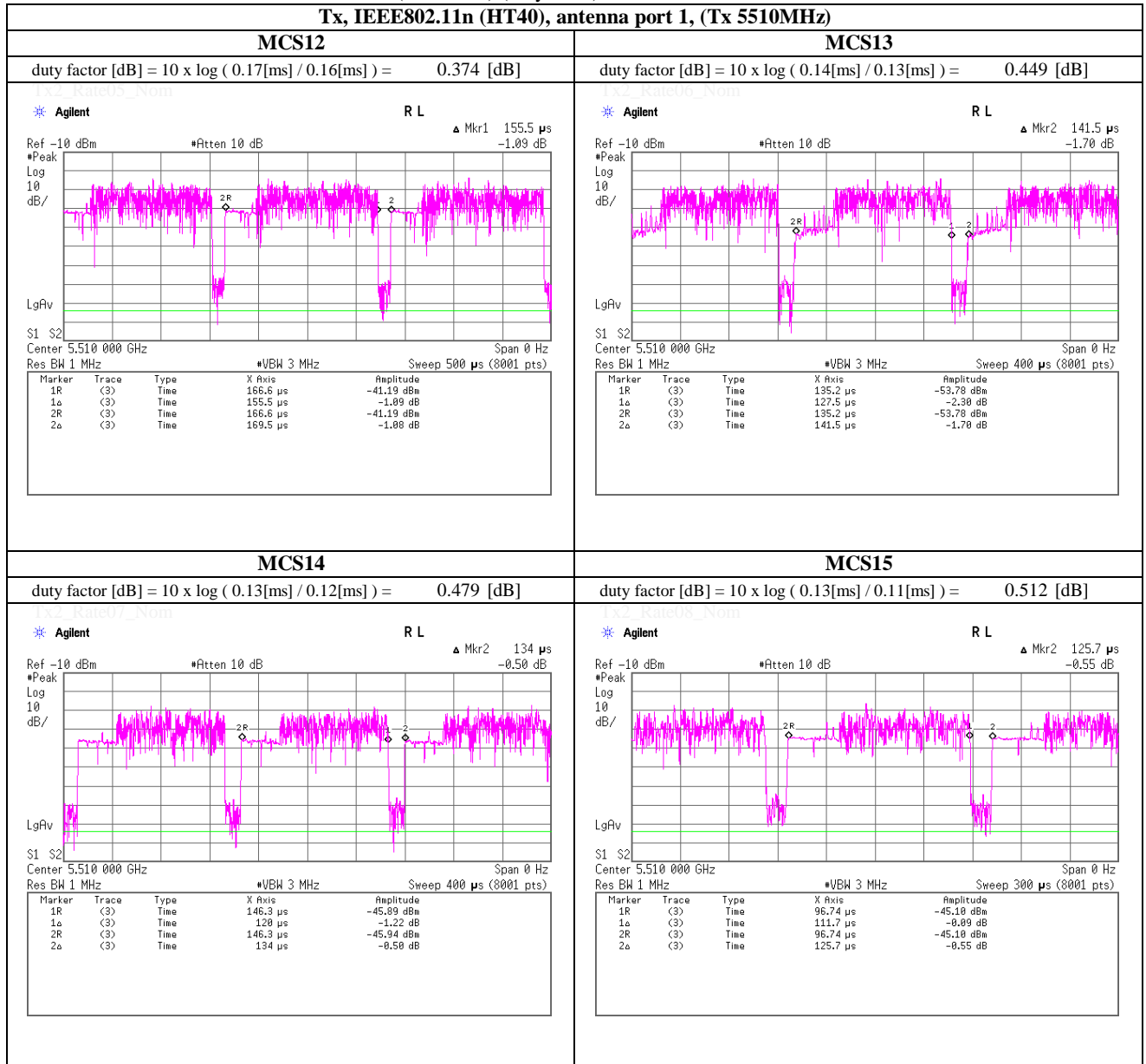
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## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



**UL Japan, Inc.**

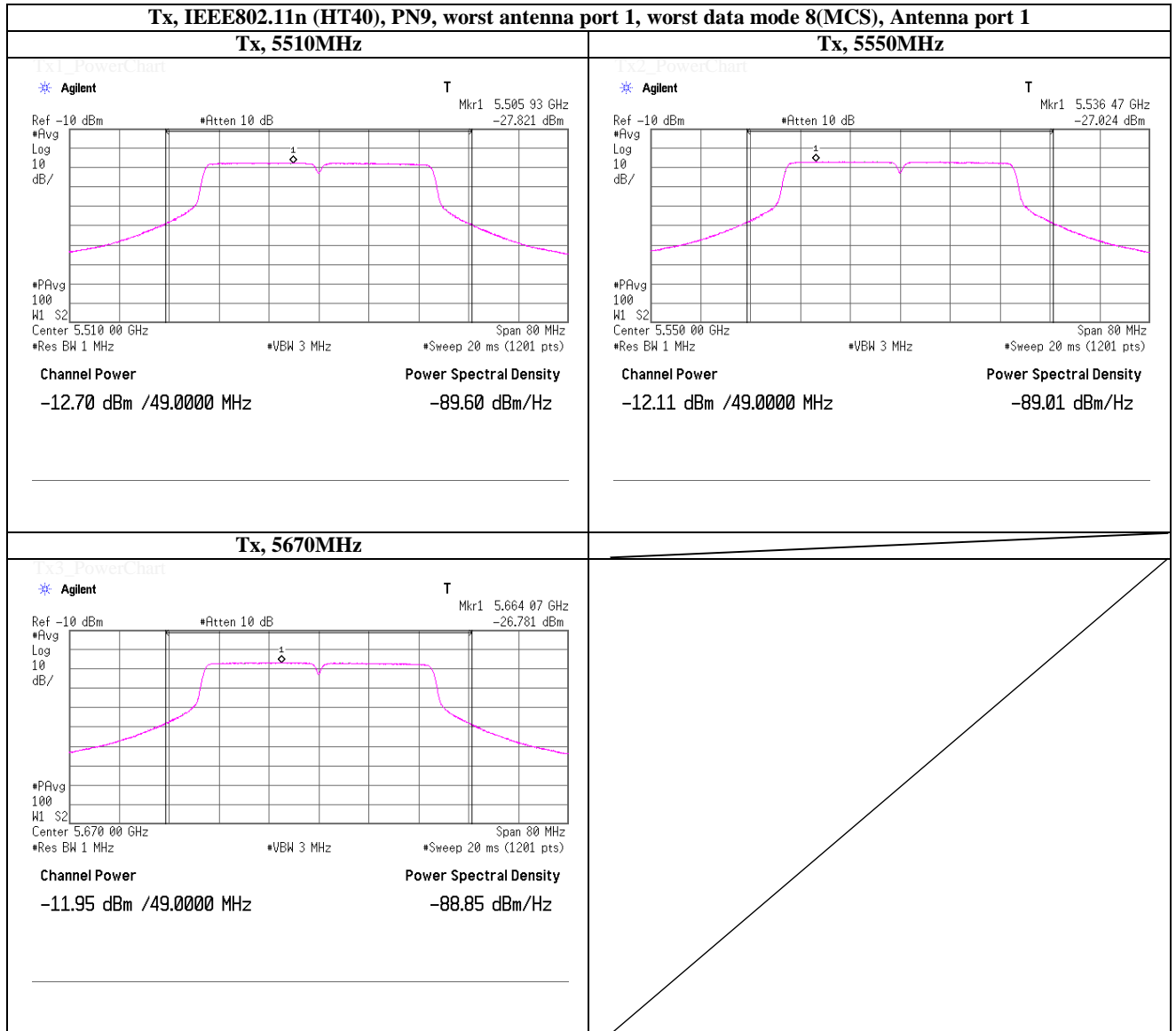
**Shonan EMC Lab.**

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Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**Maximum Conducted Output Power (Conducted)**



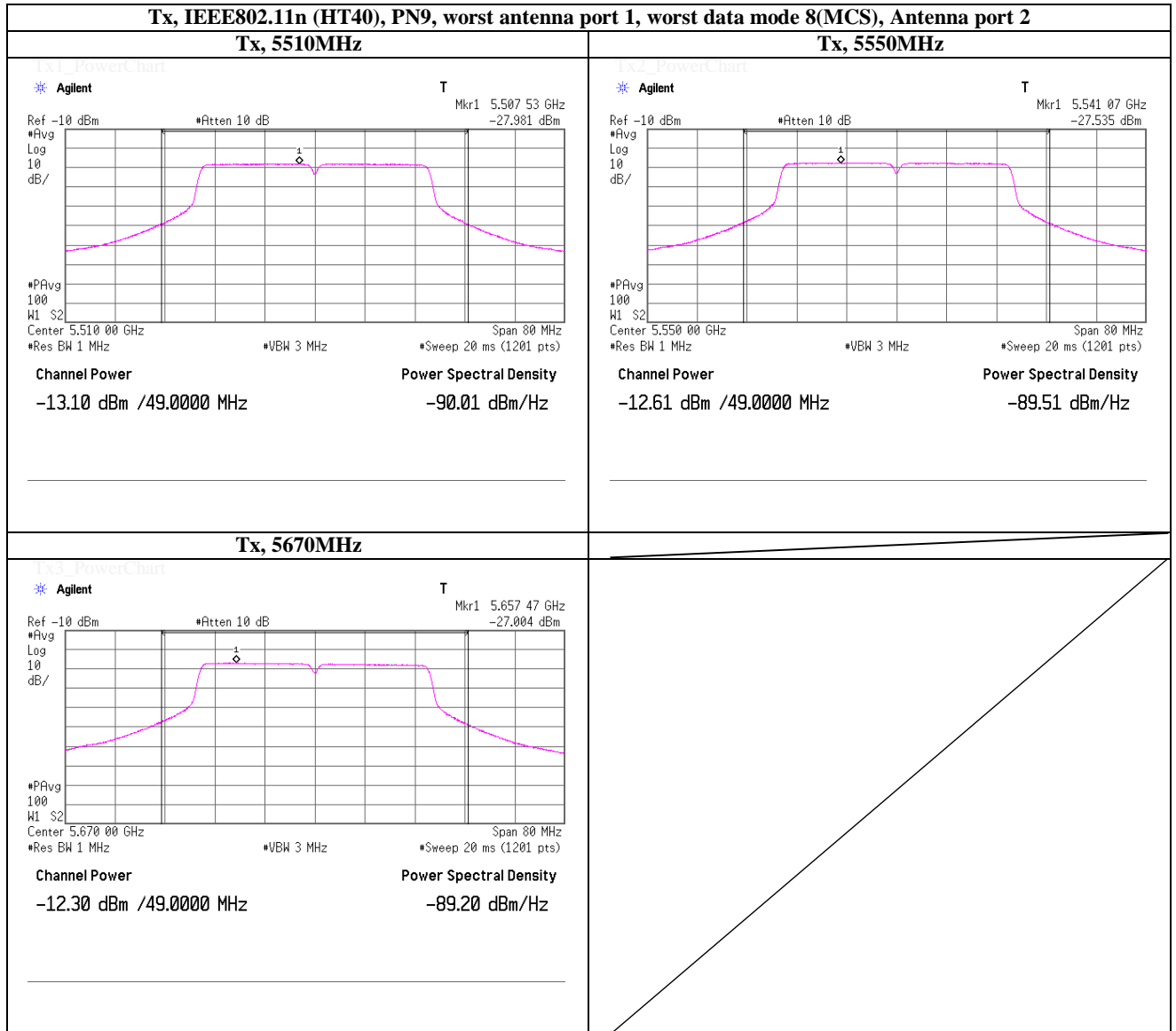
**UL Japan, Inc.**  
**Shonan EMC Lab.**

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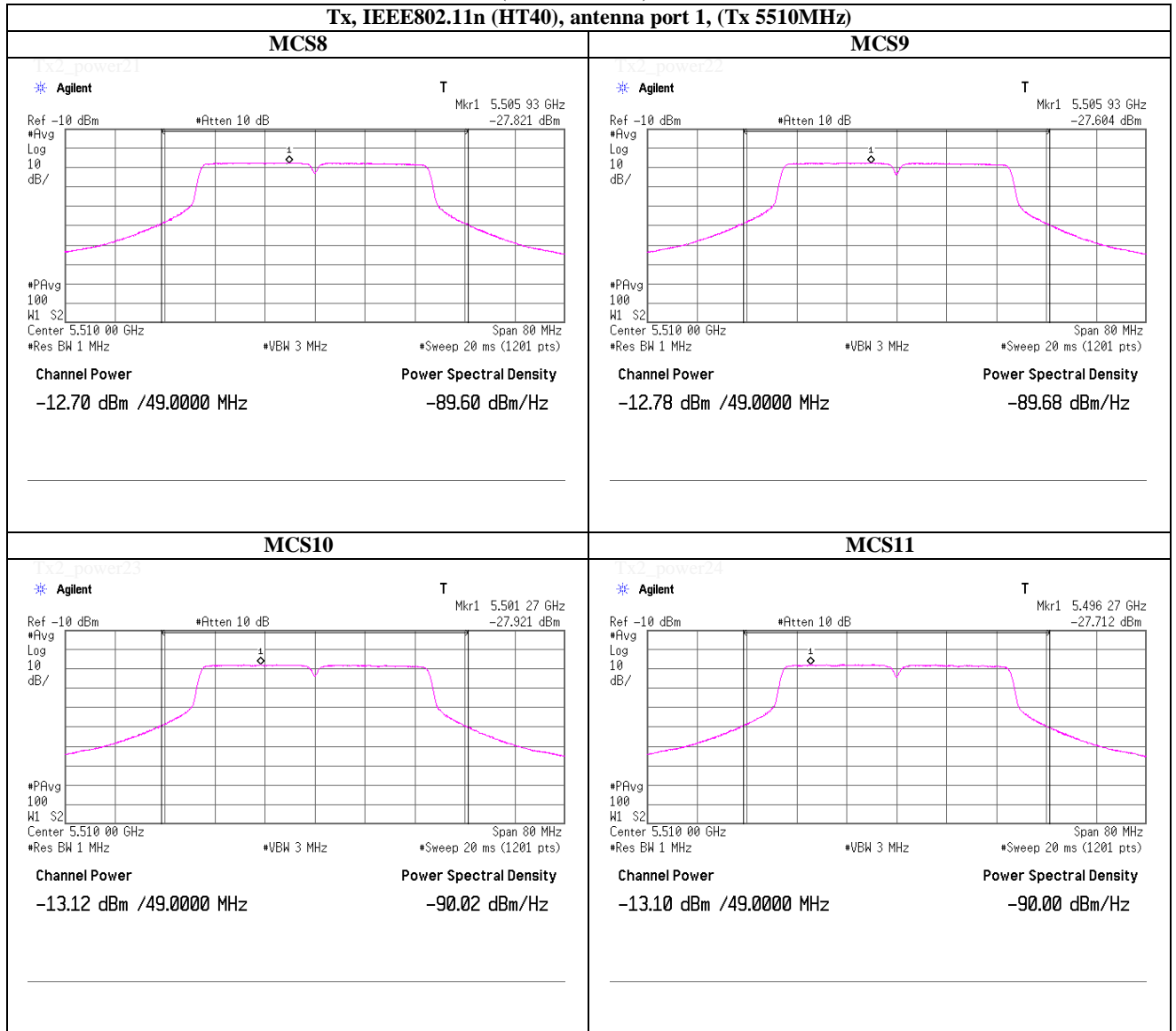
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## Maximum Conducted Output Power (Conducted)



## Maximum Conducted Output Power (Conducted)

(Reference chart)



**UL Japan, Inc.**  
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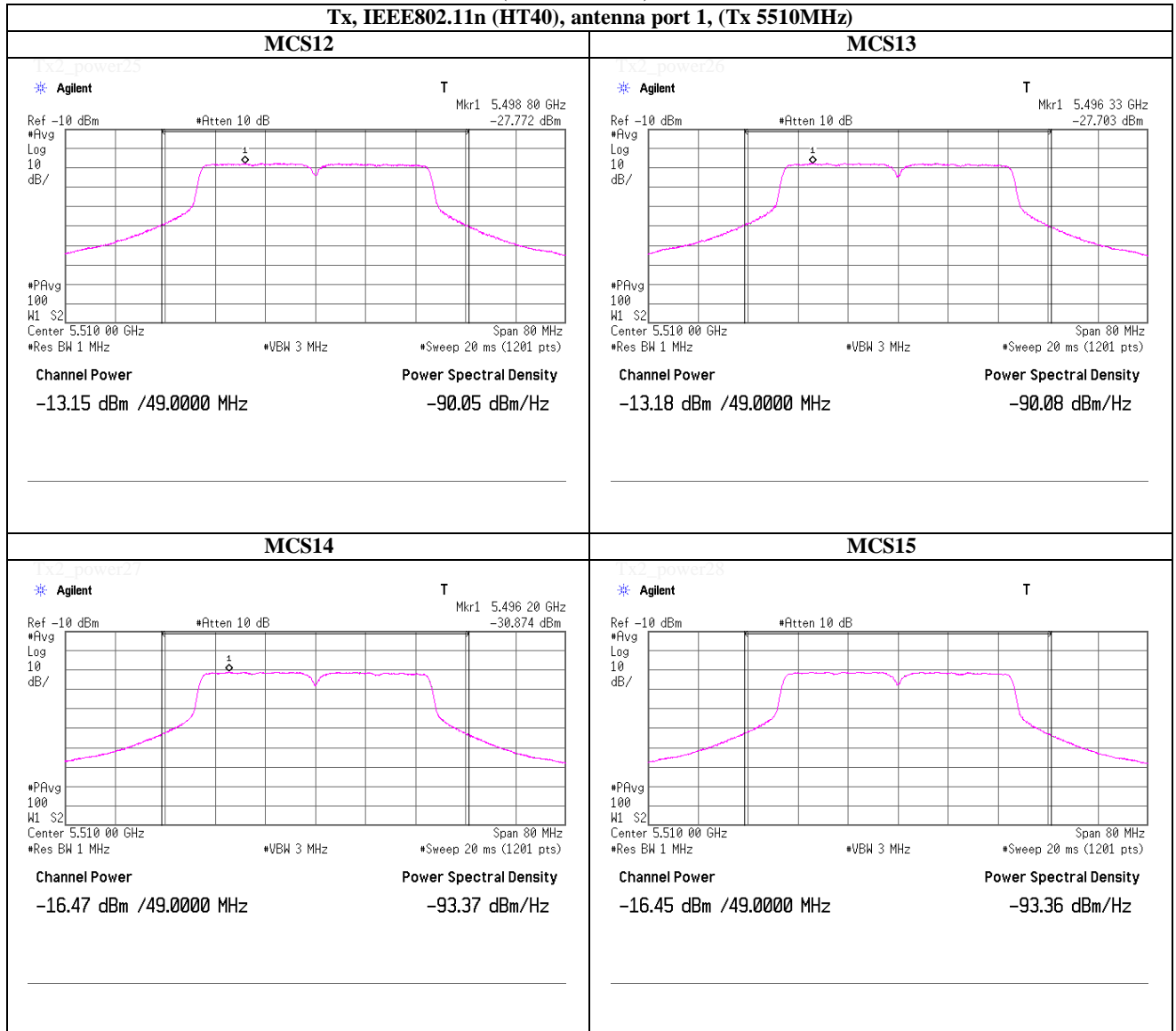
Telephone : +81 463 50 6400

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## Maximum Conducted Output Power (Conducted)

(Reference chart)

**Tx, IEEE802.11n (HT40), antenna port 1, (Tx 5510MHz)**



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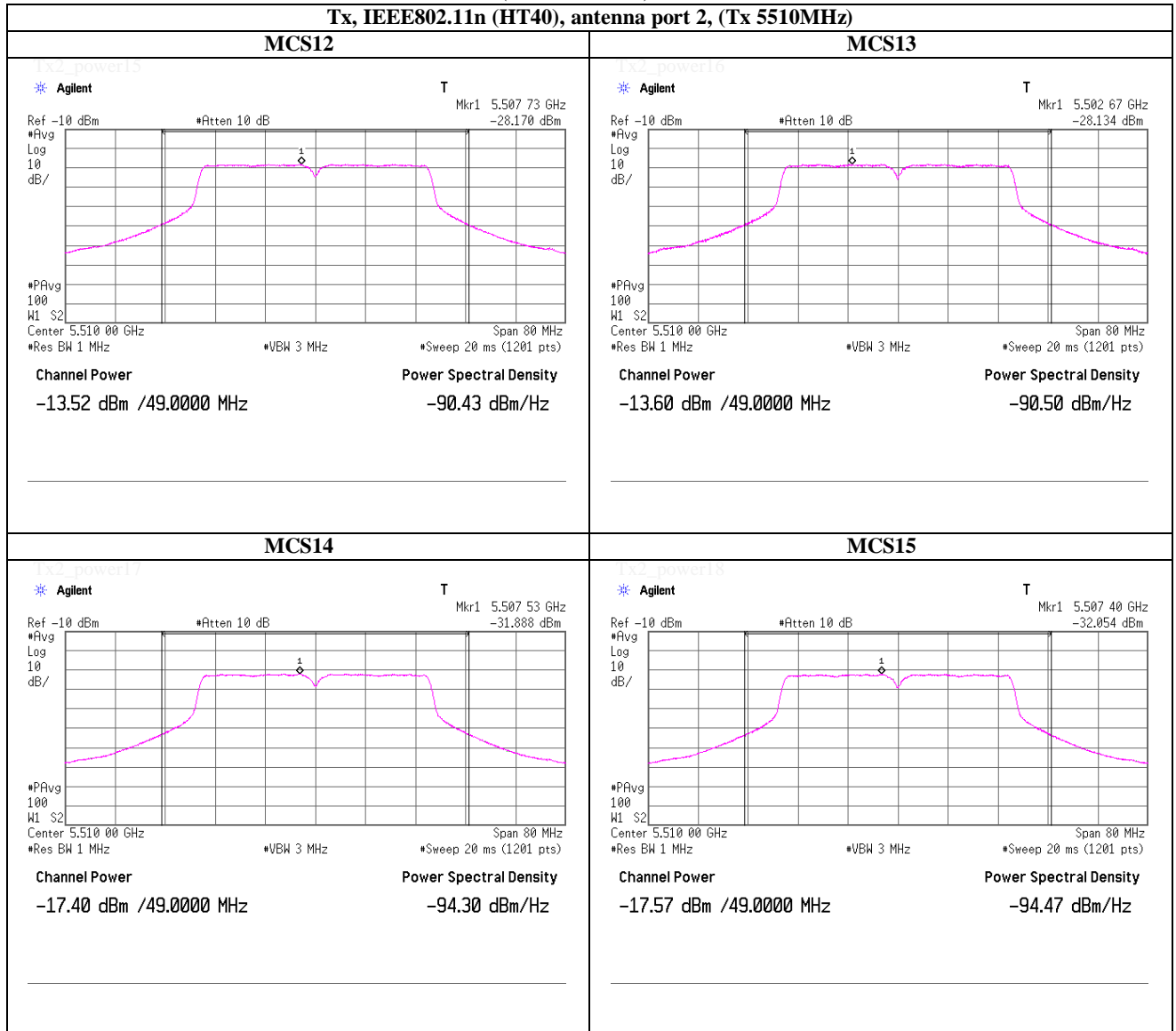
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## Maximum Conducted Output Power (Conducted)

(Reference chart)

**Tx, IEEE802.11n (HT40), antenna port 2, (Tx 5510MHz)**



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1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401



## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                           2012/9/14                               2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                    Hikaru Shirasawa                      Tatsuya Arai  
 Mode                         Tx,                           5180 MHz                    Antenna: ANT1468  
                                   Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	135	312	
Hori.	5150.000	PK	57.0	31.8	16.4	40.6	64.6	73.9	9.3	100	111	
Hori.	2500.000	AV	40.5	27.6	14.3	41.4	41.0	53.9	12.9	135	312	
Hori.	5150.000	AV	39.2	31.8	16.4	40.6	46.8	53.9	7.1	100	111	
Vert.	2500.000	PK	50.1	27.6	14.3	41.4	50.6	73.9	23.3	100	152	
Vert.	5150.000	PK	58.6	31.8	16.4	40.6	66.2	73.9	7.7	109	134	
Vert.	2500.000	AV	42.5	27.6	14.3	41.4	43.0	53.9	10.9	100	152	
Vert.	5150.000	AV	40.0	31.8	16.4	40.6	47.6	53.9	6.3	109	134	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7075.000	PK	47.8	36.6	7.9	41.3	51.0	-44.2	-27.0	17.2	100	0	
Hori.	10360.000	PK	46.0	38.9	9.4	38.7	55.6	-39.6	-27.0	12.6	100	0	
Vert.	7075.000	PK	47.9	36.6	7.9	41.3	51.1	-44.1	-27.0	17.1	100	0	
Vert.	10360.000	PK	47.6	38.9	9.4	38.7	57.2	-38.0	-27.0	11.0	140	242	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( { 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] } ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone   : +81 463 50 6400  
 Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
Date                           2012/9/14                               2012/9/16  
Temperature / Humidity   24 deg.C , 70 %RH               24 deg.C , 64 %RH  
Engineer                    Hikaru Shirasawa                   Tatsuya Arai  
Mode                         Tx,                           5240 MHz                   Antenna: ANT1468  
                                  Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.3	27.6	14.3	41.4	49.8	73.9	24.1	151	359	
Hori.	2500.000	AV	40.8	27.6	14.3	41.4	41.3	53.9	12.6	151	359	
Vert.	2500.000	PK	49.6	27.6	14.3	41.4	50.1	73.9	23.8	100	157	
Vert.	2500.000	AV	41.9	27.6	14.3	41.4	42.4	53.9	11.5	100	157	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6958.000	PK	48.1	36.5	7.8	41.2	51.2	-44.03	-27.00	17.0	100	0	
Hori.	10480.000	PK	48.1	38.9	9.4	38.7	57.7	-37.53	-27.00	10.5	164	222	
Vert.	6958.000	PK	48.3	36.5	7.8	41.2	51.4	-43.83	-27.00	16.8	100	0	
Vert.	10480.000	PK	48.1	38.9	9.4	38.7	57.7	-37.53	-27.00	10.5	114	209	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( { 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] } ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

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## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                               2012/9/16                               2012/9/17  
 Temperature / Humidity   24 deg.C , 70 %RH                   24 deg.C , 64 %RH                   26 deg.C , 70 %RH  
 Engineer                  Hikaru Shirasawa                      Tatsuya Arai                          Makoto Hosaka  
 Mode                        Tx,                               5320 MHz                               Antenna: ANT1468  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (below 1GHz and above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	114.235	QP	54.2	11.9	7.1	32.1	41.1	43.5	2.4	299	266	
Hori.	118.527	QP	55.1	12.5	7.2	32.1	42.7	43.5	0.8	302	269	
Hori.	120.603	QP	54.4	12.8	7.2	32.1	42.3	43.5	1.2	294	265	
Hori.	122.515	QP	52.1	13	7.2	32.1	40.2	43.5	3.3	296	267	
Hori.	2500.000	PK	49.2	27.6	14.3	41.4	49.7	73.9	24.2	122	14	
Hori.	5350.000	PK	53.1	31.9	16.5	40.3	61.2	73.9	12.7	100	100	
Hori.	10640.000	PK	45.7	39.2	9.5	38.8	55.6	73.9	18.3	100	202	
Hori.	15959.960	PK	51.3	39	1.9	39.3	52.9	73.9	21.0	108	142	
Hori.	2500.000	AV	39.8	27.6	14.3	41.4	40.3	53.9	13.6	122	14	
Hori.	5350.000	AV	38.5	31.9	16.5	40.3	46.6	53.9	7.3	100	100	
Hori.	10640.000	AV	32.6	39.2	9.5	38.8	42.5	53.9	11.4	100	202	
Hori.	15959.960	AV	44.2	39	1.9	39.3	45.8	53.9	8.1	108	142	
Vert.	47.928	QP	52.7	11.7	6.8	32.2	39	40	1.0	100	26	
Vert.	49.719	QP	49.1	11.2	6.8	32.2	34.9	40	5.1	100	242	
Vert.	114.219	QP	53.8	11.9	7.1	32.1	40.7	43.5	2.8	100	16	
Vert.	118.527	QP	54.5	12.5	7.2	32.1	42.1	43.5	1.4	100	0	
Vert.	120.887	QP	54.5	12.8	7.2	32.1	42.4	43.5	1.1	100	357	
Vert.	122.375	QP	51.1	13	7.2	32.1	39.2	43.5	4.3	100	1	
Vert.	2500.000	PK	49.9	27.6	14.3	41.4	50.4	73.9	23.5	100	151	
Vert.	5350.000	PK	53.9	31.9	16.5	40.3	62	73.9	11.9	100	196	
Vert.	10640.000	PK	47.7	39.2	9.5	38.8	57.6	73.9	16.3	110	207	
Vert.	15959.960	PK	52.1	39	1.9	39.3	53.7	73.9	20.2	100	123	
Vert.	2500.000	AV	42.3	27.6	14.3	41.4	42.8	53.9	11.1	100	151	
Vert.	5350.000	AV	38	31.9	16.5	40.3	46.1	53.9	7.8	100	196	
Vert.	10640.000	AV	34.4	39.2	9.5	38.8	44.3	53.9	9.6	110	207	
Vert.	15959.960	AV	45.1	39.0	1.9	39.3	46.7	53.9	7.2	100	123	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7046.000	PK	47.5	36.6	7.9	41.3	50.7	-44.53	-27.00	17.5	100	0	
Vert.	7046.000	PK	47.6	36.6	7.9	41.3	50.8	-44.43	-27.00	17.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
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## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                  Hikaru Shirasawa                      Tatsuya Arai  
 Mode                        Tx,                                5500 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	122	12	
Hori.	3666.697	PK	50.1	29.4	15.0	41.8	52.7	73.9	21.2	120	301	
Hori.	5460.000	PK	49.2	32.0	16.7	40.1	57.8	73.9	16.1	100	101	
Hori.	7333.331	PK	49.4	36.6	8.2	41.4	52.8	73.9	21.1	100	326	
Hori.	11000.000	PK	44.8	40.0	9.6	39.2	55.2	73.9	18.7	100	343	
Hori.	2500.000	AV	39.8	27.6	14.3	41.4	40.3	53.9	13.6	122	12	
Hori.	3666.697	AV	41.2	29.4	15.0	41.8	43.8	53.9	10.1	120	301	
Hori.	5460.000	AV	37.1	32.0	16.7	40.1	45.7	53.9	8.2	100	101	
Hori.	7333.331	AV	39.3	36.6	8.2	41.4	42.7	53.9	11.2	100	326	
Hori.	11000.000	AV	32.6	40.0	9.6	39.2	43.0	53.9	10.9	100	343	
Vert.	2500.000	PK	50.0	27.6	14.3	41.4	50.5	73.9	23.4	100	155	
Vert.	3666.697	PK	49.3	29.4	15.0	41.8	51.9	73.9	22.0	100	26	
Vert.	5460.000	PK	49.1	32.0	16.7	40.1	57.7	73.9	16.2	100	86	
Vert.	7333.331	PK	52.8	36.6	8.2	41.4	56.2	73.9	17.7	100	327	
Vert.	11000.000	PK	46.3	40.0	9.6	39.2	56.7	73.9	17.2	162	207	
Vert.	2500.000	AV	42.2	27.6	14.3	41.4	42.7	53.9	11.2	100	155	
Vert.	3666.697	AV	40.7	29.4	15.0	41.8	43.3	53.9	10.6	100	26	
Vert.	5460.000	AV	36.7	32.0	16.7	40.1	45.3	53.9	8.6	100	86	
Vert.	7333.331	AV	46.3	36.6	8.2	41.4	49.7	53.9	4.2	100	327	
Vert.	11000.000	AV	33.4	40.0	9.6	39.2	43.8	53.9	10.1	162	207	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	50.2	32.0	16.7	40.1	58.8	-36.43	-27.00	9.4	100	101	
Hori.	7196.000	PK	47.4	36.6	7.9	41.4	50.5	-44.73	-27.00	17.7	100	0	
Hori.	16500.000	PK	51.0	40.0	2.1	39.6	53.5	-41.73	-27.00	14.7	140	236	
Vert.	5470.000	PK	51.5	32.0	16.7	40.1	60.1	-35.13	-27.00	8.1	100	86	
Vert.	7196.000	PK	47.9	36.6	7.9	41.4	51.0	-44.23	-27.00	17.2	100	0	
Vert.	16500.000	PK	51.2	40.0	2.1	39.6	53.7	-41.53	-27.00	14.5	100	120	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                 Hikaru Shirasawa                      Tatsuya Arai  
 Mode                      Tx,                                5580 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	50.2	27.6	14.3	41.4	50.7	73.9	23.2	130	13	
Hori.	3720.000	PK	52.1	29.5	15.1	41.8	54.9	73.9	19.0	100	304	
Hori.	5150.000	PK	53.1	31.8	16.4	40.6	60.7	73.9	13.2	100	100	
Hori.	5350.000	PK	53.8	31.9	16.5	40.3	61.9	73.9	12.0	100	100	
Hori.	7440.000	PK	48.8	36.7	8.3	41.5	52.3	73.9	21.6	132	41	
Hori.	11160.000	PK	45.9	40.1	9.7	39.3	56.4	73.9	17.5	157	234	
Hori.	2500.000	AV	40.4	27.6	14.3	41.4	40.9	53.9	13.0	130	13	
Hori.	3720.000	AV	45.1	29.5	15.1	41.8	47.9	53.9	6.0	100	304	
Hori.	5150.000	AV	41.0	31.8	16.4	40.6	48.6	53.9	5.3	100	100	
Hori.	5350.000	AV	40.9	31.9	16.5	40.3	49.0	53.9	4.9	100	100	
Hori.	7440.000	AV	40.3	36.7	8.3	41.5	43.8	53.9	10.1	132	41	
Hori.	11160.000	AV	33.8	40.1	9.7	39.3	44.3	53.9	9.6	157	234	
Vert.	2500.000	PK	50.1	27.6	14.3	41.4	50.6	73.9	23.3	100	153	
Vert.	3720.000	PK	51.9	29.5	15.1	41.8	54.7	73.9	19.2	135	293	
Vert.	5150.000	PK	54.0	31.8	16.4	40.6	61.6	73.9	12.3	100	135	
Vert.	5350.000	PK	53.2	31.9	16.5	40.3	61.3	73.9	12.6	100	135	
Vert.	7440.000	PK	51.2	36.7	8.3	41.5	54.7	73.9	19.2	100	327	
Vert.	11160.000	PK	47.3	40.1	9.7	39.3	57.8	73.9	16.1	158	205	
Vert.	2500.000	AV	42.6	27.6	14.3	41.4	43.1	53.9	10.8	100	153	
Vert.	3720.000	AV	44.9	29.5	15.1	41.8	47.7	53.9	6.2	135	293	
Vert.	5150.000	AV	42.0	31.8	16.4	40.6	49.6	53.9	4.3	100	135	
Vert.	5350.000	AV	40.5	31.9	16.5	40.3	48.6	53.9	5.3	100	135	
Vert.	7440.000	AV	44.6	36.7	8.3	41.5	48.1	53.9	5.8	100	327	
Vert.	11160.000	AV	34.8	40.1	9.7	39.3	45.3	53.9	8.6	158	205	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7067.000	PK	47.9	36.6	7.9	41.3	51.1	-44.13	-27.00	17.1	100	0	
Vert.	7067.000	PK	48.1	36.6	7.9	41.3	51.3	-43.93	-27.00	16.9	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile     : +81 463 50 6401



## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                 Hikaru Shirasawa                      Tatsuya Arai  
 Mode                       Tx,                                5700 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.3	27.6	14.3	41.4	49.8	73.9	24.1	130	13	
Hori.	3800.000	PK	53.2	29.5	15.2	41.8	56.1	73.9	17.8	127	74	
Hori.	5150.000	PK	53.9	31.8	16.4	40.6	61.5	73.9	12.4	102	112	
Hori.	5350.000	PK	53.0	31.9	16.5	40.3	61.1	73.9	12.8	101	119	
Hori.	7600.000	PK	50.6	36.8	8.5	41.4	54.5	73.9	19.4	144	124	
Hori.	11400.000	PK	44.7	40.1	9.8	39.5	55.1	73.9	18.8	157	234	
Hori.	2500.000	AV	40.8	27.6	14.3	41.4	41.3	53.9	12.6	130	13	
Hori.	3800.000	AV	47.7	29.5	15.2	41.8	50.6	53.9	3.3	127	74	
Hori.	5150.000	AV	41.4	31.8	16.4	40.6	49.0	53.9	4.9	102	112	
Hori.	5350.000	AV	40.3	31.9	16.5	40.3	48.4	53.9	5.5	101	119	
Hori.	7600.000	AV	42.0	36.8	8.5	41.4	45.9	53.9	8.0	144	124	
Hori.	11400.000	AV	32.1	40.1	9.8	39.5	42.5	53.9	11.4	157	234	
Vert.	2500.000	PK	50.2	27.6	14.3	41.4	50.7	73.9	23.2	100	151	
Vert.	3800.000	PK	52.4	29.5	15.2	41.8	55.3	73.9	18.6	102	73	
Vert.	5150.000	PK	53.1	31.8	16.4	40.6	60.7	73.9	13.2	100	135	
Vert.	5350.000	PK	54.1	31.9	16.5	40.3	62.2	73.9	11.7	100	135	
Vert.	7600.000	PK	53.3	36.8	8.5	41.4	57.2	73.9	16.7	105	10	
Vert.	11400.000	PK	44.3	40.1	9.8	39.5	54.7	73.9	19.2	100	229	
Vert.	2500.000	AV	42.6	27.6	14.3	41.4	43.1	53.9	10.8	100	151	
Vert.	3800.000	AV	47.2	29.5	15.2	41.8	50.1	53.9	3.8	102	73	
Vert.	5150.000	AV	41.0	31.8	16.4	40.6	48.6	53.9	5.3	100	135	
Vert.	5350.000	AV	41.0	31.9	16.5	40.3	49.1	53.9	4.8	100	135	
Vert.	7600.000	AV	47.4	36.8	8.5	41.4	51.3	53.9	2.6	105	10	
Vert.	11400.000	AV	32.7	40.1	9.8	39.5	43.1	53.9	10.8	100	229	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	54.2	32.6	16.7	40.2	63.3	-31.93	-27.00	4.9	100	85	
Hori.	6975.000	PK	49.1	36.5	7.8	41.3	52.1	-43.13	-27.00	16.1	100	0	
Vert.	5725.000	PK	54.1	32.6	16.7	40.2	63.2	-32.03	-27.00	5.0	100	99	
Vert.	6975.000	PK	47.8	36.5	7.8	41.3	50.8	-44.43	-27.00	17.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                 2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                 25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                         Makoto Hosaka  
 Mode                       Tx,                         5500 MHz             Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.0	27.6	14.3	41.4	49.5	73.9	24.4	100	85	
Hori.	5460.000	PK	49.4	32.0	16.7	40.1	58.0	73.9	15.9	100	8	
Hori.	11000.000	PK	45.4	40.0	9.6	39.2	55.8	73.9	18.1	100	0	
Hori.	2500.000	AV	39.3	27.6	14.3	41.4	39.8	53.9	14.1	100	85	
Hori.	5460.000	AV	37.5	32.0	16.7	40.1	46.1	53.9	7.8	100	8	
Hori.	11000.000	AV	34.6	40.0	9.6	39.2	45.0	53.9	8.9	100	0	
Vert.	2500.000	PK	50.7	27.6	14.3	41.4	51.2	73.9	22.7	100	152	
Vert.	5460.000	PK	48.0	32.0	16.7	40.1	56.6	73.9	17.3	100	206	
Vert.	11000.000	PK	47.9	40.0	9.6	39.2	58.3	73.9	15.6	100	201	
Vert.	2500.000	AV	44.2	27.6	14.3	41.4	44.7	53.9	9.2	100	152	
Vert.	5460.000	AV	36.3	32.0	16.7	40.1	44.9	53.9	9.0	100	206	
Vert.	11000.000	AV	36.1	40.0	9.6	39.2	46.5	53.9	7.4	100	201	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	55.1	32.0	16.7	40.1	63.7	-31.53	-27.00	4.5	100	8	
Hori.	7196.000	PK	48.1	36.6	7.9	41.4	51.2	-44.03	-27.00	17.0	100	0	
Vert.	5470.000	PK	53.4	32.0	16.7	40.1	62.0	-33.23	-27.00	6.2	100	206	
Vert.	7196.000	PK	50.9	36.6	7.9	41.4	54.0	-41.23	-27.00	14.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone   : +81 463 50 6400  
 Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka  
 Mode                        Tx,                        5580 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

**(above 1GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.1	27.6	14.3	41.4	49.6	73.9	24.3	100	92	
Hori.	11160.000	PK	47.3	40.1	9.7	39.3	57.8	73.9	16.1	100	0	
Hori.	2500.000	AV	39.2	27.6	14.3	41.4	39.7	53.9	14.2	100	92	
Hori.	11160.000	AV	35.0	40.1	9.7	39.3	45.5	53.9	8.4	100	0	
Vert.	2500.000	PK	51.5	27.6	14.3	41.4	52.0	73.9	21.9	100	117	
Vert.	11160.000	PK	49.4	40.1	9.7	39.3	59.9	73.9	14.0	100	200	
Vert.	2500.000	AV	43.6	27.6	14.3	41.4	44.1	53.9	9.8	100	117	
Vert.	11160.000	AV	36.4	40.1	9.7	39.3	46.9	53.9	7.0	100	200	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**(Calculation) (above 1GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7067.000	PK	48.3	36.6	7.9	41.3	51.5	-43.73	-27.00	16.7	100	0	
Vert.	7067.000	PK	48.5	36.6	7.9	41.3	51.7	-43.53	-27.00	16.5	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka  
 Mode                        Tx,                        5700 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	48.6	27.6	14.3	41.4	49.1	73.9	24.8	100	85	
Hori.	11400.000	PK	44.4	40.1	9.8	39.5	54.8	73.9	19.1	100	0	
Hori.	2500.000	AV	38.7	27.6	14.3	41.4	39.2	53.9	14.7	100	85	
Hori.	11400.000	AV	33.0	40.1	9.8	39.5	43.4	53.9	10.5	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	100	120	
Vert.	11400.000	PK	44.7	40.1	9.8	39.5	55.1	73.9	18.8	100	197	
Vert.	2500.000	AV	43.9	27.6	14.3	41.4	44.4	53.9	9.5	100	120	
Vert.	11400.000	AV	32.8	40.1	9.8	39.5	43.2	53.9	10.7	100	197	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	56.9	32.6	16.7	40.2	66.0	-29.23	-27.00	2.2	106	350	
Hori.	7038.000	PK	49.2	36.6	7.9	41.3	52.4	-42.83	-27.00	15.8	100	0	
Vert.	5725.000	PK	53.1	32.6	16.7	40.2	62.2	-33.03	-27.00	6.0	100	205	
Vert.	7038.000	PK	48.8	36.6	7.9	41.3	52.0	-43.23	-27.00	16.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (({ 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

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**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                         2012/9/14                                 2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                   Hikaru Shirasawa                     Tatsuya Arai  
 Mode                        Tx,                     5180 MHz             Antenna: ANT1468  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.1	27.6	14.3	41.4	49.6	73.9	24.3	156	1	
Hori.	5150.000	PK	48.9	31.8	16.4	40.6	56.5	73.9	17.4	100	93	
Hori.	7742.000	PK	48.8	37.0	8.6	41.3	53.1	73.9	20.8	100	0	
Hori.	2500.000	AV	40.3	27.6	14.3	41.4	40.8	53.9	13.1	156	1	
Hori.	5150.000	AV	36.6	31.8	16.4	40.6	44.2	53.9	9.7	100	93	
Hori.	7742.000	AV	34.5	37.0	8.6	41.3	38.8	53.9	15.1	100	0	
Vert.	2500.000	PK	50.1	27.6	14.3	41.4	50.6	73.9	23.3	116	162	
Vert.	5150.000	PK	48.6	31.8	16.4	40.6	56.2	73.9	17.7	100	89	
Vert.	7742.000	PK	47.5	37.0	8.6	41.3	51.8	73.9	22.1	100	0	
Vert.	2500.000	AV	42.3	27.6	14.3	41.4	42.8	53.9	11.1	116	162	
Vert.	5150.000	AV	36.3	31.8	16.4	40.6	43.9	53.9	10.0	100	89	
Vert.	7742.000	AV	36.4	37.0	8.6	41.3	40.7	53.9	13.2	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	10380.000	PK	46.7	38.9	9.4	38.7	56.3	-38.93	-27.00	11.9	100	359	
Vert.	10380.000	PK	45.5	38.9	9.4	38.7	55.1	-40.13	-27.00	13.1	100	359	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
Date                           2012/9/14                               2012/9/16  
Temperature / Humidity    24 deg.C , 70 %RH                24 deg.C , 64 %RH  
Engineer                    Hikaru Shirasawa                    Tatsuya Arai  
Mode                         Tx,                            5240 MHz                    Antenna: ANT1468  
                                  Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	48.7	27.6	14.3	41.4	49.2	73.9	24.7	112	10	
Hori.	2500.000	AV	39.1	27.6	14.3	41.4	39.6	53.9	14.3	112	10	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	114	161	
Vert.	2500.000	AV	42.2	27.6	14.3	41.4	42.7	53.9	11.2	114	161	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6986.680	PK	49.0	36.6	7.8	41.3	52.1	-43.13	-27.00	16.1	132	310	
Hori.	7100.000	PK	48.1	36.6	7.9	41.3	51.3	-43.93	-27.00	16.9	100	0	
Hori.	10380.000	PK	46.7	38.9	9.4	38.7	56.3	-38.93	-27.00	11.9	100	359	
Vert.	6986.680	PK	51.1	36.6	7.8	41.3	54.2	-41.03	-27.00	14.0	100	334	
Vert.	7100.000	PK	47.4	36.6	7.9	41.3	50.6	-44.63	-27.00	17.6	100	0	
Vert.	10380.000	PK	47.0	38.9	9.4	38.7	56.6	-38.63	-27.00	11.6	100	359	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone    : +81 463 50 6400

Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                  Hikaru Shirasawa                      Tatsuya Arai  
 Mode                        Tx,                                5320 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	51.3	27.6	14.3	41.4	51.8	73.9	22.1	122	278	
Hori.	5350.000	PK	48.3	31.9	16.5	40.3	56.4	73.9	17.5	100	330	
Hori.	10640.000	PK	48.8	39.2	9.5	38.8	58.7	73.9	15.2	100	359	
Hori.	2500.000	AV	41.4	27.6	14.3	41.4	41.9	53.9	12.0	122	278	
Hori.	5350.000	AV	34.3	31.9	16.5	40.3	42.4	53.9	11.5	100	330	
Hori.	10640.000	AV	34.3	39.2	9.5	38.8	44.2	53.9	9.7	100	359	
Vert.	2500.000	PK	51.3	27.6	14.3	41.4	51.8	73.9	22.1	100	161	
Vert.	5350.000	PK	52.0	31.9	16.5	40.3	60.1	73.9	13.8	102	35	
Vert.	10640.000	PK	45.1	39.2	9.5	38.8	55.0	73.9	18.9	100	204	
Vert.	2500.000	AV	42.3	27.6	14.3	41.4	42.8	53.9	11.1	100	161	
Vert.	5350.000	AV	36.5	31.9	16.5	40.3	44.6	53.9	9.3	102	35	
Vert.	10640.000	AV	33.4	39.2	9.5	38.8	43.3	53.9	10.6	100	204	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                        20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7017.000	PK	49.5	36.6	7.8	41.3	52.6	-42.63	-27.00	15.6	100	0	
Hori.	7093.321	PK	50.8	36.6	7.9	41.3	54.0	-41.23	-27.00	14.2	100	0	
Vert.	7017.000	PK	47.2	36.6	7.8	41.3	50.3	-44.93	-27.00	17.9	100	0	
Vert.	7093.321	PK	50.6	36.6	7.9	41.3	53.8	-41.43	-27.00	14.4	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                        20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                 2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                 25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                         Makoto Hosaka  
 Mode                       Tx,                         5180 MHz                     Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	48.6	27.6	14.3	41.4	49.1	73.9	24.8	161	89	
Hori.	5150.000	PK	52.4	31.8	16.4	40.6	60.0	73.9	13.9	100	352	
Hori.	7742.000	PK	48.3	37.0	8.6	41.3	52.6	73.9	21.3	100	0	
Hori.	2500.000	AV	38.9	27.6	14.3	41.4	39.4	53.9	14.5	161	89	
Hori.	5150.000	AV	39.3	31.8	16.4	40.6	46.9	53.9	7.0	100	352	
Hori.	7742.000	AV	34.3	37.0	8.6	41.3	38.6	53.9	15.3	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	120	117	
Vert.	5150.000	PK	50.6	31.8	16.4	40.6	58.2	73.9	15.7	167	181	
Vert.	7742.000	PK	47.3	37.0	8.6	41.3	51.6	73.9	22.3	100	0	
Vert.	2500.000	AV	42.7	27.6	14.3	41.4	43.2	53.9	10.7	120	117	
Vert.	5150.000	AV	37.1	31.8	16.4	40.6	44.7	53.9	9.2	167	181	
Vert.	7742.000	AV	34.4	37.0	8.6	41.3	38.7	53.9	15.2	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                 20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6906.650	PK	48.7	36.3	7.8	41.2	51.6	-43.63	-27.00	16.6	100	359	
Hori.	10360.000	PK	45.8	38.9	9.4	38.7	55.4	-39.83	-27.00	12.8	100	0	
Vert.	6906.650	PK	49.5	36.3	7.8	41.2	52.4	-42.83	-27.00	15.8	100	291	
Vert.	10360.000	PK	48.6	38.9	9.4	38.7	58.2	-37.03	-27.00	10.0	172	196	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                 20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
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## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka  
 Mode                       Tx,                        5320 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	159	90	
Hori.	5350.000	PK	47.6	31.9	16.5	40.3	55.7	73.9	18.2	100	0	
Hori.	10640.000	PK	45.7	39.2	9.5	38.8	55.6	73.9	18.3	100	0	
Hori.	2500.000	AV	41.4	27.6	14.3	41.4	41.9	53.9	12.0	159	90	
Hori.	5350.000	AV	33.9	31.9	16.5	40.3	42.0	53.9	11.9	100	0	
Hori.	10640.000	AV	32.6	39.2	9.5	38.8	42.5	53.9	11.4	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	158	100	
Vert.	5350.000	PK	49.6	31.9	16.5	40.3	57.7	73.9	16.2	122	359	
Vert.	10640.000	PK	45.5	39.2	9.5	38.8	55.4	73.9	18.5	100	203	
Vert.	2500.000	AV	43.4	27.6	14.3	41.4	43.9	53.9	10.0	158	100	
Vert.	5350.000	AV	36.4	31.9	16.5	40.3	44.5	53.9	9.4	122	359	
Vert.	10640.000	AV	32.5	39.2	9.5	38.8	42.4	53.9	11.5	100	203	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7017.000	PK	47.4	36.6	7.8	41.3	50.5	-44.73	-27.00	17.7	100	0	
Vert.	7017.000	PK	48.1	36.6	7.8	41.3	51.2	-44.03	-27.00	17.0	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile     : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                  Hikaru Shirasawa                      Tatsuya Arai  
 Mode                        Tx,                                5500 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	157	2	
Hori.	3666.673	PK	50.1	29.4	15.0	41.8	52.7	73.9	21.2	100	298	
Hori.	5460.000	PK	49.4	32.0	16.7	40.1	58.0	73.9	15.9	100	101	
Hori.	7333.332	PK	48.7	36.6	8.2	41.4	52.1	73.9	21.8	100	15	
Hori.	11000.000	PK	45.4	40.0	9.6	39.2	55.8	73.9	18.1	100	0	
Hori.	2500.000	AV	40.7	27.6	14.3	41.4	41.2	53.9	12.7	157	2	
Hori.	3666.673	AV	40.2	29.4	15.0	41.8	42.8	53.9	11.1	100	298	
Hori.	5460.000	AV	36.5	32.0	16.7	40.1	45.1	53.9	8.8	100	101	
Hori.	7333.332	AV	39.5	36.6	8.2	41.4	42.9	53.9	11.0	100	15	
Hori.	11000.000	AV	33.0	40.0	9.6	39.2	43.4	53.9	10.5	100	0	
Vert.	2500.000	PK	49.5	27.6	14.3	41.4	50.0	73.9	23.9	100	160	
Vert.	3666.673	PK	50.0	29.4	15.0	41.8	52.6	73.9	21.3	100	197	
Vert.	5460.000	PK	49.4	32.0	16.7	40.1	58.0	73.9	15.9	100	100	
Vert.	7333.332	PK	51.4	36.6	8.2	41.4	54.8	73.9	19.1	100	325	
Vert.	11000.000	PK	46.1	40.0	9.6	39.2	56.5	73.9	17.4	149	213	
Vert.	2500.000	AV	42.4	27.6	14.3	41.4	42.9	53.9	11.0	100	160	
Vert.	3666.673	AV	41.6	29.4	15.0	41.8	44.2	53.9	9.7	100	197	
Vert.	5460.000	AV	36.4	32.0	16.7	40.1	45.0	53.9	8.9	100	100	
Vert.	7333.332	AV	45.4	36.6	8.2	41.4	48.8	53.9	5.1	100	325	
Vert.	11000.000	AV	33.3	40.0	9.6	39.2	43.7	53.9	10.2	149	213	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	49.2	32.0	16.7	40.1	57.8	-37.43	-27.00	10.4	100	101	
Hori.	7075.000	PK	47.4	36.6	7.9	41.3	50.6	-44.63	-27.00	17.6	100	0	
Vert.	5470.000	PK	49.6	32.0	16.7	40.1	58.2	-37.03	-27.00	10.0	100	100	
Vert.	7075.000	PK	47.9	36.6	7.9	41.3	51.1	-44.13	-27.00	17.1	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone   : +81 463 50 6400  
 Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                  Hikaru Shirasawa                      Tatsuya Arai  
 Mode                        Tx,                                5580 MHz                                Antenna: ANT1468  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	112	14	
Hori.	3720.000	PK	51.2	29.5	15.1	41.8	54.0	73.9	19.9	109	293	
Hori.	5150.000	PK	49.7	31.8	16.4	40.6	57.3	73.9	16.6	100	94	
Hori.	5350.000	PK	48.8	31.9	16.5	40.3	56.9	73.9	17.0	100	94	
Hori.	7440.000	PK	48.8	36.7	8.3	41.5	52.3	73.9	21.6	129	324	
Hori.	11160.000	PK	46.0	40.1	9.7	39.3	56.5	73.9	17.4	100	0	
Hori.	2500.000	AV	40.7	27.6	14.3	41.4	41.2	53.9	12.7	112	14	
Hori.	3720.000	AV	43.6	29.5	15.1	41.8	46.4	53.9	7.5	109	293	
Hori.	5150.000	AV	36.9	31.8	16.4	40.6	44.5	53.9	9.4	100	94	
Hori.	5350.000	AV	36.8	31.9	16.5	40.3	44.9	53.9	9.0	100	94	
Hori.	7440.000	AV	41.1	36.7	8.3	41.5	44.6	53.9	9.3	129	324	
Hori.	11160.000	AV	33.8	40.1	9.7	39.3	44.3	53.9	9.6	100	0	
Vert.	2500.000	PK	50.0	27.6	14.3	41.4	50.5	73.9	23.4	116	160	
Vert.	3720.000	PK	51.6	29.5	15.1	41.8	54.4	73.9	19.5	100	122	
Vert.	5150.000	PK	50.7	31.8	16.4	40.6	58.3	73.9	15.6	100	211	
Vert.	5350.000	PK	49.8	31.9	16.5	40.3	57.9	73.9	16.0	100	211	
Vert.	7440.000	PK	51.5	36.7	8.3	41.5	55.0	73.9	18.9	100	14	
Vert.	11160.000	PK	46.7	40.1	9.7	39.3	57.2	73.9	16.7	148	202	
Vert.	2500.000	AV	42.4	27.6	14.3	41.4	42.9	53.9	11.0	116	160	
Vert.	3720.000	AV	44.5	29.5	15.1	41.8	47.3	53.9	6.6	100	122	
Vert.	5150.000	AV	37.4	31.8	16.4	40.6	45.0	53.9	8.9	100	211	
Vert.	5350.000	AV	37.7	31.9	16.5	40.3	45.8	53.9	8.1	100	211	
Vert.	7440.000	AV	44.5	36.7	8.3	41.5	48.0	53.9	5.9	100	14	
Vert.	11160.000	AV	34.5	40.1	9.7	39.3	45.0	53.9	8.9	148	202	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                    20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7029.000	PK	48.2	36.6	7.8	41.3	51.3	-43.93	-27.00	16.9	100	0	
Vert.	7029.000	PK	47.0	36.6	7.8	41.3	50.1	-45.13	-27.00	18.1	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                    20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/14                                2012/9/16  
 Temperature / Humidity   24 deg.C , 70 %RH                    24 deg.C , 64 %RH  
 Engineer                 Hikaru Shirasawa                       Tatsuya Arai  
 Mode                       Tx,                        5700 MHz                    Antenna: ANT1468  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**(above 1GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.1	27.6	14.3	41.4	49.6	73.9	24.3	141	5	
Hori.	3800.000	PK	52.6	29.5	15.2	41.8	55.5	73.9	18.4	100	62	
Hori.	5150.000	PK	51.0	31.8	16.4	40.6	58.6	73.9	15.3	100	95	
Hori.	5350.000	PK	50.9	31.9	16.5	40.3	59.0	73.9	14.9	100	95	
Hori.	7600.000	PK	51.1	36.8	8.5	41.4	55.0	73.9	18.9	100	0	
Hori.	11400.000	PK	44.6	40.1	9.8	39.5	55.0	73.9	18.9	100	0	
Hori.	2500.000	AV	40.6	27.6	14.3	41.4	41.1	53.9	12.8	141	5	
Hori.	3800.000	AV	47.1	29.5	15.2	41.8	50.0	53.9	3.9	100	62	
Hori.	5150.000	AV	39.4	31.8	16.4	40.6	47.0	53.9	6.9	100	95	
Hori.	5350.000	AV	38.4	31.9	16.5	40.3	46.5	53.9	7.4	100	95	
Hori.	7600.000	AV	43.8	36.8	8.5	41.4	47.7	53.9	6.2	100	0	
Hori.	11400.000	AV	32.4	40.1	9.8	39.5	42.8	53.9	11.1	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	100	160	
Vert.	3800.000	PK	51.5	29.5	15.2	41.8	54.4	73.9	19.5	100	33	
Vert.	5150.000	PK	50.3	31.8	16.4	40.6	57.9	73.9	16.0	100	210	
Vert.	5350.000	PK	48.8	31.9	16.5	40.3	56.9	73.9	17.0	100	210	
Vert.	7600.000	PK	53.2	36.8	8.5	41.4	57.1	73.9	16.8	100	337	
Vert.	11400.000	PK	45.4	40.1	9.8	39.5	55.8	73.9	18.1	100	234	
Vert.	2500.000	AV	42.4	27.6	14.3	41.4	42.9	53.9	11.0	100	160	
Vert.	3800.000	AV	44.5	29.5	15.2	41.8	47.4	53.9	6.5	100	33	
Vert.	5150.000	AV	36.6	31.8	16.4	40.6	44.2	53.9	9.7	100	210	
Vert.	5350.000	AV	37.0	31.9	16.5	40.3	45.1	53.9	8.8	100	210	
Vert.	7600.000	AV	47.6	36.8	8.5	41.4	51.5	53.9	2.4	100	337	
Vert.	11400.000	AV	32.9	40.1	9.8	39.5	43.3	53.9	10.6	100	234	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**(Calculation) (above 1GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	49.6	32.6	16.7	40.2	58.7	-36.53	-27.00	9.5	100	110	
Hori.	6975.000	PK	47.9	36.5	7.8	41.3	50.9	-44.33	-27.00	17.3	100	0	
Vert.	5725.000	PK	48.0	32.6	16.7	40.2	57.1	-38.13	-27.00	11.1	100	131	
Vert.	6975.000	PK	47.9	36.5	7.8	41.3	50.9	-44.33	-27.00	17.3	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( (10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile     : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka  
 Mode                        Tx,                        5500 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	1498.060	PK	54.3	24.7	13.2	40.7	51.5	73.9	22.4	100	150	
Hori.	2500.000	PK	48.8	27.6	14.3	41.4	49.3	73.9	24.6	100	18	
Hori.	3666.670	PK	50.4	29.4	15.0	41.8	53.0	73.9	20.9	100	5	
Hori.	5460.000	PK	49.4	32.0	16.7	40.1	58.0	73.9	15.9	100	352	
Hori.	7333.328	PK	50.5	36.6	8.2	41.4	53.9	73.9	20.0	142	14	
Hori.	11000.000	PK	43.9	40.0	9.6	39.2	54.3	73.9	19.6	100	0	
Hori.	1498.060	AV	41.5	24.7	13.2	40.7	38.7	53.9	15.2	100	150	
Hori.	2500.000	AV	40.2	27.6	14.3	41.4	40.7	53.9	13.2	100	18	
Hori.	3666.670	AV	43.6	29.4	15.0	41.8	46.2	53.9	7.7	100	5	
Hori.	5460.000	AV	37.4	32.0	16.7	40.1	46.0	53.9	7.9	100	352	
Hori.	7333.328	AV	40.2	36.6	8.2	41.4	43.6	53.9	10.3	142	14	
Hori.	11000.000	AV	32.1	40.0	9.6	39.2	42.5	53.9	11.4	100	0	
Vert.	1498.060	PK	49.4	24.7	13.2	40.7	46.6	73.9	27.3	120	175	
Vert.	2500.000	PK	50.3	27.6	14.3	41.4	50.8	73.9	23.1	100	158	
Vert.	3666.670	PK	49.5	29.4	15.0	41.8	52.1	73.9	21.8	107	179	
Vert.	5460.000	PK	49.0	32.0	16.7	40.1	57.6	73.9	16.3	107	304	
Vert.	7333.328	PK	48.1	36.6	8.2	41.4	51.5	73.9	22.4	100	126	
Vert.	11000.000	PK	44.8	40.0	9.6	39.2	55.2	73.9	18.7	161	205	
Vert.	1498.060	AV	36.4	24.7	13.2	40.7	33.6	53.9	20.3	120	175	
Vert.	2500.000	AV	43.8	27.6	14.3	41.4	44.3	53.9	9.6	100	158	
Vert.	3666.670	AV	40.8	29.4	15.0	41.8	43.4	53.9	10.5	107	179	
Vert.	5460.000	AV	36.0	32.0	16.7	40.1	44.6	53.9	9.3	107	304	
Vert.	7333.328	AV	39.0	36.6	8.2	41.4	42.4	53.9	11.5	100	126	
Vert.	11000.000	AV	33.0	40.0	9.6	39.2	43.4	53.9	10.5	161	205	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	48.8	32.0	16.7	40.1	57.4	-37.83	-27.00	10.8	100	352	
Hori.	7075.000	PK	47.6	36.6	7.9	41.3	50.8	-44.43	-27.00	17.4	100	0	
Vert.	5470.000	PK	48.2	32.0	16.7	40.1	56.8	-38.43	-27.00	11.4	107	304	
Vert.	7075.000	PK	46.4	36.6	7.9	41.3	49.6	-45.63	-27.00	18.6	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( (10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka  
 Mode                       Tx,                        5580 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**(above 1GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	1498.470	PK	48.8	24.7	13.2	40.7	46.0	73.9	27.9	164	17	
Hori.	2500.000	PK	49.0	27.6	14.3	41.4	49.5	73.9	24.4	165	19	
Hori.	3720.045	PK	51.7	29.5	15.1	41.8	54.5	73.9	19.4	100	4	
Hori.	5150.000	PK	52.0	31.8	16.4	40.6	59.6	73.9	14.3	100	16	
Hori.	5350.000	PK	51.3	31.9	16.5	40.3	59.4	73.9	14.5	100	18	
Hori.	7439.960	PK	49.5	36.7	8.3	41.5	53.0	73.9	20.9	113	39	
Hori.	11160.000	PK	45.0	40.1	9.7	39.3	55.5	73.9	18.4	135	359	
Hori.	1498.470	AV	40.0	24.7	13.2	40.7	37.2	53.9	16.7	164	17	
Hori.	2500.000	AV	40.0	27.6	14.3	41.4	40.5	53.9	13.4	165	19	
Hori.	3720.045	AV	45.3	29.5	15.1	41.8	48.1	53.9	5.8	100	4	
Hori.	5150.000	AV	39.6	31.8	16.4	40.6	47.2	53.9	6.7	100	16	
Hori.	5350.000	AV	39.3	31.9	16.5	40.3	47.4	53.9	6.5	100	18	
Hori.	7439.960	AV	40.1	36.7	8.3	41.5	43.6	53.9	10.3	113	39	
Hori.	11160.000	AV	33.0	40.1	9.7	39.3	43.5	53.9	10.4	135	359	
Vert.	1498.470	PK	49.2	24.7	13.2	40.7	46.4	73.9	27.5	117	171	
Vert.	2500.000	PK	50.3	27.6	14.3	41.4	50.8	73.9	23.1	100	158	
Vert.	3720.045	PK	50.8	29.5	15.1	41.8	53.6	73.9	20.3	110	277	
Vert.	5150.000	PK	49.3	31.8	16.4	40.6	56.9	73.9	17.0	100	202	
Vert.	5350.000	PK	48.0	31.9	16.5	40.3	56.1	73.9	17.8	100	202	
Vert.	7439.960	PK	48.8	36.7	8.3	41.5	52.3	73.9	21.6	100	130	
Vert.	11160.000	PK	45.5	40.1	9.7	39.3	56.0	73.9	17.9	150	209	
Vert.	1498.470	AV	36.3	24.7	13.2	40.7	33.5	53.9	20.4	117	171	
Vert.	2500.000	AV	43.3	27.6	14.3	41.4	43.8	53.9	10.1	100	158	
Vert.	3720.045	AV	42.3	29.5	15.1	41.8	45.1	53.9	8.8	110	277	
Vert.	5150.000	AV	37.0	31.8	16.4	40.6	44.6	53.9	9.3	100	202	
Vert.	5350.000	AV	35.6	31.9	16.5	40.3	43.7	53.9	10.2	100	202	
Vert.	7439.960	AV	39.2	36.7	8.3	41.5	42.7	53.9	11.2	100	130	
Vert.	11160.000	AV	32.9	40.1	9.7	39.3	43.4	53.9	10.5	150	209	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**(Calculation) (above 1GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7029.000	PK	46.8	36.6	7.8	41.3	49.9	-45.33	-27.00	18.3	100	0	
Vert.	7029.000	PK	45.4	36.6	7.8	41.3	48.5	-46.73	-27.00	19.7	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH  
 Engineer                  Makoto Hosaka                        Makoto Hosaka  
 Mode                        Tx,                        5700 MHz                    Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	142	11	
Hori.	3800.005	PK	52.0	29.5	15.2	41.8	54.9	73.9	19.0	100	9	
Hori.	5150.000	PK	54.2	31.8	16.4	40.6	61.8	73.9	12.1	100	15	
Hori.	5350.000	PK	52.7	31.9	16.5	40.3	60.8	73.9	13.1	100	15	
Hori.	7600.015	PK	51.4	36.8	8.5	41.4	55.3	73.9	18.6	144	41	
Hori.	11400.000	PK	46.1	40.1	9.8	39.5	56.5	73.9	17.4	146	358	
Hori.	2500.000	AV	40.2	27.6	14.3	41.4	40.7	53.9	13.2	142	11	
Hori.	3800.005	AV	46.4	29.5	15.2	41.8	49.3	53.9	4.6	100	9	
Hori.	5150.000	AV	42.3	31.8	16.4	40.6	49.9	53.9	4.0	100	15	
Hori.	5350.000	AV	41.0	31.9	16.5	40.3	49.1	53.9	4.8	100	15	
Hori.	7600.015	AV	42.9	36.8	8.5	41.4	46.8	53.9	7.1	144	41	
Hori.	11400.000	AV	33.2	40.1	9.8	39.5	43.6	53.9	10.3	146	358	
Vert.	2500.000	PK	50.8	27.6	14.3	41.4	51.3	73.9	22.6	119	154	
Vert.	3800.005	PK	52.5	29.5	15.2	41.8	55.4	73.9	18.5	104	289	
Vert.	5150.000	PK	51.9	31.8	16.4	40.6	59.5	73.9	14.4	106	207	
Vert.	5350.000	PK	47.9	31.9	16.5	40.3	56.0	73.9	17.9	106	207	
Vert.	7600.015	PK	51.8	36.8	8.5	41.4	55.7	73.9	18.2	100	357	
Vert.	11400.000	PK	44.3	40.1	9.8	39.5	54.7	73.9	19.2	100	6	
Vert.	2500.000	AV	43.0	27.6	14.3	41.4	43.5	53.9	10.4	119	154	
Vert.	3800.005	AV	46.5	29.5	15.2	41.8	49.4	53.9	4.5	104	289	
Vert.	5150.000	AV	39.1	31.8	16.4	40.6	46.7	53.9	7.2	106	207	
Vert.	5350.000	AV	36.0	31.9	16.5	40.3	44.1	53.9	9.8	106	207	
Vert.	7600.015	AV	44.7	36.8	8.5	41.4	48.6	53.9	5.3	100	357	
Vert.	11400.000	AV	32.7	40.1	9.8	39.5	43.1	53.9	10.8	100	6	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	49.5	32.6	16.7	40.2	58.6	-36.63	-27.00	9.6	100	347	
Hori.	6975.000	PK	46.9	36.5	7.8	41.3	49.9	-45.33	-27.00	18.3	100	0	
Vert.	5725.000	PK	47.9	32.6	16.7	40.2	57.0	-38.23	-27.00	11.2	100	203	
Vert.	6975.000	PK	45.9	36.5	7.8	41.3	48.9	-46.33	-27.00	19.3	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( (10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile     : +81 463 50 6401



## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                           2012/9/11                               2012/9/14                               2012/9/16  
 Temperature / Humidity   25 deg.C , 59 %RH                   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                   Akio Hayashi                           Hikaru Shirasawa                   Tatsuya Arai  
 Mode                         Tx,                               5190 MHz                           Antenna: ANT1468  
                                   Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	51.1	27.6	14.3	41.4	51.6	73.9	22.3	156	6	
Hori.	5150.000	PK	54.9	31.8	16.4	40.6	62.5	73.9	11.4	100	92	
Hori.	2500.000	AV	41.2	27.6	14.3	41.4	41.7	53.9	12.2	156	6	
Hori.	5150.000	AV	41.8	31.8	16.4	40.6	49.4	53.9	4.5	100	92	
Vert.	2500.000	PK	51.5	27.6	14.3	41.4	52.0	73.9	21.9	100	150	
Vert.	5150.000	PK	54.0	31.8	16.4	40.6	61.6	73.9	12.3	100	44	
Vert.	2500.000	AV	42.8	27.6	14.3	41.4	43.3	53.9	10.6	100	150	
Vert.	5150.000	AV	39.9	31.8	16.4	40.6	47.5	53.9	6.4	100	44	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6992.000	PK	49.4	36.6	7.8	41.3	52.5	-42.73	-27.00	15.7	100	359	
Hori.	10380.000	PK	47.5	38.9	9.4	38.7	57.1	-38.13	-27.00	11.1	100	322	
Vert.	6992.000	PK	49.0	36.6	7.8	41.3	52.1	-43.13	-27.00	16.1	100	0	
Vert.	10380.000	PK	44.6	38.9	9.4	38.7	54.2	-41.03	-27.00	14.0	161	204	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/11                               2012/9/14                               2012/9/16  
 Temperature / Humidity   25 deg.C , 59 %RH                   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                  Akio Hayashi                           Hikaru Shirasawa                   Tatsuya Arai  
 Mode                        Tx,                               5230 MHz                               Antenna: ANT1468  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	100	6	
Hori.	5350.000	PK	49.5	31.9	16.5	40.3	57.6	73.9	16.3	100	113	
Hori.	2500.000	AV	40.9	27.6	14.3	41.4	41.4	53.9	12.5	100	6	
Hori.	5350.000	AV	36.7	31.9	16.5	40.3	44.8	53.9	9.1	100	113	
Vert.	2500.000	PK	49.7	27.6	14.3	41.4	50.2	73.9	23.7	123	157	
Vert.	5350.000	PK	49.7	31.9	16.5	40.3	57.8	73.9	16.1	100	207	
Vert.	2500.000	AV	41.6	27.6	14.3	41.4	42.1	53.9	11.8	123	157	
Vert.	5350.000	AV	37.2	31.9	16.5	40.3	45.3	53.9	8.6	100	207	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7092.000	PK	48.4	36.6	7.9	41.3	51.6	-43.63	-27.00	16.6	100	0	
Hori.	10460.000	PK	46.2	38.9	9.4	38.7	55.8	-39.43	-27.00	12.4	100	0	
Vert.	7092.000	PK	48.8	36.6	7.9	41.3	52.0	-43.23	-27.00	16.2	100	0	
Vert.	10460.000	PK	45.5	38.9	9.4	38.7	55.1	-40.13	-27.00	13.1	163	199	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401



## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4                                2012/9/11  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH                25 deg.C , 59 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka                        Akio Hayashi  
 Mode                       Tx,                                5190 MHz                                Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	182	15	
Hori.	5150.000	PK	56.8	31.8	16.4	40.6	64.4	73.9	9.5	100	3	
Hori.	2500.000	AV	40.4	27.6	14.3	41.4	40.9	53.9	13.0	182	15	
Hori.	5150.000	AV	43.3	31.8	16.4	40.6	50.9	53.9	3.0	100	3	
Vert.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	120	155	
Vert.	5150.000	PK	53.9	31.8	16.4	40.6	61.5	73.9	12.4	122	348	
Vert.	2500.000	AV	42.9	27.6	14.3	41.4	43.4	53.9	10.5	120	155	
Vert.	5150.000	AV	41.1	31.8	16.4	40.6	48.7	53.9	5.2	122	348	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                        20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6992.000	PK	48.2	36.6	7.8	41.3	51.3	-43.93	-27.00	16.9	100	0	
Hori.	10380.000	PK	44.4	38.9	9.4	38.7	54.0	-41.23	-27.00	14.2	135	325	
Vert.	6992.000	PK	46.6	36.6	7.8	41.3	49.7	-45.53	-27.00	18.5	100	0	
Vert.	10380.000	PK	47.6	38.9	9.4	38.7	57.2	-38.03	-27.00	11.0	157	194	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                        20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone     : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
Date                           2012/9/3                               2012/9/4                               2012/9/11  
Temperature / Humidity   26 deg.C , 69 %RH               25 deg.C , 66 %RH               25 deg.C , 59 %RH  
Engineer                    Makoto Hosaka                       Makoto Hosaka                       Akio Hayashi  
Mode                         Tx,                           5230 MHz                           Antenna: ANT1431-161C/M-AB-58  
                                  Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	181	18	
Hori.	5350.000	PK	51.4	31.9	16.5	40.3	59.5	73.9	14.4	100	7	
Hori.	2500.000	AV	40.9	27.6	14.3	41.4	41.4	53.9	12.5	181	18	
Hori.	5350.000	AV	38.9	31.9	16.5	40.3	47.0	53.9	6.9	100	7	
Vert.	2500.000	PK	50.5	27.6	14.3	41.4	51.0	73.9	22.9	100	155	
Vert.	5350.000	PK	47.7	31.9	16.5	40.3	55.8	73.9	18.1	100	207	
Vert.	2500.000	AV	42.7	27.6	14.3	41.4	43.2	53.9	10.7	100	155	
Vert.	5350.000	AV	35.6	31.9	16.5	40.3	43.7	53.9	10.2	100	207	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7092.000	PK	46.9	36.6	7.9	41.3	50.1	-45.13	-27.00	18.1	100	0	
Hori.	10460.000	PK	46.0	38.9	9.4	38.7	55.6	-39.63	-27.00	12.6	157	358	
Vert.	7092.000	PK	47.1	36.6	7.9	41.3	50.3	-44.93	-27.00	17.9	100	0	
Vert.	10460.000	PK	49.2	38.9	9.4	38.7	58.8	-36.43	-27.00	9.4	154	217	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
Telephone    : +81 463 50 6400  
Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
Date                           2012/9/3                               2012/9/4                               2012/9/11  
Temperature / Humidity   26 deg.C , 69 %RH               25 deg.C , 66 %RH               25 deg.C , 59 %RH  
Engineer                    Makoto Hosaka                       Makoto Hosaka                       Akio Hayashi  
Mode                         Tx,                           5310 MHz                       Antenna: ANT1431-161C/M-AB-58  
                                  Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.3	27.6	14.3	41.4	49.8	73.9	24.1	180	15	
Hori.	5350.000	PK	61.0	31.9	16.5	40.3	69.1	73.9	4.8	100	3	
Hori.	2500.000	AV	39.7	27.6	14.3	41.4	40.2	53.9	13.7	180	15	
Hori.	5350.000	AV	45.4	31.9	16.5	40.3	53.5	53.9	0.4	100	3	
Vert.	2500.000	PK	49.9	27.6	14.3	41.4	50.4	73.9	23.5	100	155	
Vert.	5350.000	PK	61.4	31.9	16.5	40.3	69.5	73.9	4.4	100	204	
Vert.	2500.000	AV	42.4	27.6	14.3	41.4	42.9	53.9	11.0	100	155	
Vert.	5350.000	AV	43.2	31.9	16.5	40.3	51.3	53.9	2.6	100	204	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7188.000	PK	47.7	36.6	7.9	41.4	50.8	-44.43	-27.00	17.4	100	0	
Hori.	10620.000	PK	45.5	39.1	9.5	38.8	55.3	-39.93	-27.00	12.9	176	230	
Vert.	7188.000	PK	47.0	36.6	7.9	41.4	50.1	-45.13	-27.00	18.1	100	0	
Vert.	10620.000	PK	48.9	39.1	9.5	38.8	58.7	-36.53	-27.00	9.5	151	214	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone   : +81 463 50 6400

Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                    UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                            2012/9/11                            2012/9/14                            2012/9/16  
 Temperature / Humidity    25 deg.C , 59 %RH                24 deg.C , 70 %RH                24 deg.C , 64 %RH  
 Engineer                    Akio Hayashi                        Hikaru Shirasawa                    Tatsuya Arai  
 Mode                            Tx,                            5510 MHz                            Antenna: ANT1468  
    Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.7	27.6	14.3	41.4	50.2	73.9	23.7	134	12	
Hori.	5460.000	PK	48.0	32.0	16.7	40.1	56.6	73.9	17.3	100	113	
Hori.	7346.648	PK	50.0	36.6	8.2	41.4	53.4	73.9	20.5	116	18	
Hori.	11020.000	PK	45.7	40.0	9.6	39.2	56.1	73.9	17.8	100	0	
Hori.	2500.000	AV	40.6	27.6	14.3	41.4	41.1	53.9	12.8	134	12	
Hori.	5460.000	AV	36.6	32.0	16.7	40.1	45.2	53.9	8.7	100	113	
Hori.	7346.648	AV	41.7	36.6	8.2	41.4	45.1	53.9	8.8	116	18	
Hori.	11020.000	AV	33.3	40.0	9.6	39.2	43.7	53.9	10.2	100	0	
Vert.	2500.000	PK	50.3	27.6	14.3	41.4	50.8	73.9	23.1	100	159	
Vert.	5460.000	PK	47.8	32.0	16.7	40.1	56.4	73.9	17.5	100	55	
Vert.	7346.648	PK	52.0	36.6	8.2	41.4	55.4	73.9	18.5	100	330	
Vert.	11020.000	PK	46.3	40.0	9.6	39.2	56.7	73.9	17.2	100	0	
Vert.	2500.000	AV	42.6	27.6	14.3	41.4	43.1	53.9	10.8	100	159	
Vert.	5460.000	AV	35.7	32.0	16.7	40.1	44.3	53.9	9.6	100	55	
Vert.	7346.648	AV	46.0	36.6	8.2	41.4	49.4	53.9	4.5	100	330	
Vert.	11020.000	AV	33.2	40.0	9.6	39.2	43.6	53.9	10.3	100	0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:            15GHz-40GHz                    20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	50.3	32.0	16.7	40.1	58.9	-36.33	-27.00	9.3	100	113	
Hori.	7021.000	PK	48.5	36.6	7.8	41.3	51.6	-43.63	-27.00	16.6	100	0	
Vert.	5470.000	PK	50.8	32.0	16.7	40.1	59.4	-35.83	-27.00	8.8	100	55	
Vert.	7021.000	PK	47.9	36.6	7.8	41.3	51.0	-44.23	-27.00	17.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ( ( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30 ) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:            15GHz-40GHz                    20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/11                               2012/9/14                               2012/9/16  
 Temperature / Humidity   25 deg.C , 59 %RH                   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                  Akio Hayashi                           Hikaru Shirasawa                   Tatsuya Arai  
 Mode                        Tx,                               5550 MHz                           Antenna: ANT1468  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.4	27.6	14.3	41.4	49.9	73.9	24.0	144	1	
Hori.	3700.840	PK	50.6	29.5	15.1	41.8	53.4	73.9	20.5	100	348	
Hori.	5150.000	PK	49.3	31.8	16.4	40.6	56.9	73.9	17.0	100	99	
Hori.	5350.000	PK	48.7	31.9	16.5	40.3	56.8	73.9	17.1	100	0	
Hori.	11100.000	PK	47.0	40.1	9.6	39.3	57.4	73.9	16.5	100	0	
Hori.	2500.000	AV	40.6	27.6	14.3	41.4	41.1	53.9	12.8	144	1	
Hori.	3700.840	AV	43.8	29.5	15.1	41.8	46.6	53.9	7.3	100	348	
Hori.	5150.000	AV	36.8	31.8	16.4	40.6	44.4	53.9	9.5	100	99	
Hori.	5350.000	AV	36.9	31.9	16.5	40.3	45.0	53.9	8.9	100	0	
Hori.	11100.000	AV	33.8	40.1	9.6	39.3	44.2	53.9	9.7	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	100	158	
Vert.	3700.010	PK	51.4	29.5	15.1	41.8	54.2	73.9	19.7	100	196	
Vert.	5150.000	PK	49.2	31.8	16.4	40.6	56.8	73.9	17.1	100	0	
Vert.	5350.000	PK	49.4	31.9	16.5	40.3	57.5	73.9	16.4	100	213	
Vert.	11100.000	PK	46.0	40.1	9.6	39.3	56.4	73.9	17.5	100	359	
Vert.	2500.000	AV	42.8	27.6	14.3	41.4	43.3	53.9	10.6	100	158	
Vert.	3700.010	AV	44.0	29.5	15.1	41.8	46.8	53.9	7.1	100	196	
Vert.	5150.000	AV	37.3	31.8	16.4	40.6	44.9	53.9	9.0	100	0	
Vert.	5350.000	AV	37.3	31.9	16.5	40.3	45.4	53.9	8.5	100	213	
Vert.	11100.000	AV	34.0	40.1	9.6	39.3	44.4	53.9	9.5	100	359	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6971.000	PK	48.5	36.5	7.8	41.3	51.5	-43.73	-27.00	16.7	100	0	
Hori.	7401.079	PK	48.3	36.7	8.2	41.5	51.7	-43.53	-27.00	16.5	100	359	
Vert.	6971.000	PK	48.4	36.5	7.8	41.3	51.4	-43.83	-27.00	16.8	100	0	
Vert.	7400.009	PK	51.1	36.7	8.2	41.5	54.5	-40.73	-27.00	13.7	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401



## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/11                               2012/9/14                               2012/9/16  
 Temperature / Humidity   25 deg.C , 59 %RH                   24 deg.C , 70 %RH                   24 deg.C , 64 %RH  
 Engineer                  Akio Hayashi                           Hikaru Shirasawa                   Tatsuya Arai  
 Mode                        Tx,                               5670 MHz                           Antenna: ANT1468  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	156	4	
Hori.	3780.004	PK	51.6	29.5	15.2	41.8	54.5	73.9	19.4	100	60	
Hori.	5150.000	PK	51.6	31.8	16.4	40.6	59.2	73.9	14.7	100	94	
Hori.	5350.000	PK	49.3	31.9	16.5	40.3	57.4	73.9	16.5	100	91	
Hori.	7560.000	PK	49.8	36.8	8.4	41.5	53.5	73.9	20.4	112	18	
Hori.	11100.000	PK	45.8	40.1	9.6	39.3	56.2	73.9	17.7	100	0	
Hori.	2500.000	AV	41.0	27.6	14.3	41.4	41.5	53.9	12.4	156	4	
Hori.	3780.004	AV	44.9	29.5	15.2	41.8	47.8	53.9	6.1	100	60	
Hori.	5150.000	AV	37.4	31.8	16.4	40.6	45.0	53.9	8.9	100	94	
Hori.	5350.000	AV	37.3	31.9	16.5	40.3	45.4	53.9	8.5	100	91	
Hori.	7560.000	AV	41.5	36.8	8.4	41.5	45.2	53.9	8.7	112	18	
Hori.	11100.000	AV	33.9	40.1	9.6	39.3	44.3	53.9	9.6	100	0	
Vert.	2500.000	PK	50.4	27.6	14.3	41.4	50.9	73.9	23.0	100	161	
Vert.	3780.004	PK	52.4	29.5	15.2	41.8	55.3	73.9	18.6	100	117	
Vert.	5150.000	PK	48.0	31.8	16.4	40.6	55.6	73.9	18.3	100	92	
Vert.	5350.000	PK	50.0	31.9	16.5	40.3	58.1	73.9	15.8	100	210	
Vert.	7560.000	PK	52.1	36.8	8.4	41.5	55.8	73.9	18.1	113	339	
Vert.	11100.000	PK	46.0	40.1	9.6	39.3	56.4	73.9	17.5	100	359	
Vert.	2500.000	AV	42.8	27.6	14.3	41.4	43.3	53.9	10.6	100	161	
Vert.	3780.004	AV	45.0	29.5	15.2	41.8	47.9	53.9	6.0	100	117	
Vert.	5150.000	AV	35.5	31.8	16.4	40.6	43.1	53.9	10.8	100	92	
Vert.	5350.000	AV	37.2	31.9	16.5	40.3	45.3	53.9	8.6	100	210	
Vert.	7560.000	AV	46.9	36.8	8.4	41.5	50.6	53.9	3.3	113	339	
Vert.	11100.000	AV	33.9	40.1	9.6	39.3	44.3	53.9	9.6	100	359	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	47.7	32.6	16.7	40.2	56.8	-38.43	-27.00	11.4	100	110	
Hori.	6933.000	PK	47.7	36.4	7.8	41.2	50.7	-44.53	-27.00	17.5	100	0	
Vert.	5725.000	PK	48.0	32.6	16.7	40.2	57.1	-38.13	-27.00	11.1	100	0	
Vert.	6933.000	PK	47.4	36.4	7.8	41.2	50.4	-44.83	-27.00	17.8	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( (10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz                   20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4                                2012/9/11  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH                25 deg.C , 59 %RH  
 Engineer                  Makoto Hosaka                        Makoto Hosaka                        Akio Hayashi  
 Mode                        Tx,                                5510 MHz                                Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

**(above 1GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	48.9	27.6	14.3	41.4	49.4	73.9	24.5	141	15	
Hori.	3673.321	PK	50.0	29.4	15.1	41.8	52.7	73.9	21.2	100	2	
Hori.	5460.000	PK	50.0	32.0	16.7	40.1	58.6	73.9	15.3	100	359	
Hori.	7346.649	PK	49.4	36.6	8.2	41.4	52.8	73.9	21.1	113	34	
Hori.	11020.000	PK	44.3	40.0	9.6	39.2	54.7	73.9	19.2	100	0	
Hori.	2500.000	AV	39.8	27.6	14.3	41.4	40.3	53.9	13.6	141	15	
Hori.	3673.321	AV	42.7	29.4	15.1	41.8	45.4	53.9	8.5	100	2	
Hori.	5460.000	AV	37.1	32.0	16.7	40.1	45.7	53.9	8.2	100	359	
Hori.	7346.649	AV	40.1	36.6	8.2	41.4	43.5	53.9	10.4	113	34	
Hori.	11020.000	AV	32.2	40.0	9.6	39.2	42.6	53.9	11.3	100	0	
Vert.	2500.000	PK	50.9	27.6	14.3	41.4	51.4	73.9	22.5	128	165	
Vert.	3673.321	PK	50.5	29.4	15.1	41.8	53.2	73.9	20.7	105	185	
Vert.	5460.000	PK	47.2	32.0	16.7	40.1	55.8	73.9	18.1	110	205	
Vert.	7346.649	PK	48.6	36.6	8.2	41.4	52.0	73.9	21.9	100	133	
Vert.	11020.000	PK	43.7	40.0	9.6	39.2	54.1	73.9	19.8	149	198	
Vert.	2500.000	AV	42.7	27.6	14.3	41.4	43.2	53.9	10.7	128	165	
Vert.	3673.321	AV	41.3	29.4	15.1	41.8	44.0	53.9	9.9	105	185	
Vert.	5460.000	AV	35.5	32.0	16.7	40.1	44.1	53.9	9.8	110	205	
Vert.	7346.649	AV	38.4	36.6	8.2	41.4	41.8	53.9	12.1	100	133	
Vert.	11020.000	AV	31.4	40.0	9.6	39.2	41.8	53.9	12.1	149	198	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**(Calculation) (above 1GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5230.705	PK	50.5	31.9	16.5	40.5	58.4	-36.83	-27.00	9.8	100	0	
Hori.	5470.000	PK	53.1	32.0	16.7	40.1	61.7	-33.53	-27.00	6.5	100	359	
Hori.	7021.000	PK	48.7	36.6	7.8	41.3	51.8	-43.43	-27.00	16.4	100	0	
Vert.	5230.705	PK	48.9	31.9	16.5	40.5	56.8	-38.43	-27.00	11.4	100	0	
Vert.	5470.000	PK	49.0	32.0	16.7	40.1	57.6	-37.63	-27.00	10.6	100	205	
Vert.	7021.000	PK	47.9	36.6	7.8	41.3	51.0	-44.23	-27.00	17.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone   : +81 463 50 6400  
 Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4                                2012/9/11  
 Temperature / Humidity   26 deg.C , 69 %RH                25 deg.C , 66 %RH                25 deg.C , 59 %RH  
 Engineer                 Makoto Hosaka                        Makoto Hosaka                        Akio Hayashi  
 Mode                        Tx,                        5550 MHz                        Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

### (above 1GHz Inside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	47.8	27.6	14.3	41.4	48.3	73.9	25.6	100	90	
Hori.	3700.000	PK	51.2	29.5	15.1	41.8	54.0	73.9	19.9	100	4	
Hori.	5150.000	PK	50.8	31.8	16.4	40.6	58.4	73.9	15.5	100	14	
Hori.	5350.000	PK	50.3	31.9	16.5	40.3	58.4	73.9	15.5	100	16	
Hori.	11100.000	PK	44.6	40.1	9.6	39.3	55.0	73.9	18.9	100	336	
Hori.	2500.000	AV	38.4	27.6	14.3	41.4	38.9	53.9	15.0	100	90	
Hori.	3700.000	AV	44.2	29.5	15.1	41.8	47.0	53.9	6.9	100	4	
Hori.	5150.000	AV	37.9	31.8	16.4	40.6	45.5	53.9	8.4	100	14	
Hori.	5350.000	AV	37.7	31.9	16.5	40.3	45.8	53.9	8.1	100	16	
Hori.	11100.000	AV	31.8	40.1	9.6	39.3	42.2	53.9	11.7	100	336	
Vert.	2500.000	PK	49.8	27.6	14.3	41.4	50.3	73.9	23.6	122	156	
Vert.	3700.000	PK	48.9	29.5	15.1	41.8	51.7	73.9	22.2	100	100	
Vert.	5150.000	PK	49.7	31.8	16.4	40.6	57.3	73.9	16.6	100	212	
Vert.	5350.000	PK	48.0	31.9	16.5	40.3	56.1	73.9	17.8	107	0	
Vert.	11100.000	PK	43.7	40.1	9.6	39.3	54.1	73.9	19.8	149	202	
Vert.	2500.000	AV	42.7	27.6	14.3	41.4	43.2	53.9	10.7	122	156	
Vert.	3700.000	AV	41.7	29.5	15.1	41.8	44.5	53.9	9.4	100	100	
Vert.	5150.000	AV	36.9	31.8	16.4	40.6	44.5	53.9	9.4	100	212	
Vert.	5350.000	AV	35.4	31.9	16.5	40.3	43.5	53.9	10.4	107	0	
Vert.	11100.000	AV	31.9	40.1	9.6	39.3	42.3	53.9	11.6	149	202	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

### (Calculation) (above 1GHz Outside of the restricted band)

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5448.164	PK	49	32	16.7	40.1	57.6	-37.63	-27.00	10.6	100	358	
Hori.	6971.000	PK	46.4	36.5	7.8	41.3	49.4	-45.83	-27.00	18.8	100	0	
Hori.	7009.428	PK	47.7	36.6	7.8	41.3	50.8	-44.43	-27.00	17.4	100	0	
Vert.	6971.000	PK	46.6	36.5	7.8	41.3	49.6	-45.63	-27.00	18.6	100	359	
Vert.	7009.428	PK	47.5	36.6	7.8	41.3	50.6	-44.63	-27.00	17.6	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG (( ( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone   : +81 463 50 6400  
 Facsimile   : +81 463 50 6401

## Radiated Emission

Test place                   UL Japan, Inc. Shonan EMC Lab.    No.3 Semi Anechoic Chamber  
 Date                        2012/9/3                                2012/9/4                                2012/9/11  
 Temperature / Humidity   26 deg.C , 69 %RH                   25 deg.C , 66 %RH                   25 deg.C , 59 %RH  
 Engineer                  Makoto Hosaka                        Makoto Hosaka                        Akio Hayashi  
 Mode                        Tx,                                5670 MHz                                Antenna: ANT1431-161C/M-AB-58  
                               Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

**(above 1GHz Inside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2500.000	PK	49.2	27.6	14.3	41.4	49.7	73.9	24.2	120	6	
Hori.	3780.000	PK	52.5	29.5	15.2	41.8	55.4	73.9	18.5	102	358	
Hori.	5150.000	PK	51.9	31.8	16.4	40.6	59.5	73.9	14.4	100	17	
Hori.	5236.000	PK	51.5	31.9	16.5	40.5	59.4	73.9	14.5	100	24	
Hori.	5350.000	PK	51.8	31.9	16.5	40.3	59.9	73.9	14.0	100	21	
Hori.	7560.000	PK	49.8	36.8	8.4	41.5	53.5	73.9	20.4	136	36	
Hori.	11340.000	PK	45.8	40.1	9.7	39.4	56.2	73.9	17.7	147	0	
Hori.	2500.000	AV	39.6	27.6	14.3	41.4	40.1	53.9	13.8	120	6	
Hori.	3780.000	AV	46.6	29.5	15.2	41.8	49.5	53.9	4.4	102	358	
Hori.	5150.000	AV	39.5	31.8	16.4	40.6	47.1	53.9	6.8	100	17	
Hori.	5236.000	AV	39.3	31.9	16.5	40.5	47.2	53.9	6.7	100	24	
Hori.	5350.000	AV	38.8	31.9	16.5	40.3	46.9	53.9	7.0	100	21	
Hori.	7560.000	AV	41.3	36.8	8.4	41.5	45.0	53.9	8.9	136	36	
Hori.	11340.000	AV	33.6	40.1	9.7	39.4	44.0	53.9	9.9	147	0	
Vert.	2500.000	PK	50.2	27.6	14.3	41.4	50.7	73.9	23.2	119	156	
Vert.	3780.000	PK	51.5	29.5	15.2	41.8	54.4	73.9	19.5	100	98	
Vert.	5150.000	PK	50.9	31.8	16.4	40.6	58.5	73.9	15.4	100	209	
Vert.	5236.000	PK	51.0	31.9	16.5	40.5	58.9	73.9	15.0	100	0	
Vert.	5350.000	PK	48.1	31.9	16.5	40.3	56.2	73.9	17.7	100	340	
Vert.	7560.000	PK	50.4	36.8	8.4	41.5	54.1	73.9	19.8	134	1	
Vert.	11340.000	PK	44.2	40.1	9.7	39.4	54.6	73.9	19.3	148	204	
Vert.	2500.000	AV	42.6	27.6	14.3	41.4	43.1	53.9	10.8	119	156	
Vert.	3780.000	AV	45.1	29.5	15.2	41.8	48.0	53.9	5.9	100	98	
Vert.	5150.000	AV	38.6	31.8	16.4	40.6	46.2	53.9	7.7	100	209	
Vert.	5236.000	AV	38.9	31.9	16.5	40.5	46.8	53.9	7.1	100	0	
Vert.	5350.000	AV	36.2	31.9	16.5	40.3	44.3	53.9	9.6	100	340	
Vert.	7560.000	AV	42.7	36.8	8.4	41.5	46.4	53.9	7.5	134	1	
Vert.	11340.000	AV	31.8	40.1	9.7	39.4	42.2	53.9	11.7	148	204	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**(Calculation) (above 1GHz Outside of the restricted band)**

(\* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	47.9	32.6	16.7	40.2	57.0	-38.23	-27.00	11.2	100	358	
Hori.	6933.000	PK	48.2	36.4	7.8	41.2	51.2	-44.03	-27.00	17.0	100	0	
Vert.	5725.000	PK	47.5	32.6	16.7	40.2	56.6	-38.63	-27.00	11.6	100	0	
Vert.	6933.000	PK	48.0	36.4	7.8	41.2	51.0	-44.23	-27.00	17.2	100	0	

Result[dBuV/m] = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 15GHz)) - Gain(Amplifier)

Result(EIRP[dBm])=10\*LOG ((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*No noise was detected other than listed points.

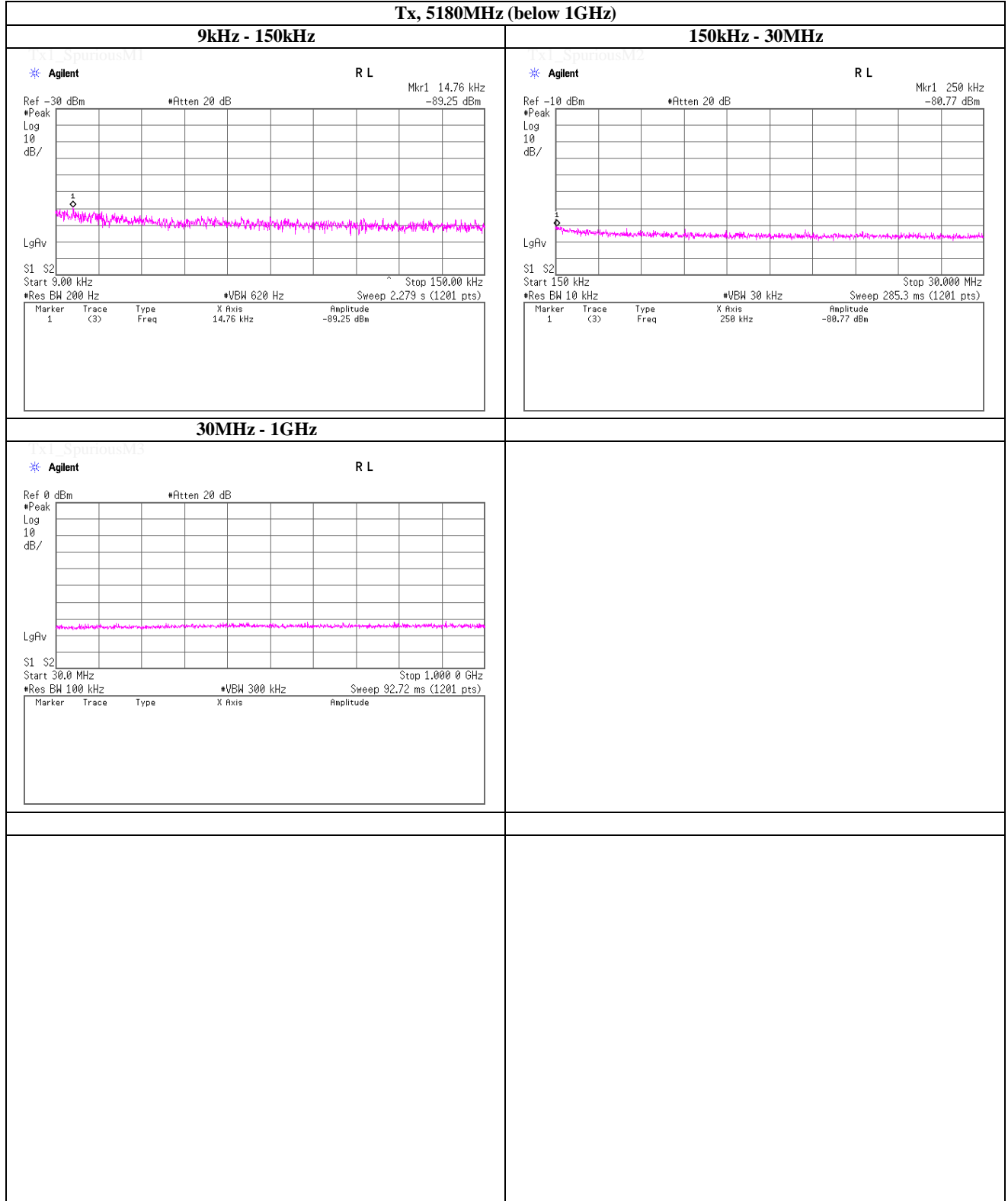
Distance factor:           15GHz-40GHz           20log(3.0m/1.0m)= 9.5dB

**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone    : +81 463 50 6400  
 Facsimile    : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5180MHz (below 1GHz)**

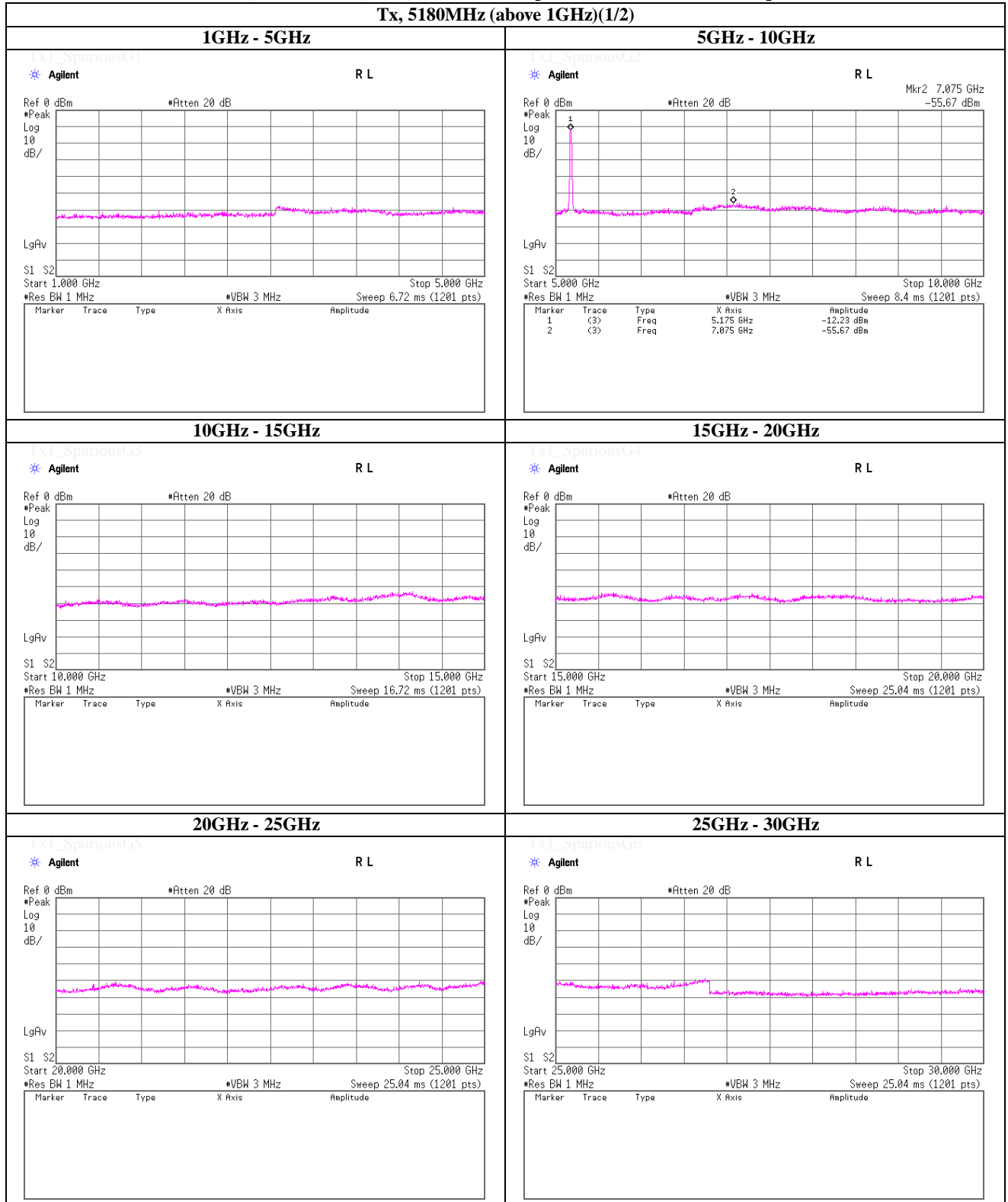


**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone : +81 463 50 6400  
 Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5180MHz (above 1GHz)(1/2)**



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**Shonan EMC Lab.**

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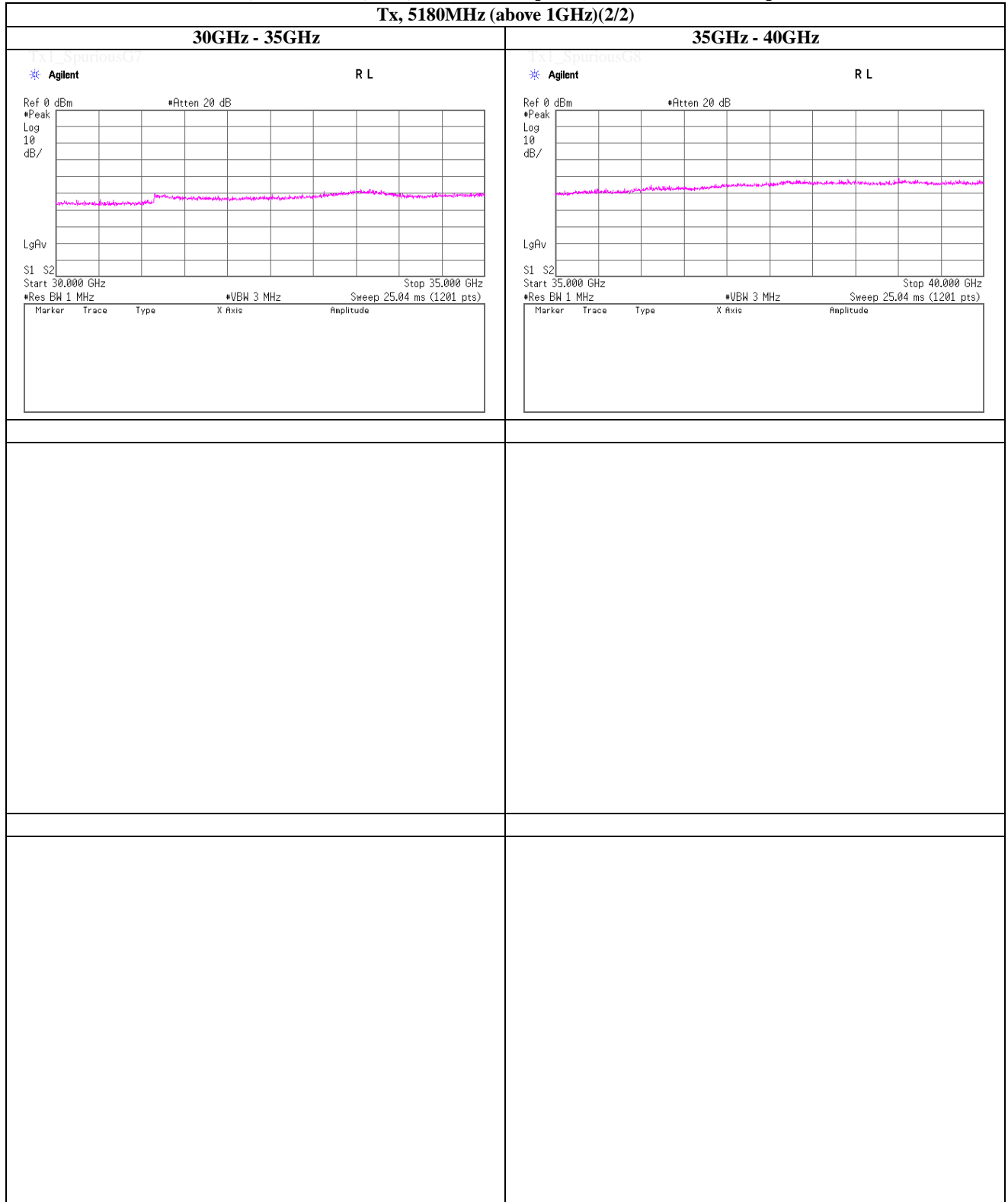
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps

Tx, 5180MHz (above 1GHz)(2/2)



**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

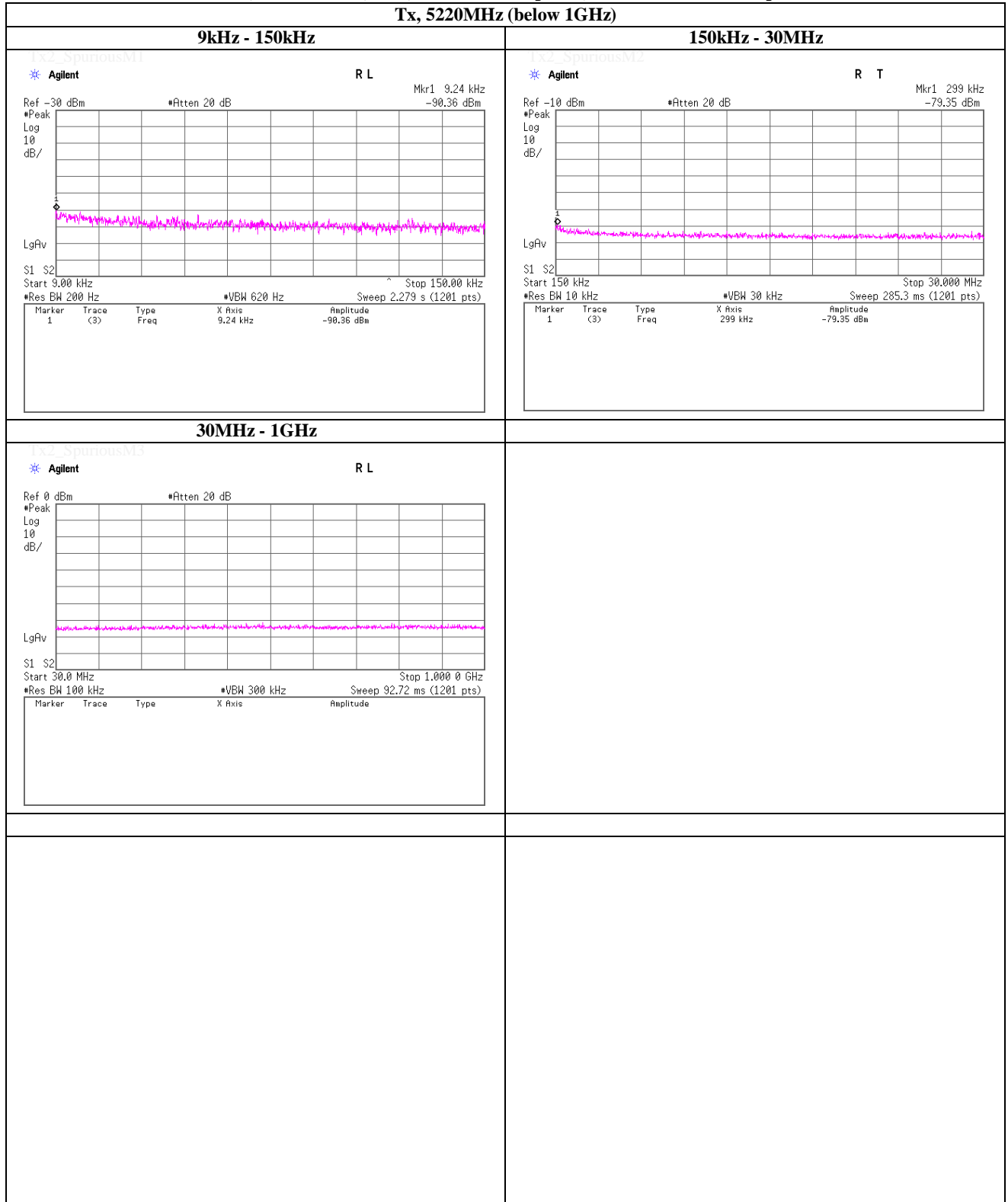
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5220MHz (below 1GHz)**



**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

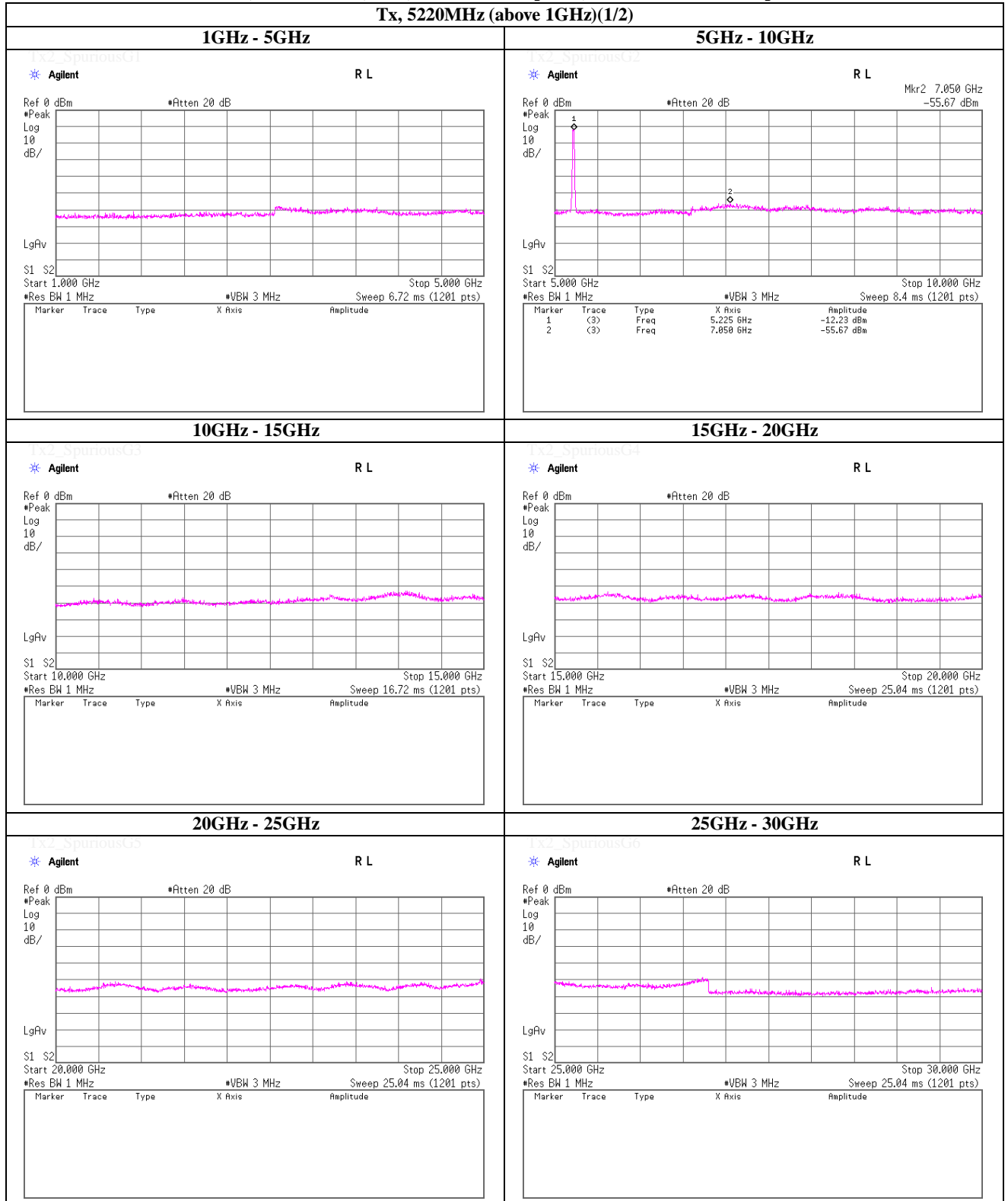
Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5220MHz (above 1GHz)(1/2)**



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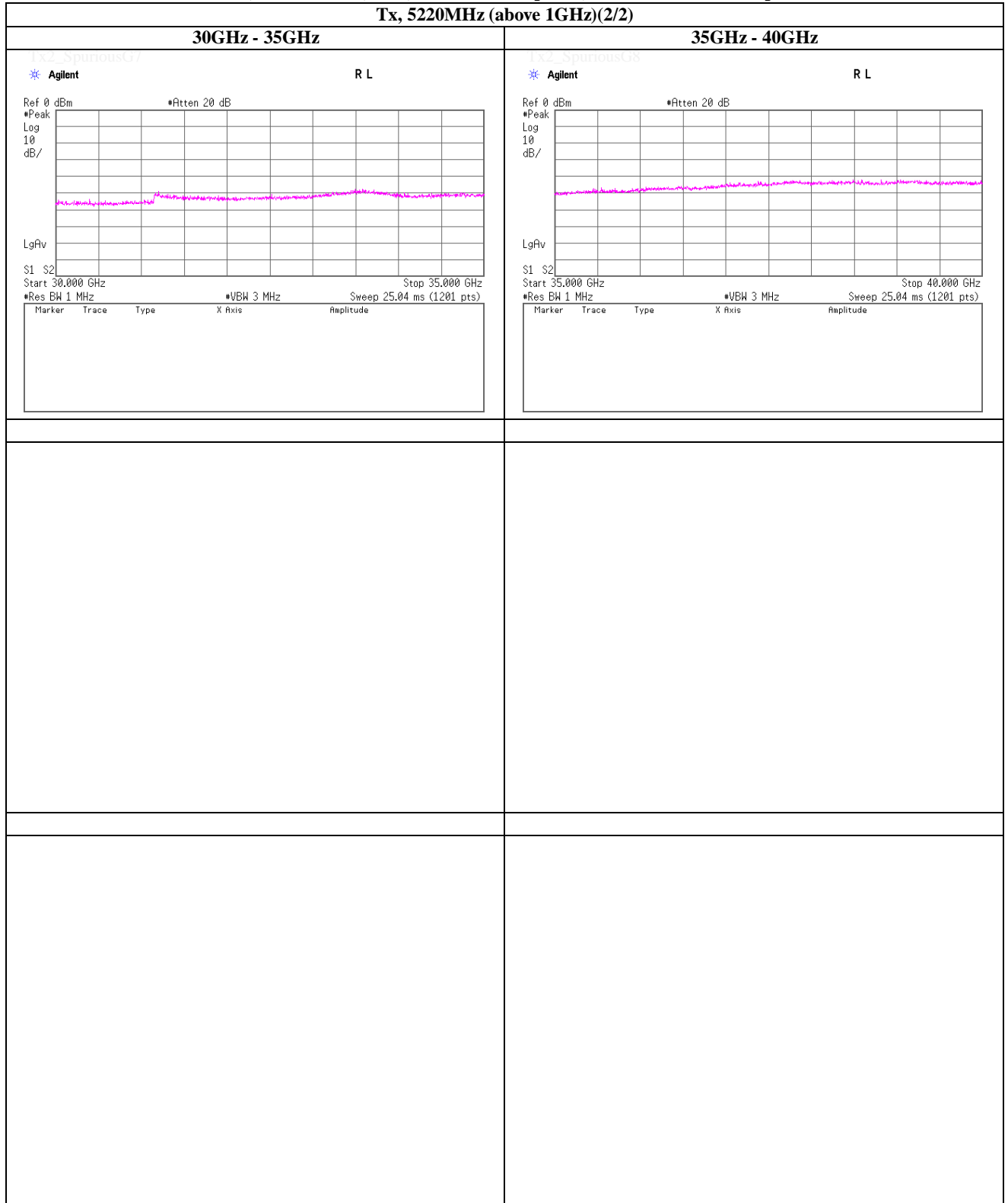
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

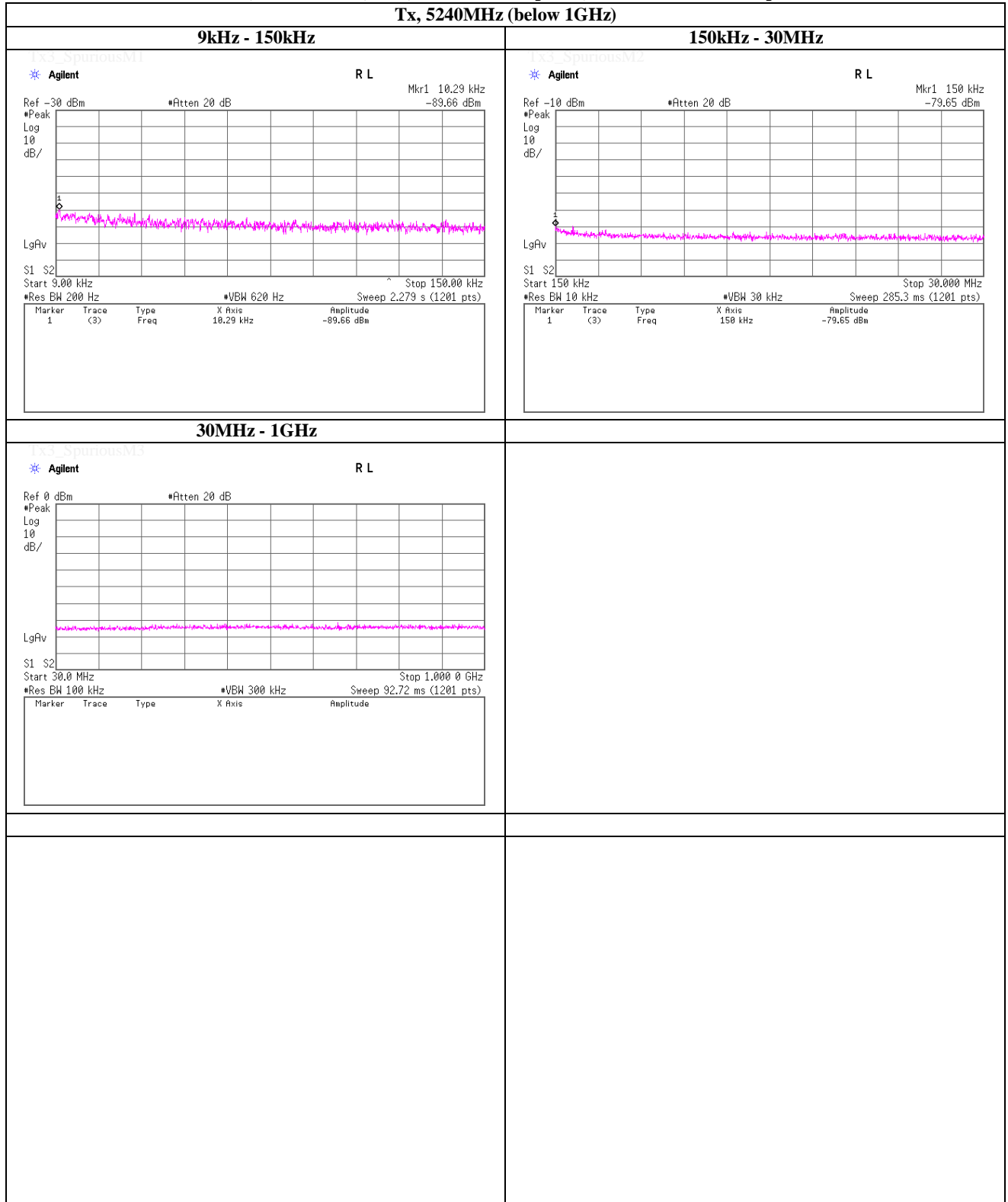
**Tx, 5220MHz (above 1GHz)(2/2)**



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**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5240MHz (below 1GHz)**

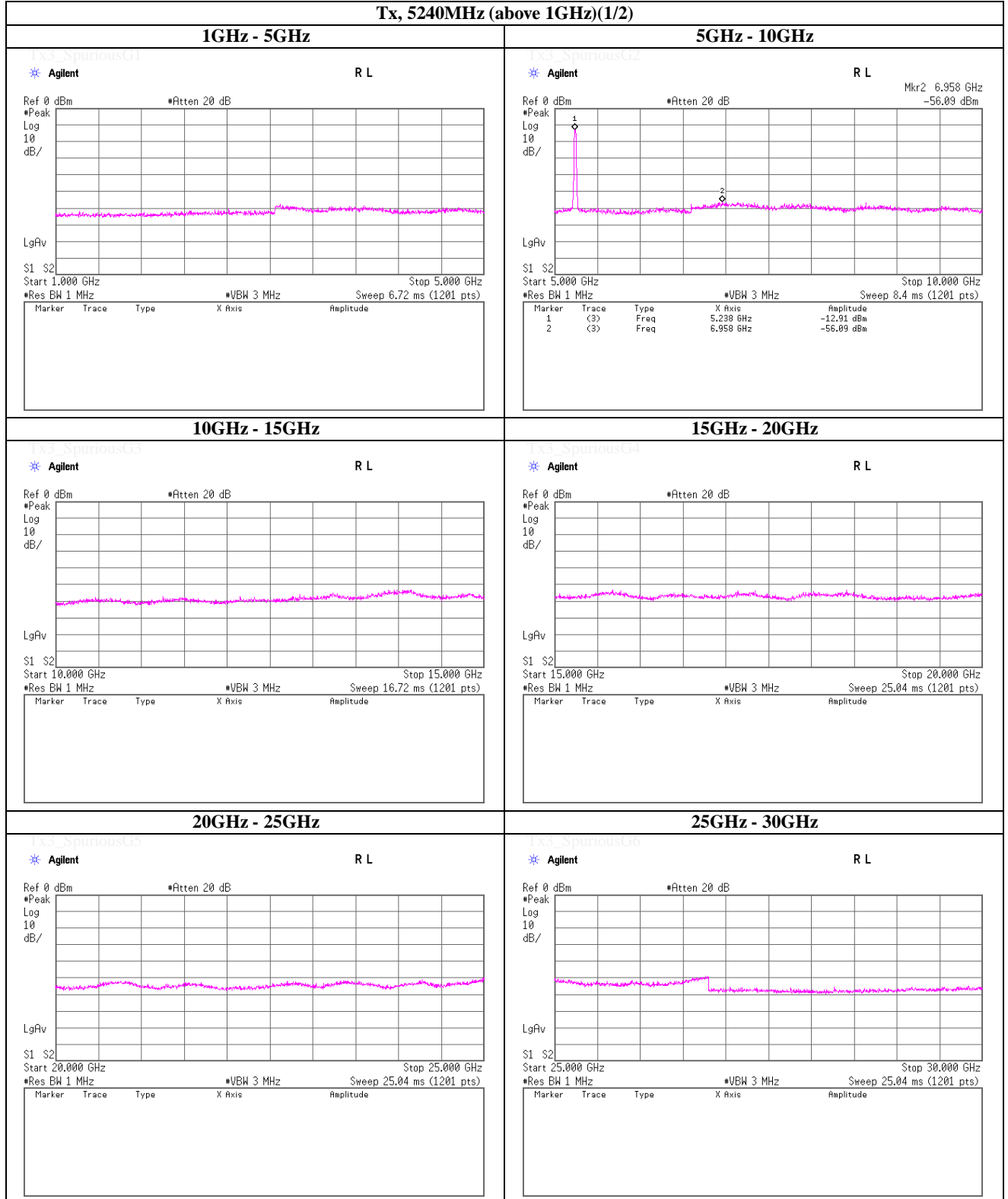


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5240MHz (above 1GHz)(1/2)**



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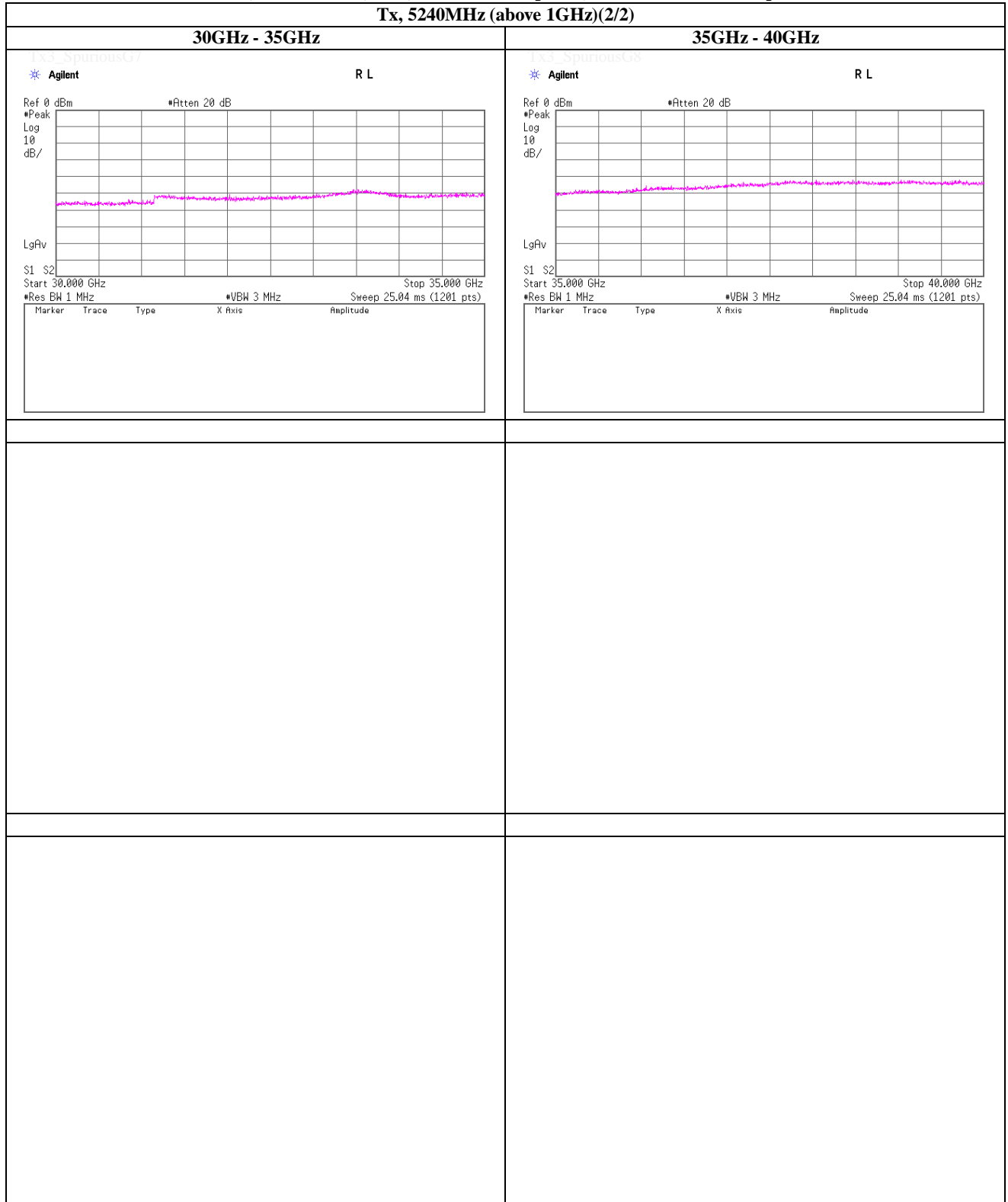
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

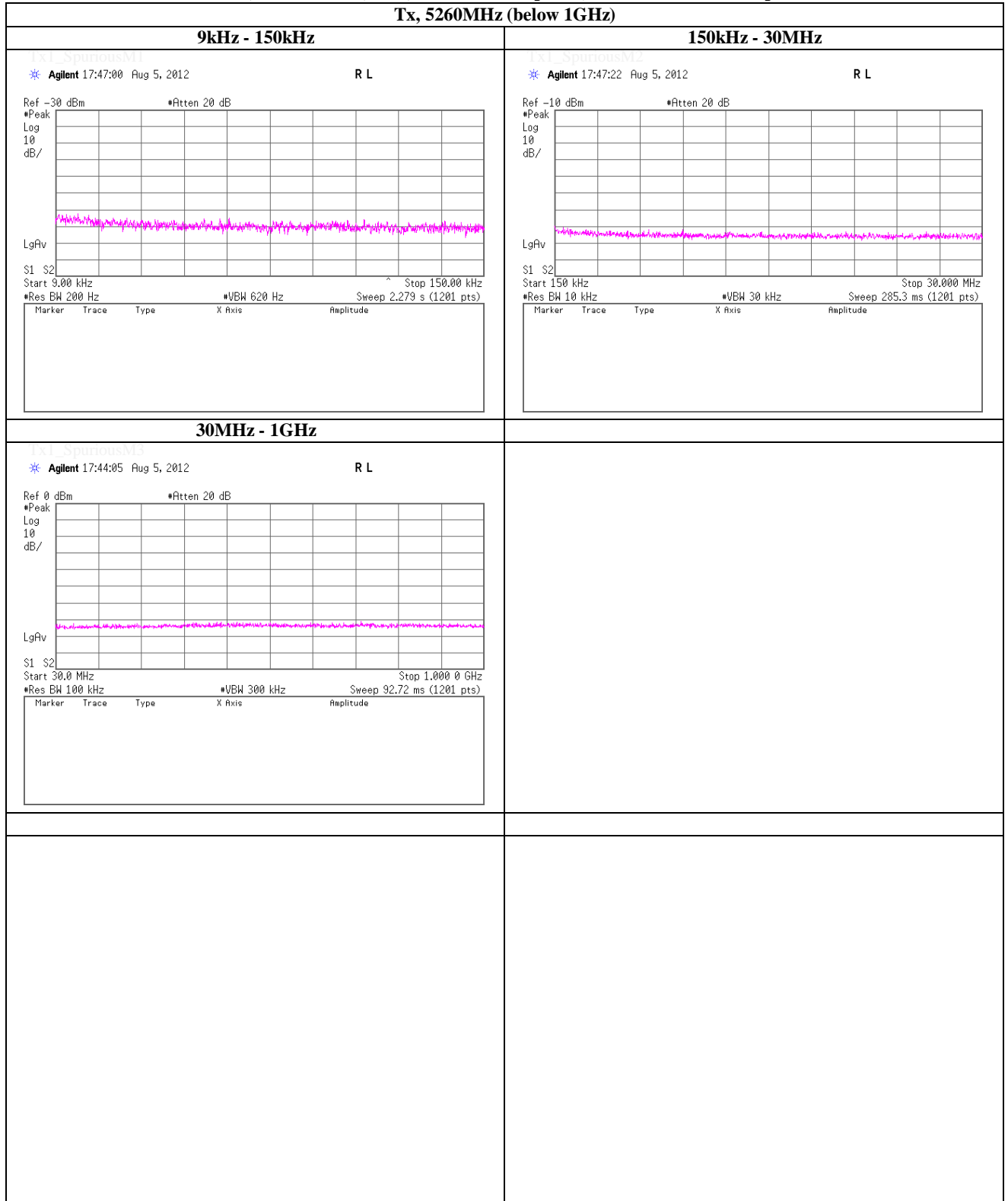
**Tx, 5240MHz (above 1GHz)(2/2)**



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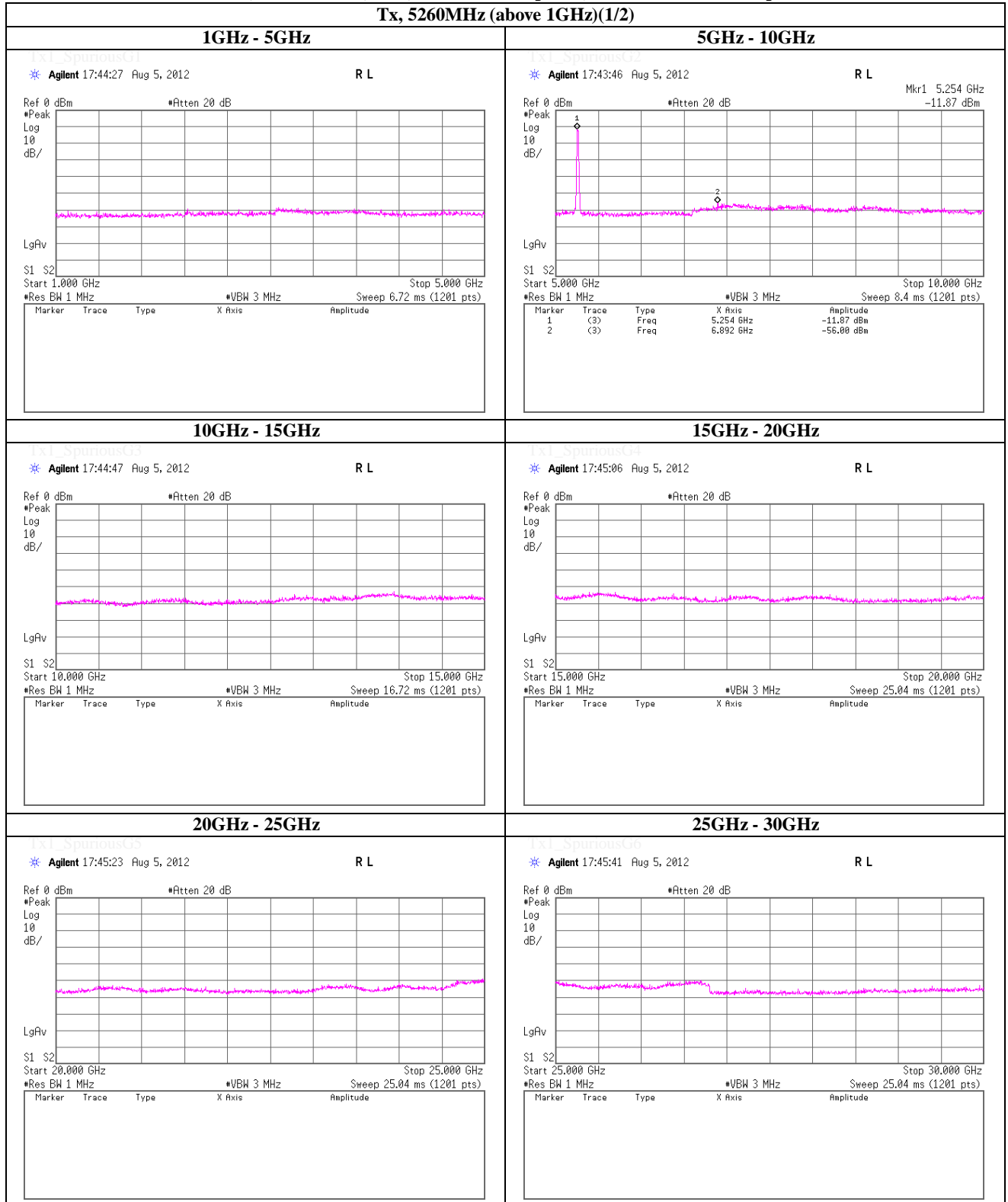
**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5260MHz (below 1GHz)**



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**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**  
**Tx, 5260MHz (above 1GHz)(1/2)**

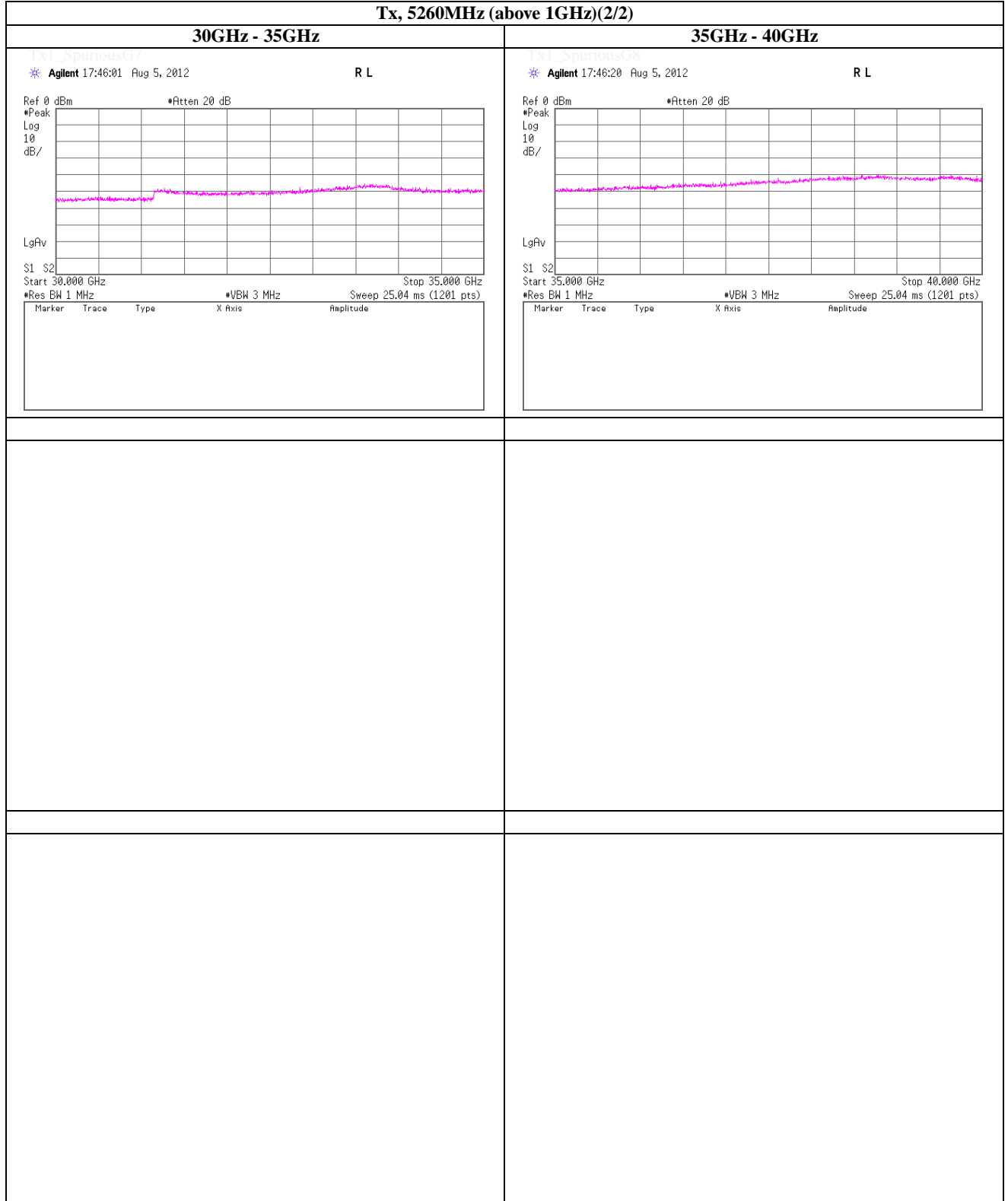


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**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5260MHz (above 1GHz)(2/2)**



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**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5300MHz (below 1GHz)**

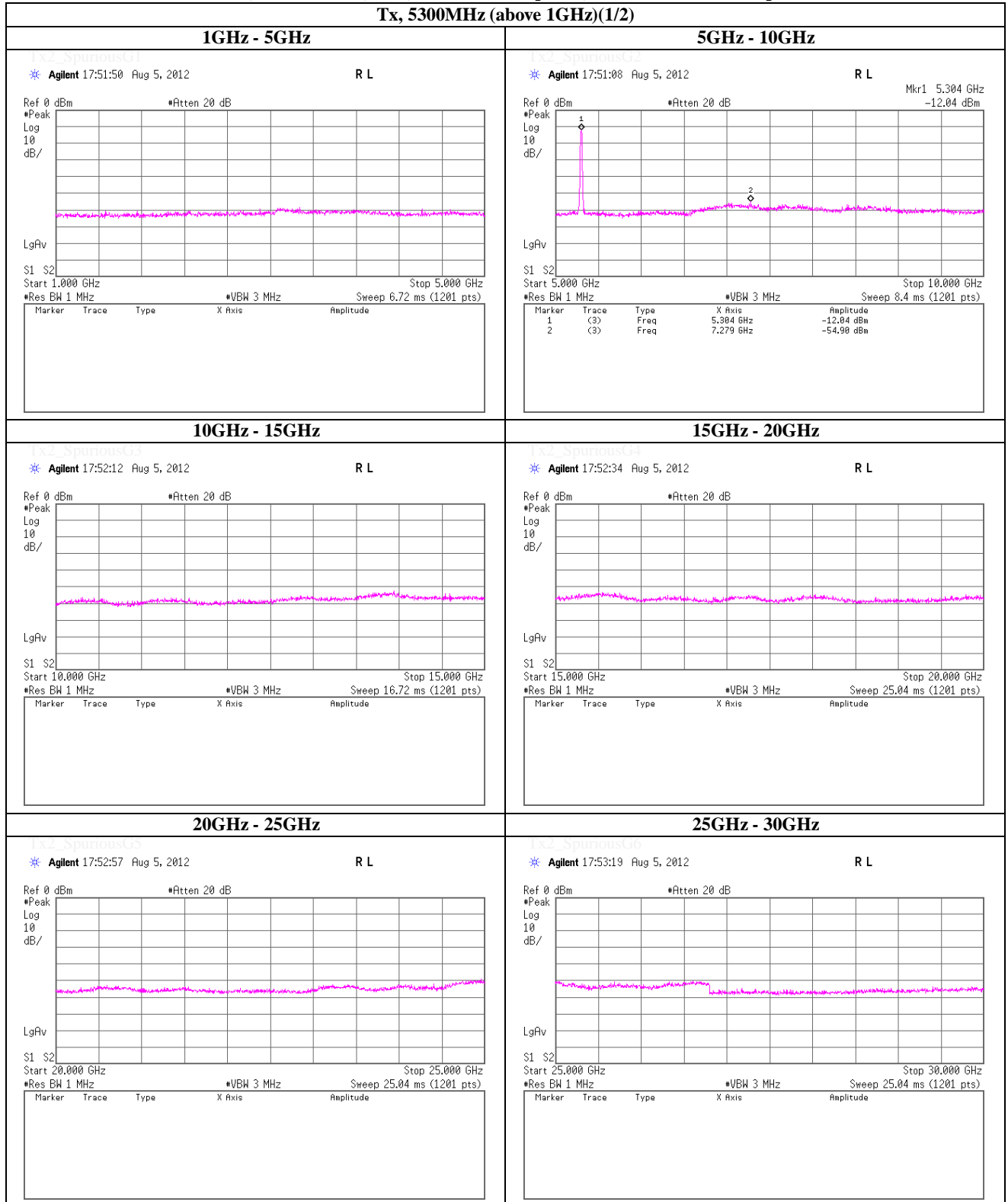


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5300MHz (above 1GHz)(1/2)**

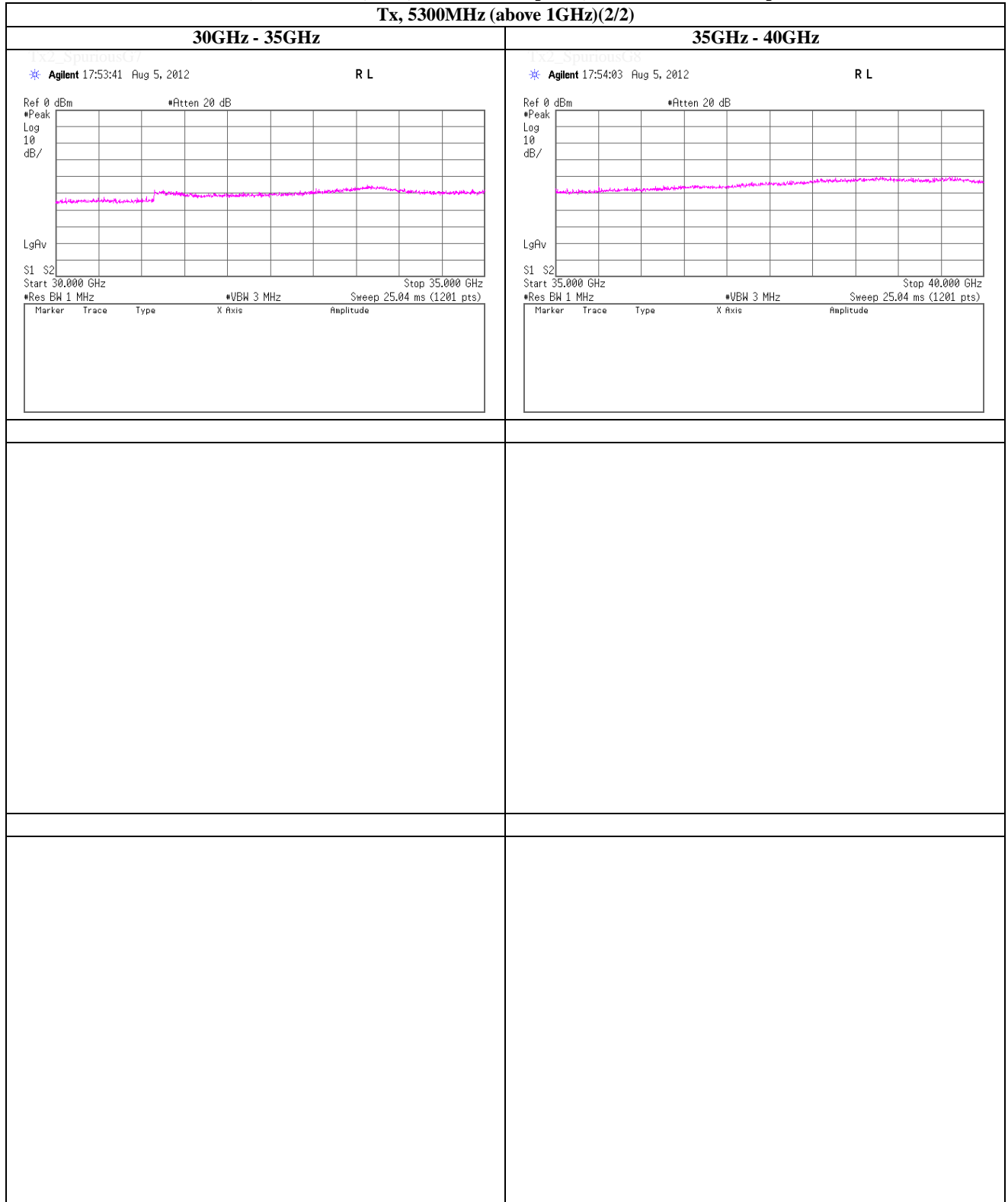


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

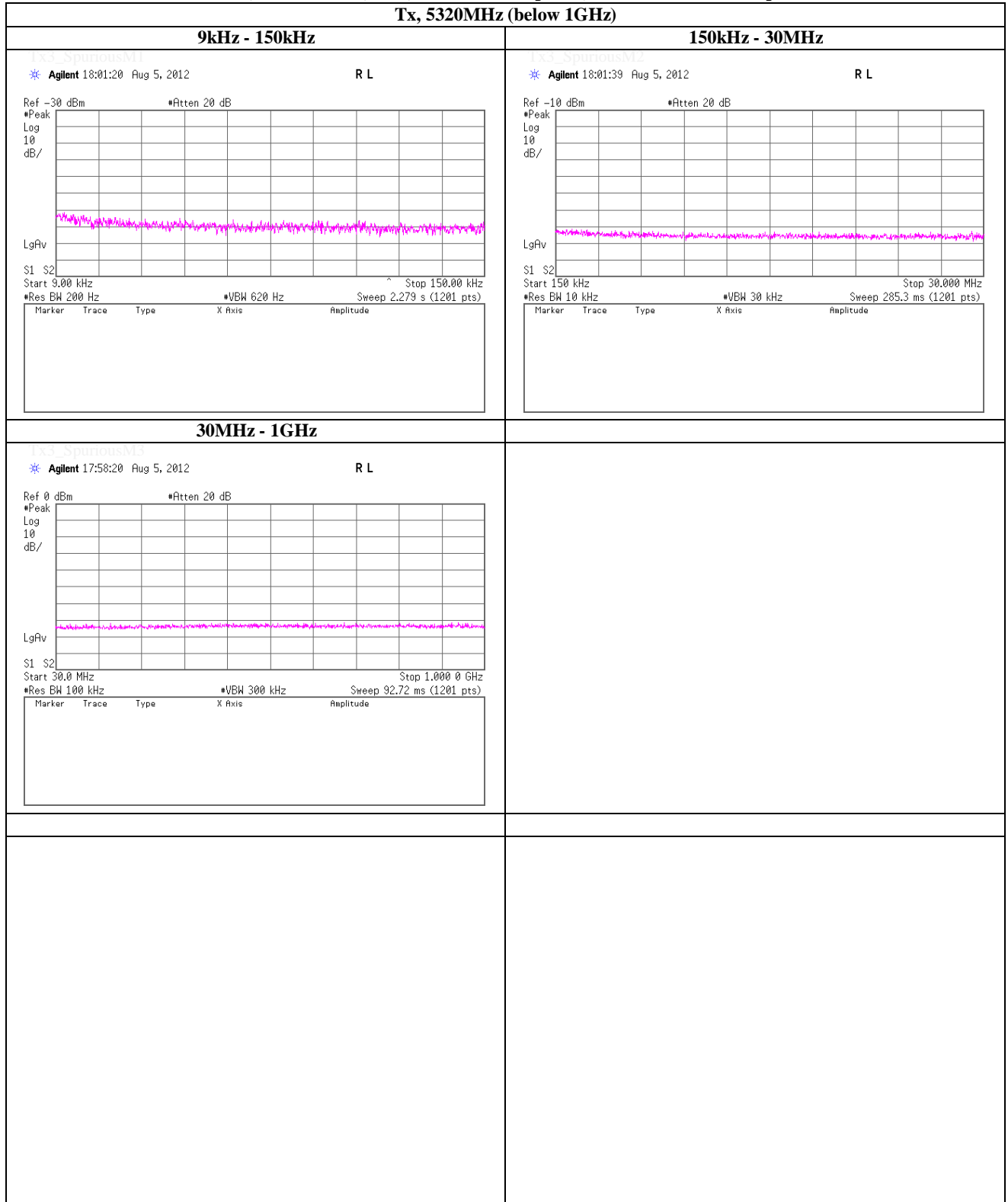
**Tx, 5300MHz (above 1GHz)(2/2)**



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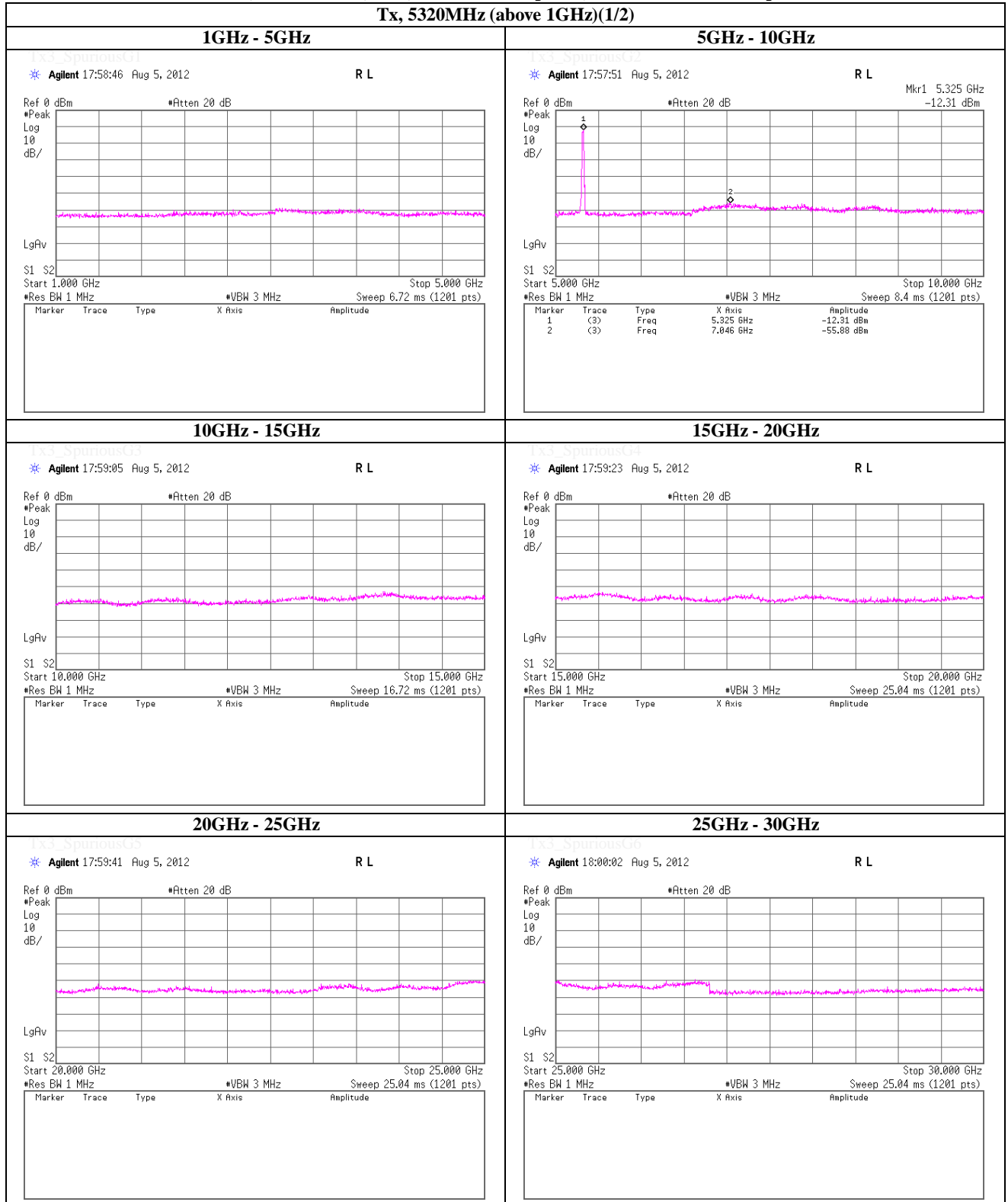
**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5320MHz (below 1GHz)**



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**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**  
**Tx, 5320MHz (above 1GHz)(1/2)**

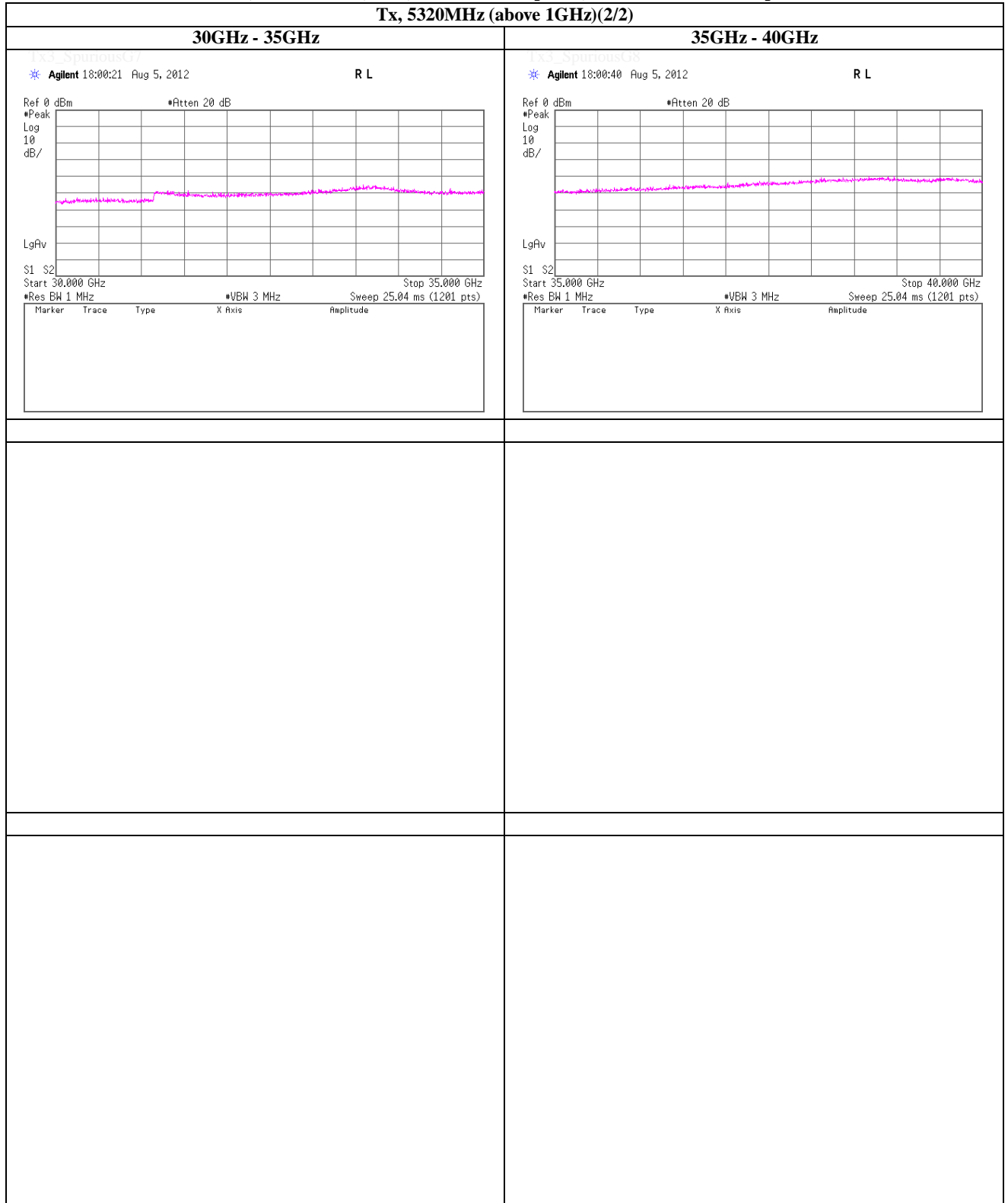


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**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5320MHz (above 1GHz)(2/2)**



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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5500MHz (below 1GHz)**



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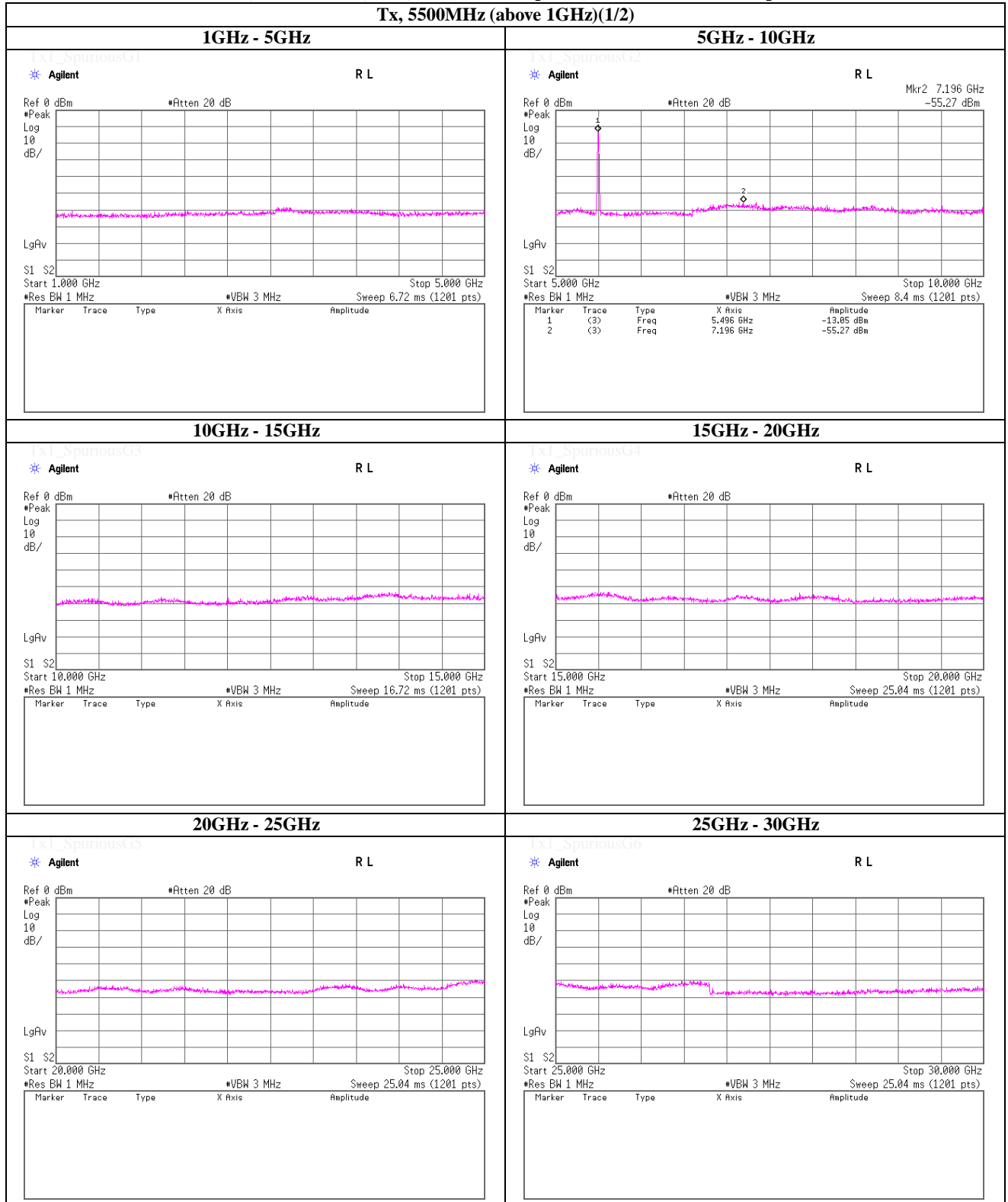
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**(Reference) Spurious emission (Conducted)**  
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**  
**Tx, 5500MHz (above 1GHz)(1/2)**



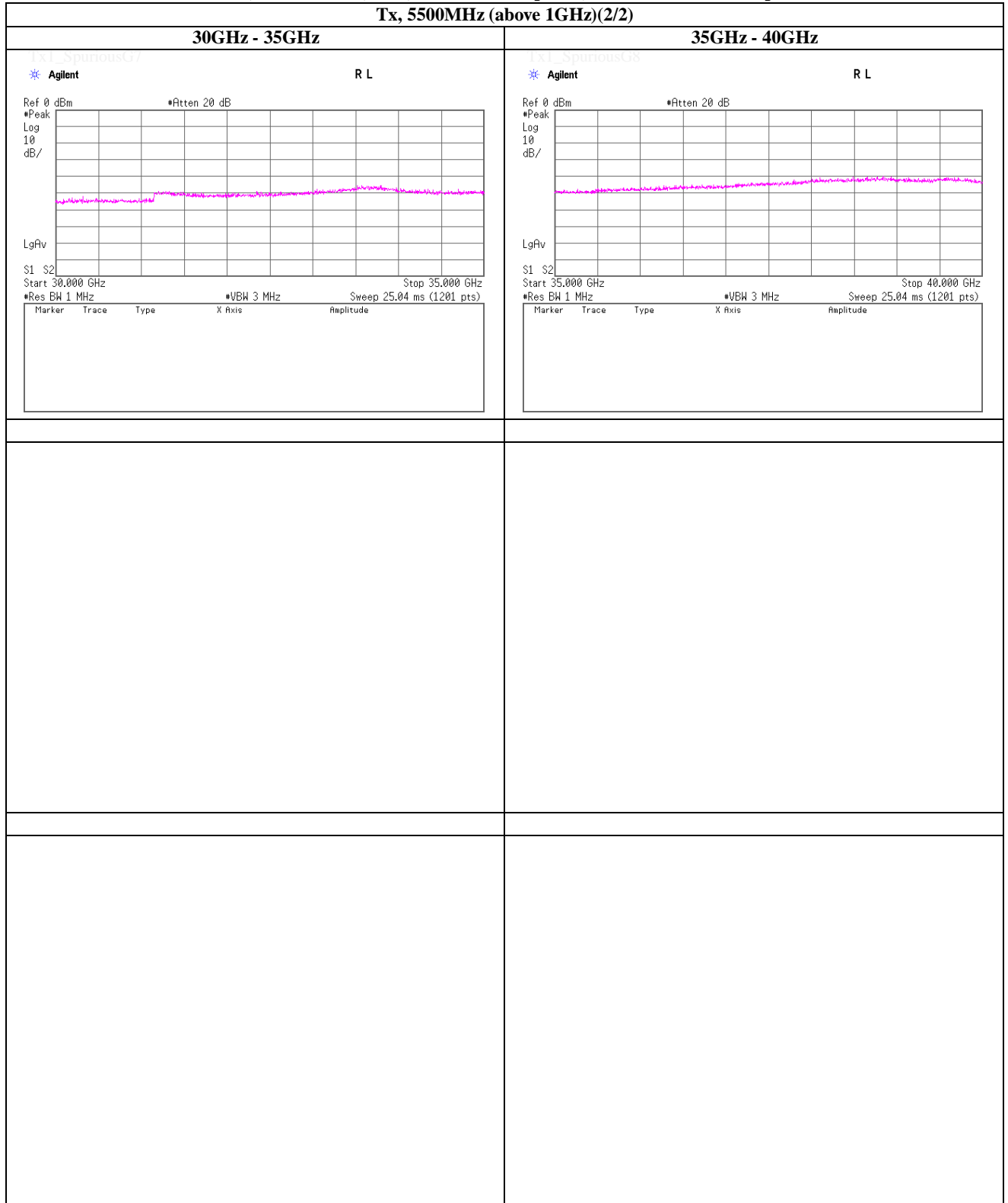
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5500MHz (above 1GHz)(2/2)**



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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5580MHz (below 1GHz)**



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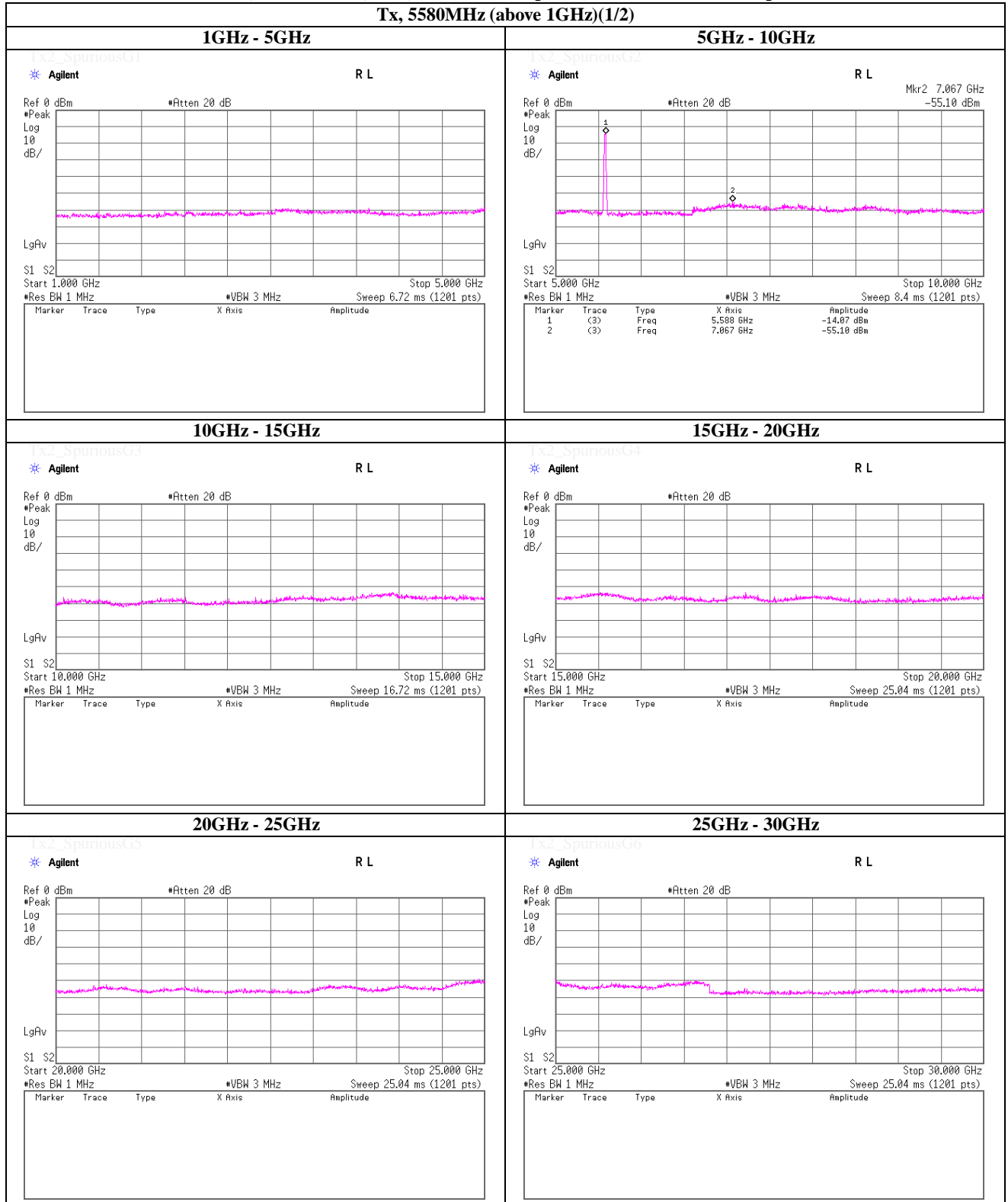
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5580MHz (above 1GHz)(1/2)**

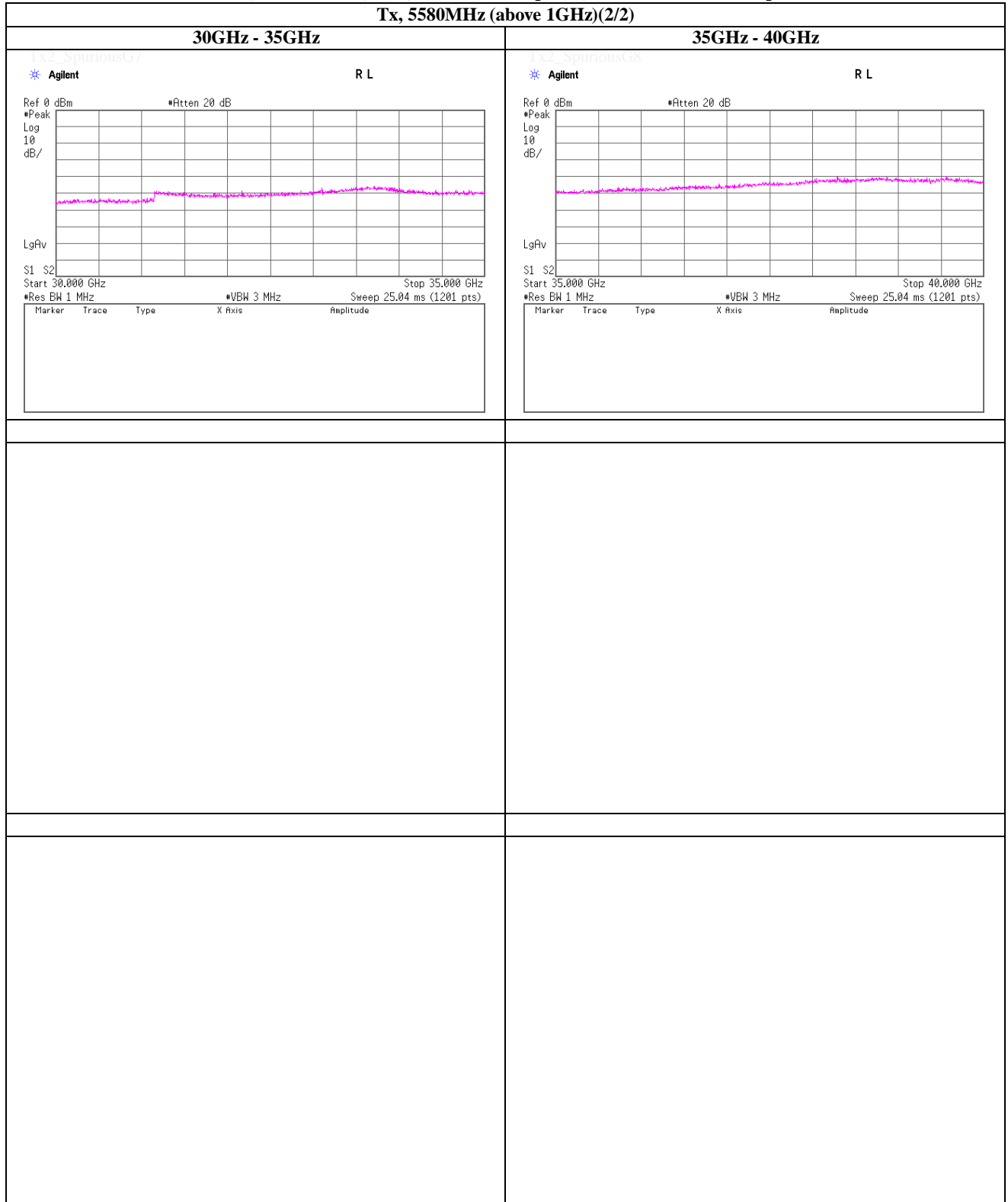


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5580MHz (above 1GHz)(2/2)**

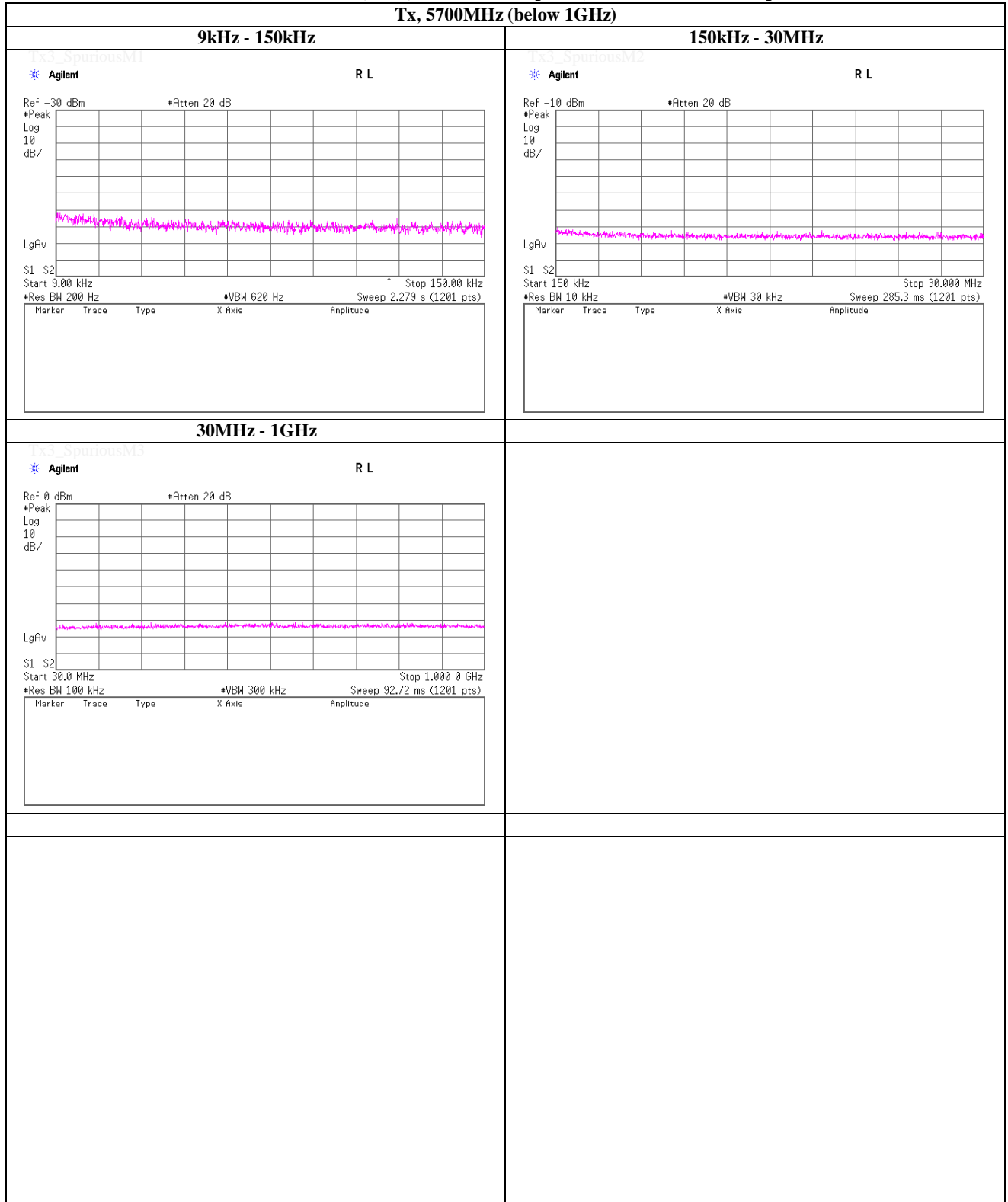


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5700MHz (below 1GHz)**

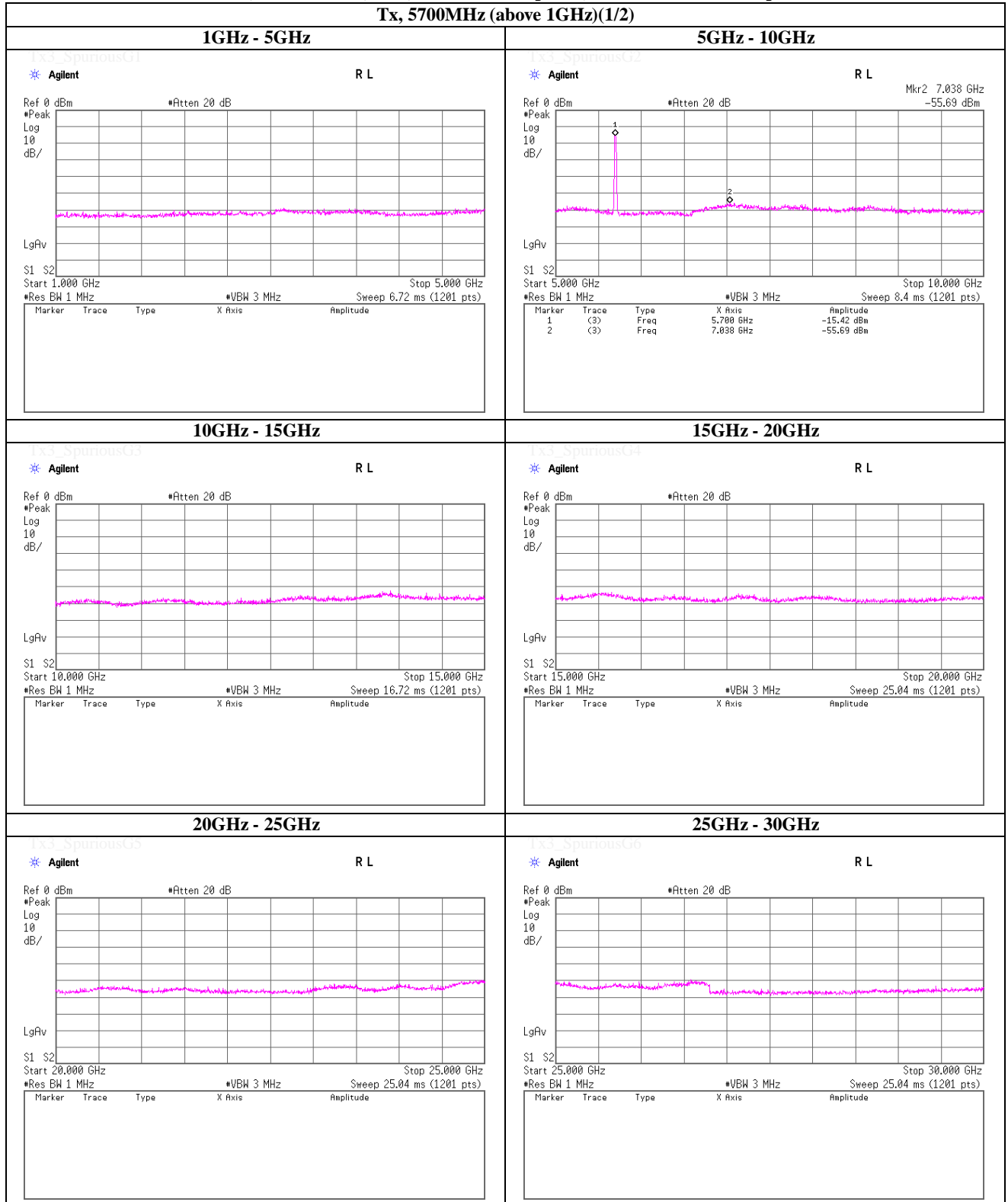


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5700MHz (above 1GHz)(1/2)**



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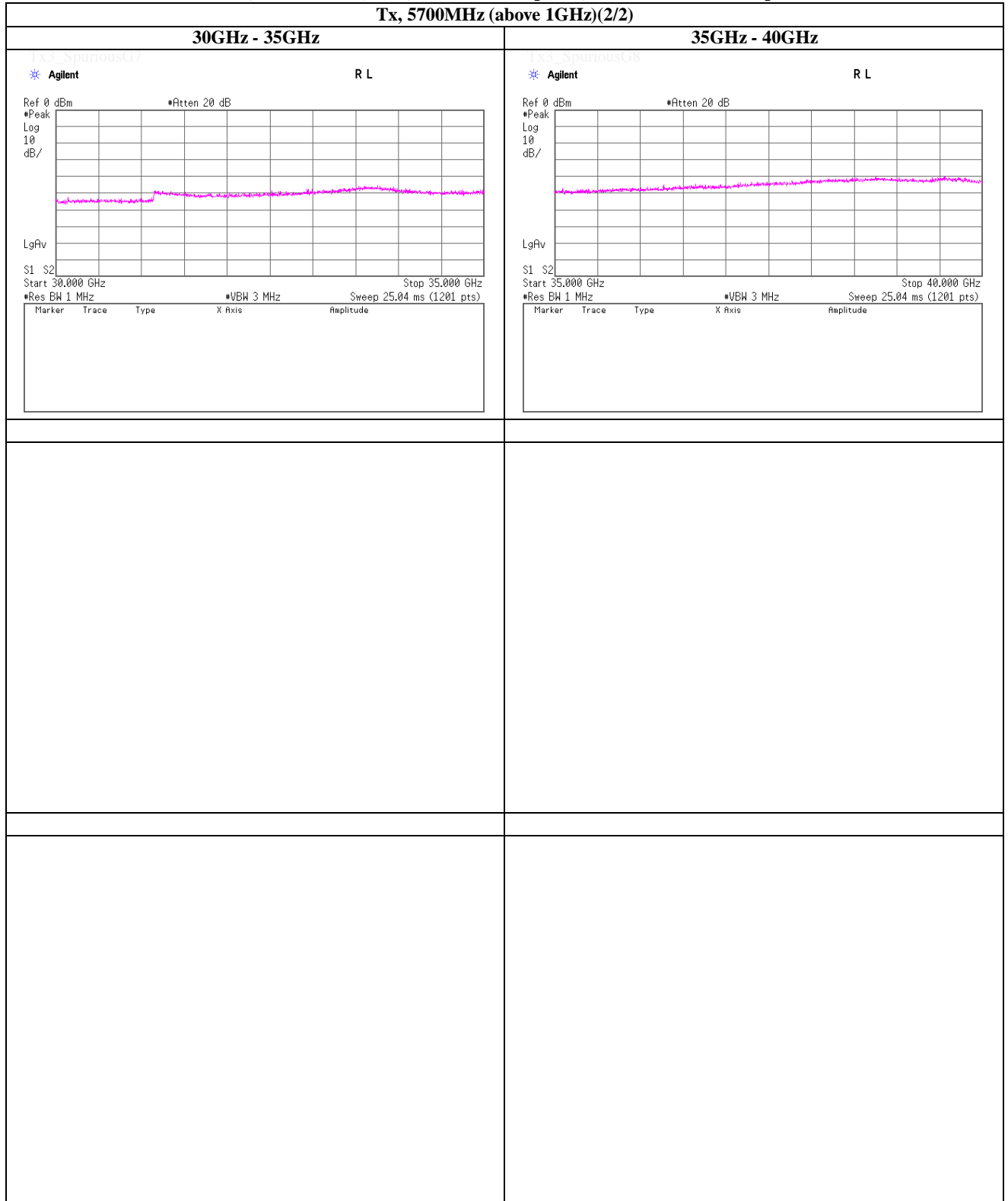
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps**

**Tx, 5700MHz (above 1GHz)(2/2)**

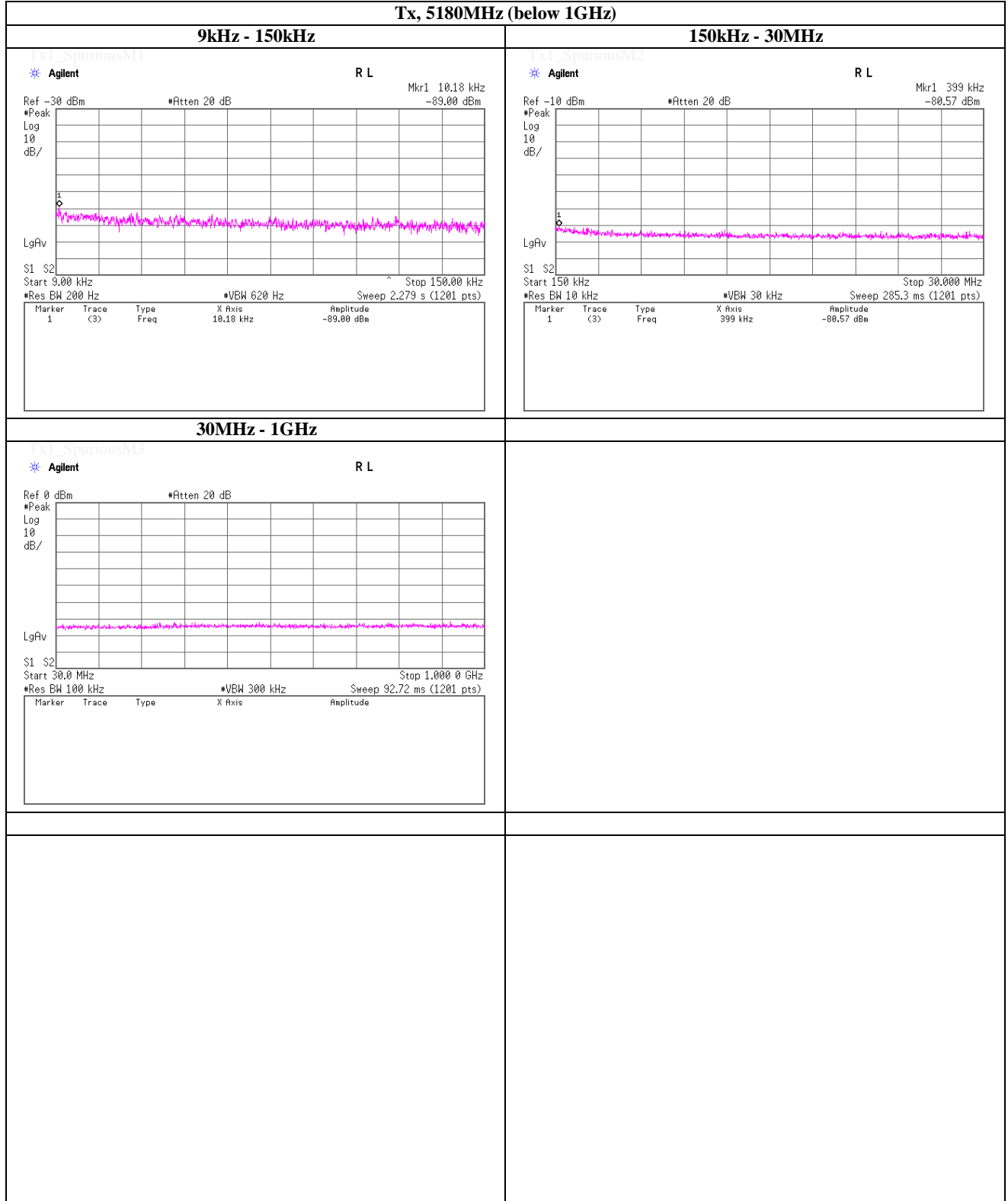


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5180MHz (below 1GHz)**



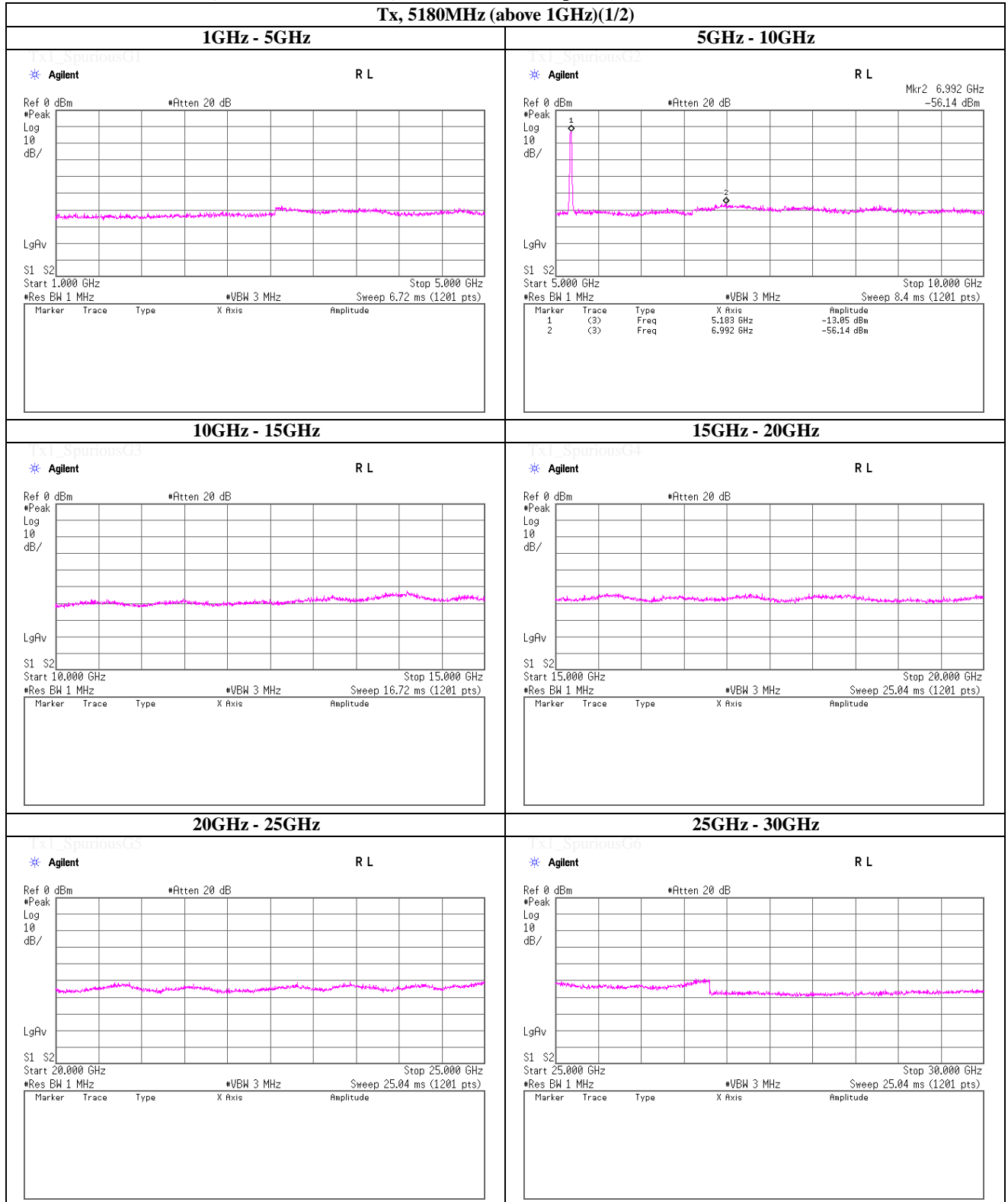
**UL Japan, Inc.**  
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5180MHz (above 1GHz)(1/2)**



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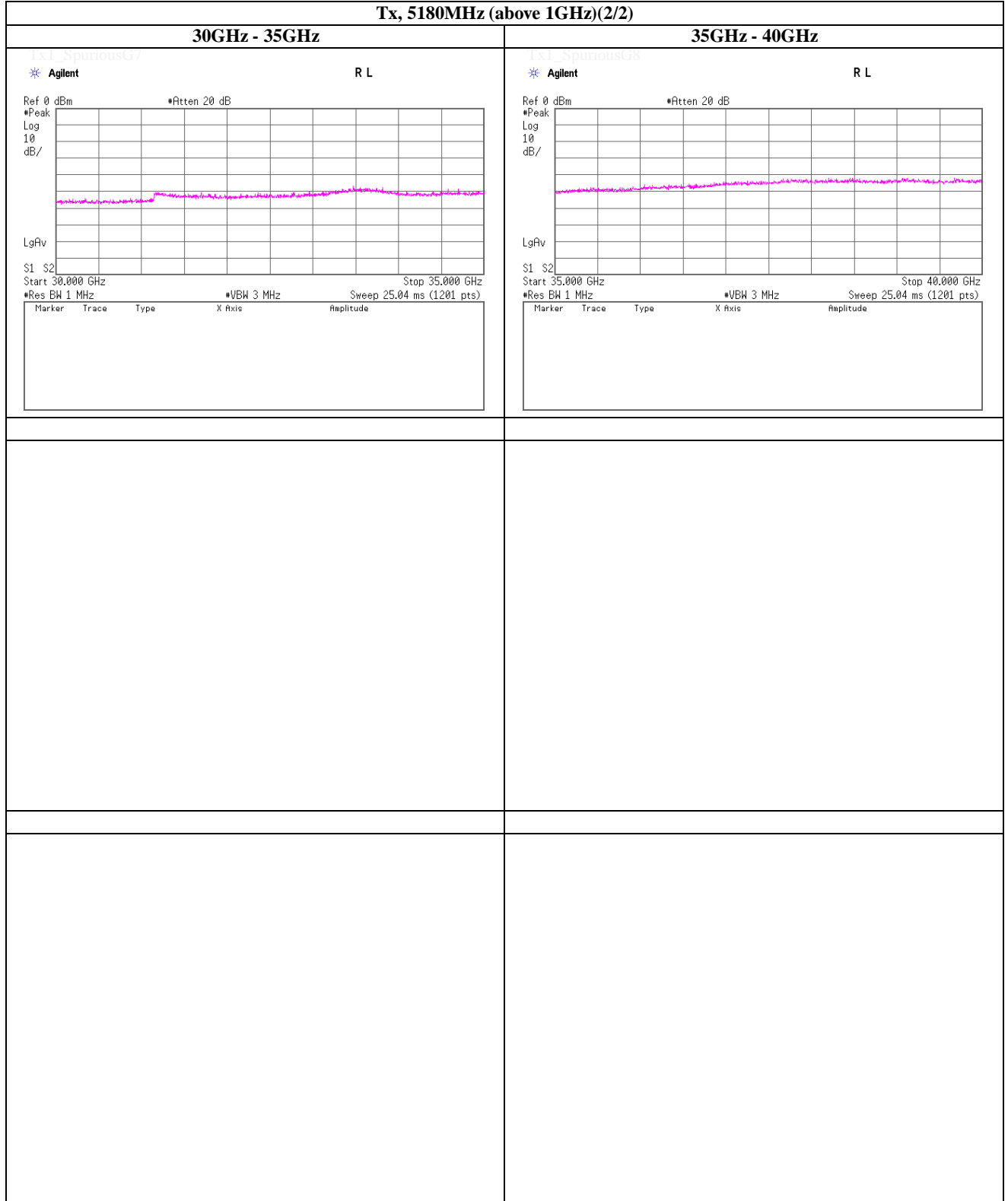
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5180MHz (above 1GHz)(2/2)**

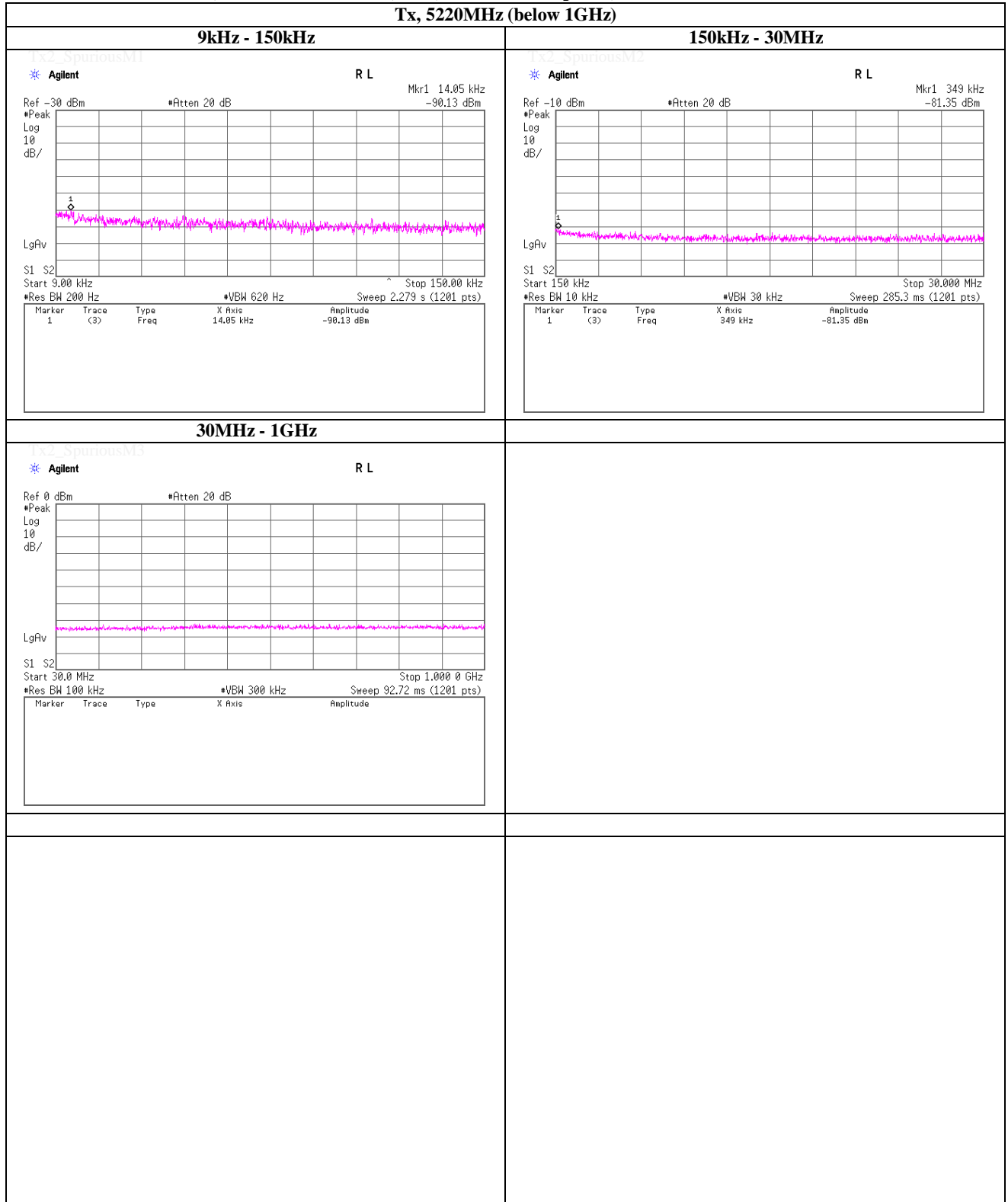


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5220MHz (below 1GHz)**



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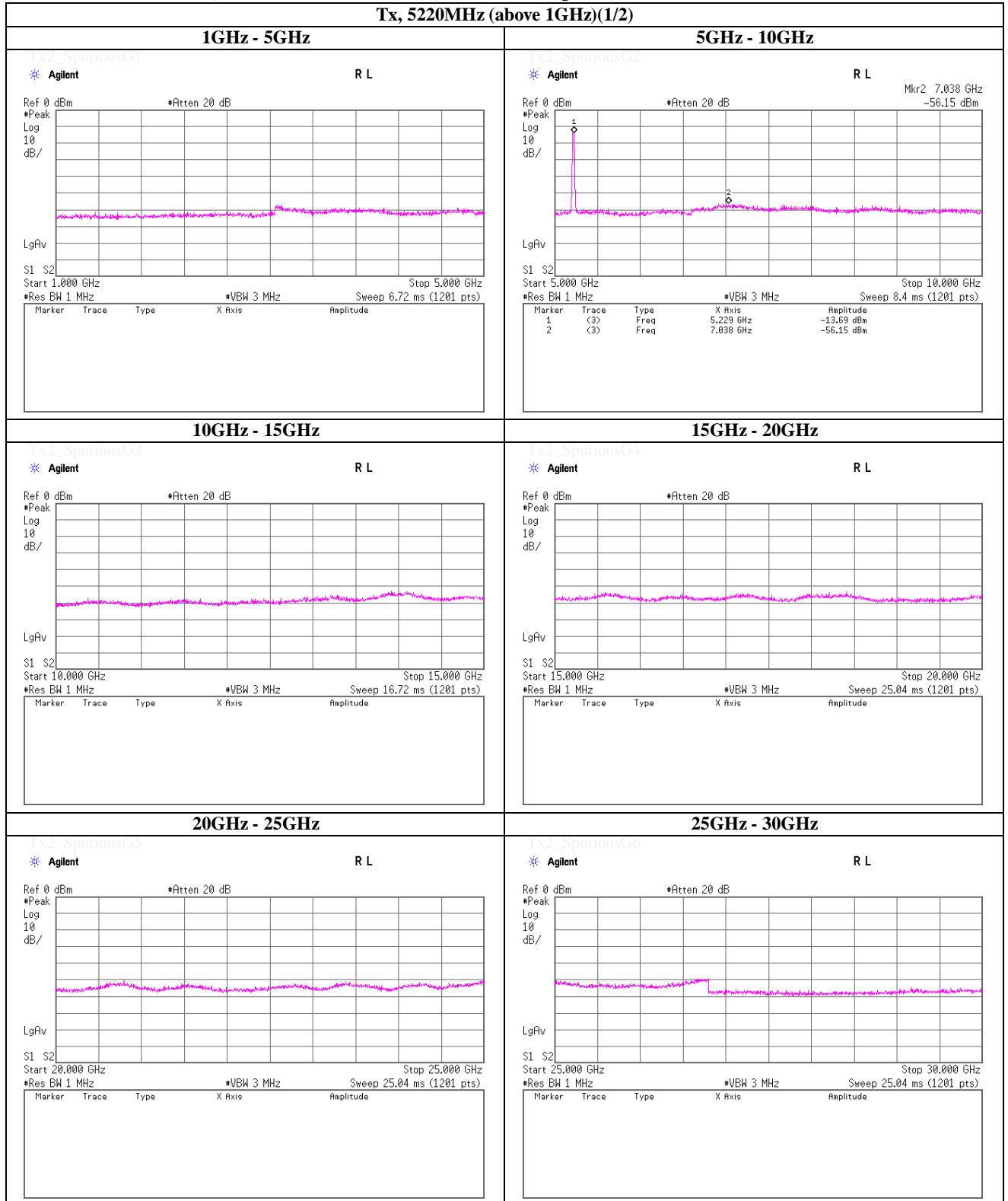
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5220MHz (above 1GHz)(1/2)**



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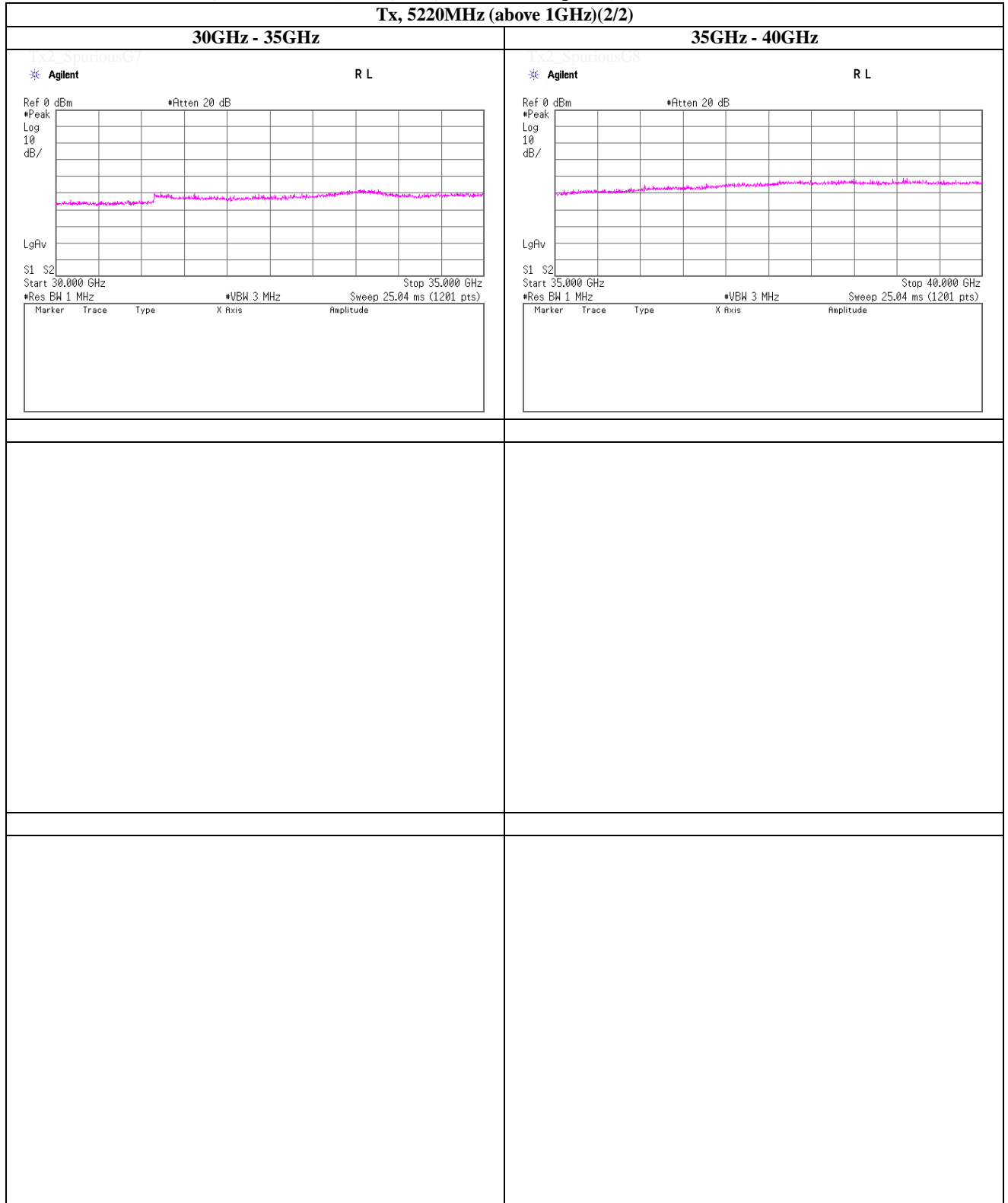
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5220MHz (above 1GHz)(2/2)**

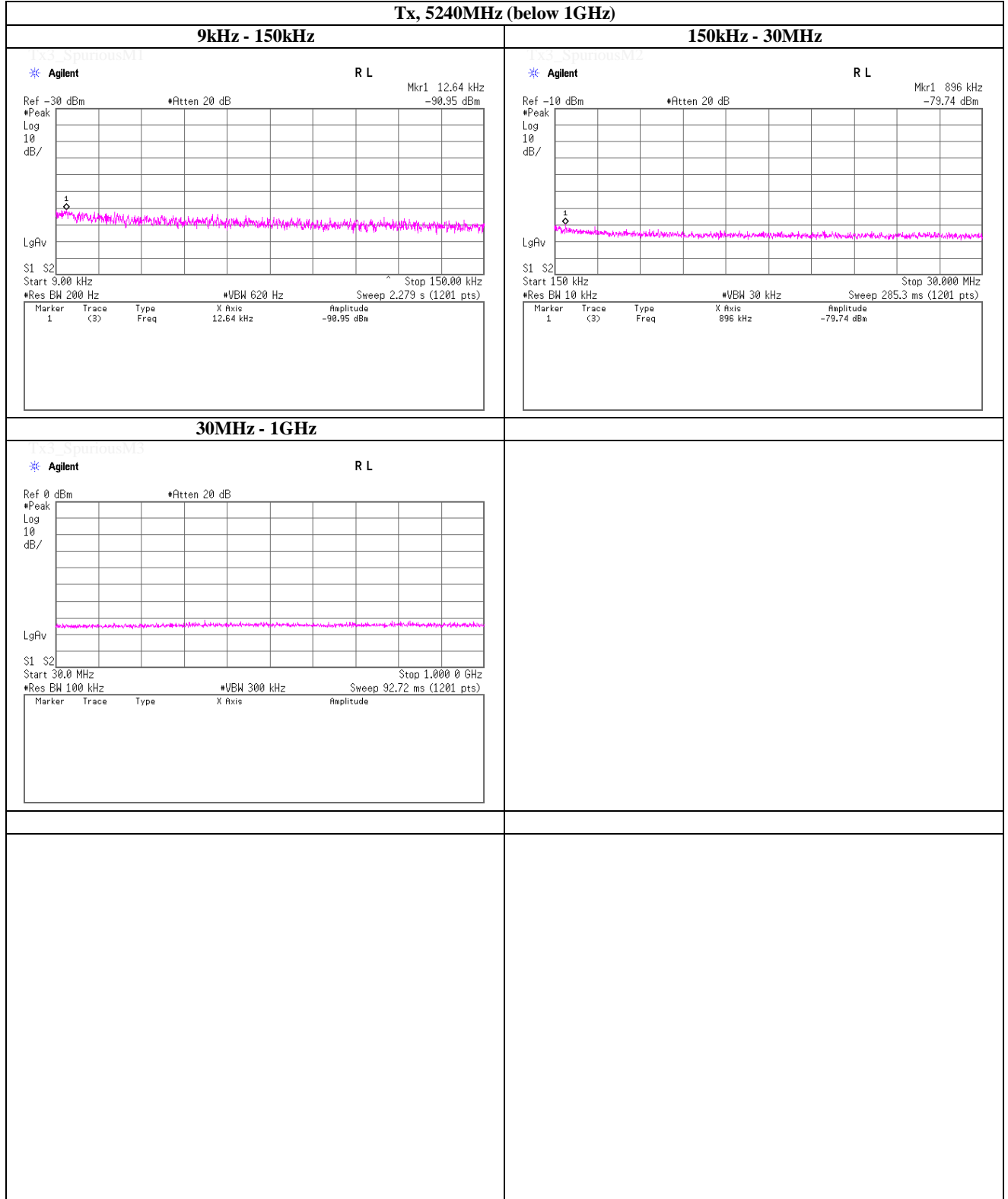


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5240MHz (below 1GHz)**



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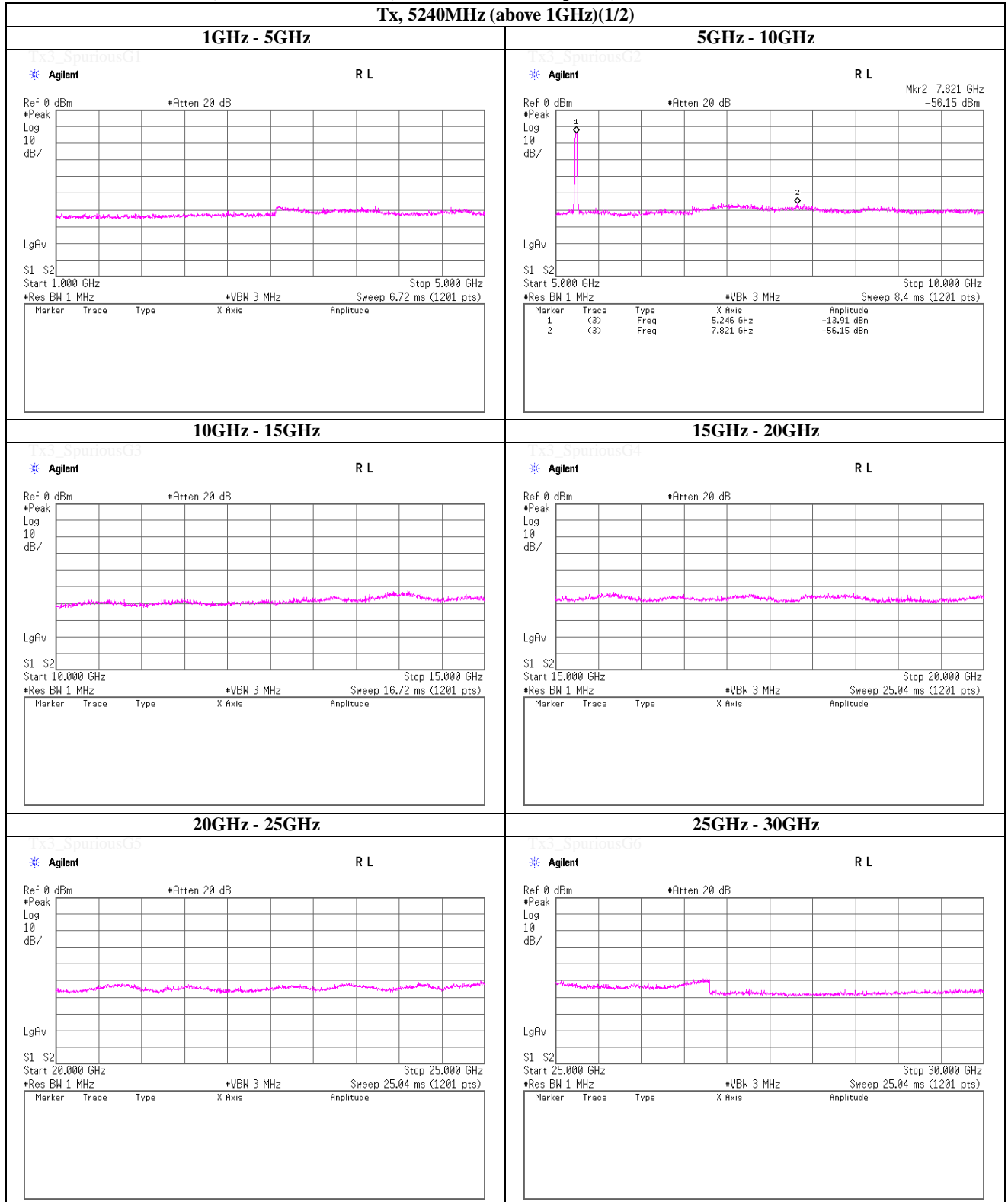
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5240MHz (above 1GHz)(1/2)**



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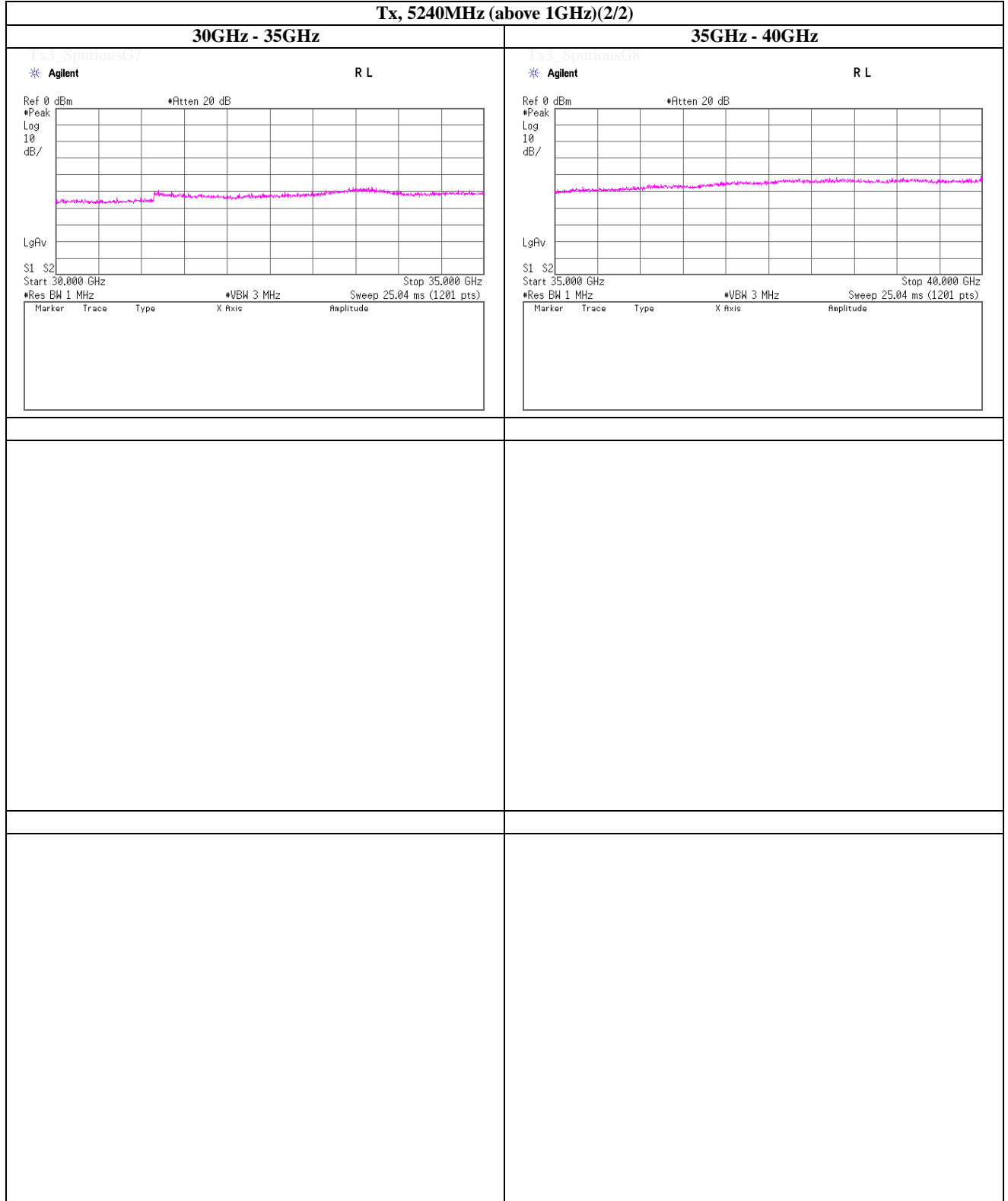
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5240MHz (above 1GHz)(2/2)**



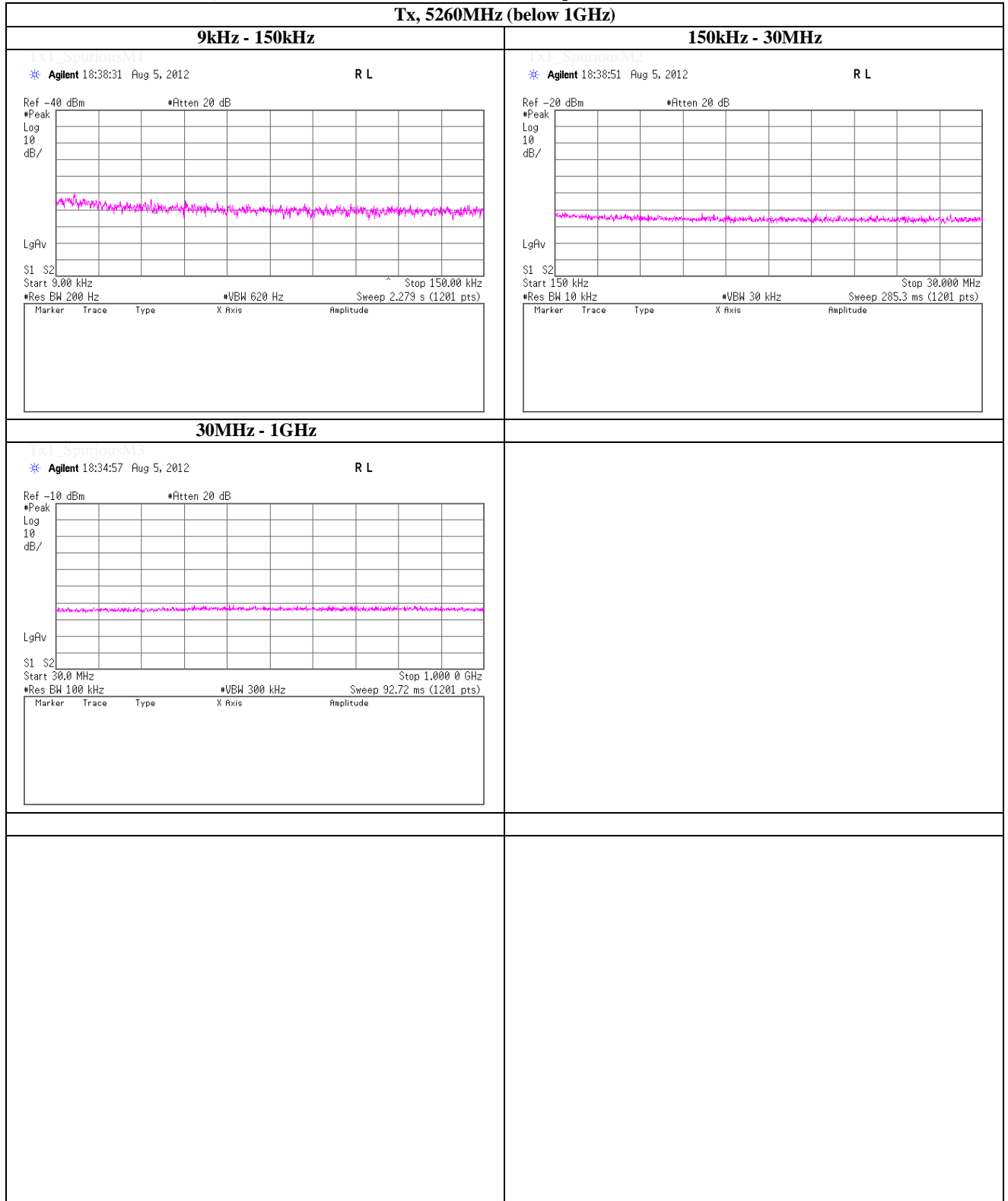
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5260MHz (below 1GHz)**



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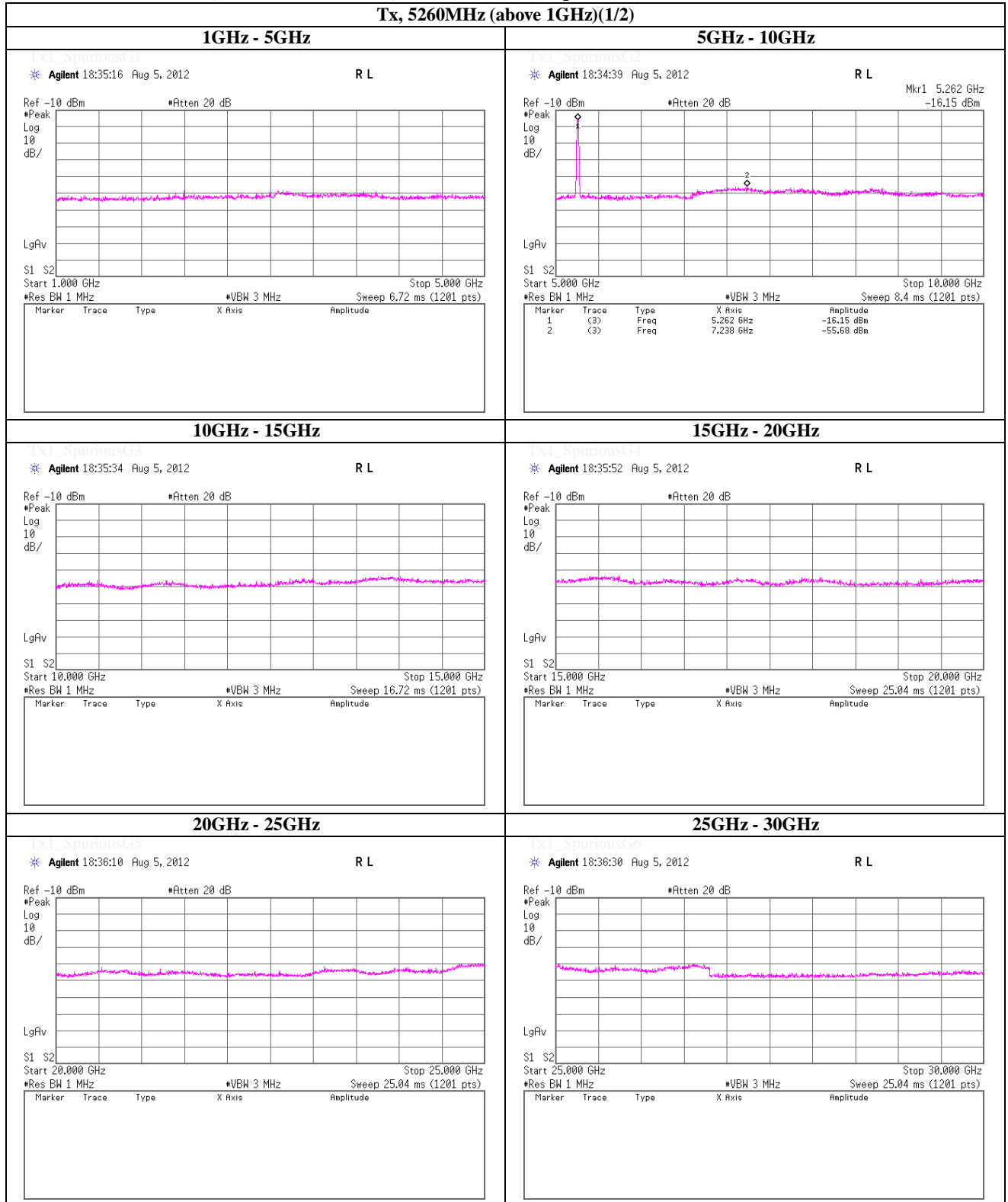
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**Tx, 5260MHz (above 1GHz)(1/2)**



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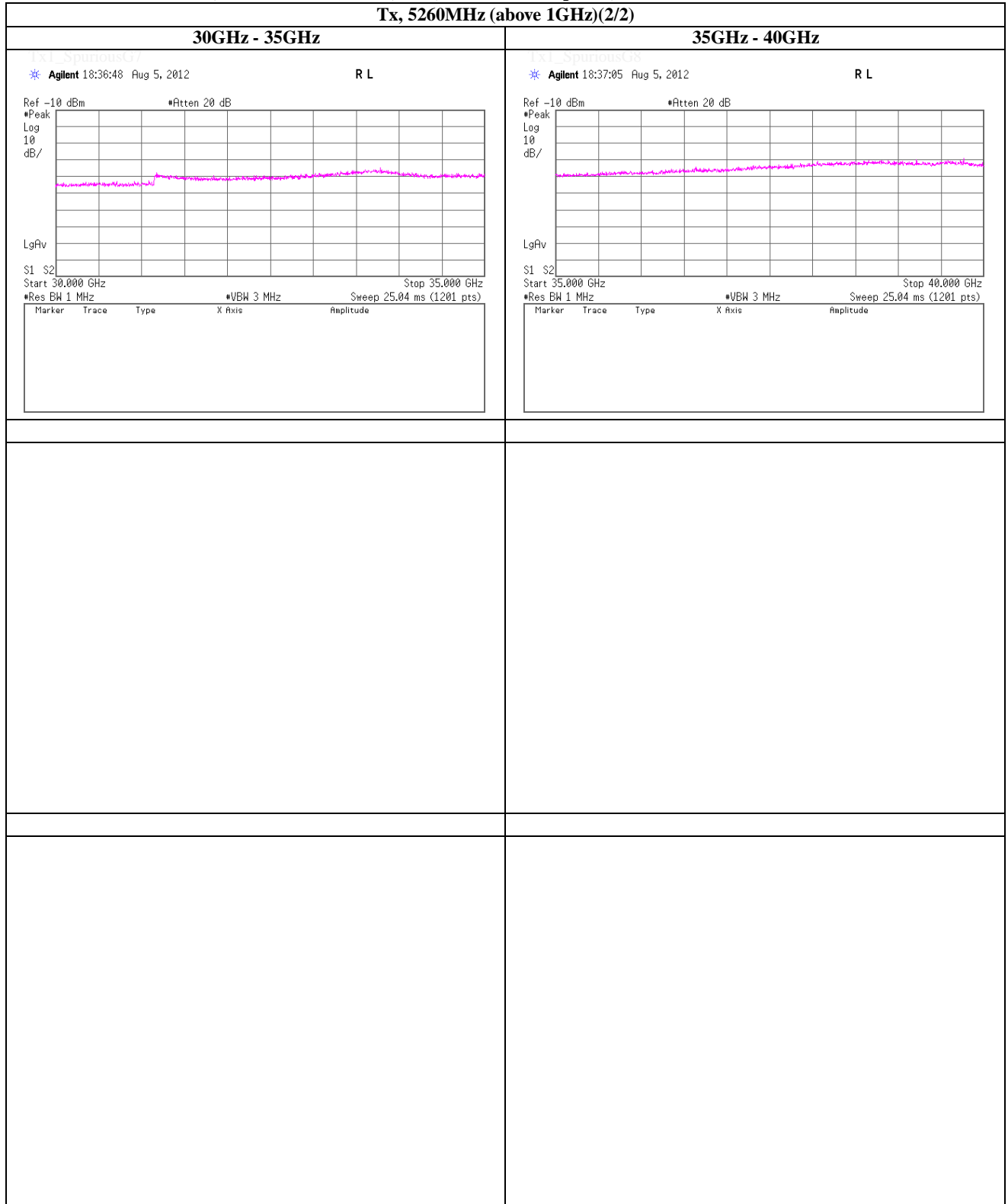
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5260MHz (above 1GHz)(2/2)**

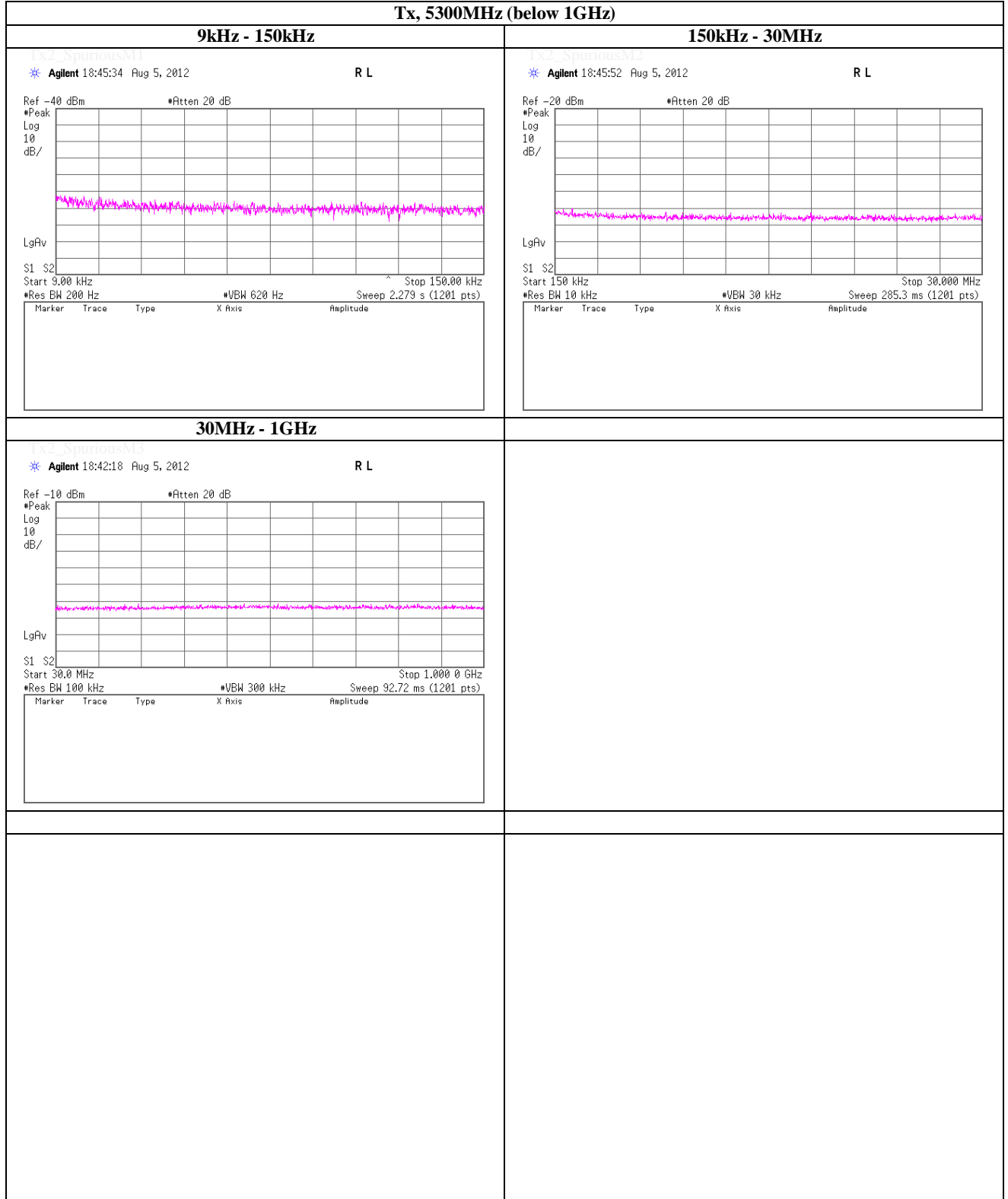


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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5300MHz (below 1GHz)**



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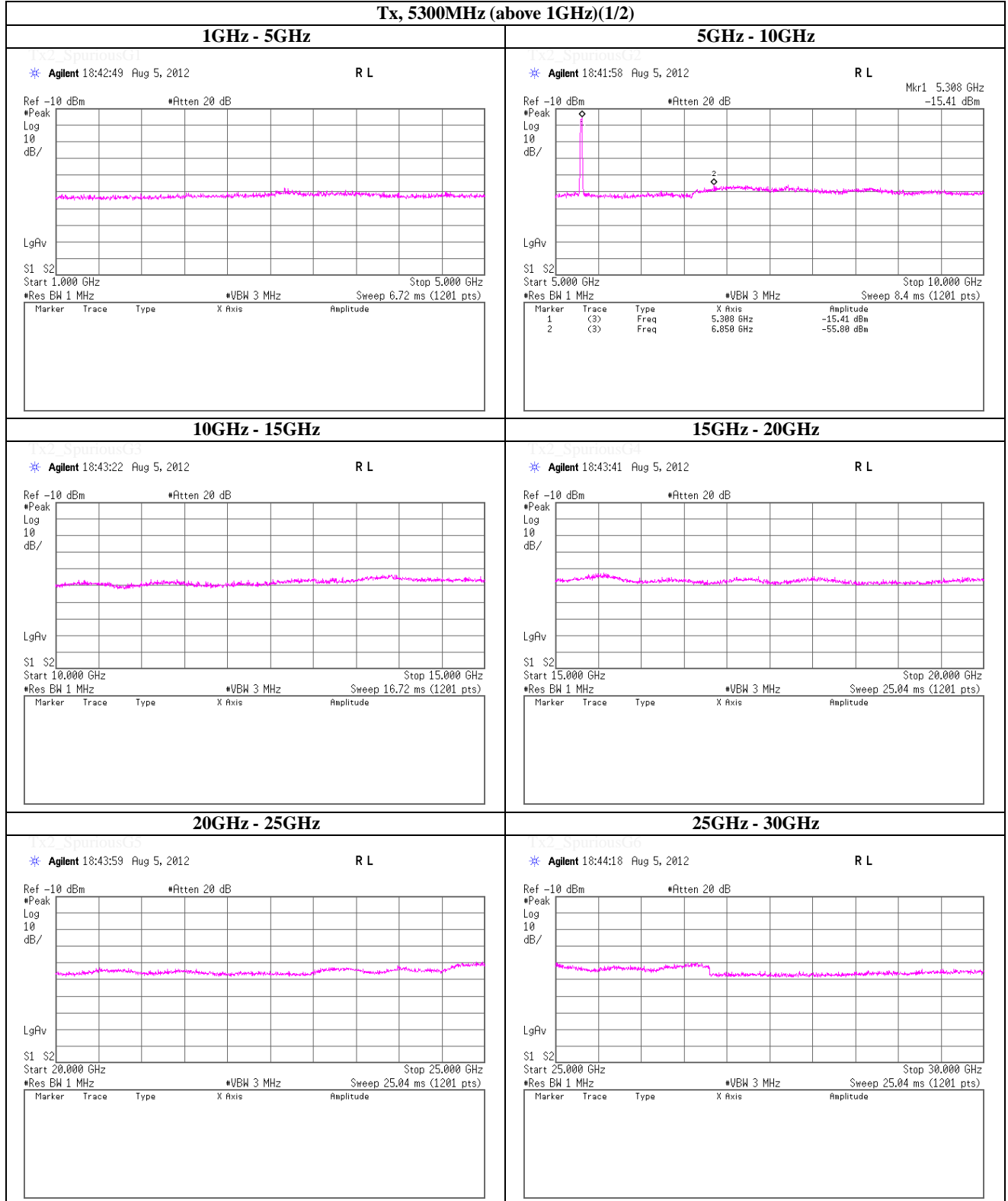
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**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5300MHz (above 1GHz)(1/2)**

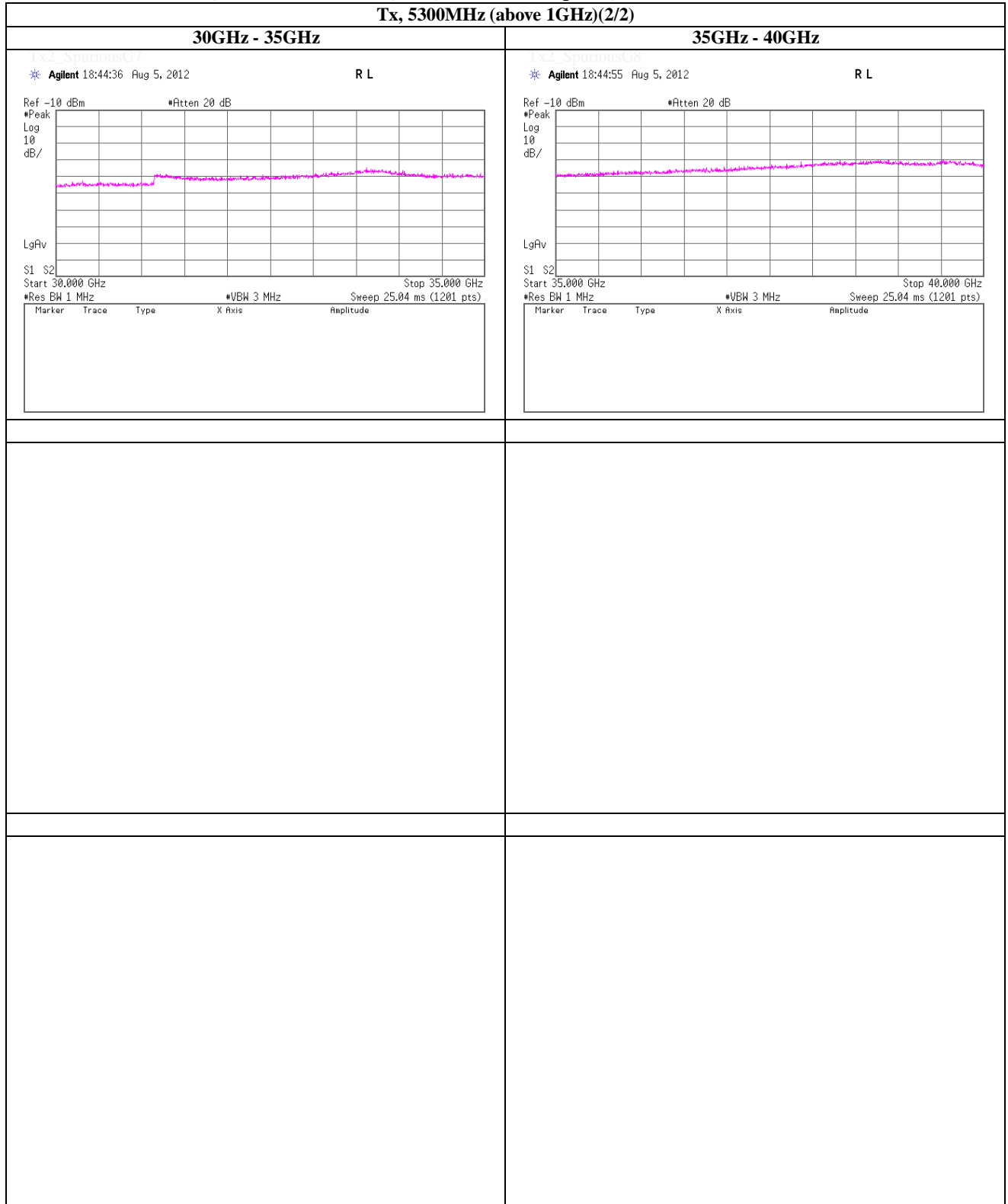


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5300MHz (above 1GHz)(2/2)**

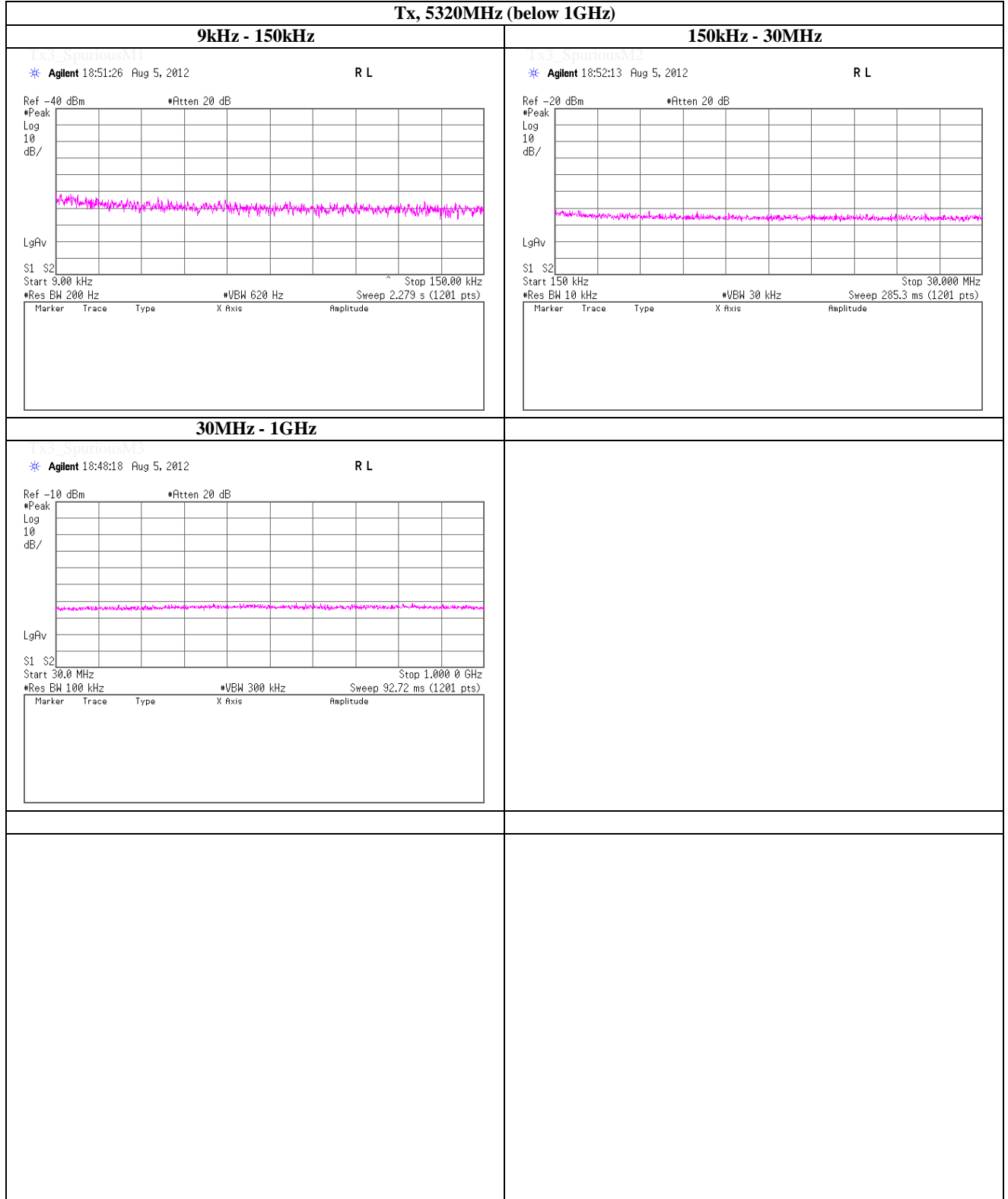


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5320MHz (below 1GHz)**

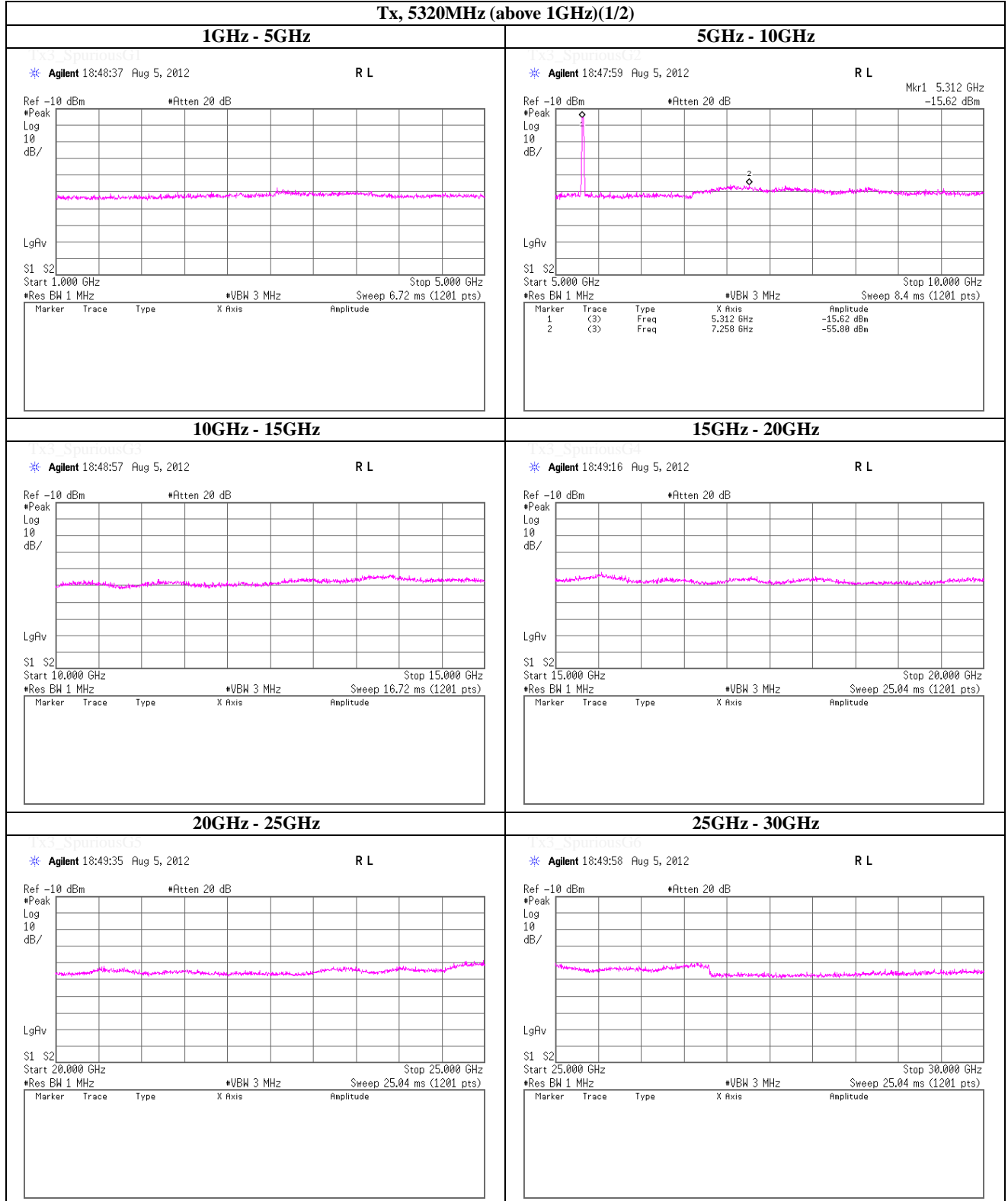


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5320MHz (above 1GHz)(1/2)**



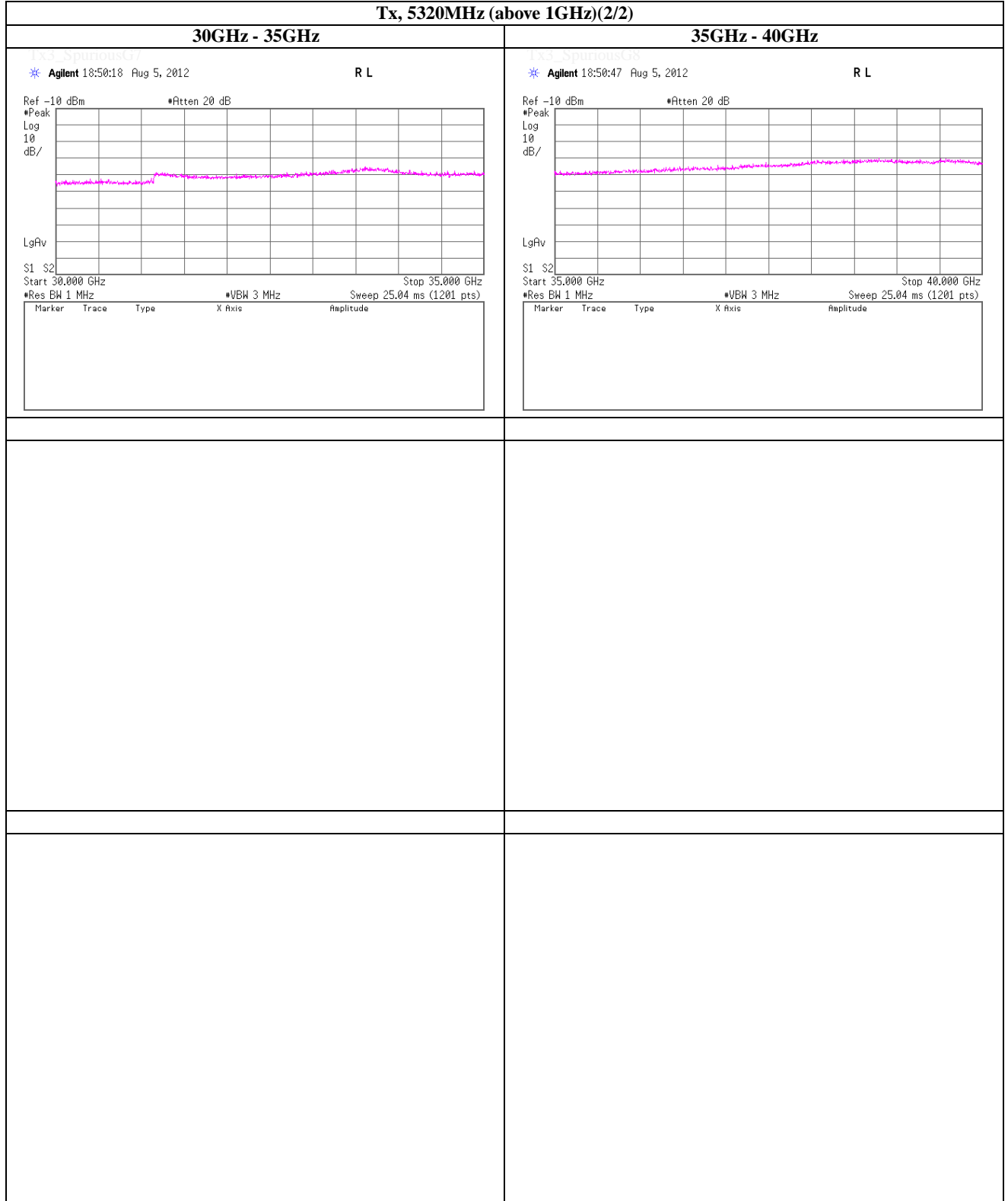
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5320MHz (above 1GHz)(2/2)**

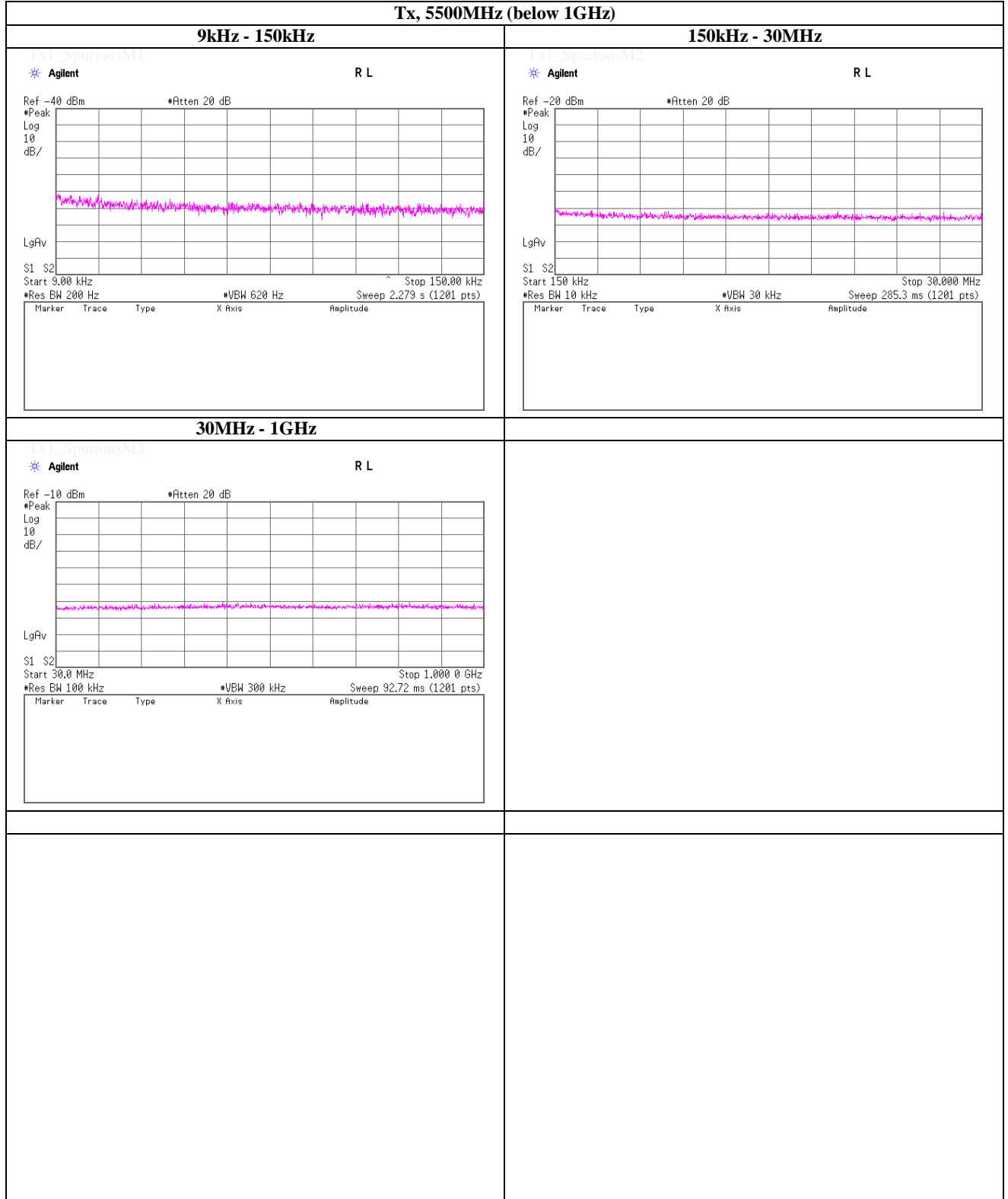


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5500MHz (below 1GHz)**

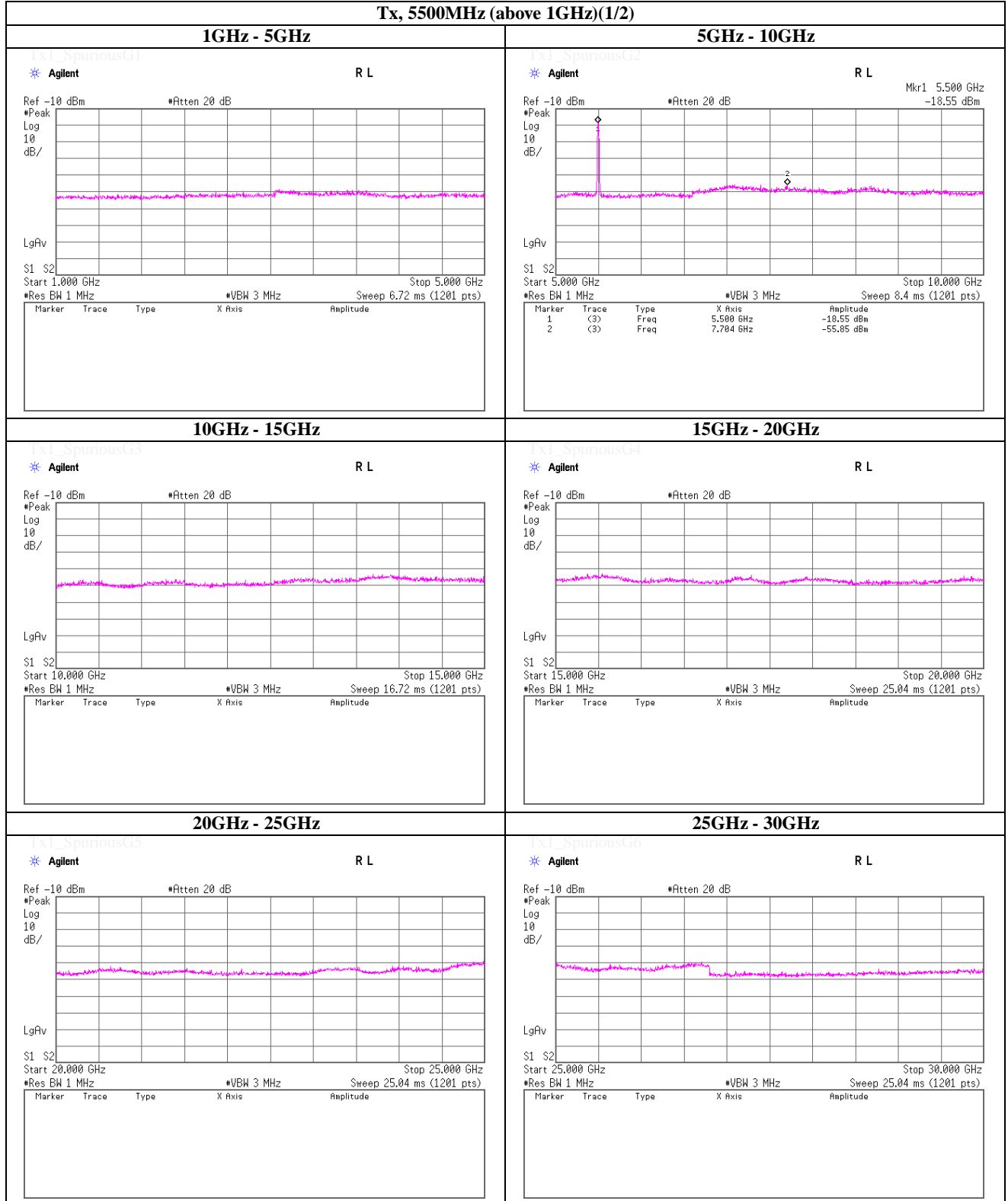


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5500MHz (above 1GHz)(1/2)**



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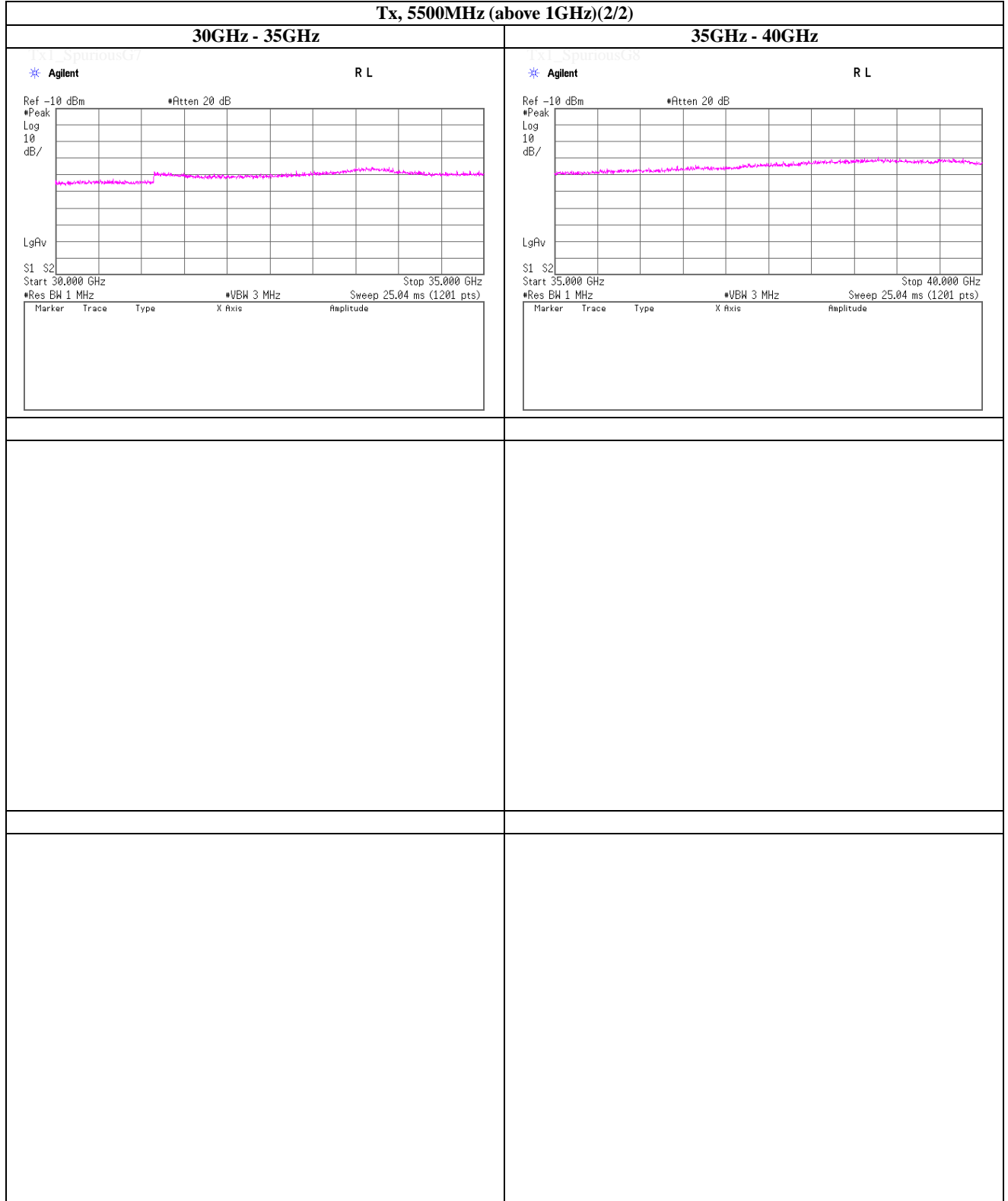
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5500MHz (above 1GHz)(2/2)**



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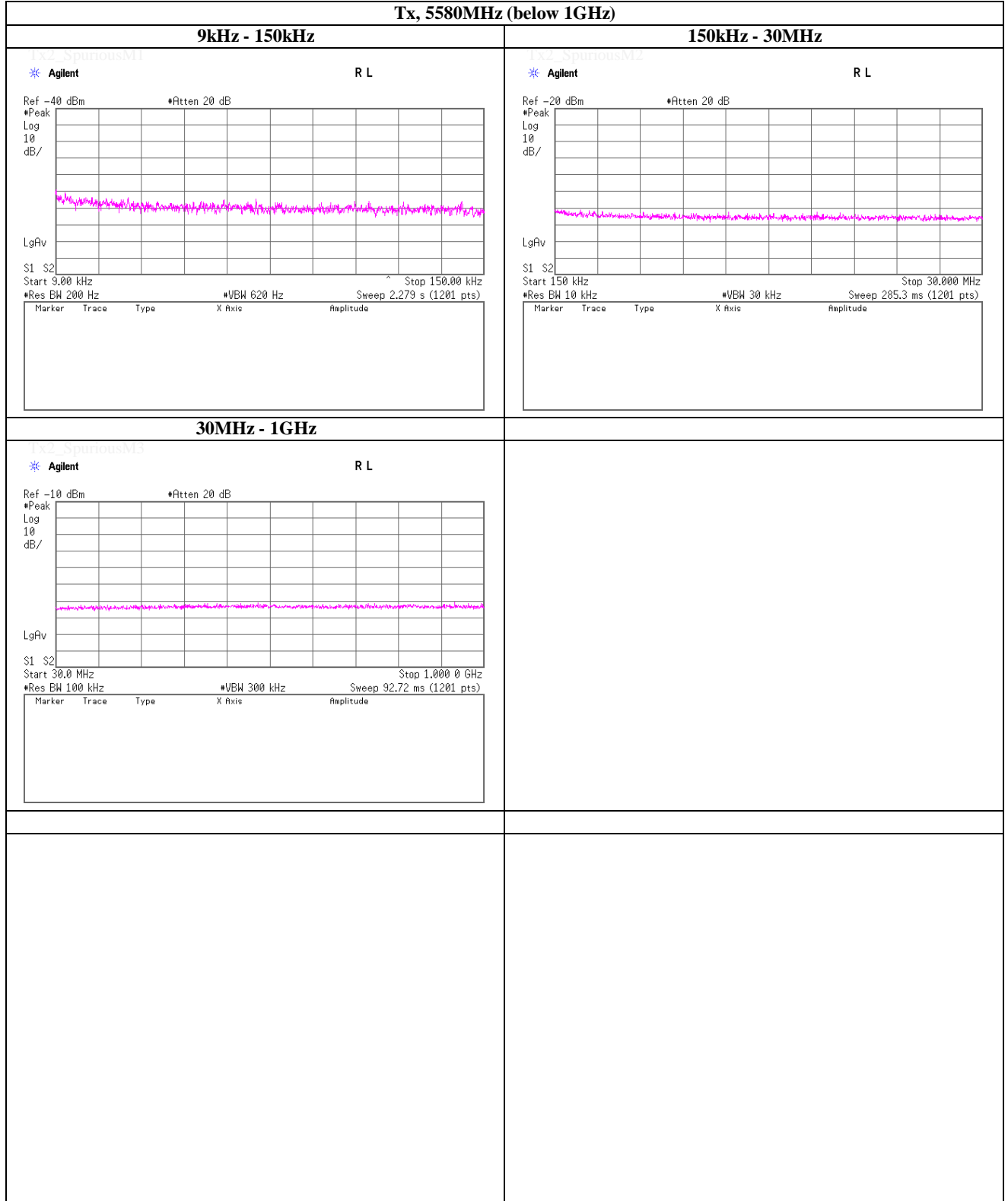
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5580MHz (below 1GHz)**



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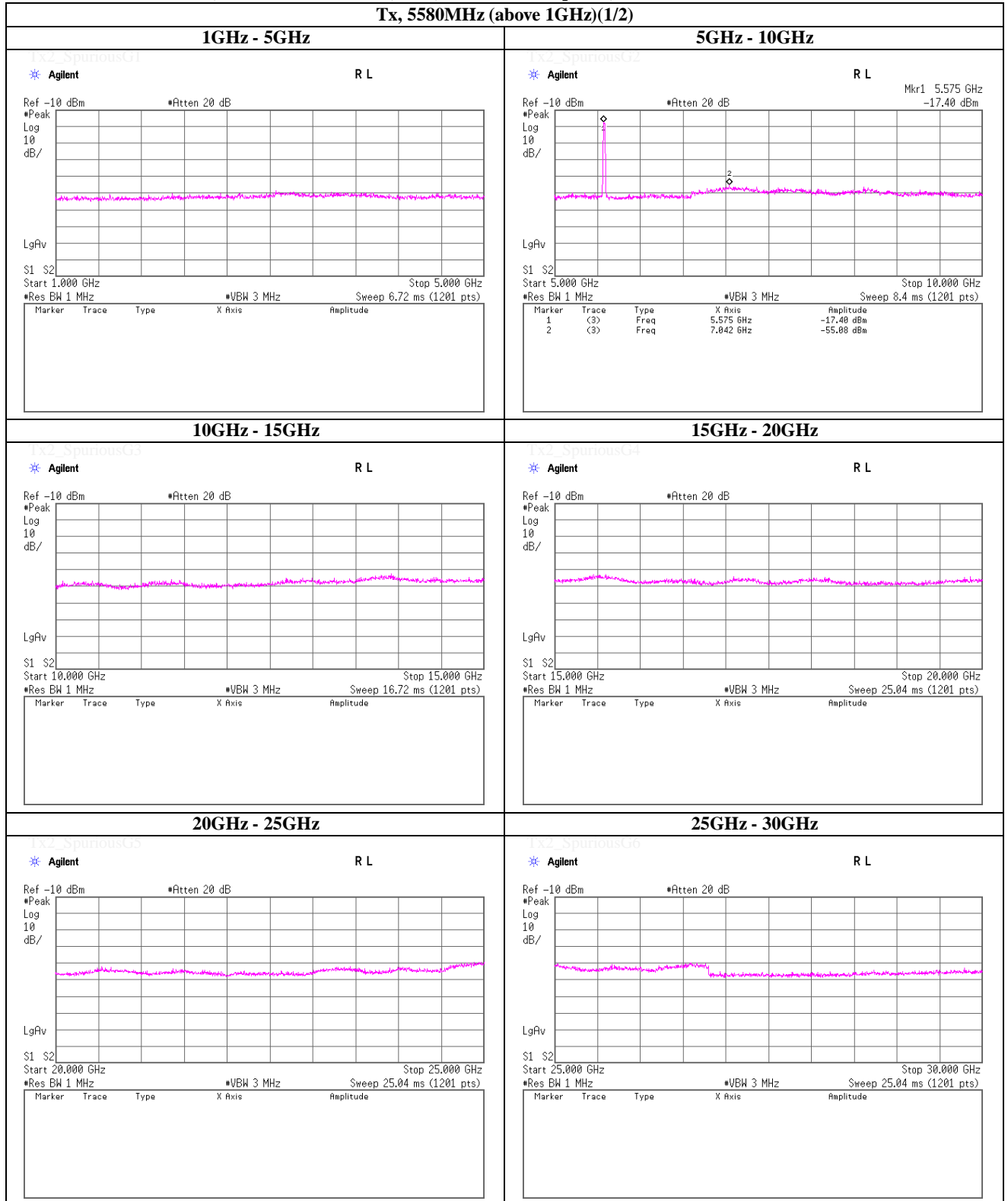
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5580MHz (above 1GHz)(1/2)**



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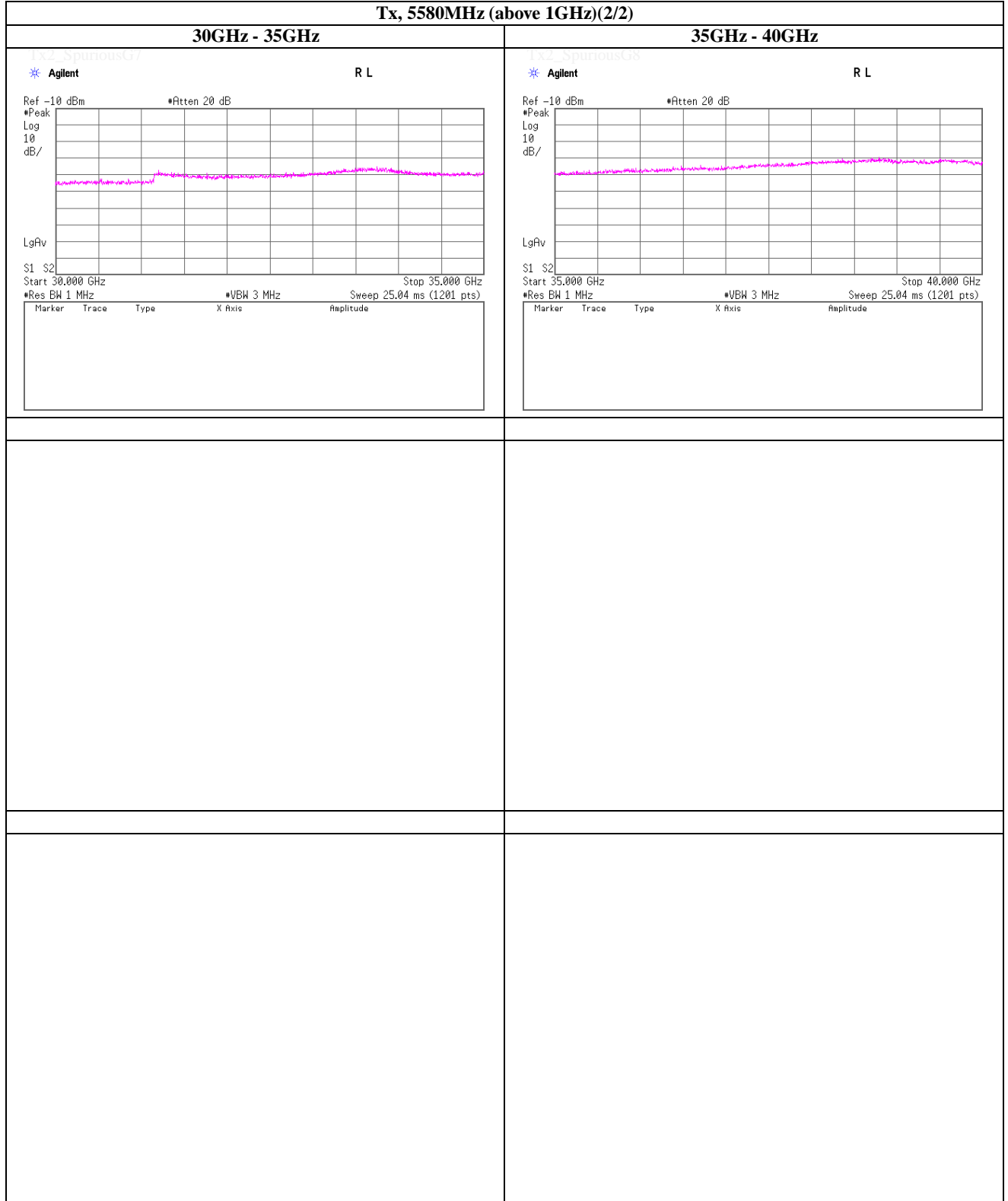
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5580MHz (above 1GHz)(2/2)**



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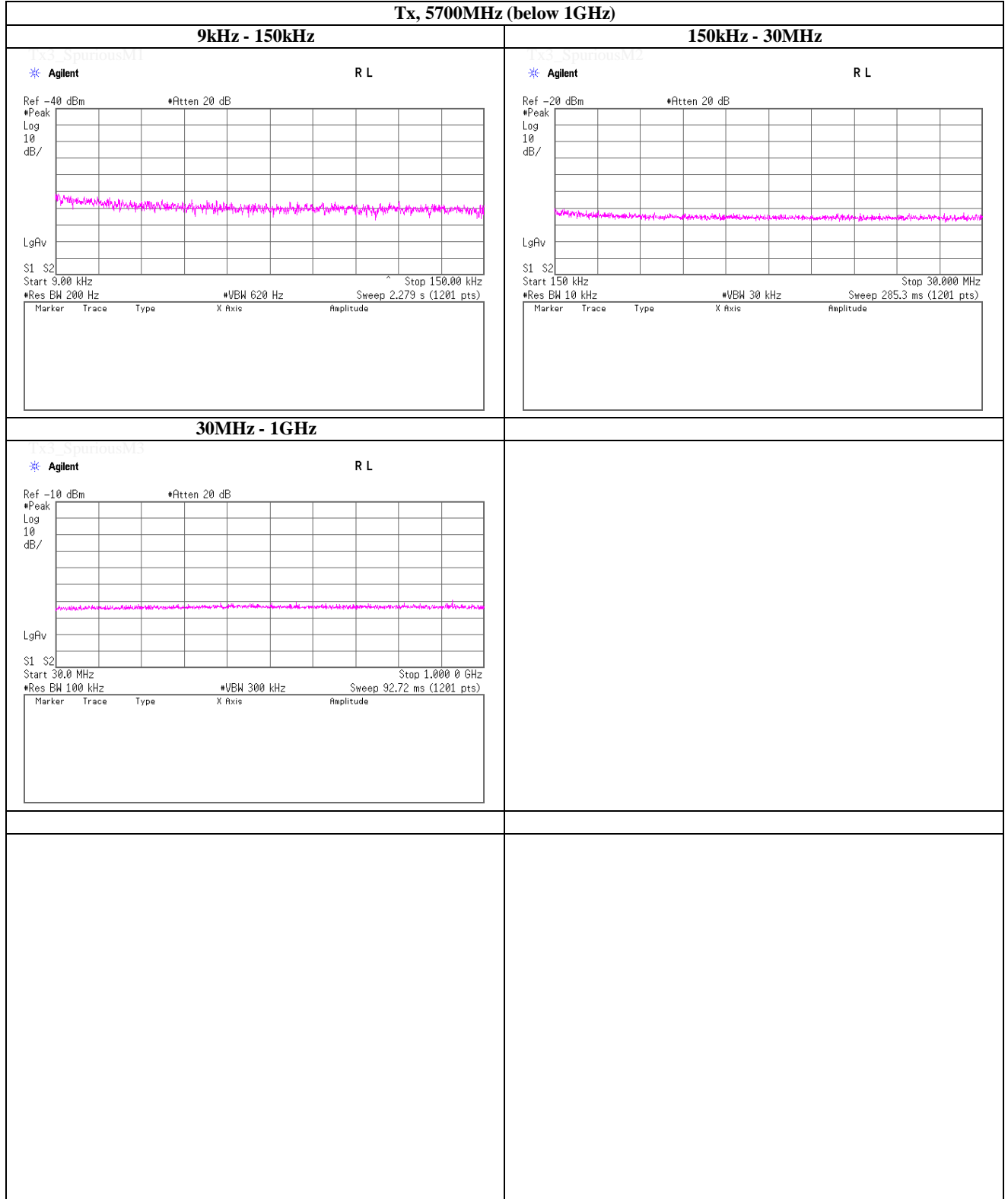
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5700MHz (below 1GHz)**



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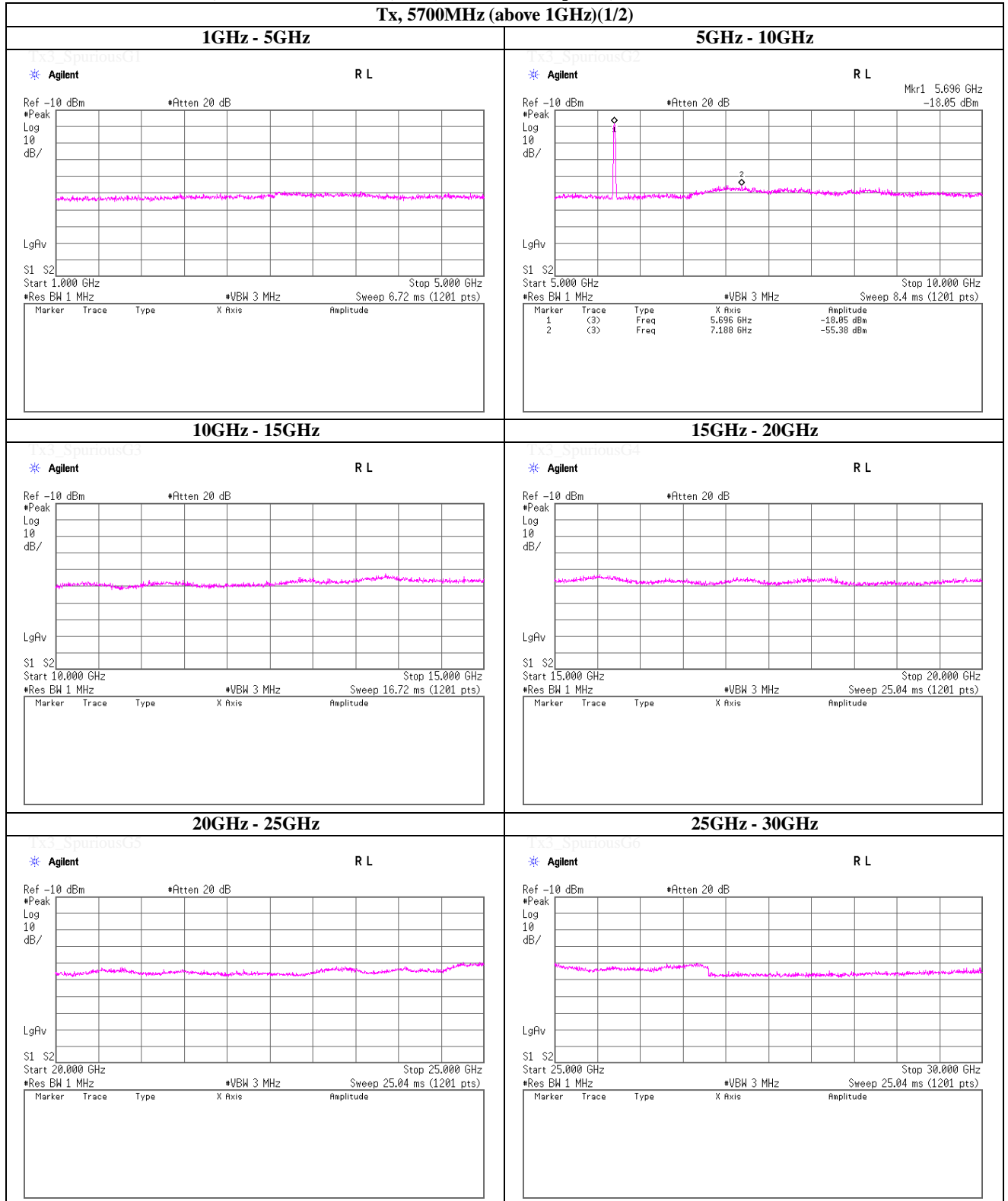
Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5700MHz (above 1GHz)(1/2)**



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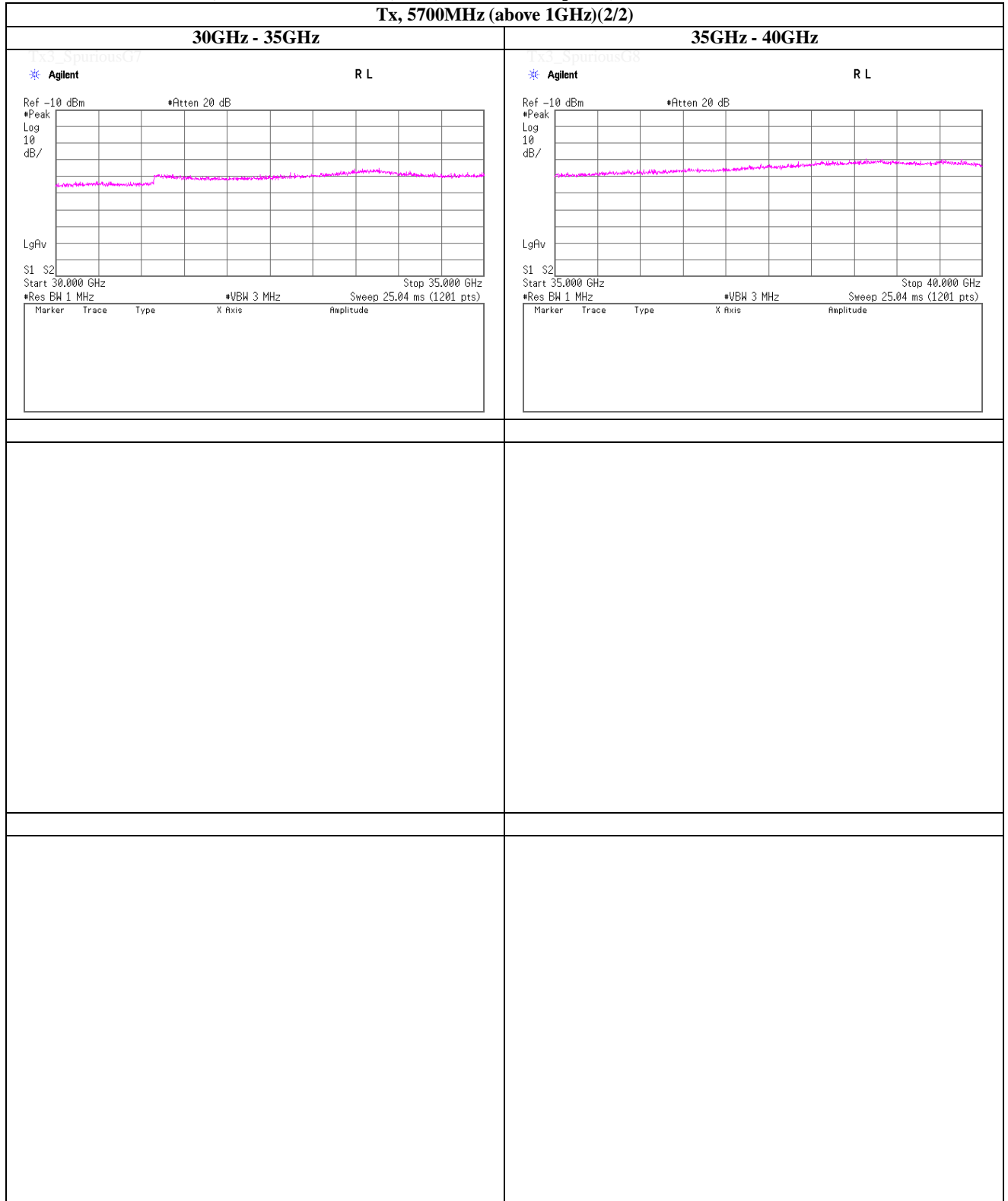
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5700MHz (above 1GHz)(2/2)**

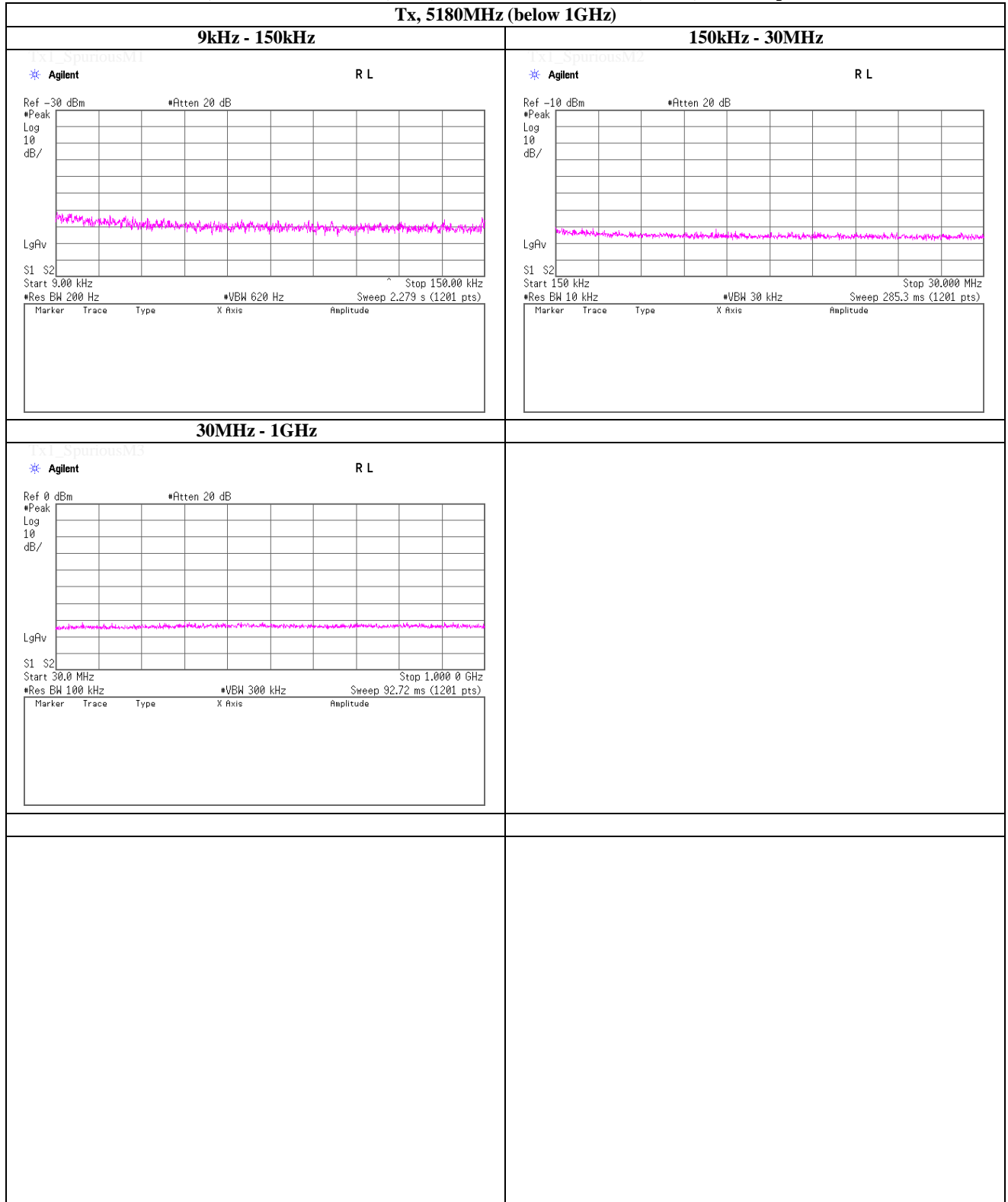


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**(Reference) Spurious emission (Conducted)**

Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1

Tx, 5180MHz (below 1GHz)



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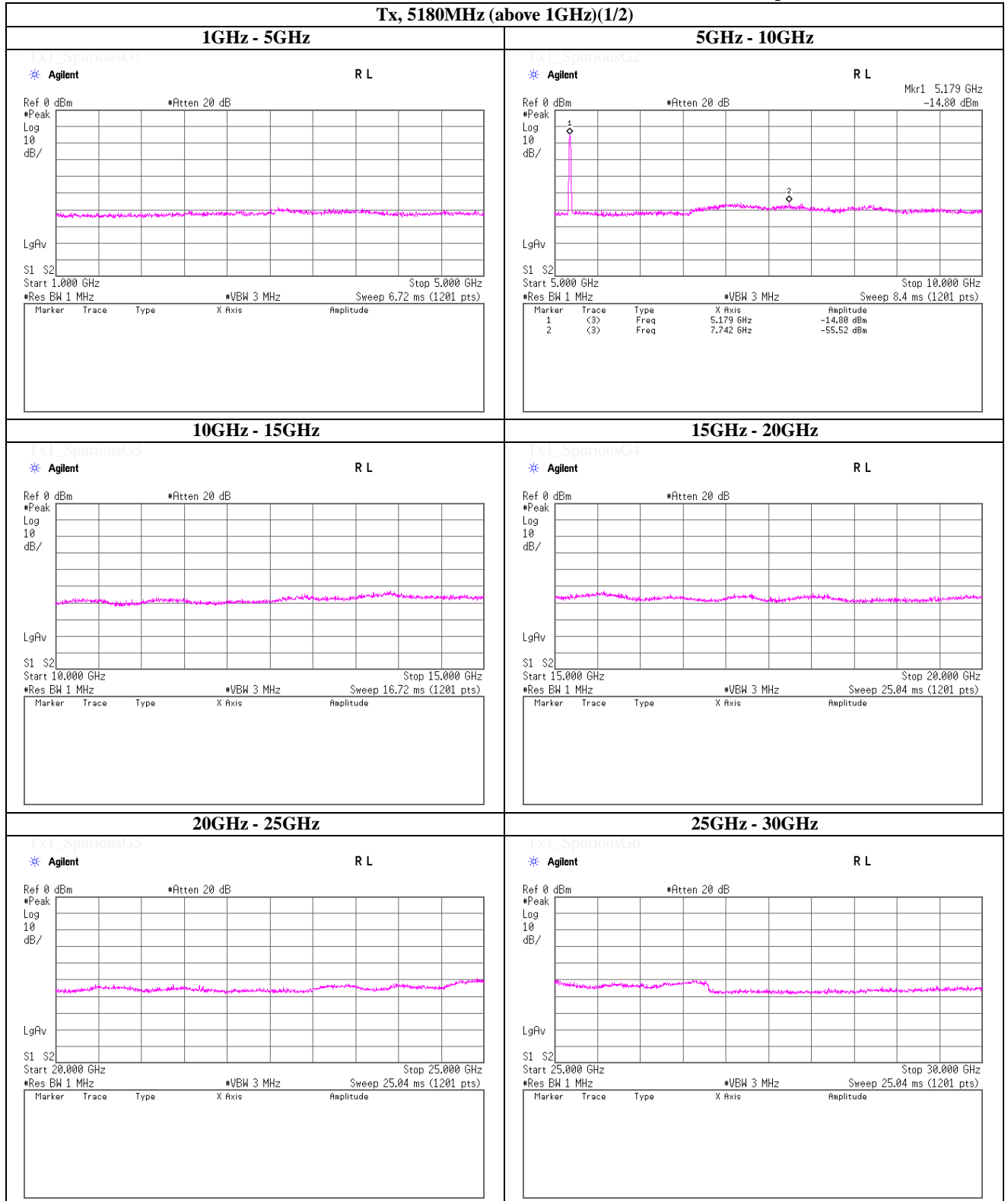
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5180MHz (above 1GHz)(1/2)**



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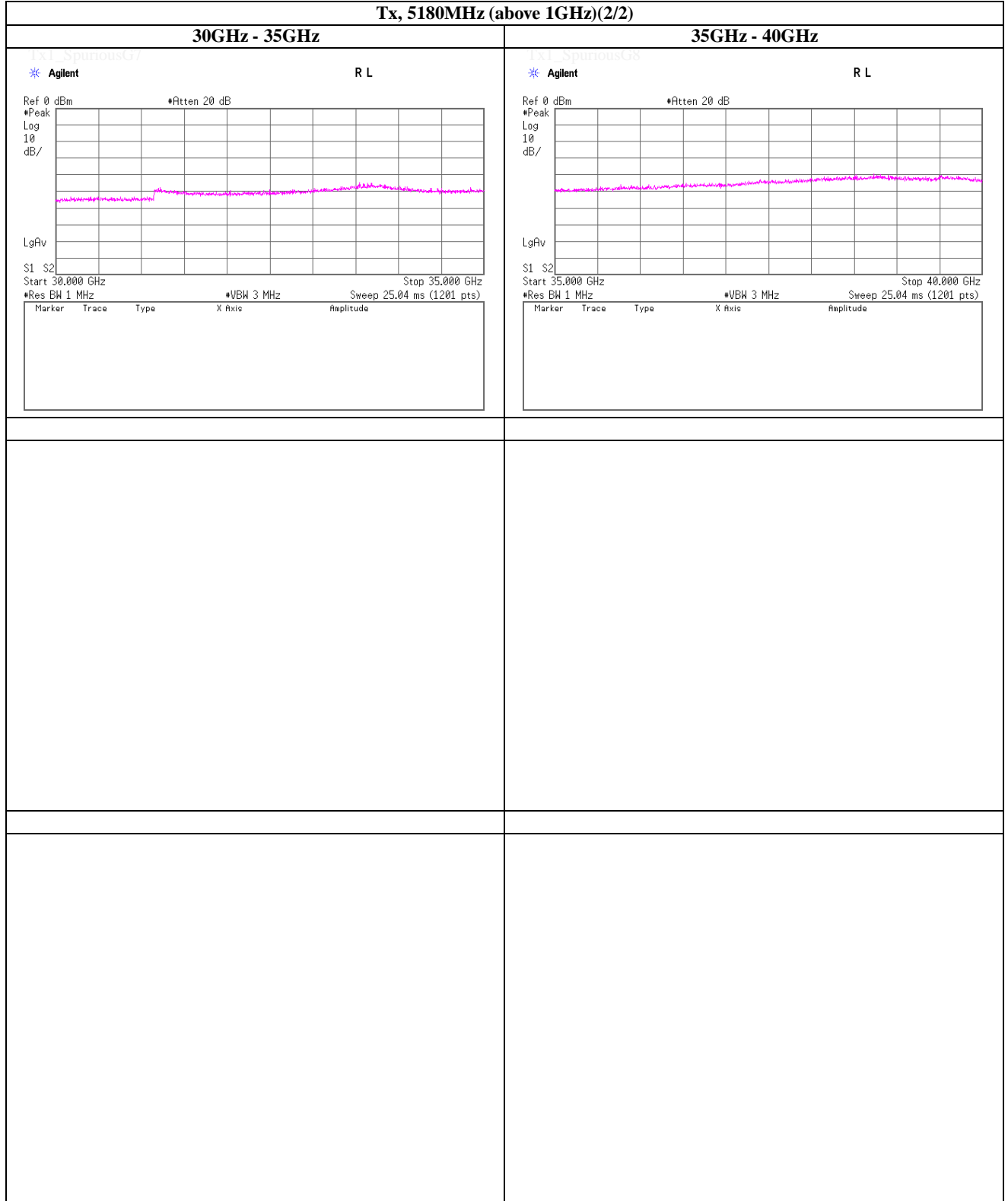
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5180MHz (above 1GHz)(2/2)**

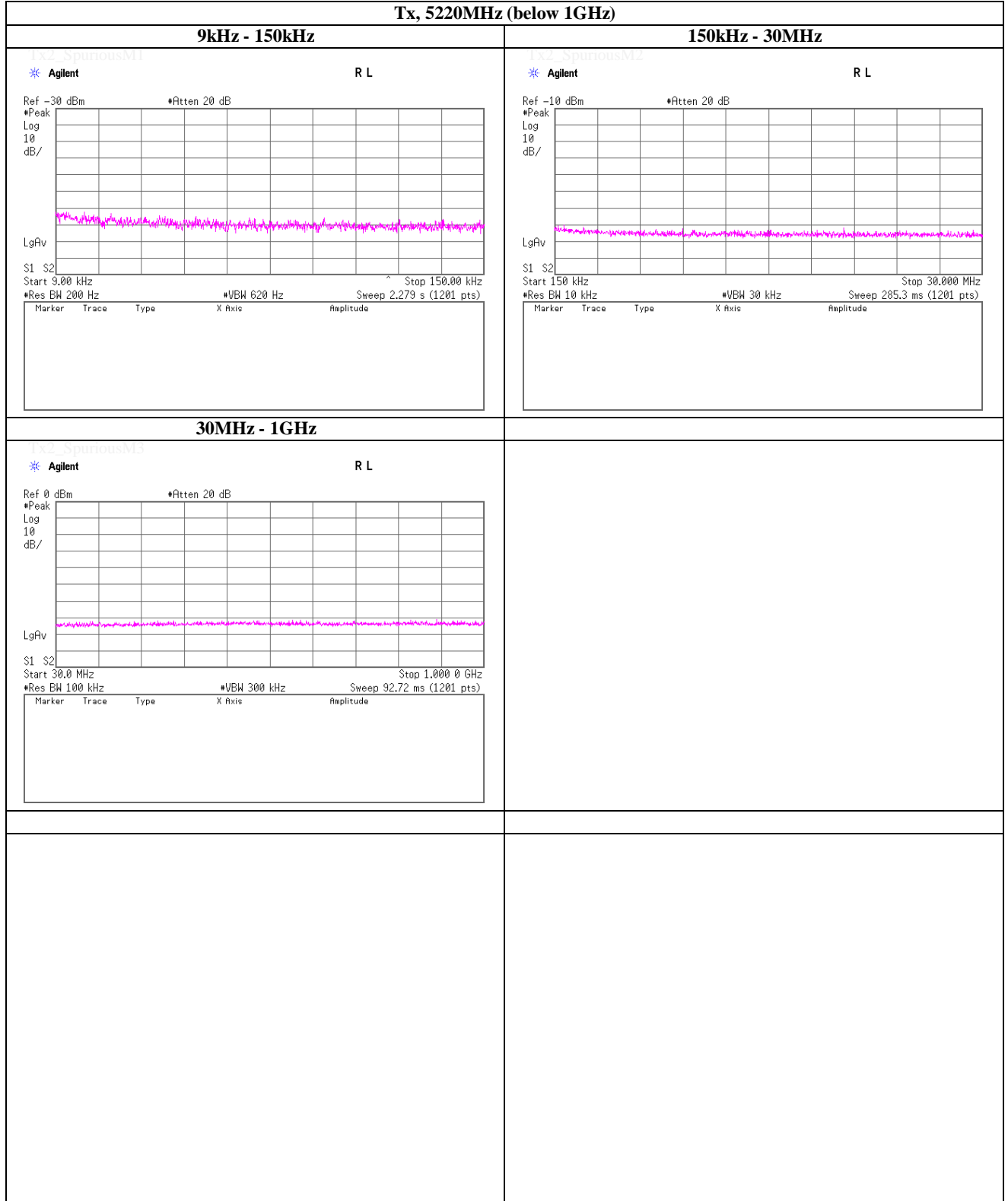


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5220MHz (below 1GHz)**



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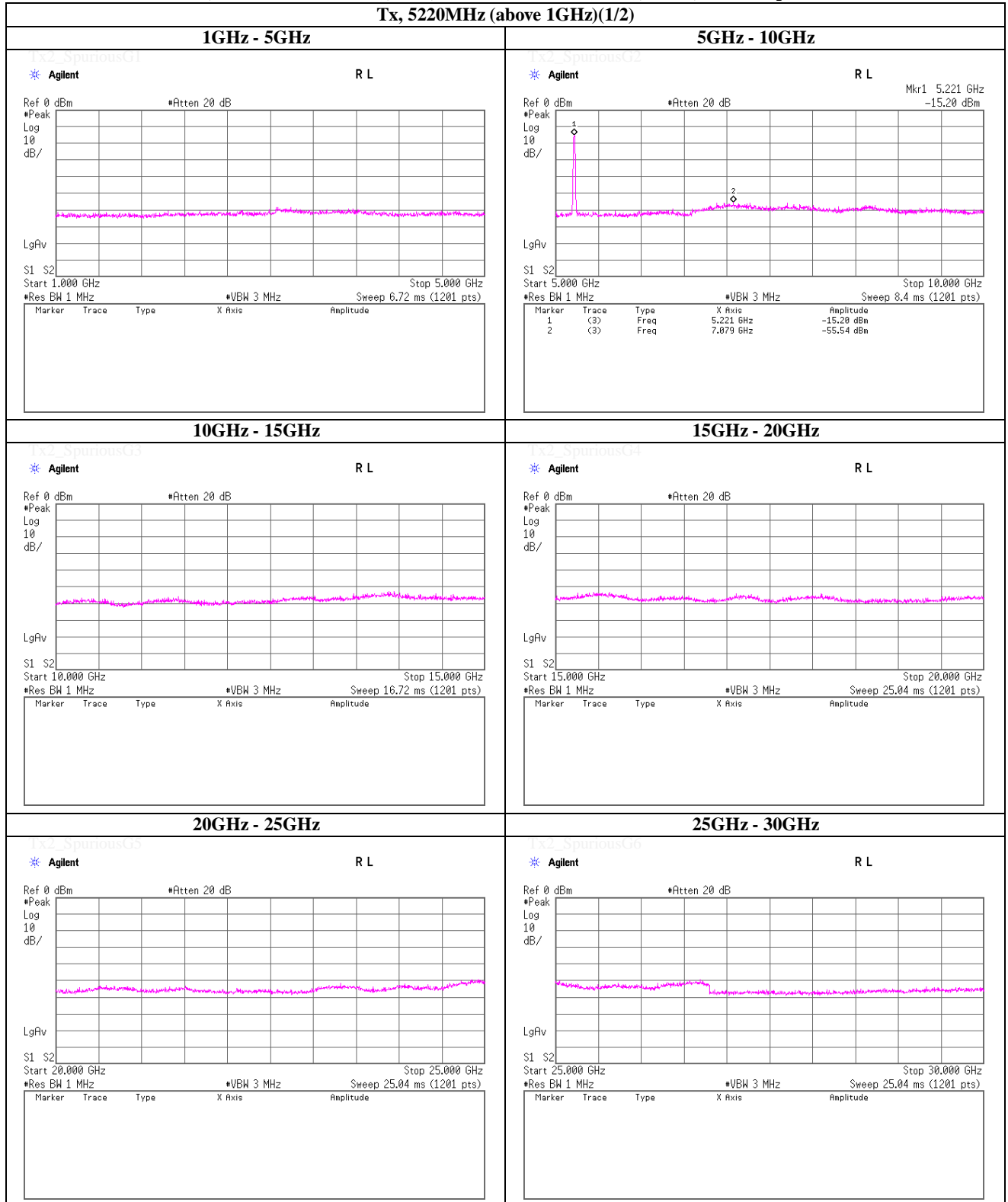
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5220MHz (above 1GHz)(1/2)**

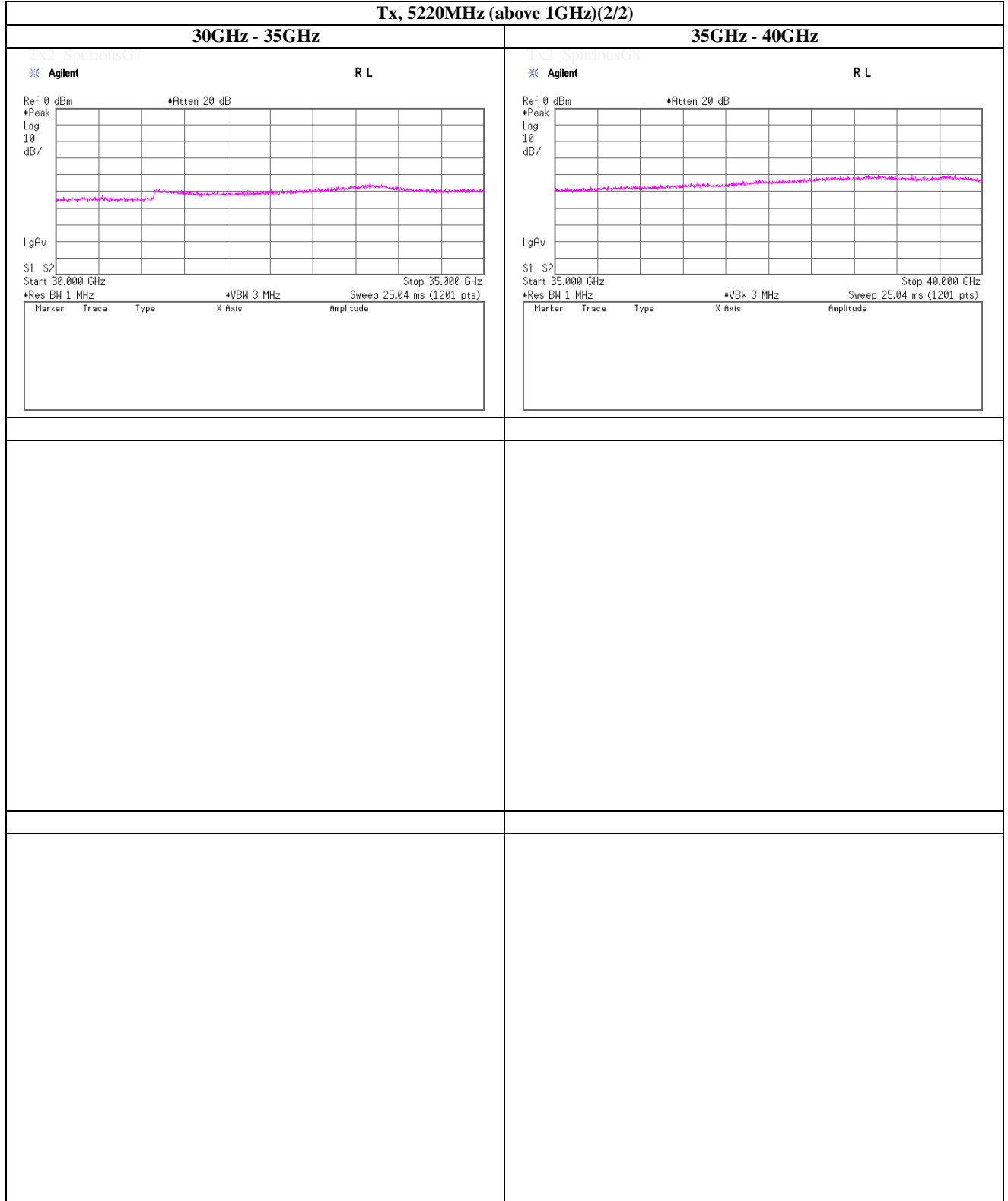


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5220MHz (above 1GHz)(2/2)**



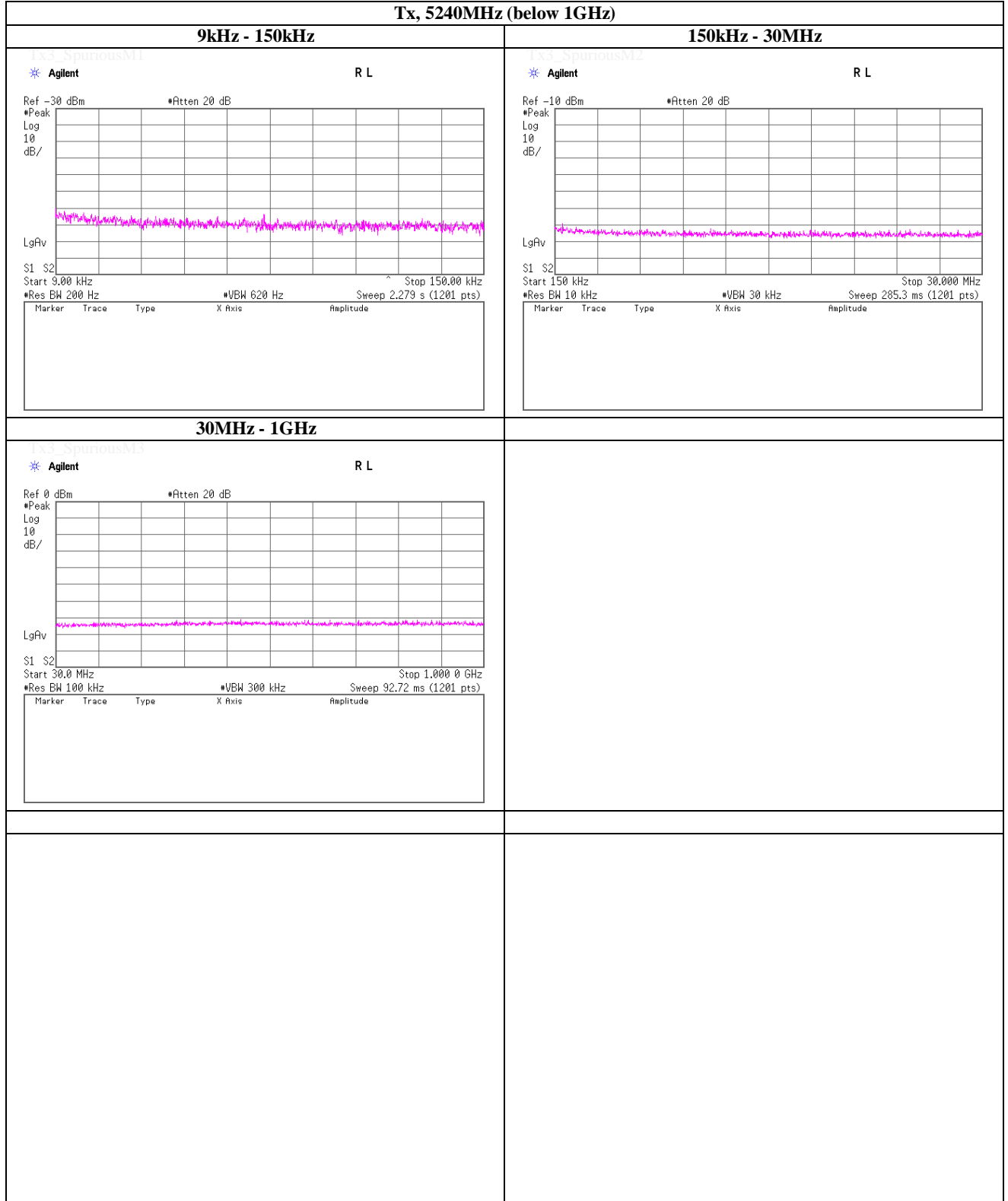
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5240MHz (below 1GHz)**



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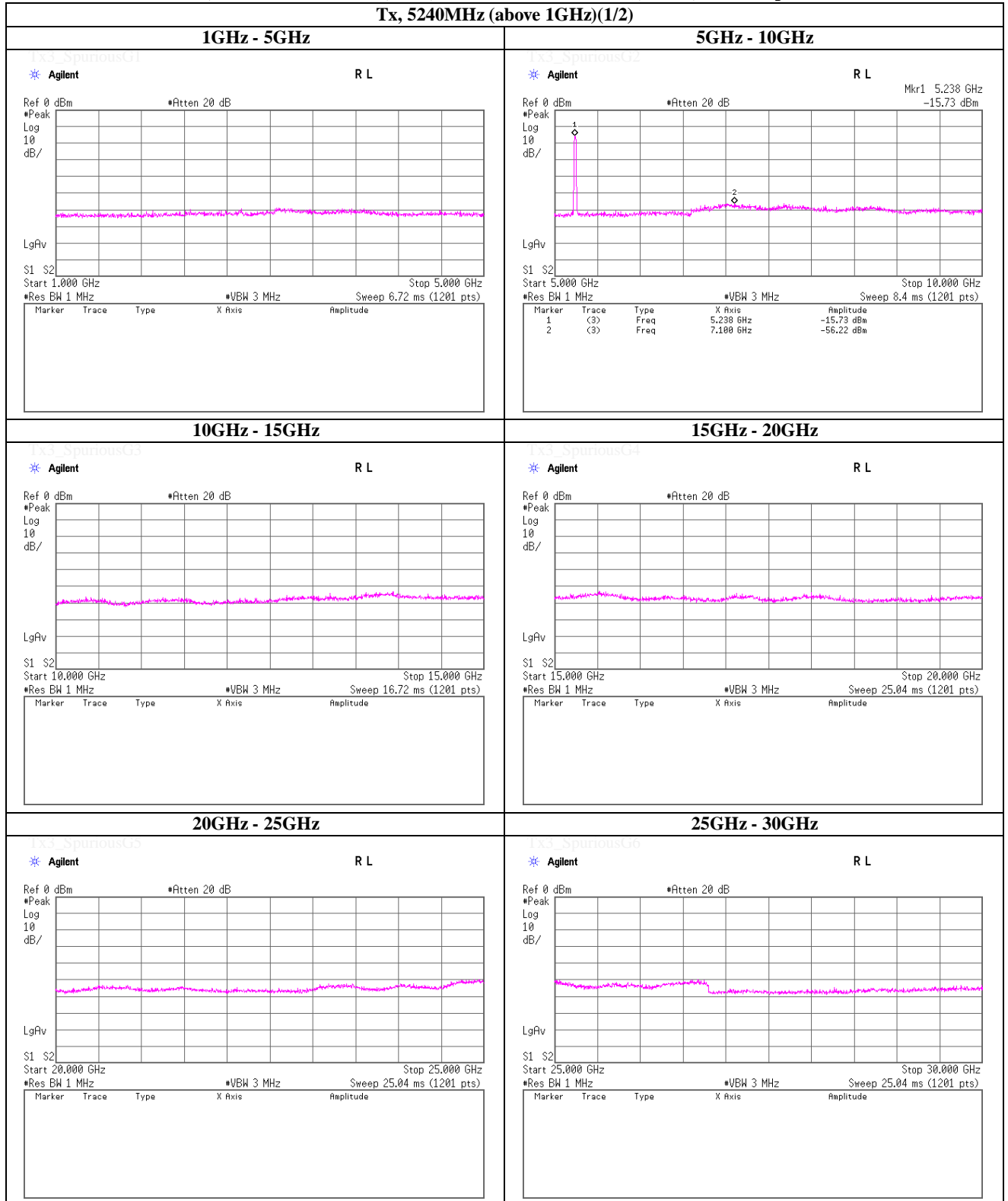
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5240MHz (above 1GHz)(1/2)**



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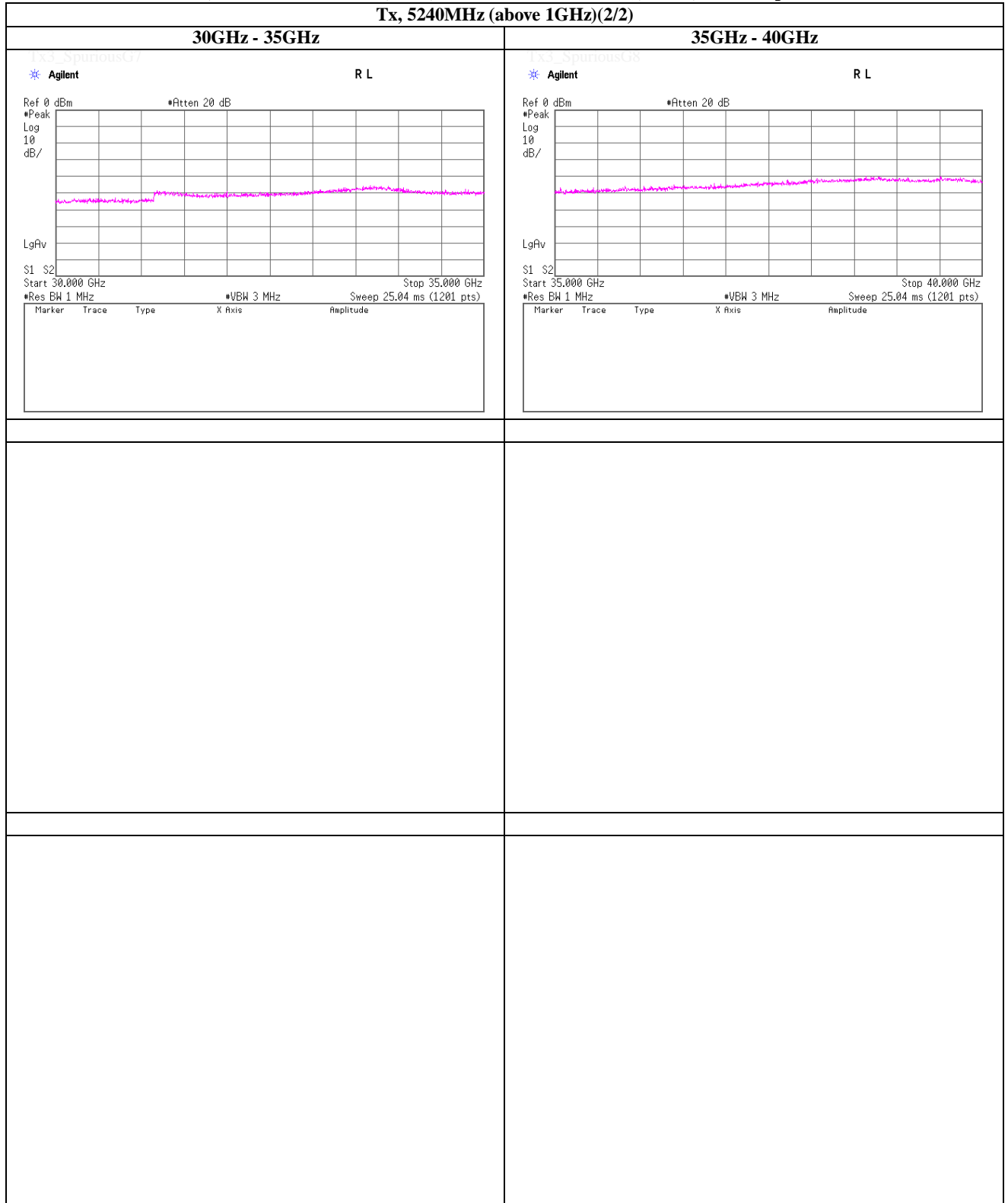
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5240MHz (above 1GHz)(2/2)**



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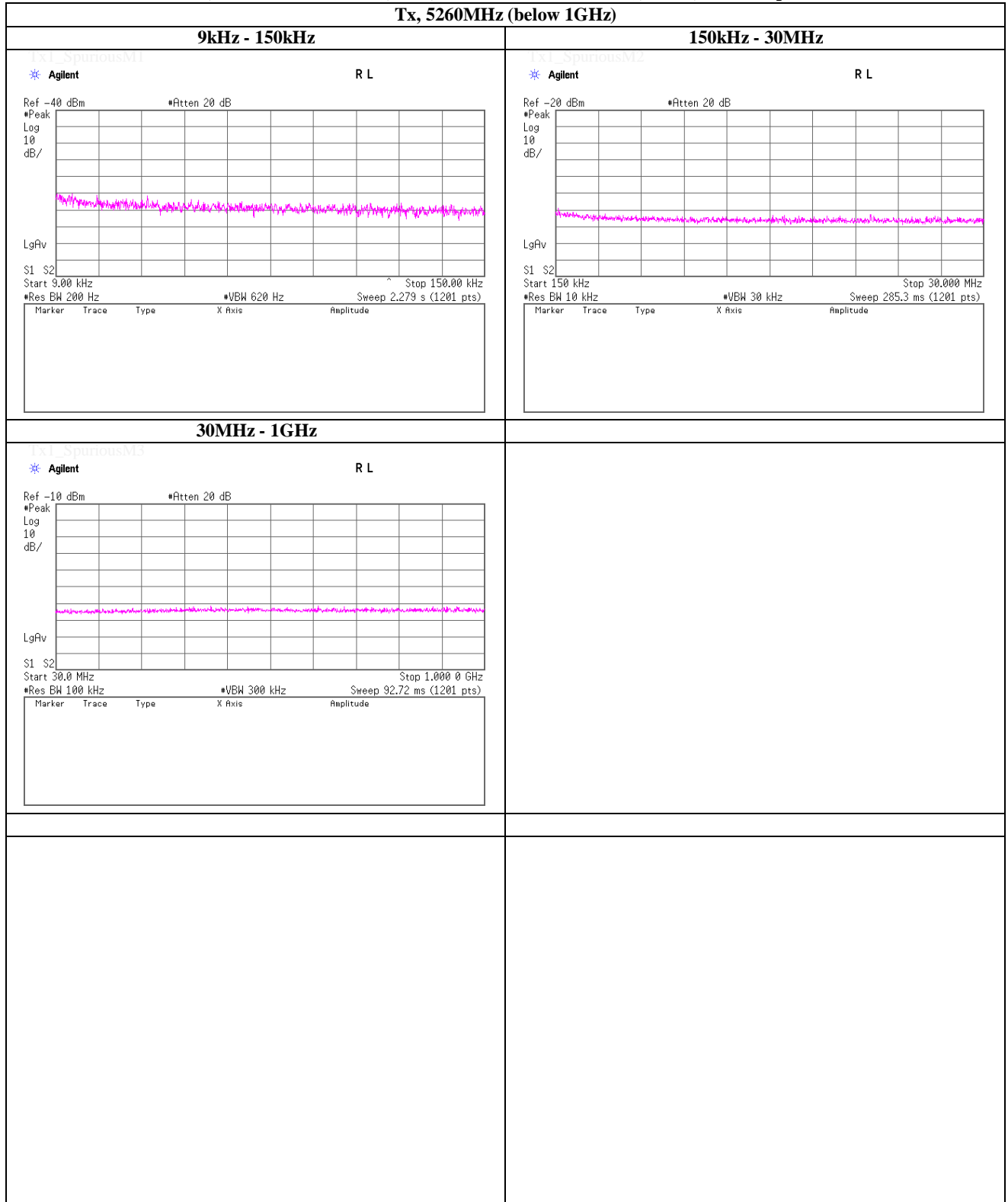
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5260MHz (below 1GHz)**



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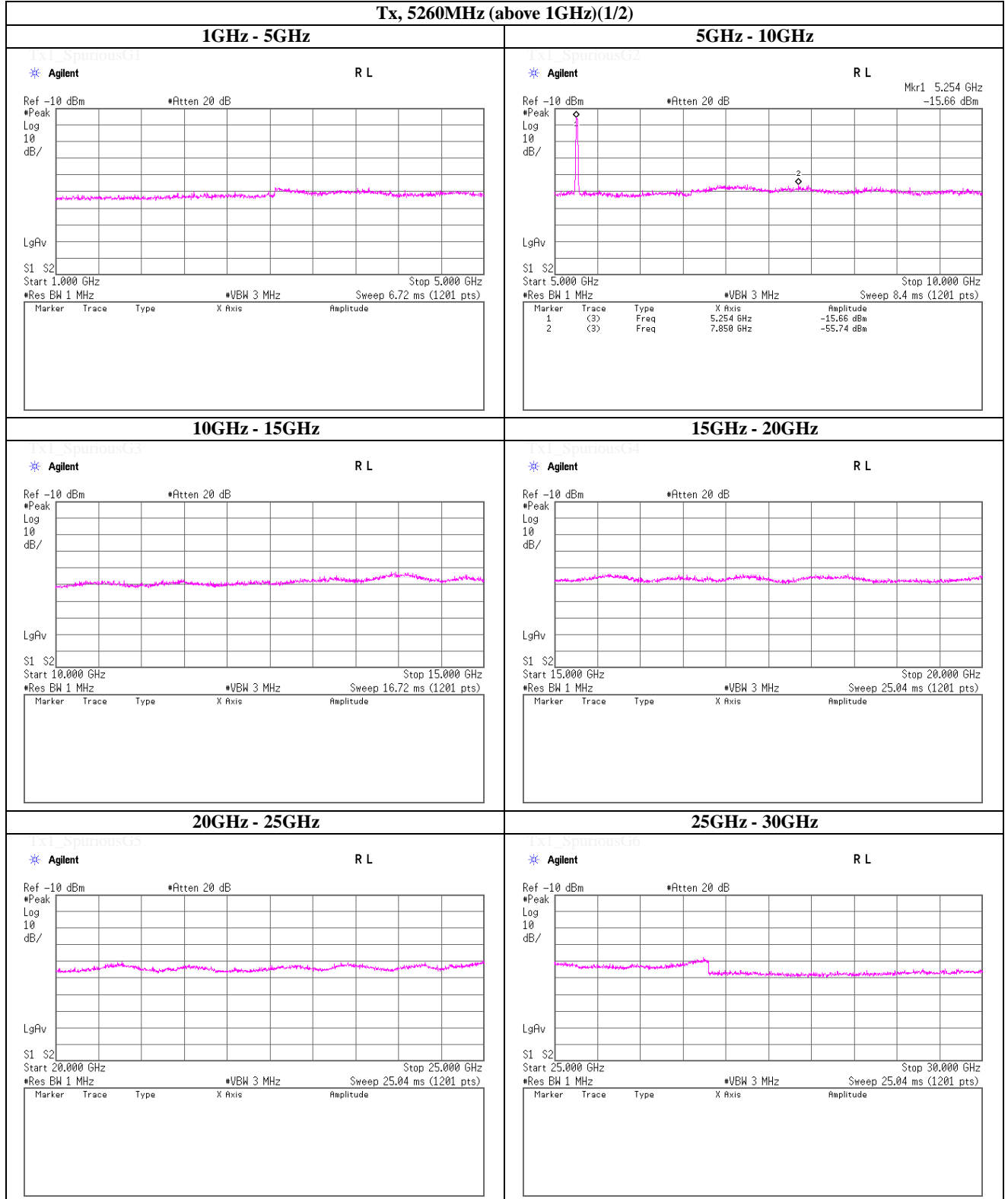
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5260MHz (above 1GHz)(1/2)**



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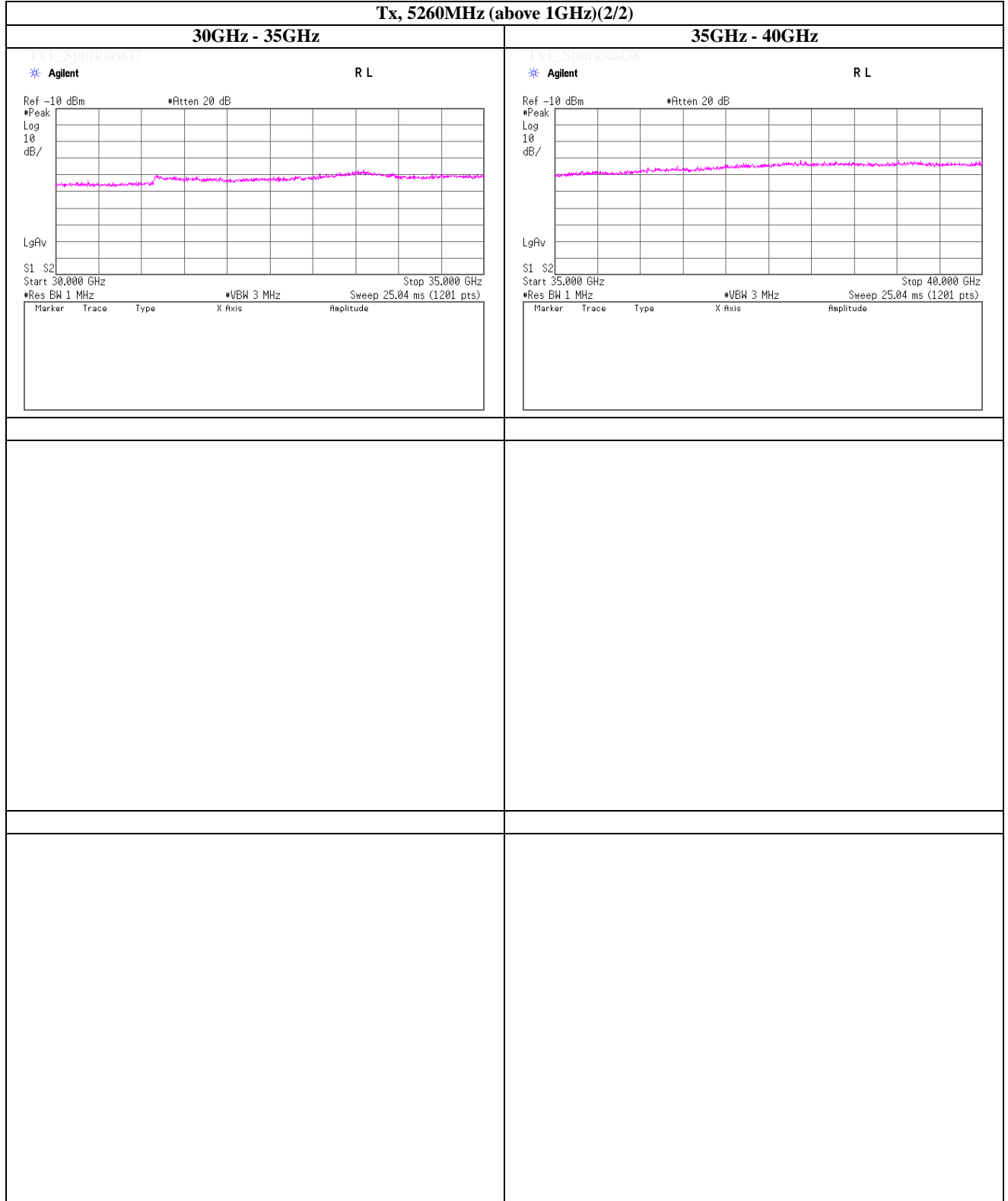
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5260MHz (above 1GHz)(2/2)**

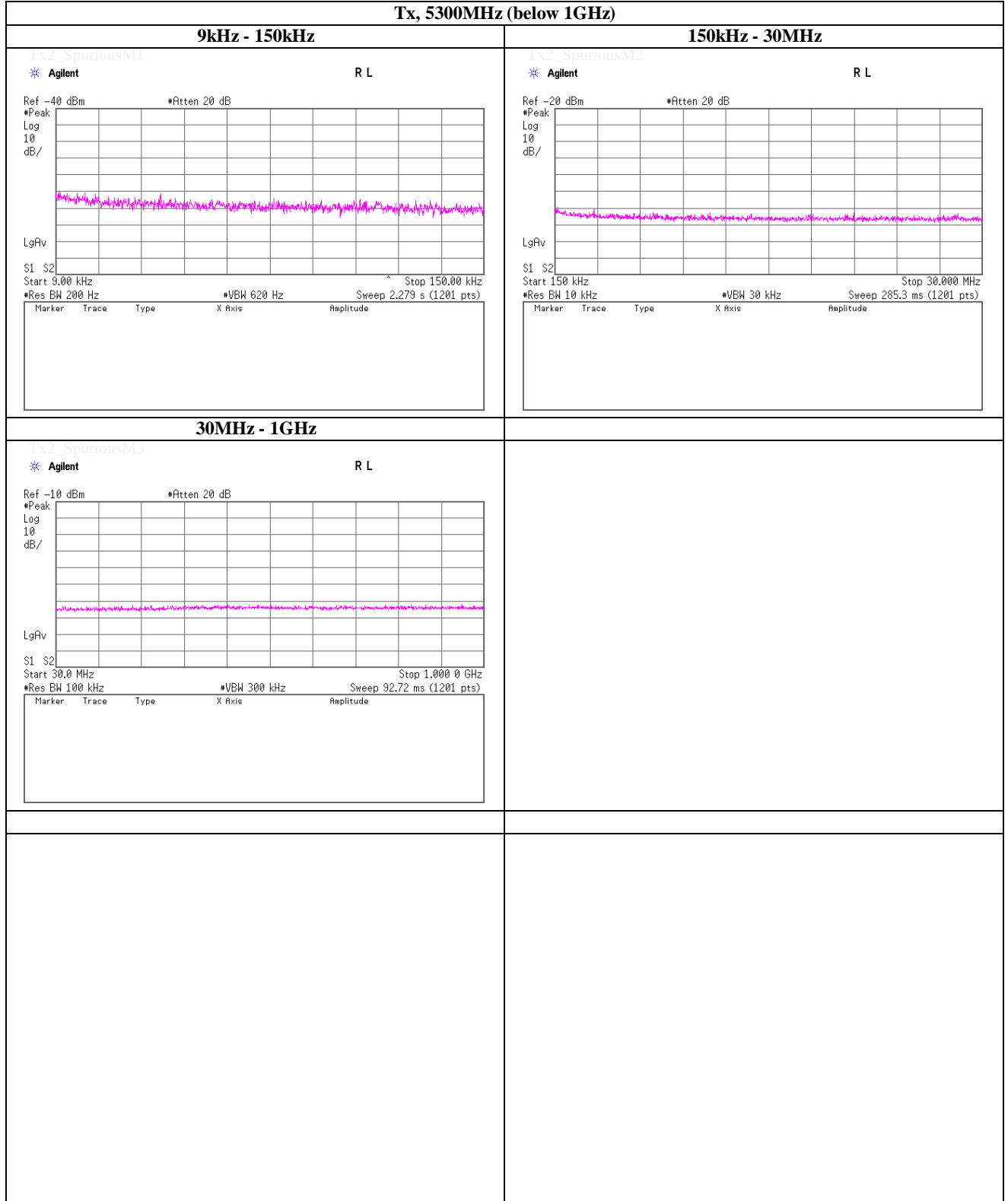


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5300MHz (below 1GHz)**

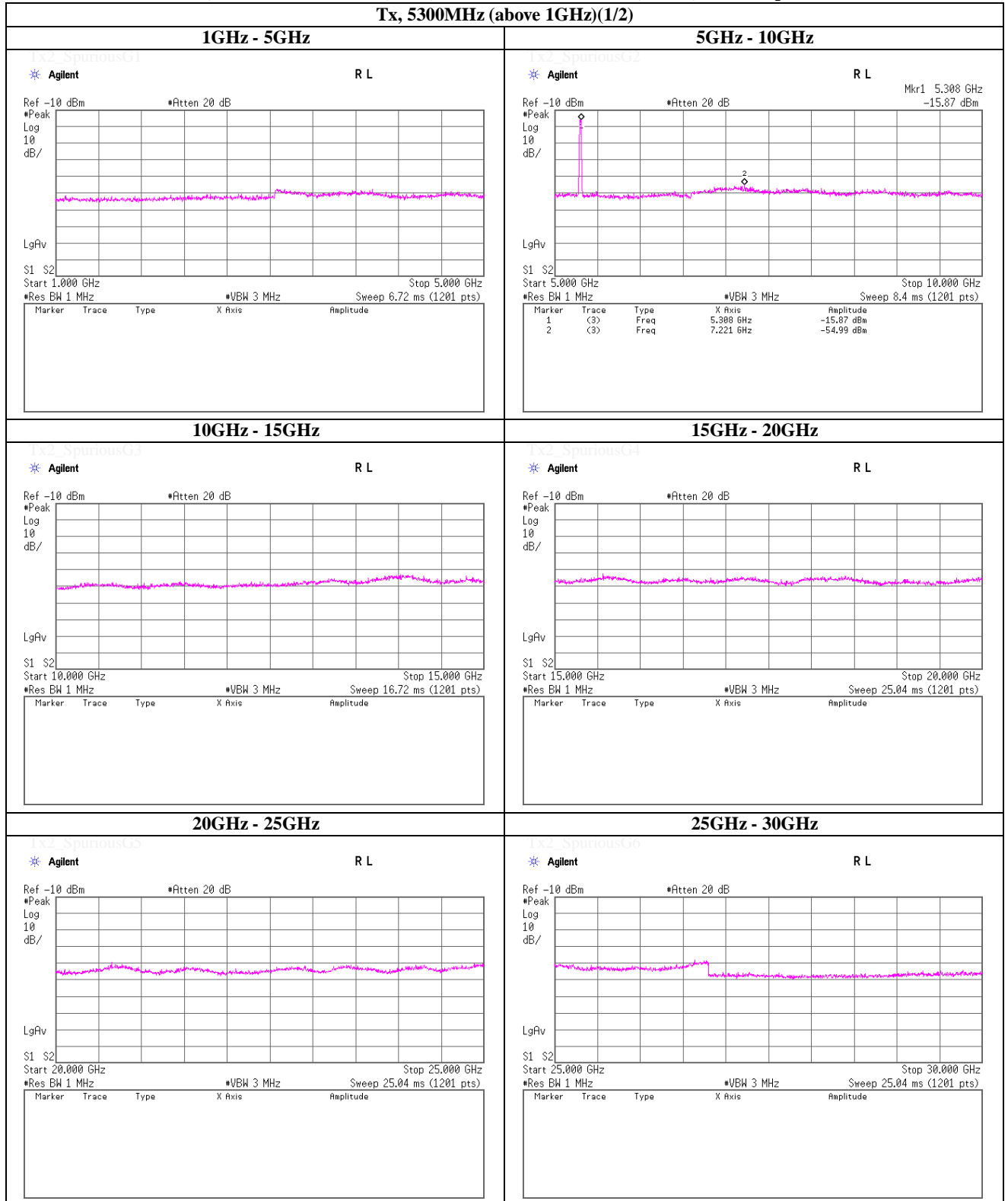


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5300MHz (above 1GHz)(1/2)**



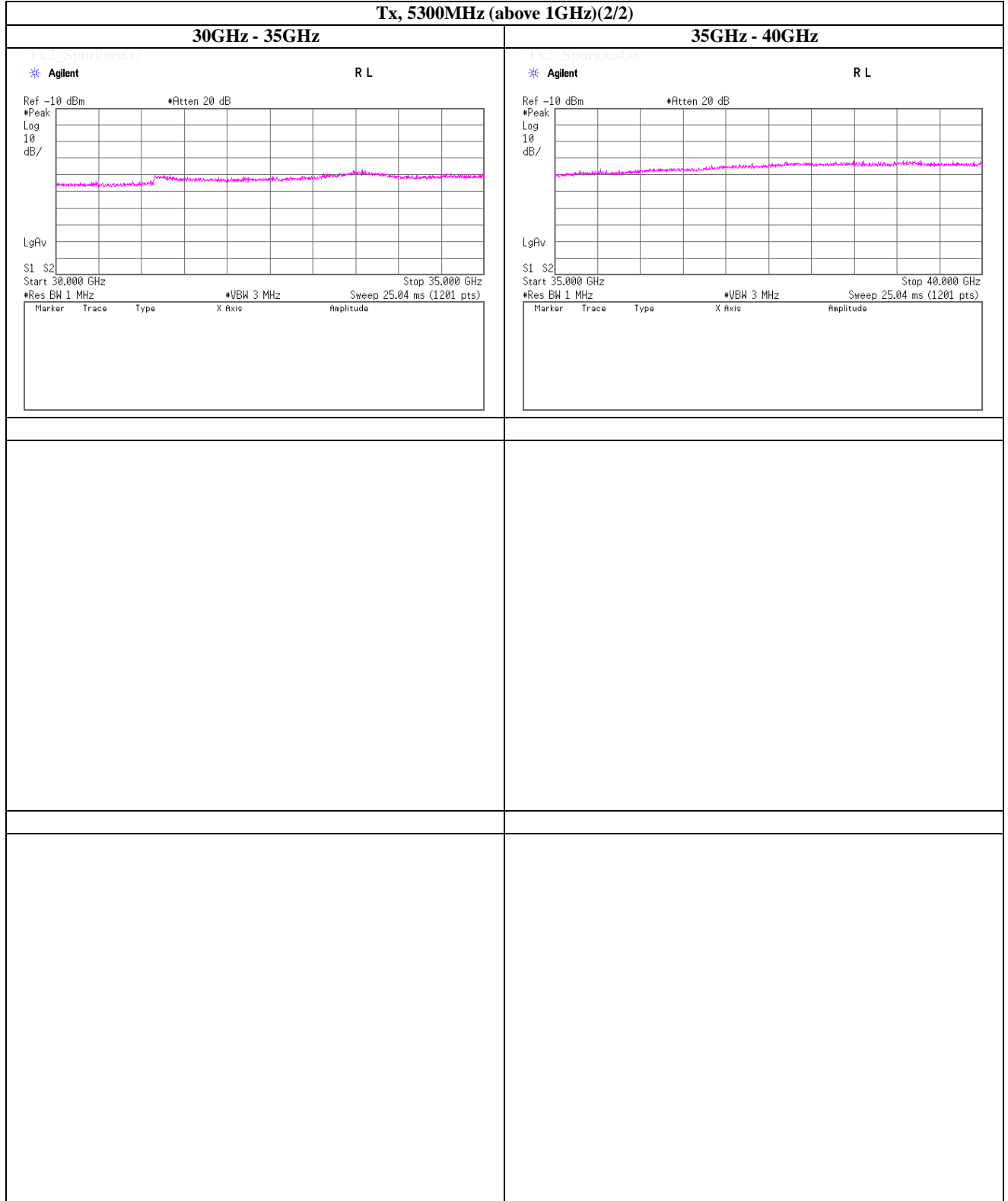
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 Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5300MHz (above 1GHz)(2/2)**

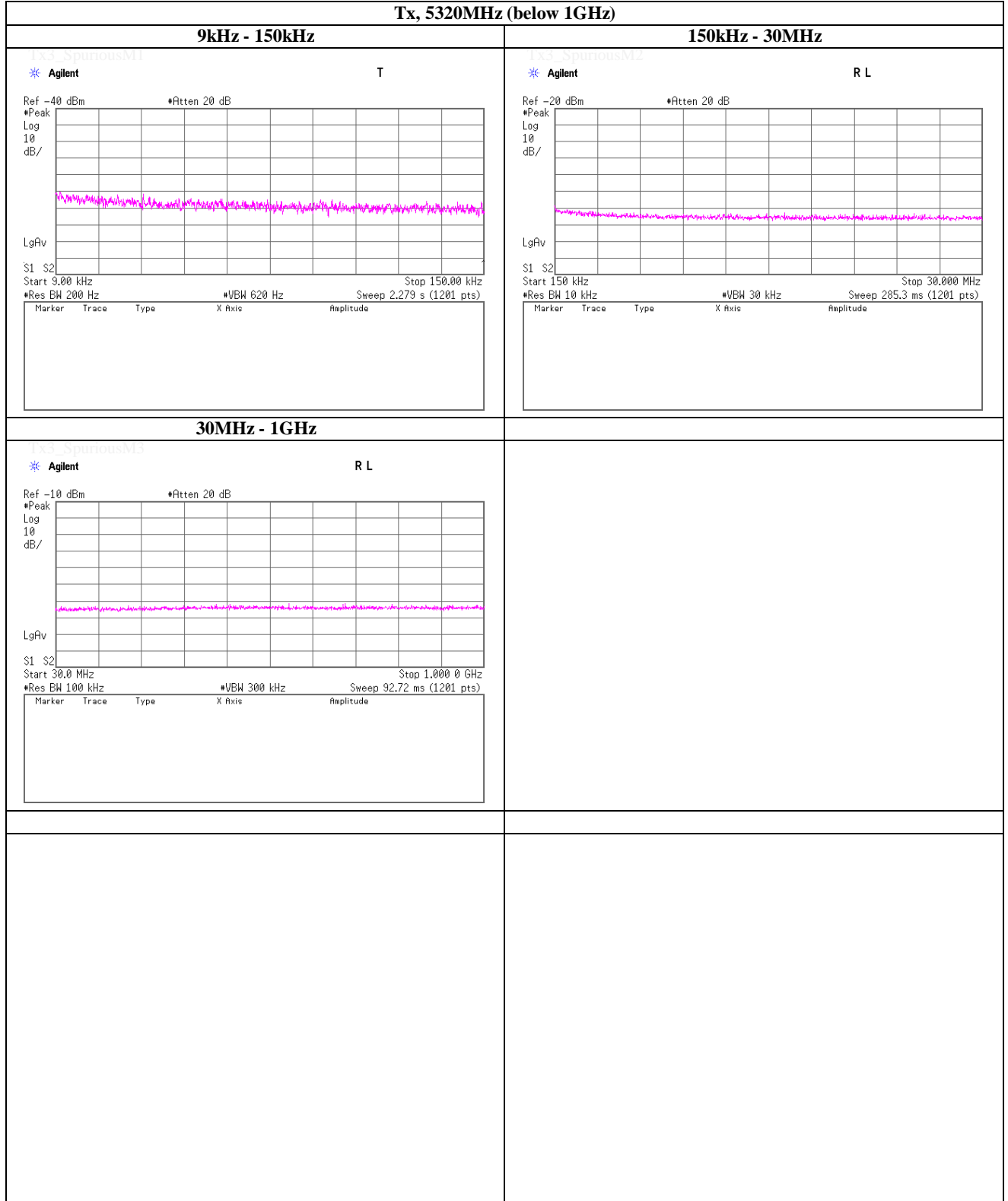


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 Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5320MHz (below 1GHz)**



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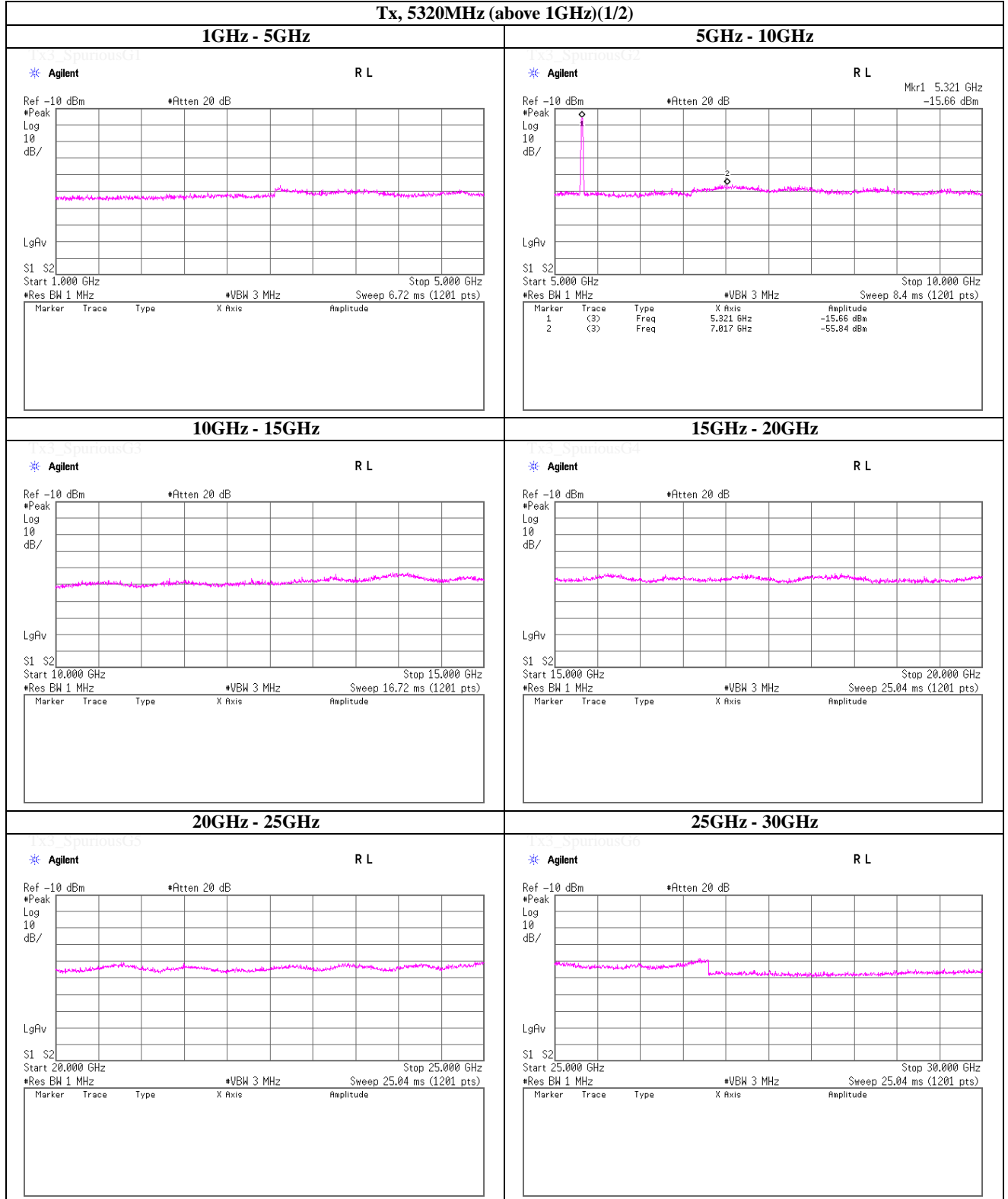
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5320MHz (above 1GHz)(1/2)**



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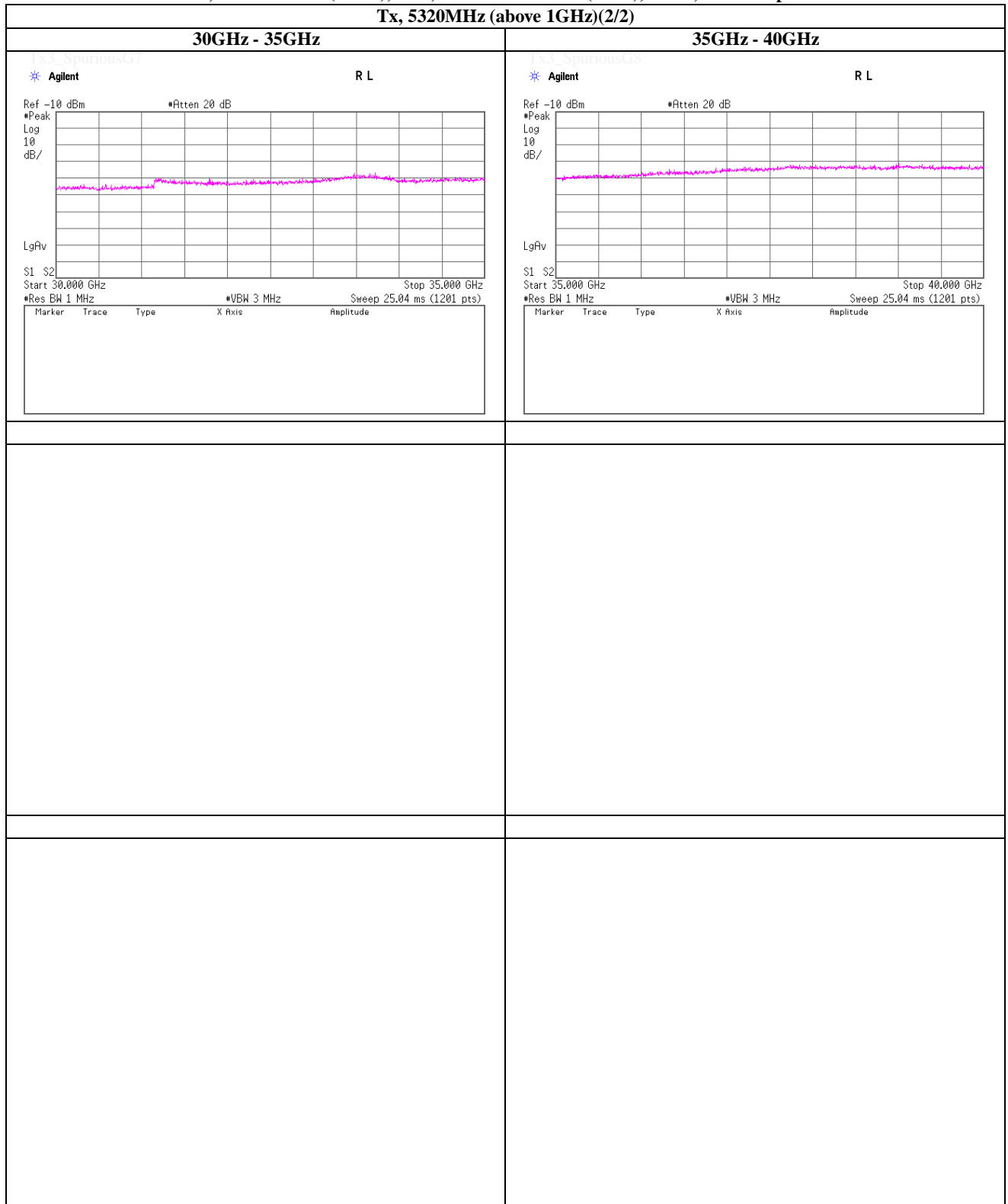
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5320MHz (above 1GHz)(2/2)**

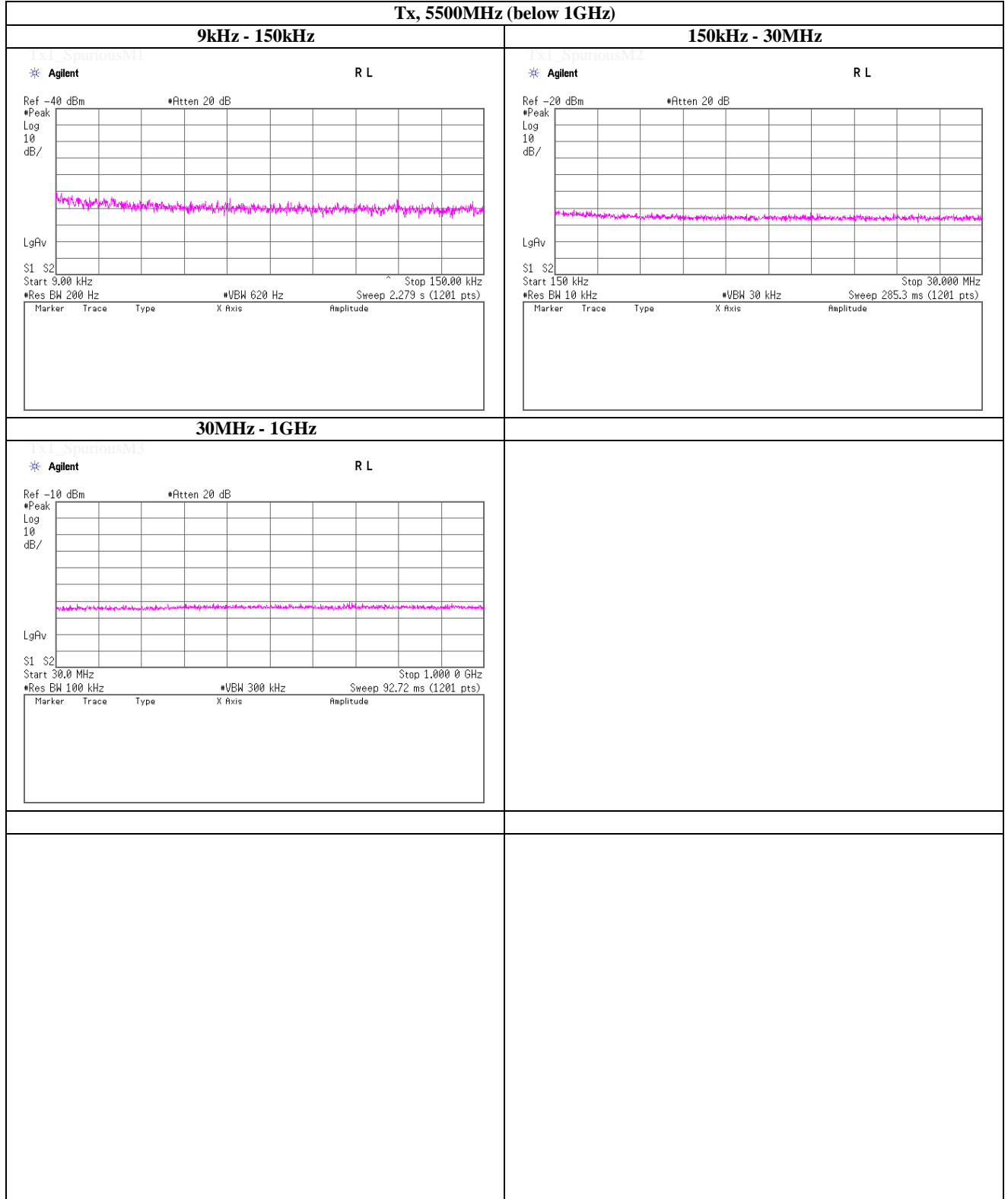


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5500MHz (below 1GHz)**



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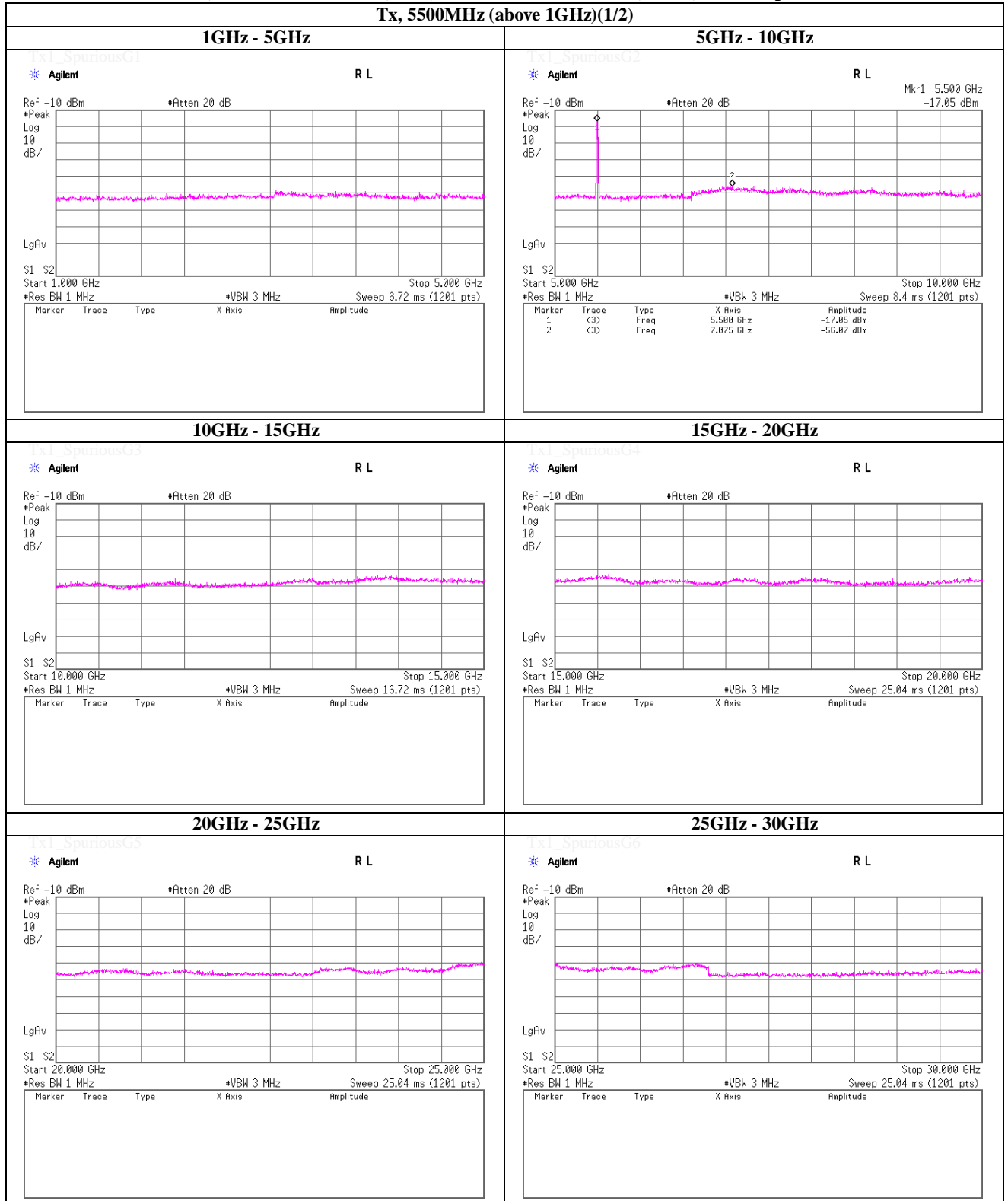
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5500MHz (above 1GHz)(1/2)**

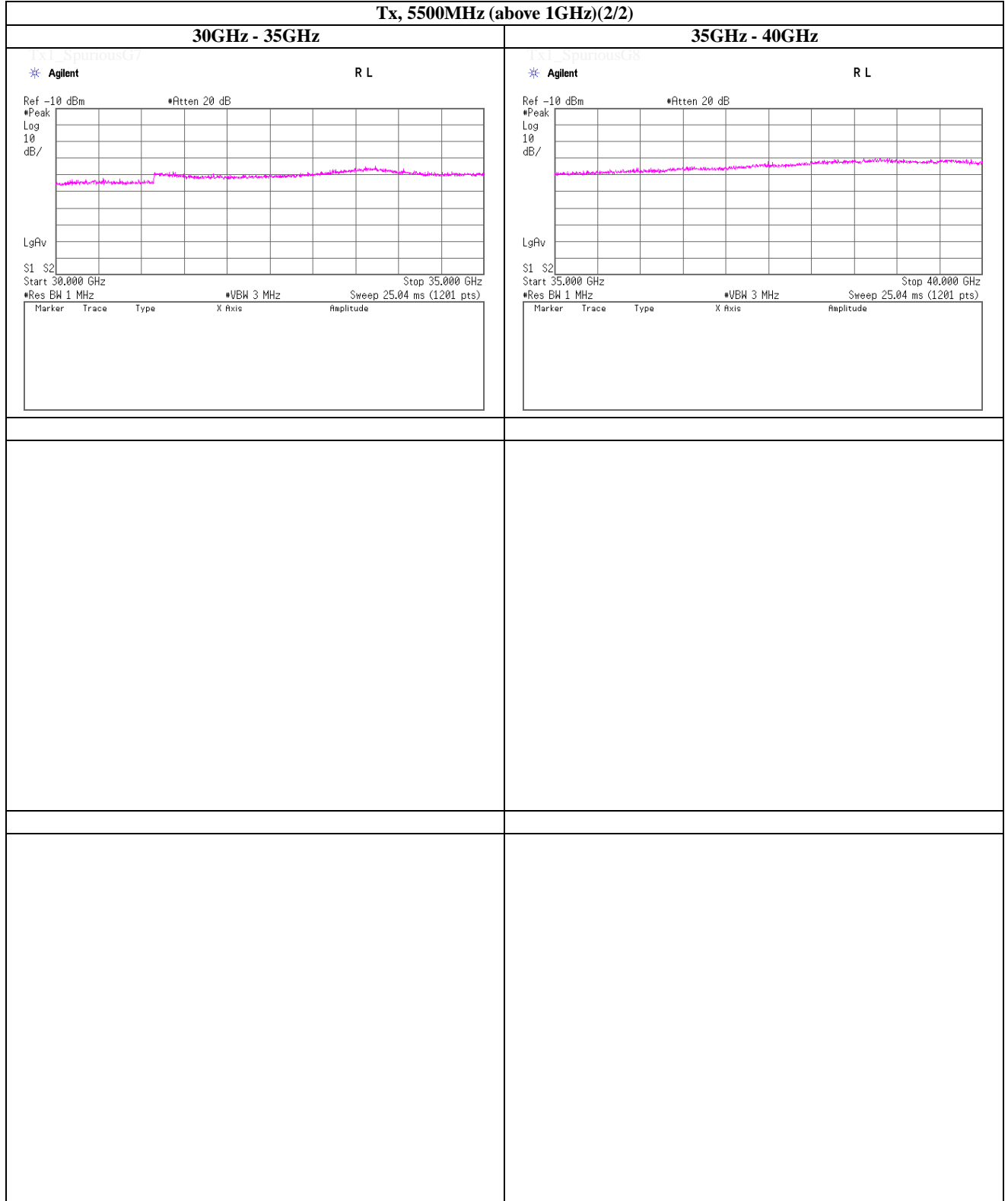


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5500MHz (above 1GHz)(2/2)**

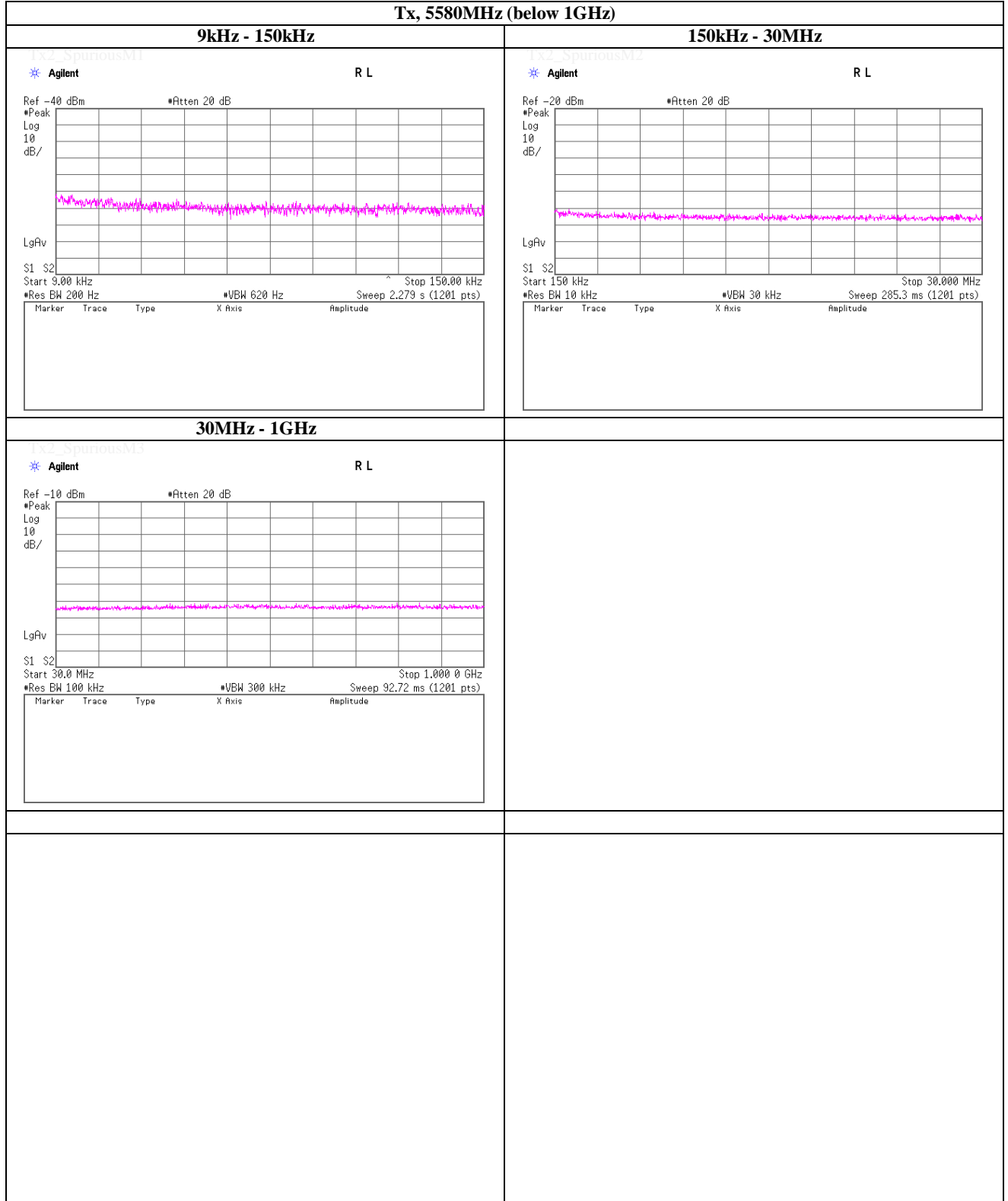


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5580MHz (below 1GHz)**



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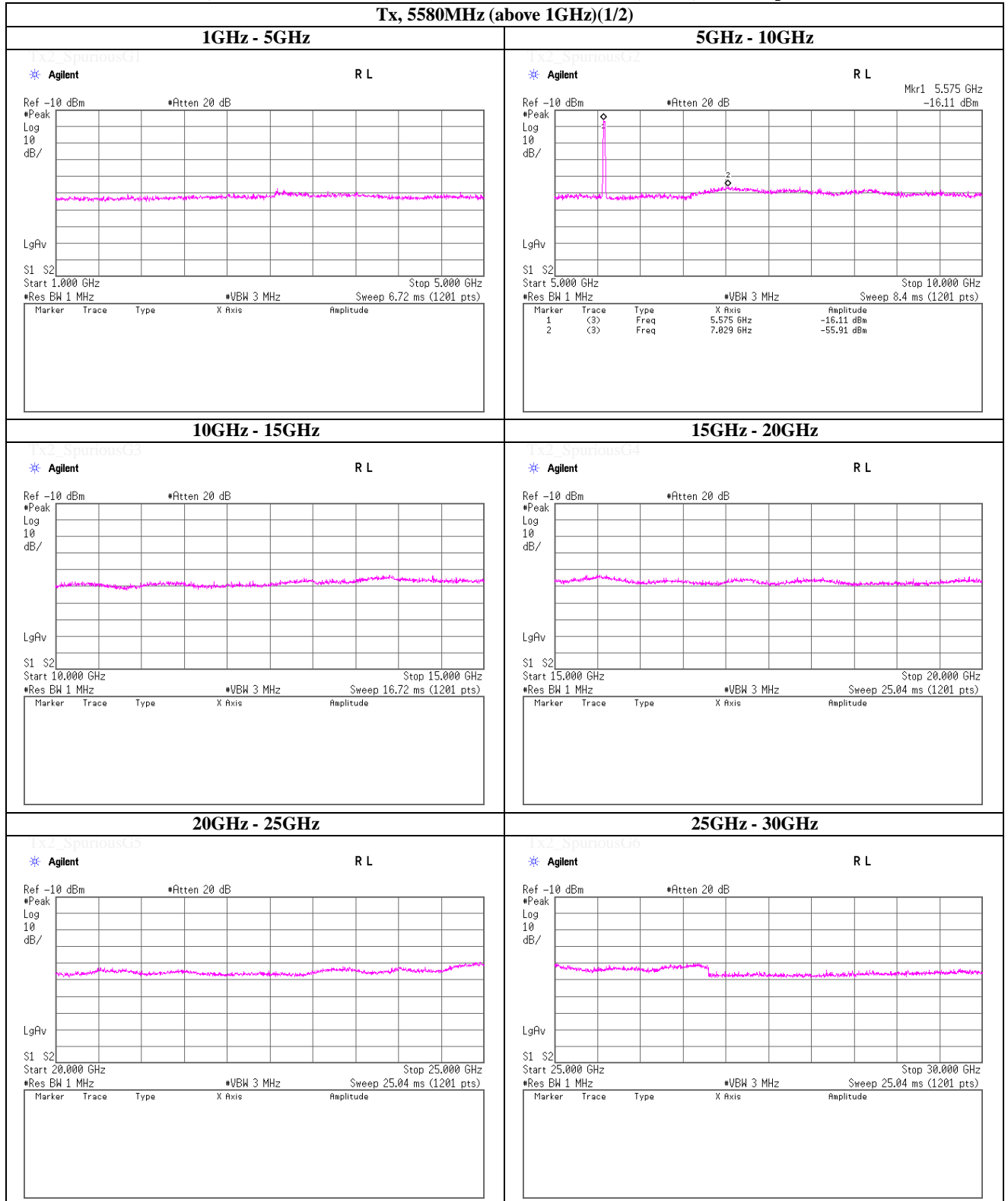
Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5580MHz (above 1GHz)(1/2)**



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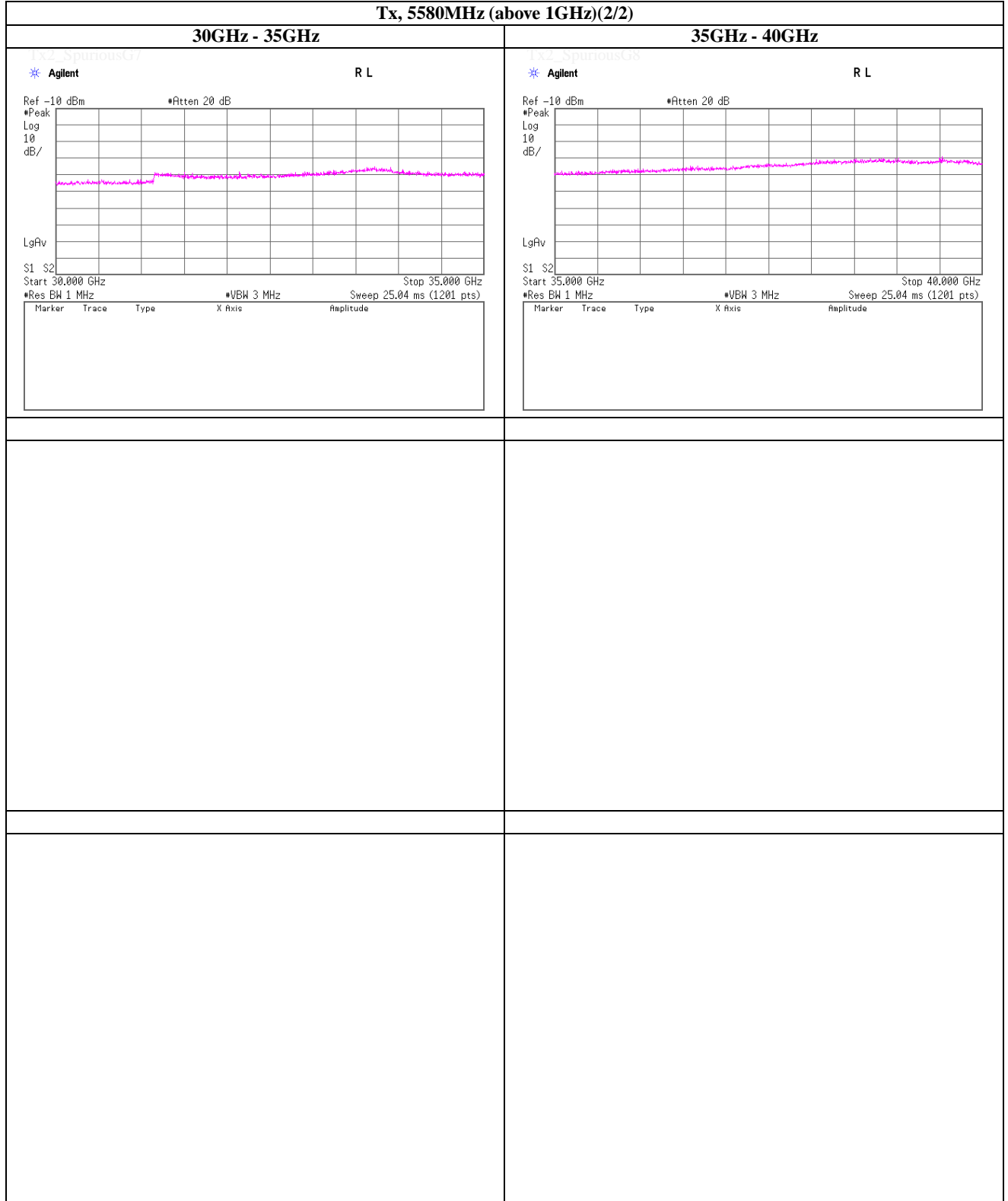
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5580MHz (above 1GHz)(2/2)**

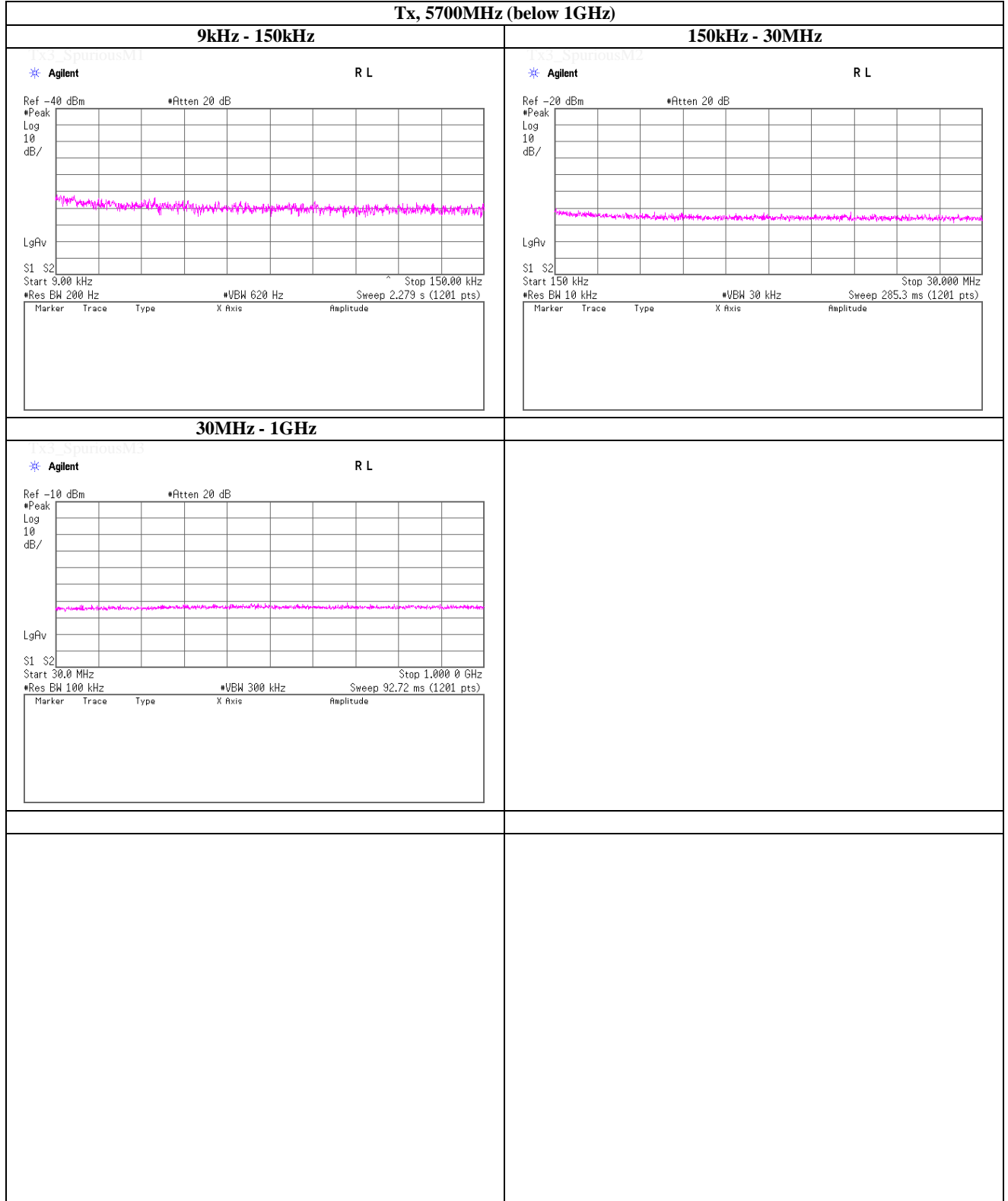


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5700MHz (below 1GHz)**



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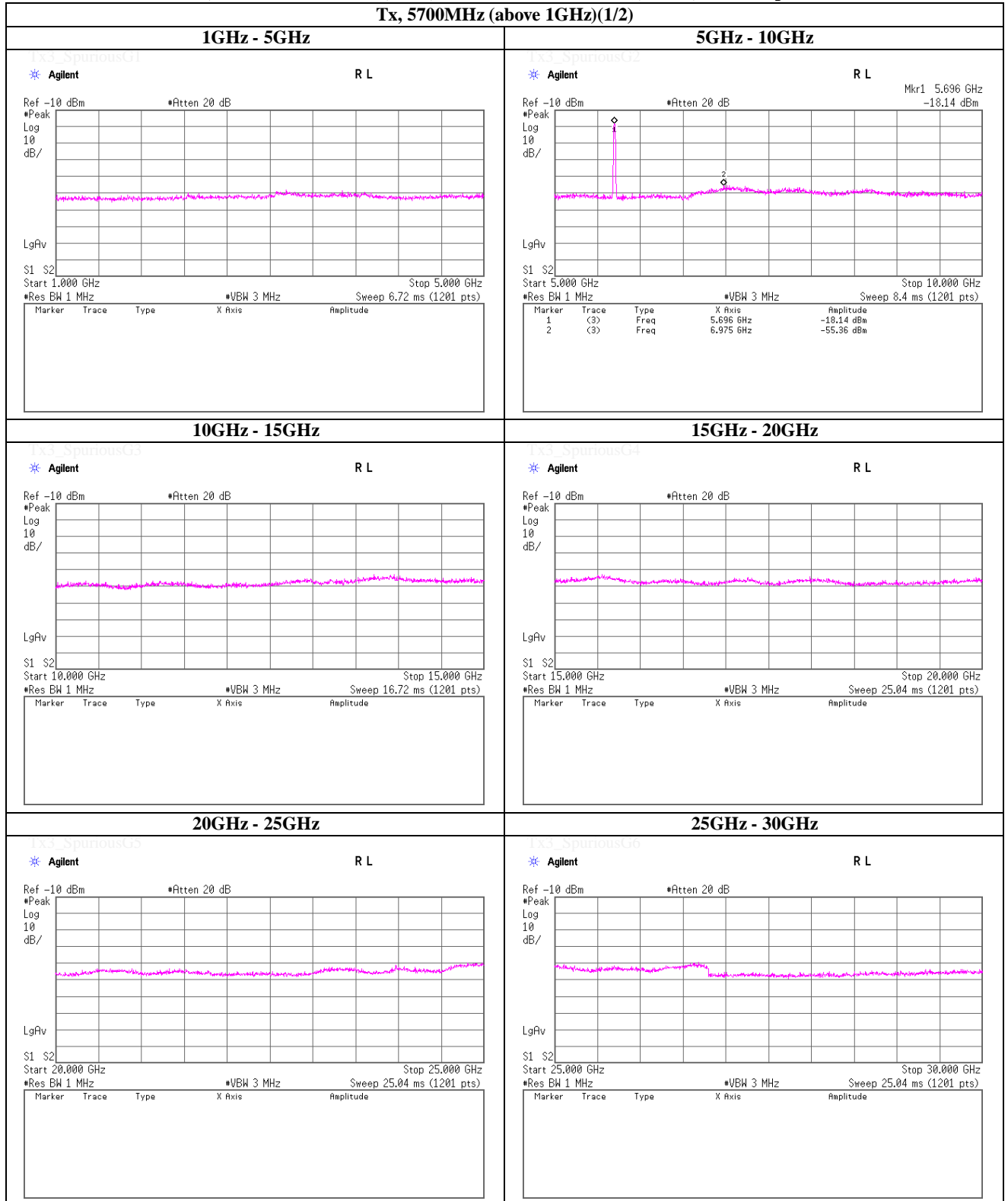
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5700MHz (above 1GHz)(1/2)**



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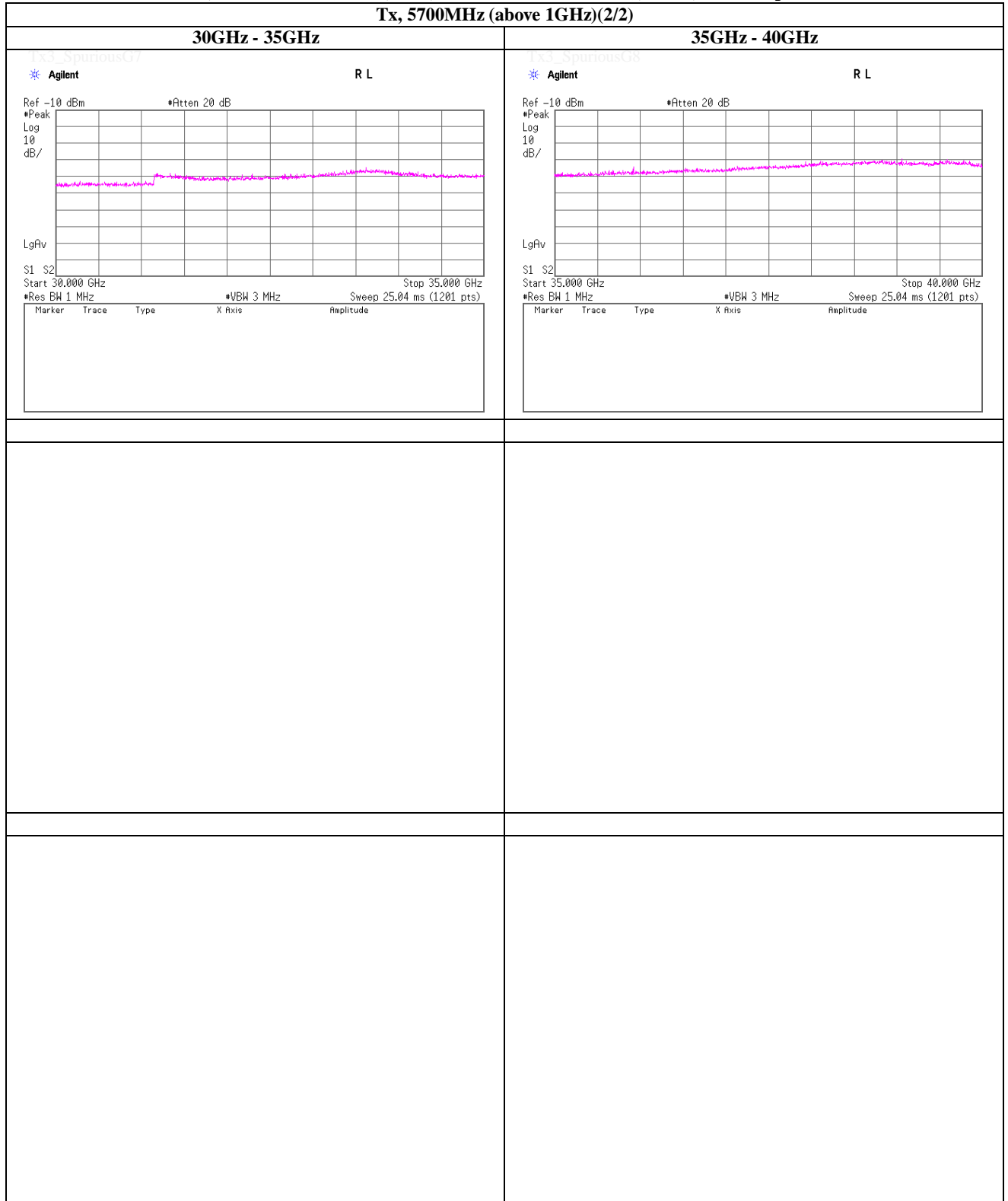
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5700MHz (above 1GHz)(2/2)**

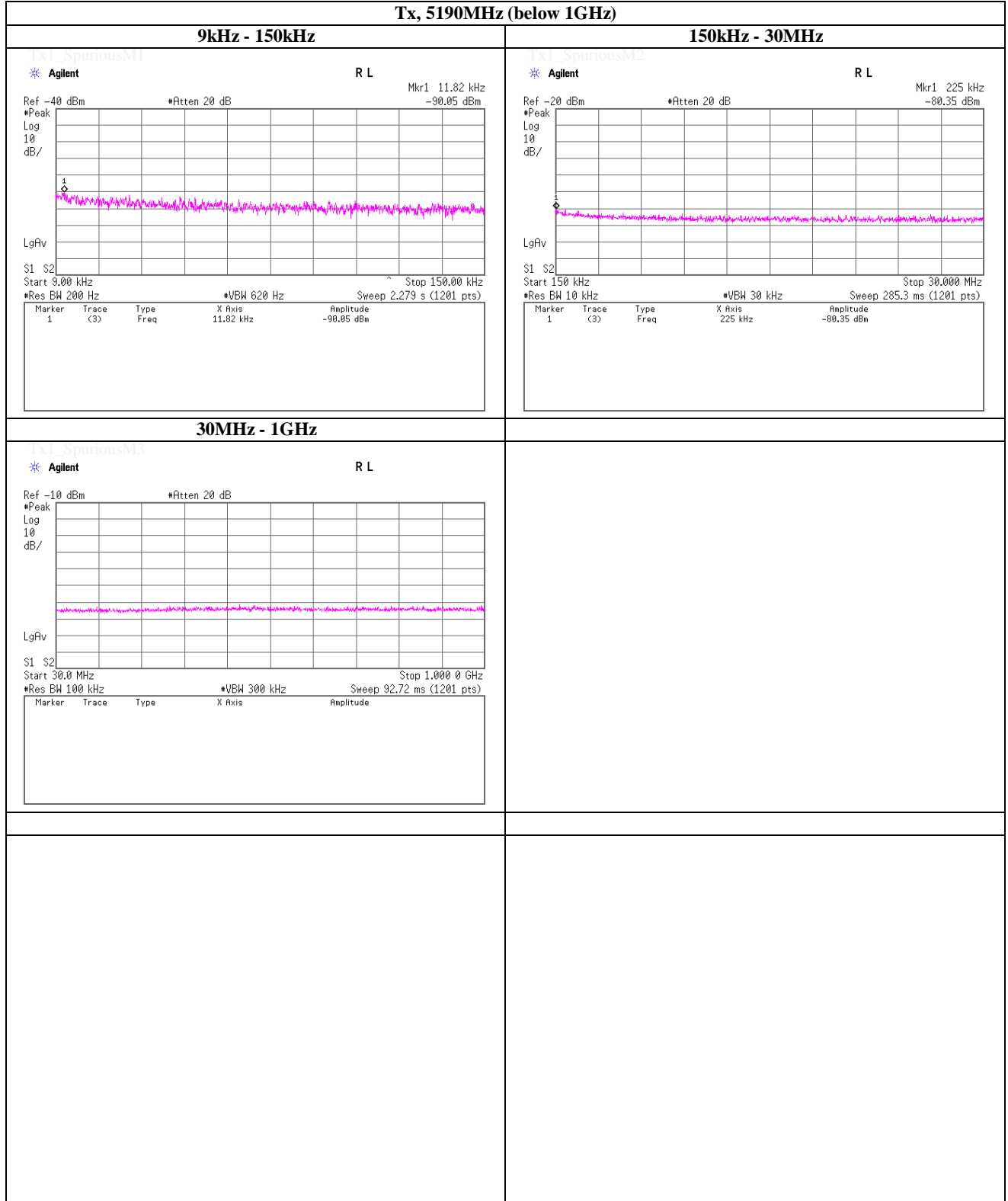


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5190MHz (below 1GHz)**



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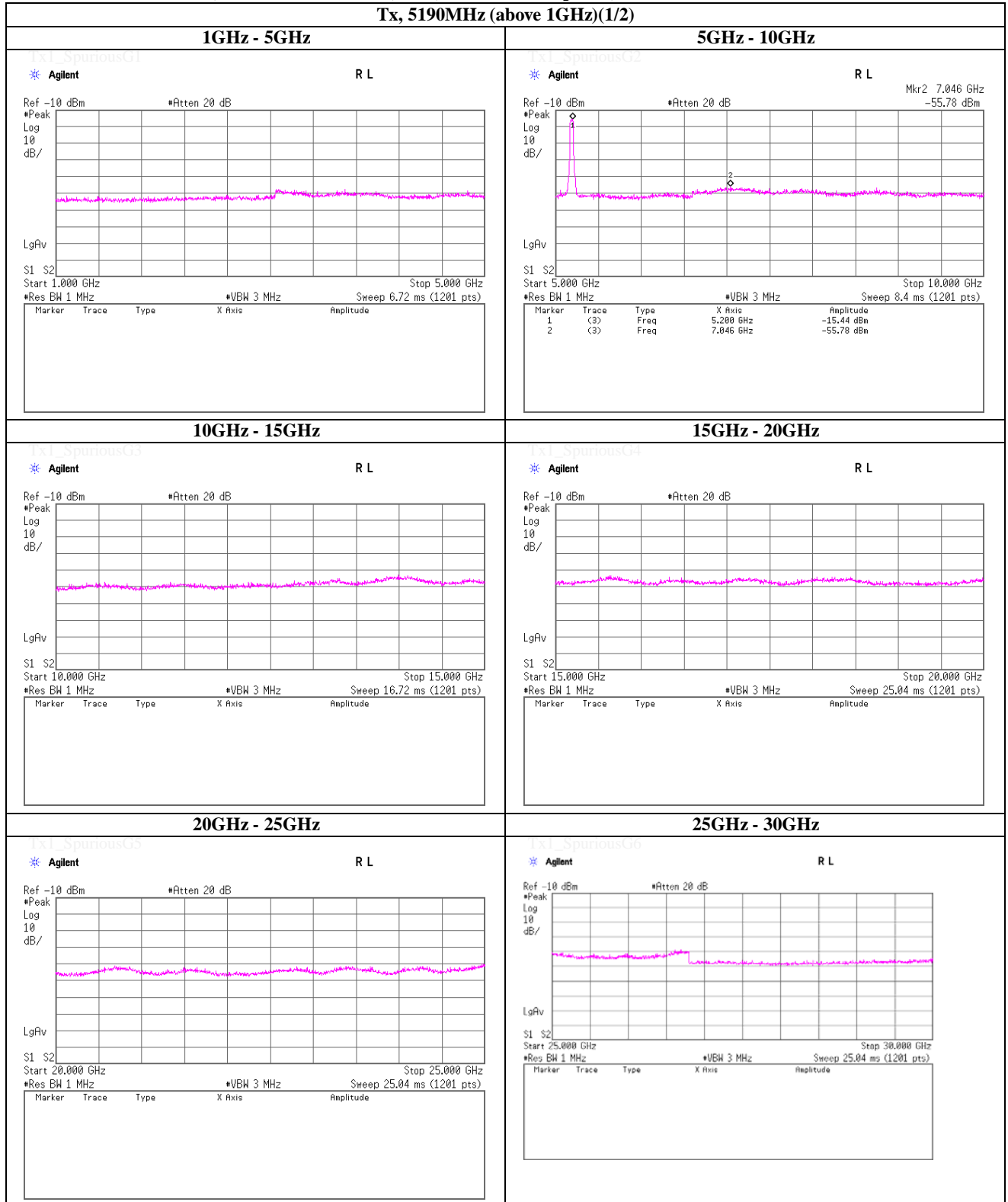
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5190MHz (above 1GHz)(1/2)**



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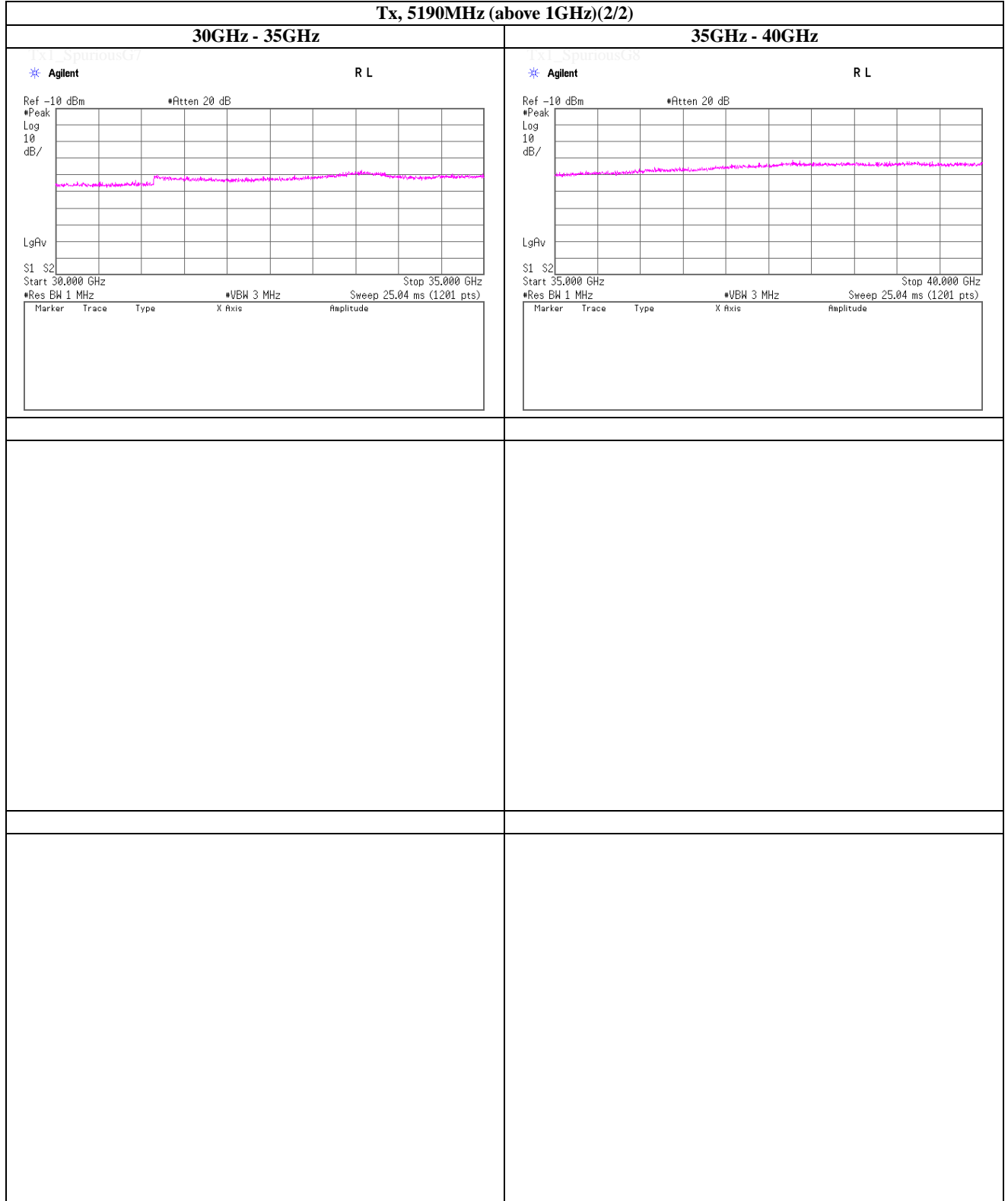
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5190MHz (above 1GHz)(2/2)**



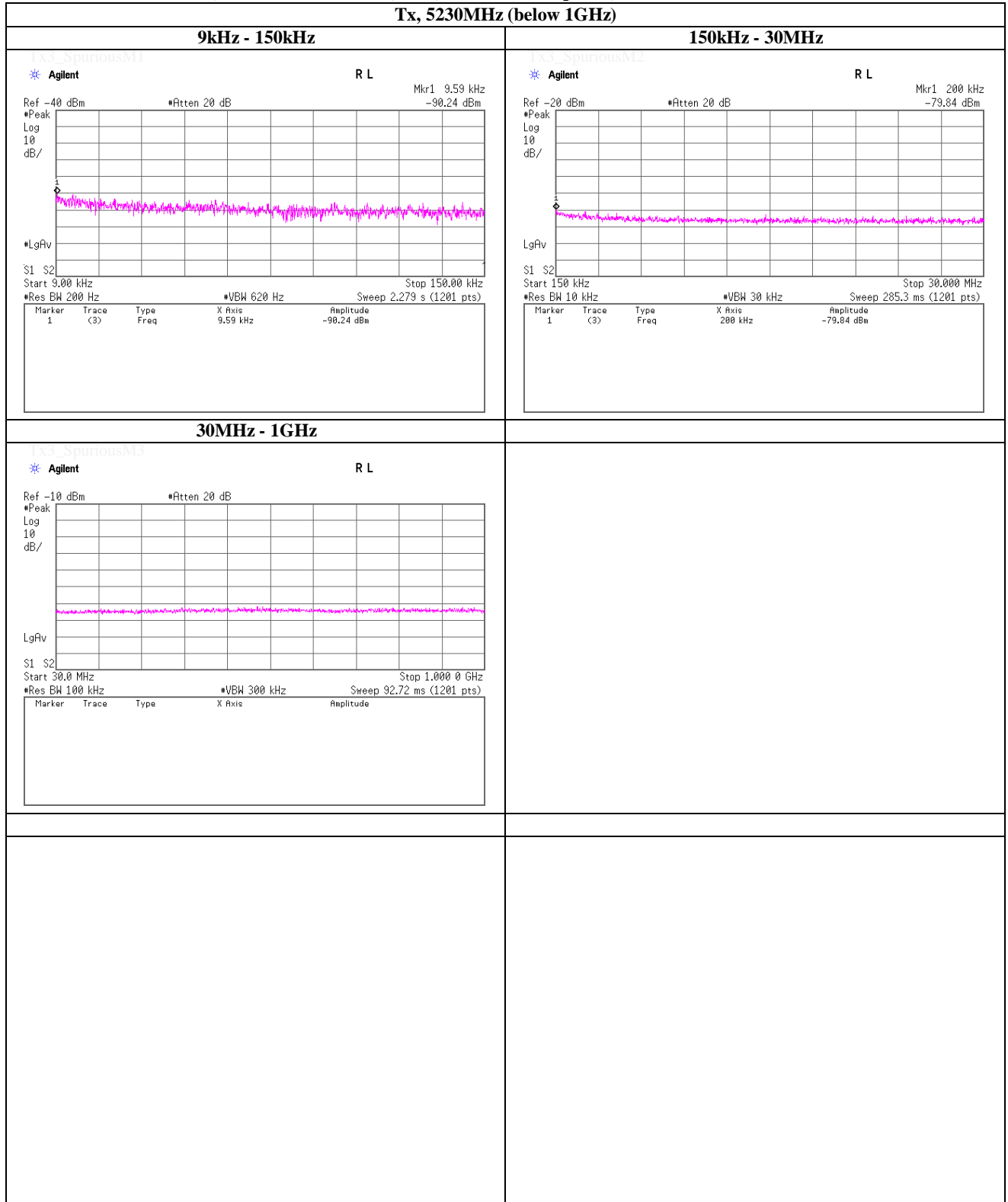
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5230MHz (below 1GHz)**



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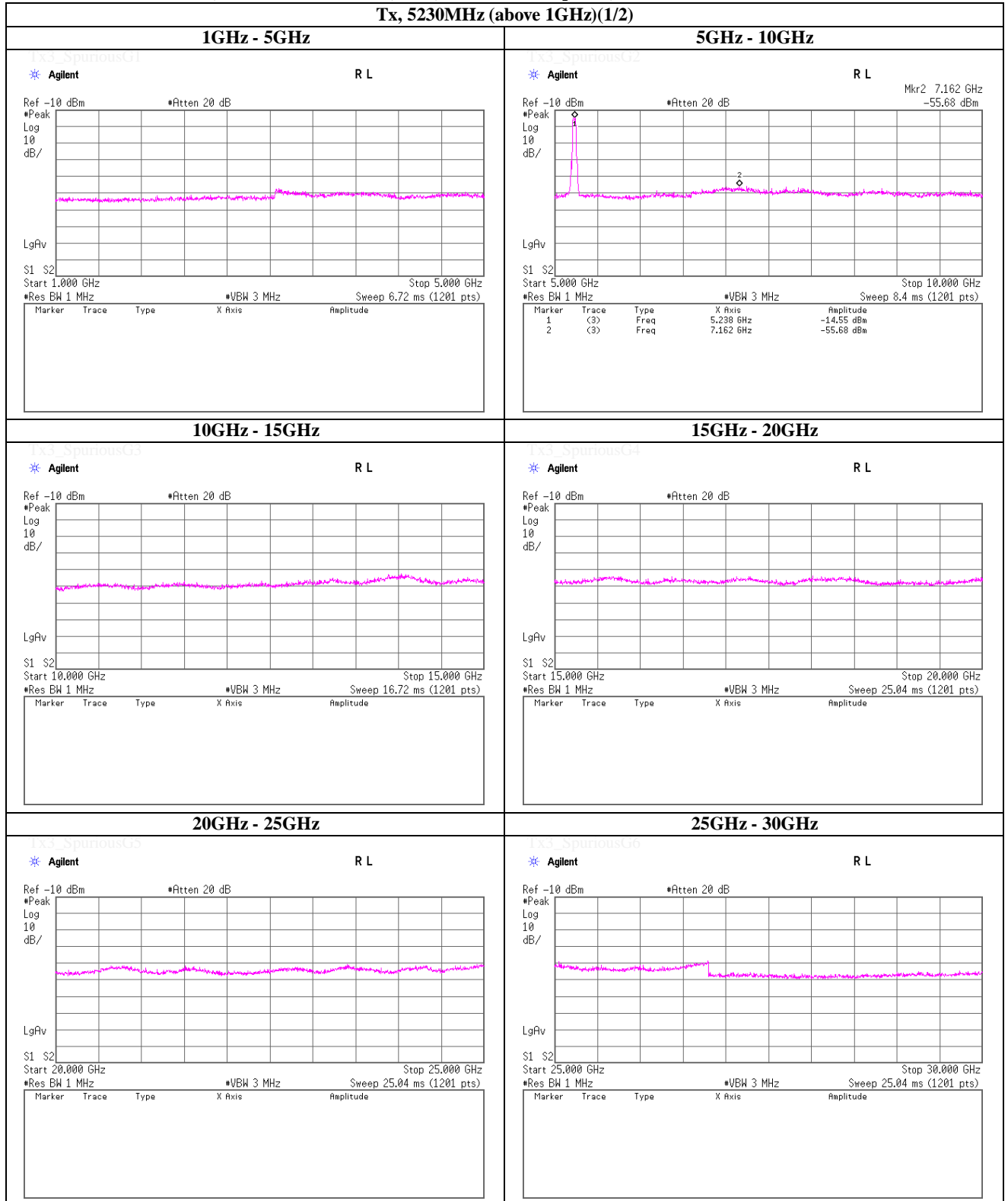
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5230MHz (above 1GHz)(1/2)**

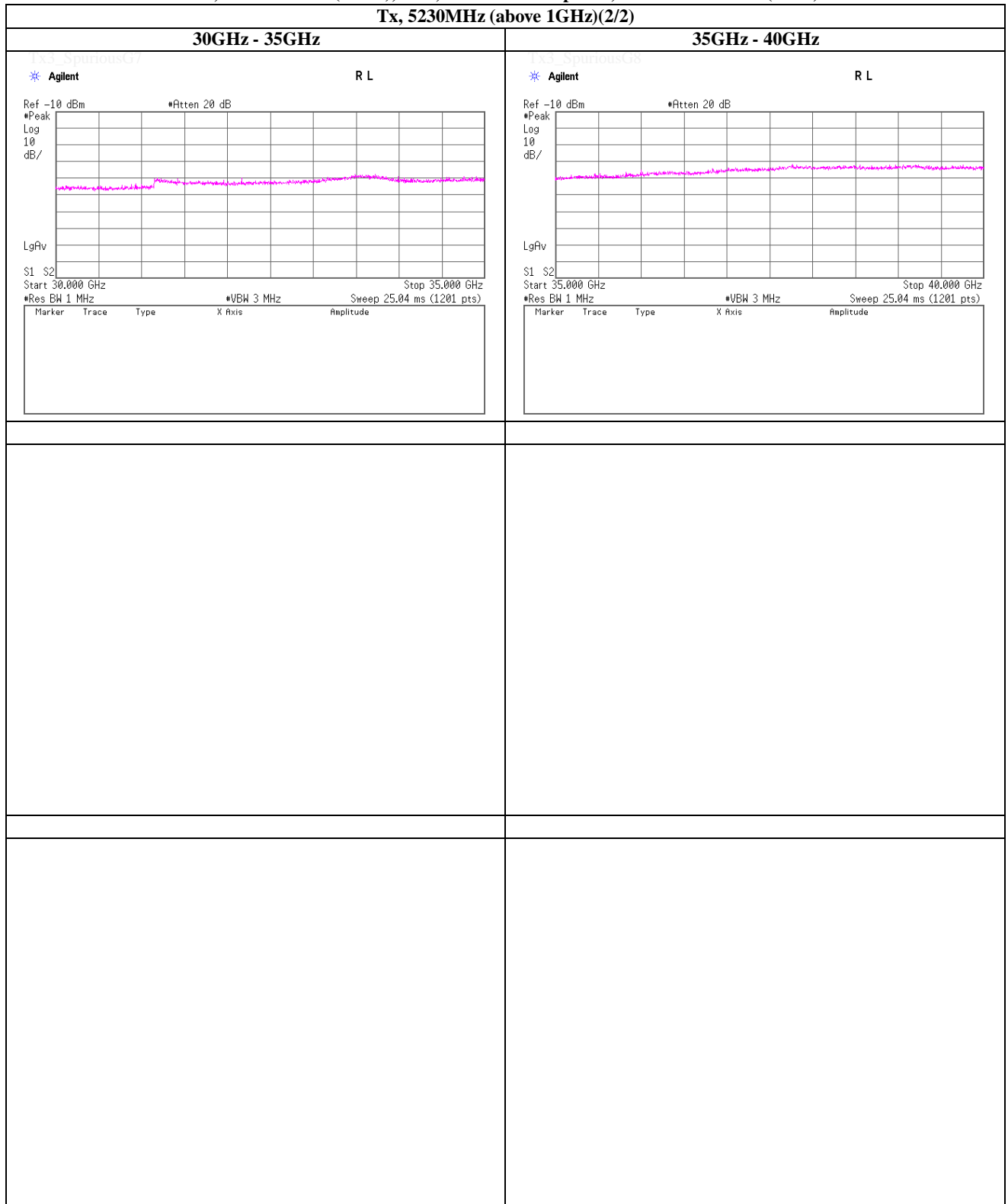


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5230MHz (above 1GHz)(2/2)**

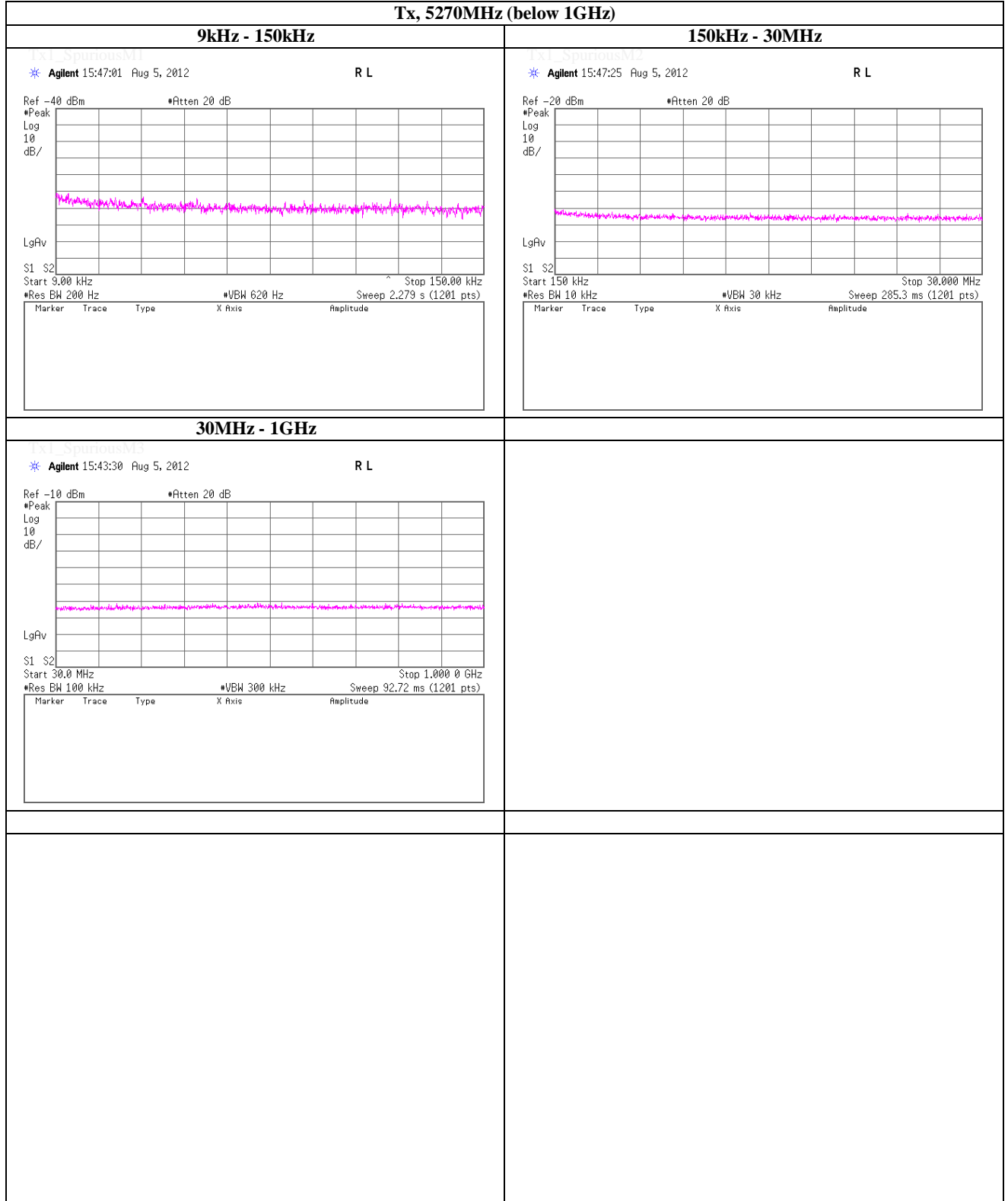


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5270MHz (below 1GHz)**



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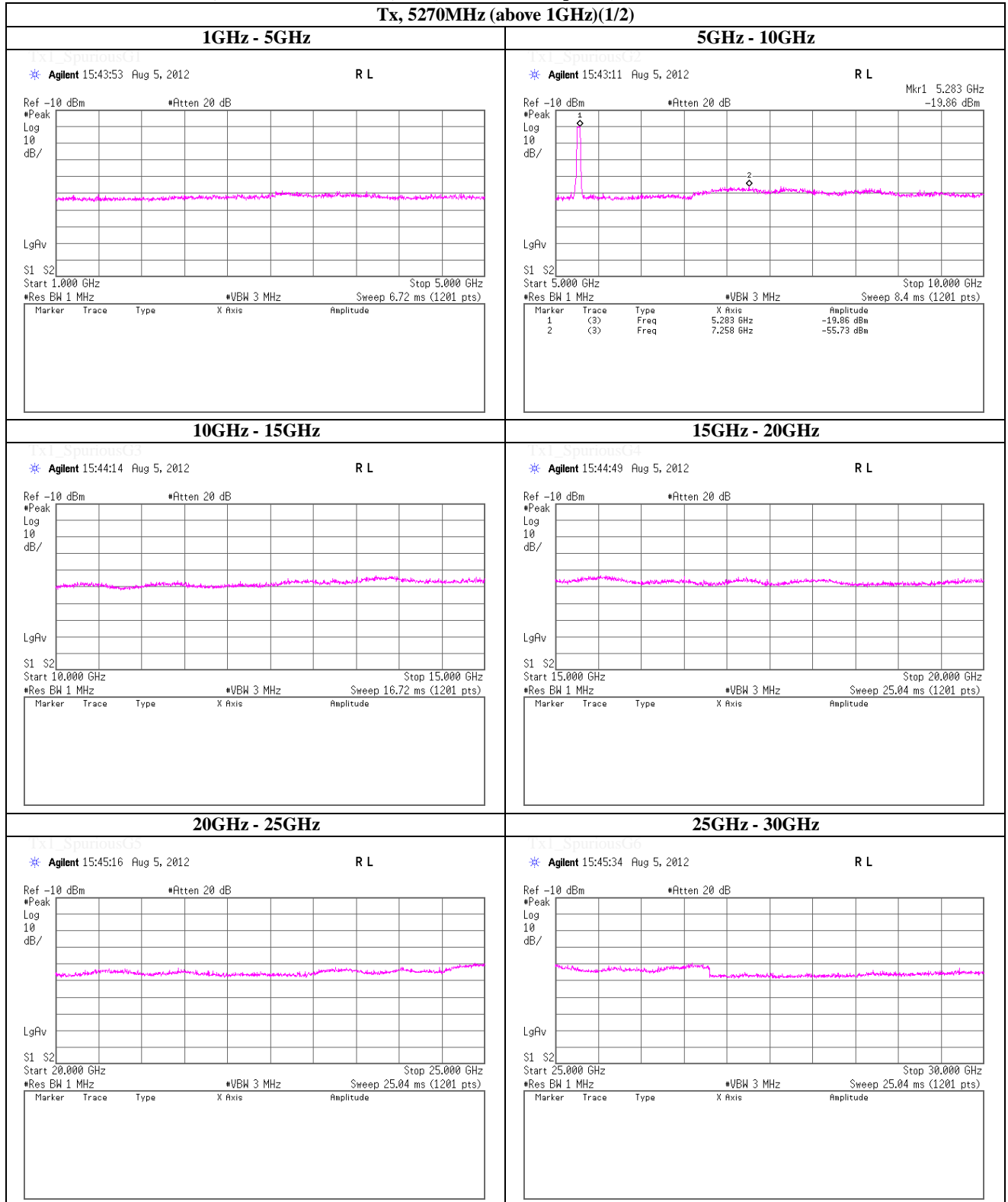
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5270MHz (above 1GHz)(1/2)**



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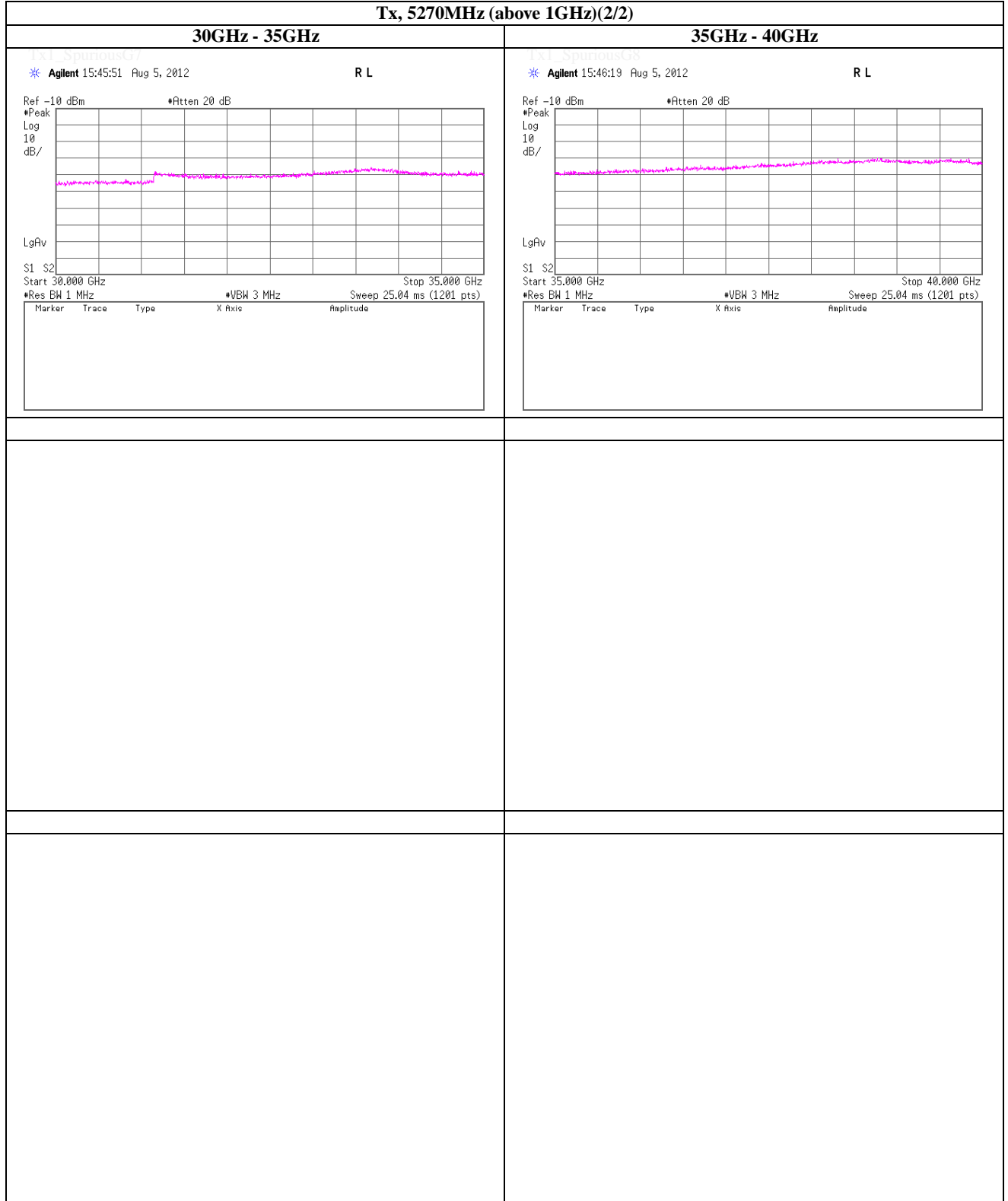
Telephone : +81 463 50 6400

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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5270MHz (above 1GHz)(2/2)**

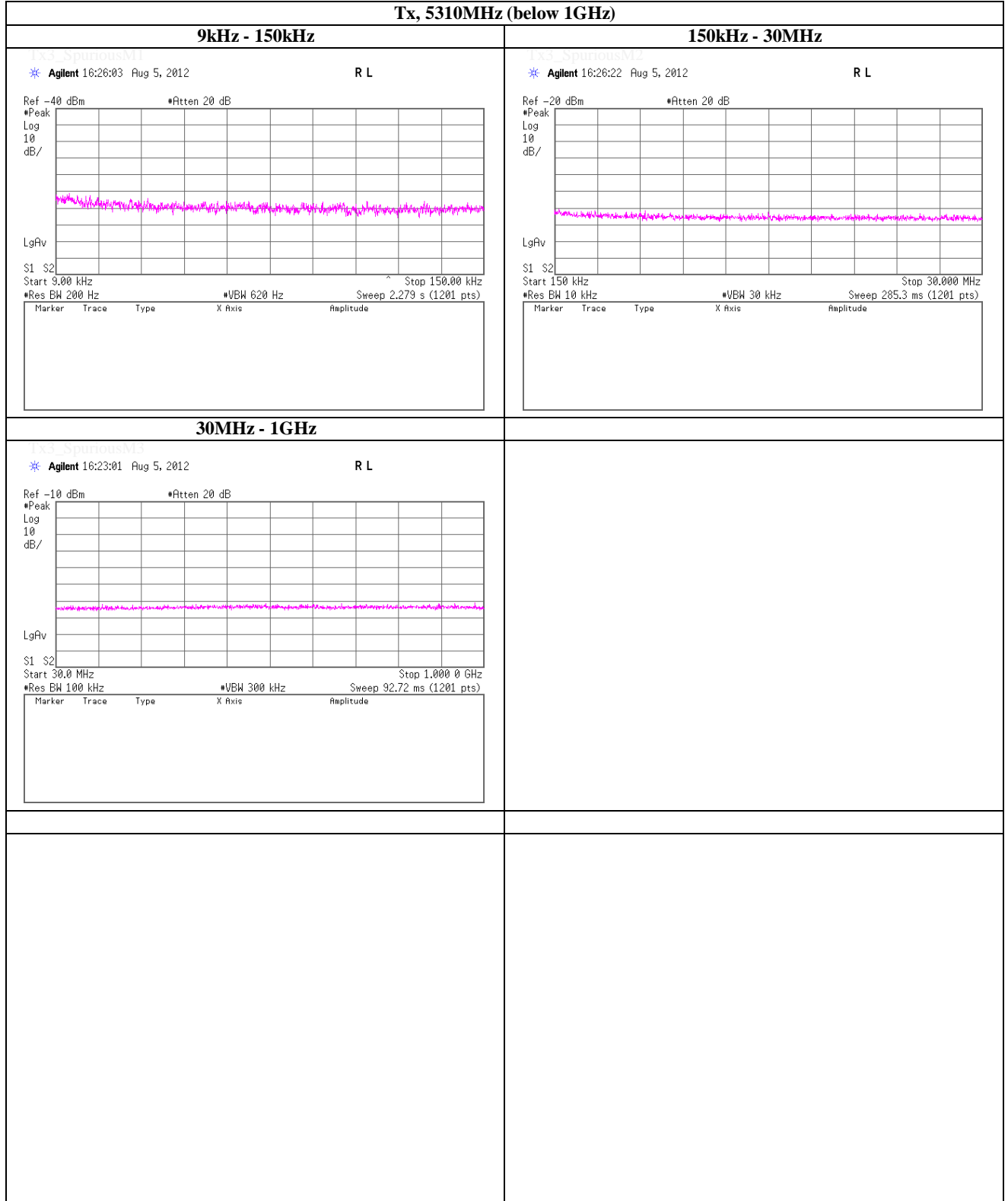


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5310MHz (below 1GHz)**



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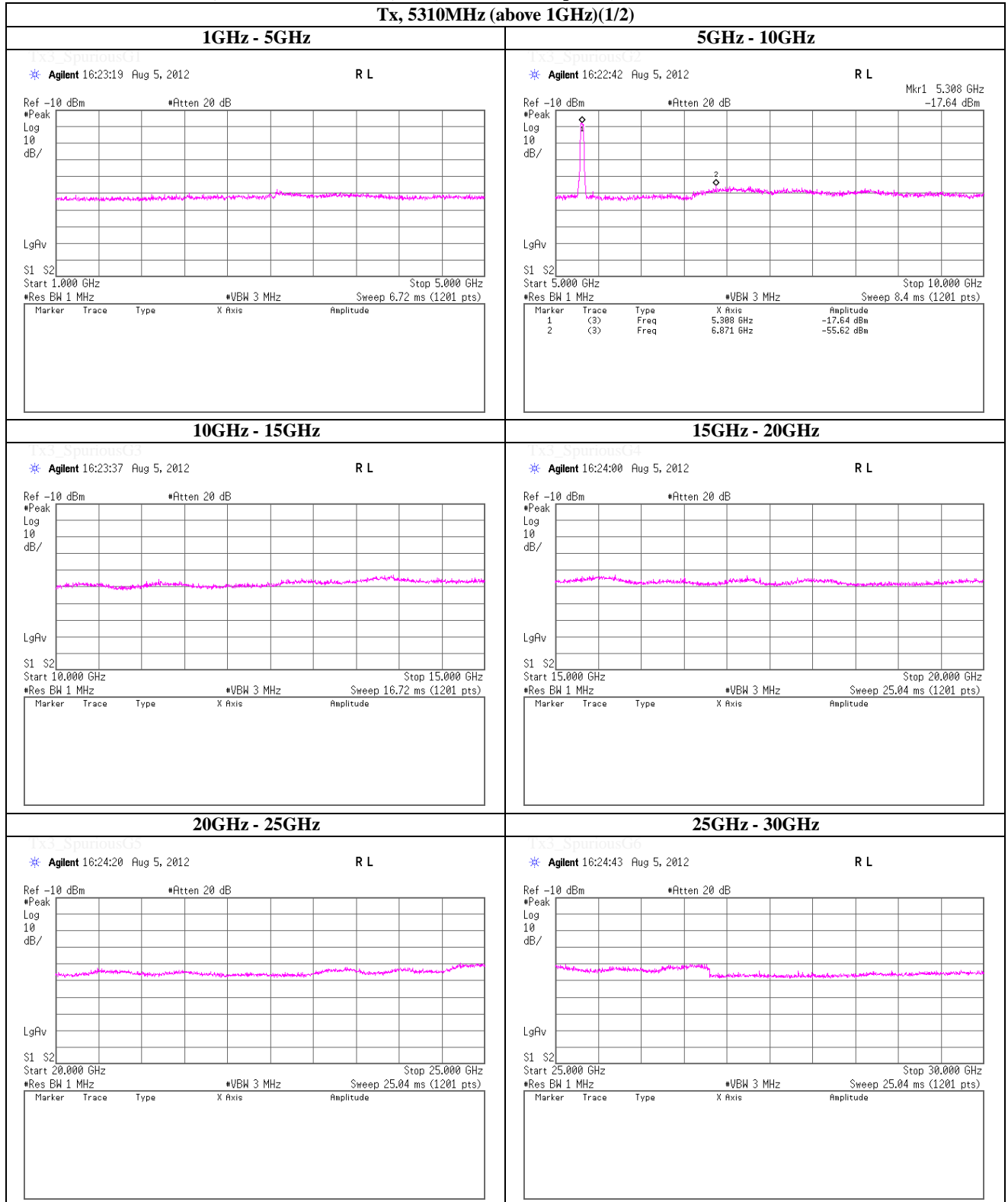
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5310MHz (above 1GHz)(1/2)**



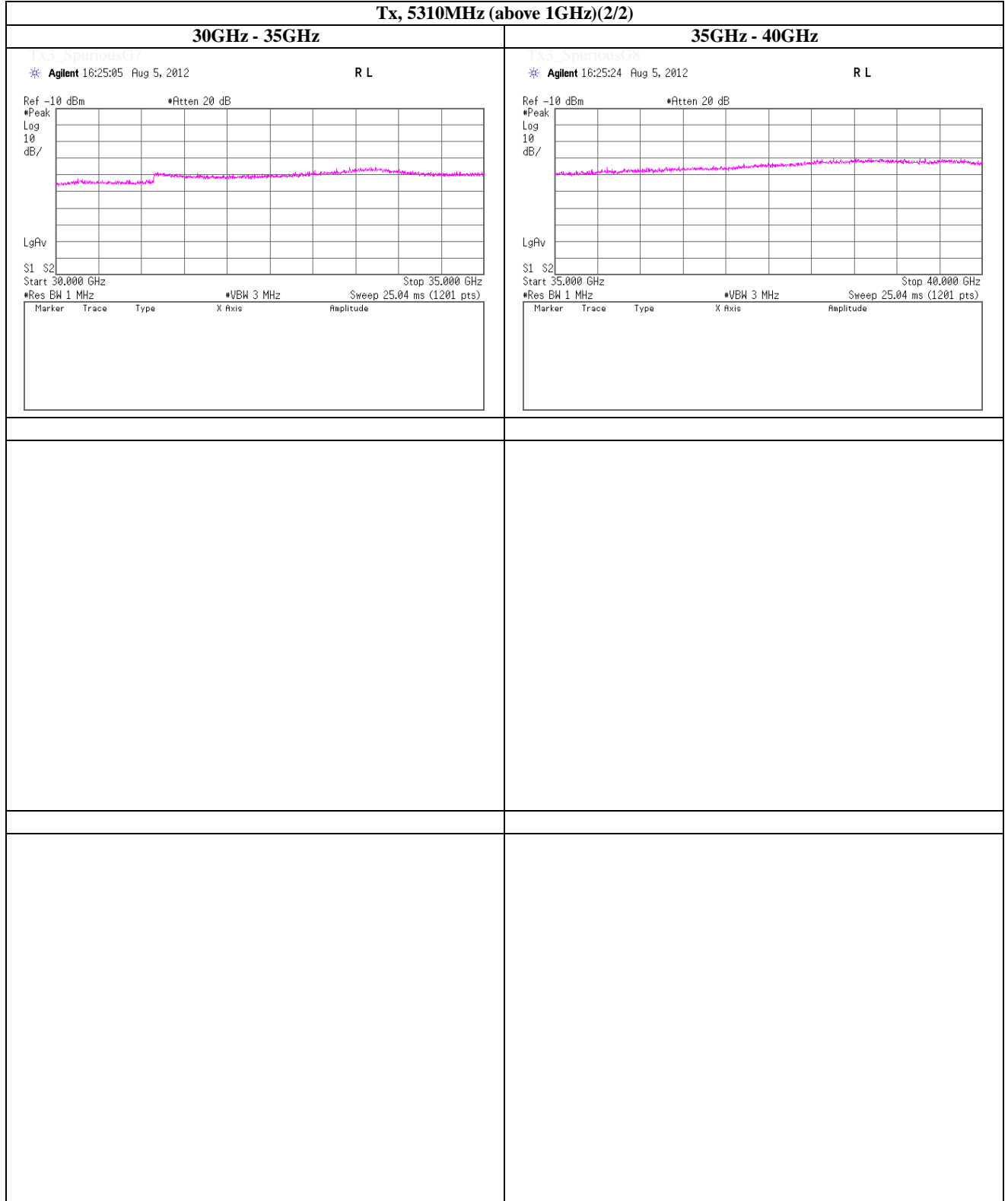
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5310MHz (above 1GHz)(2/2)**

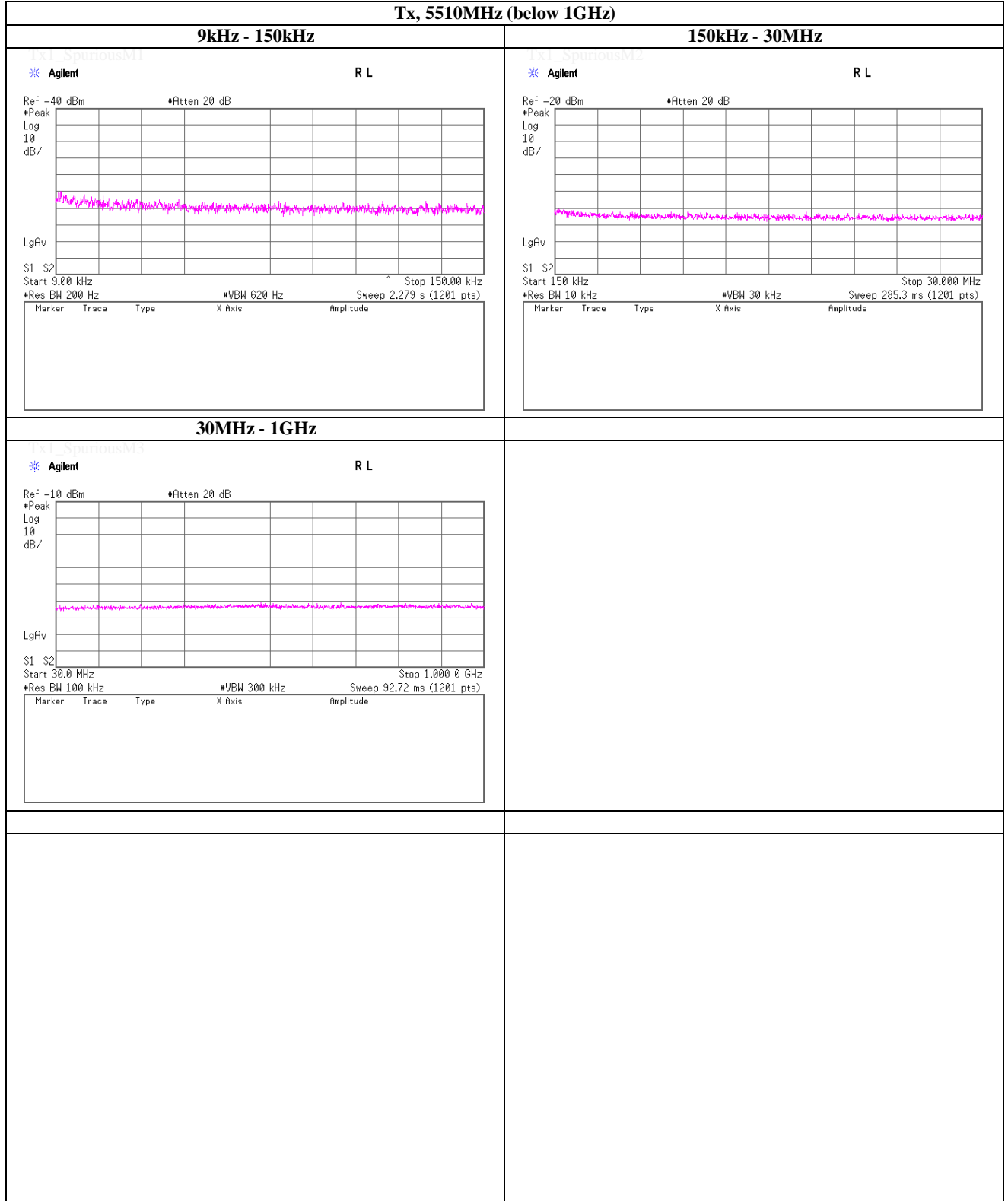


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5510MHz (below 1GHz)**



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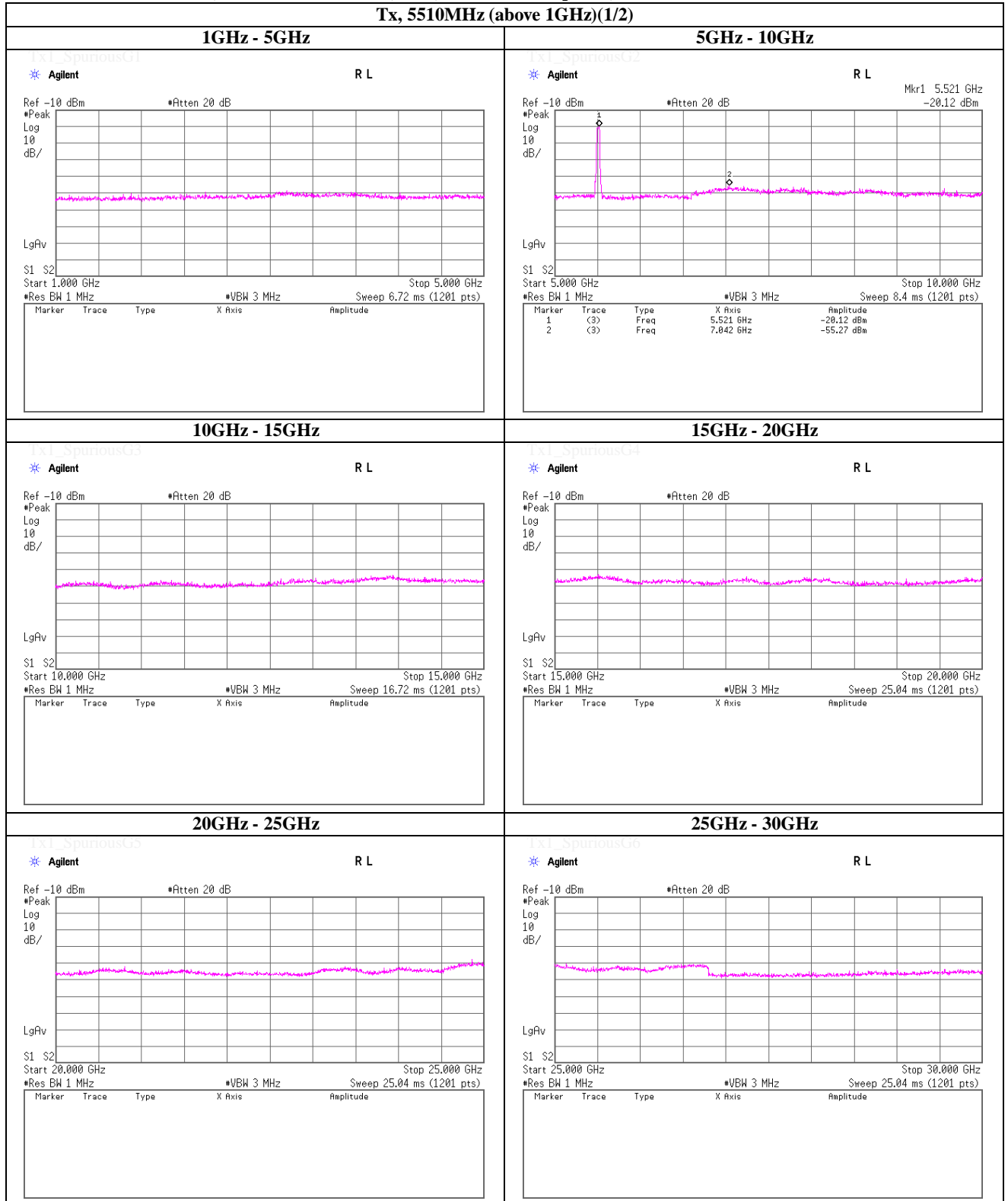
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5510MHz (above 1GHz)(1/2)**



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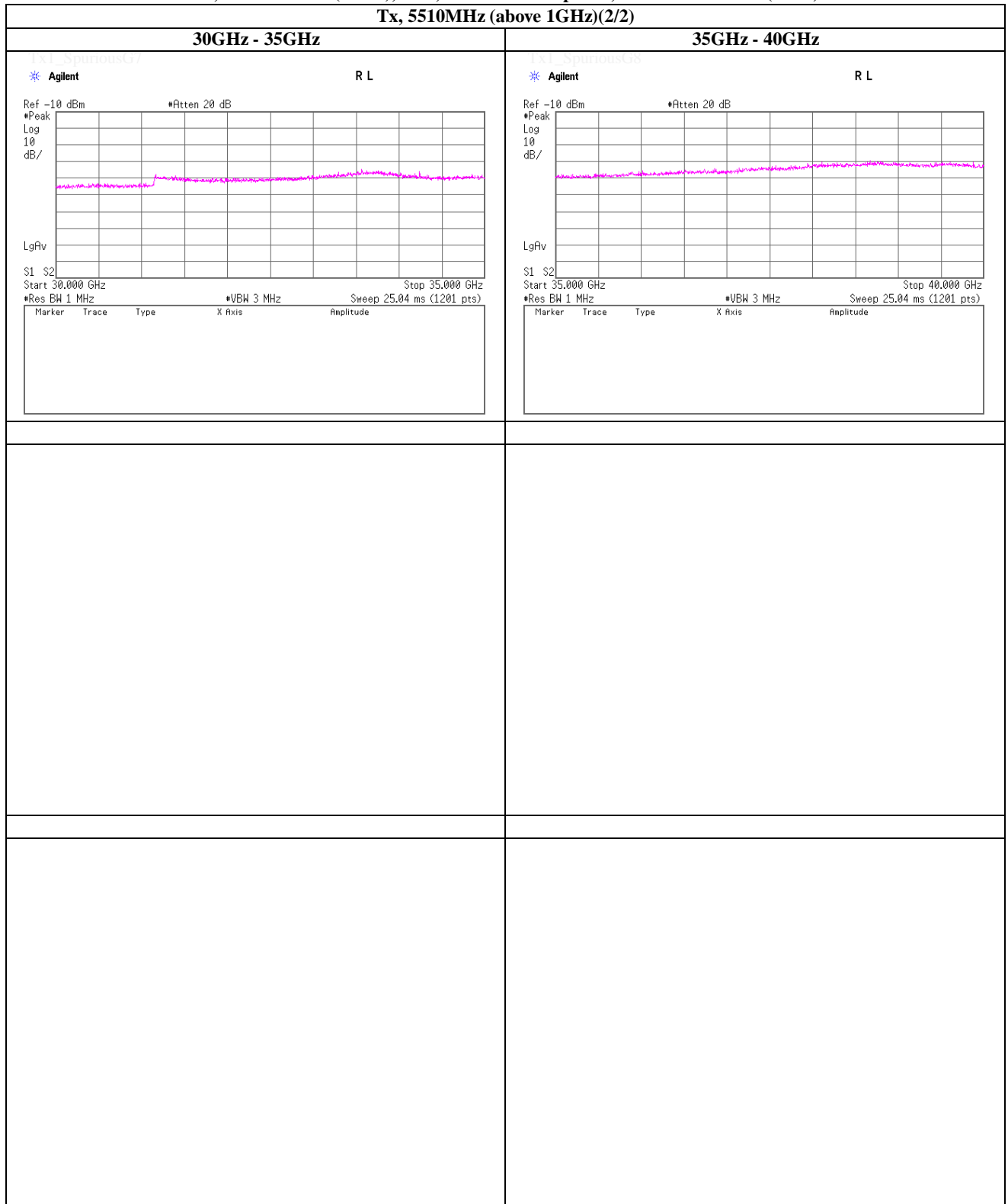
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5510MHz (above 1GHz)(2/2)**



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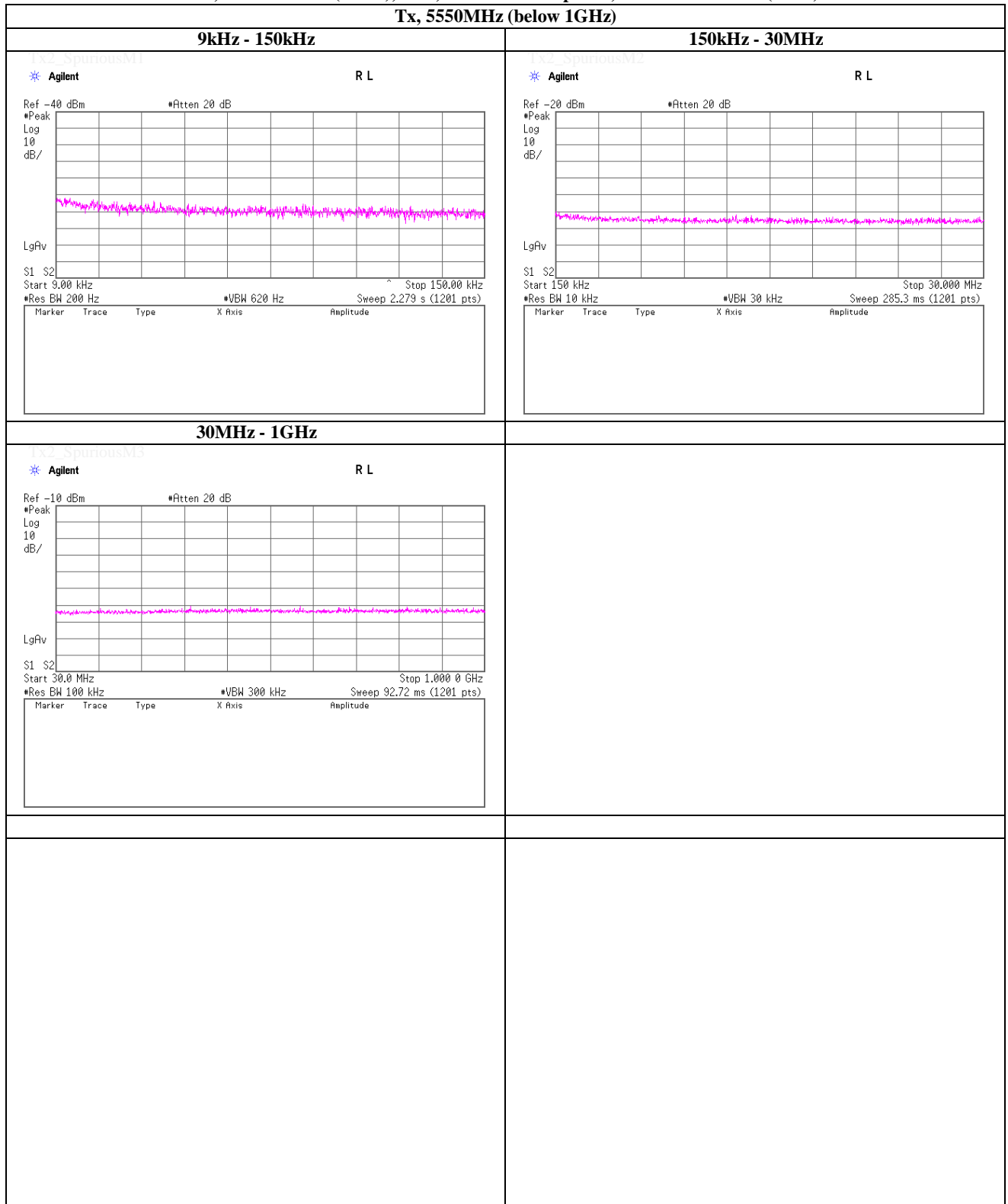
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5550MHz (below 1GHz)**



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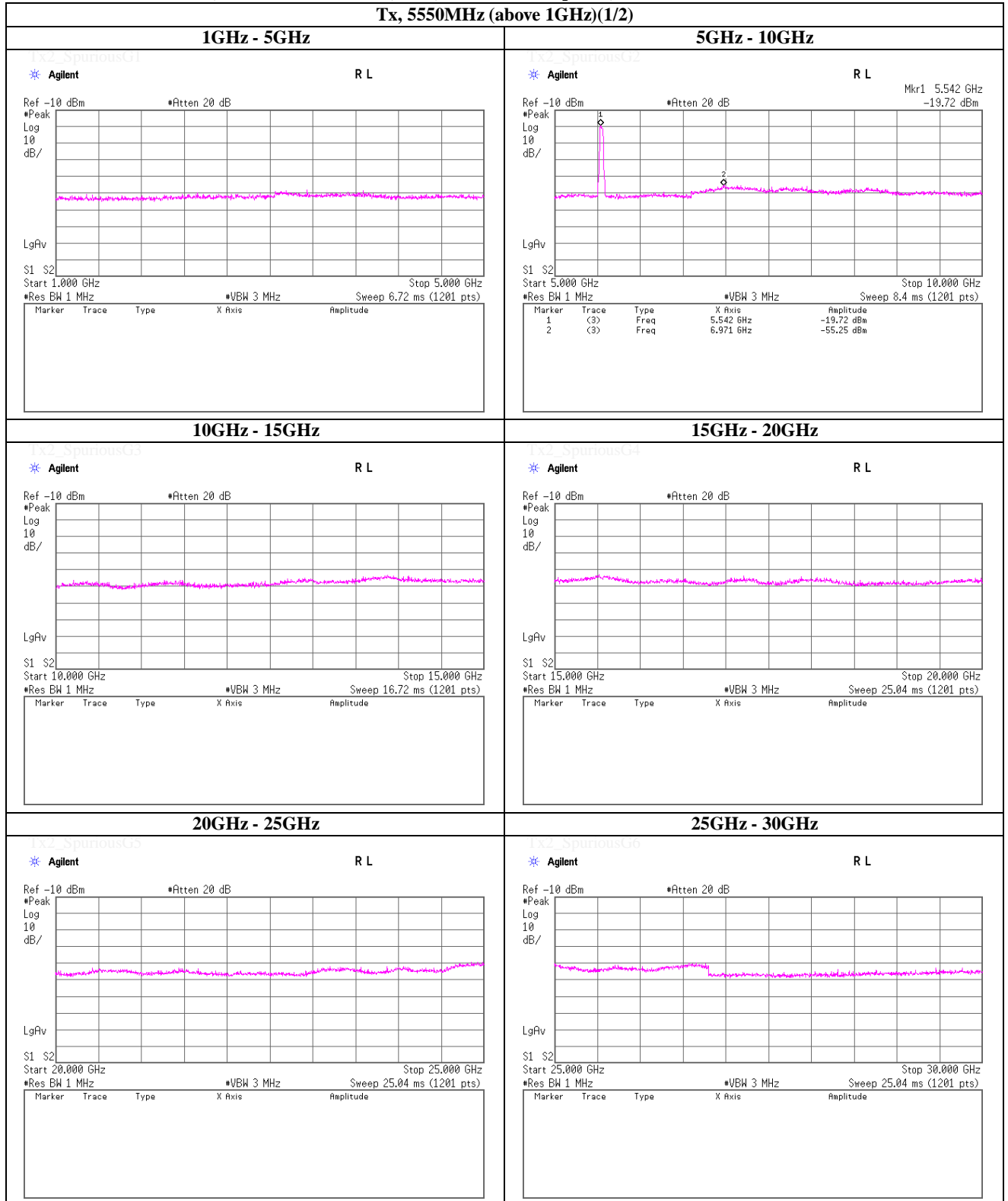
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5550MHz (above 1GHz)(1/2)**



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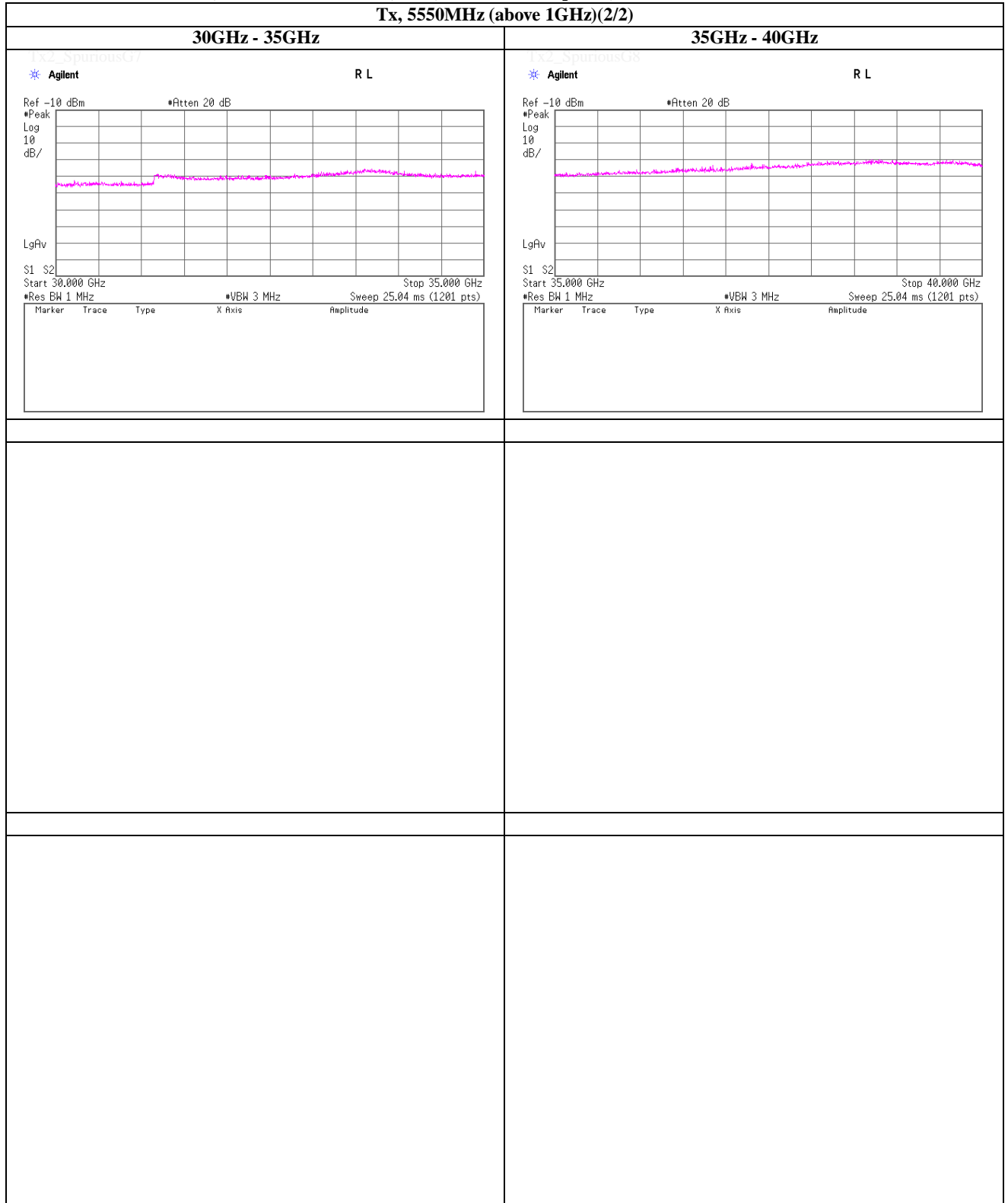
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5550MHz (above 1GHz)(2/2)**



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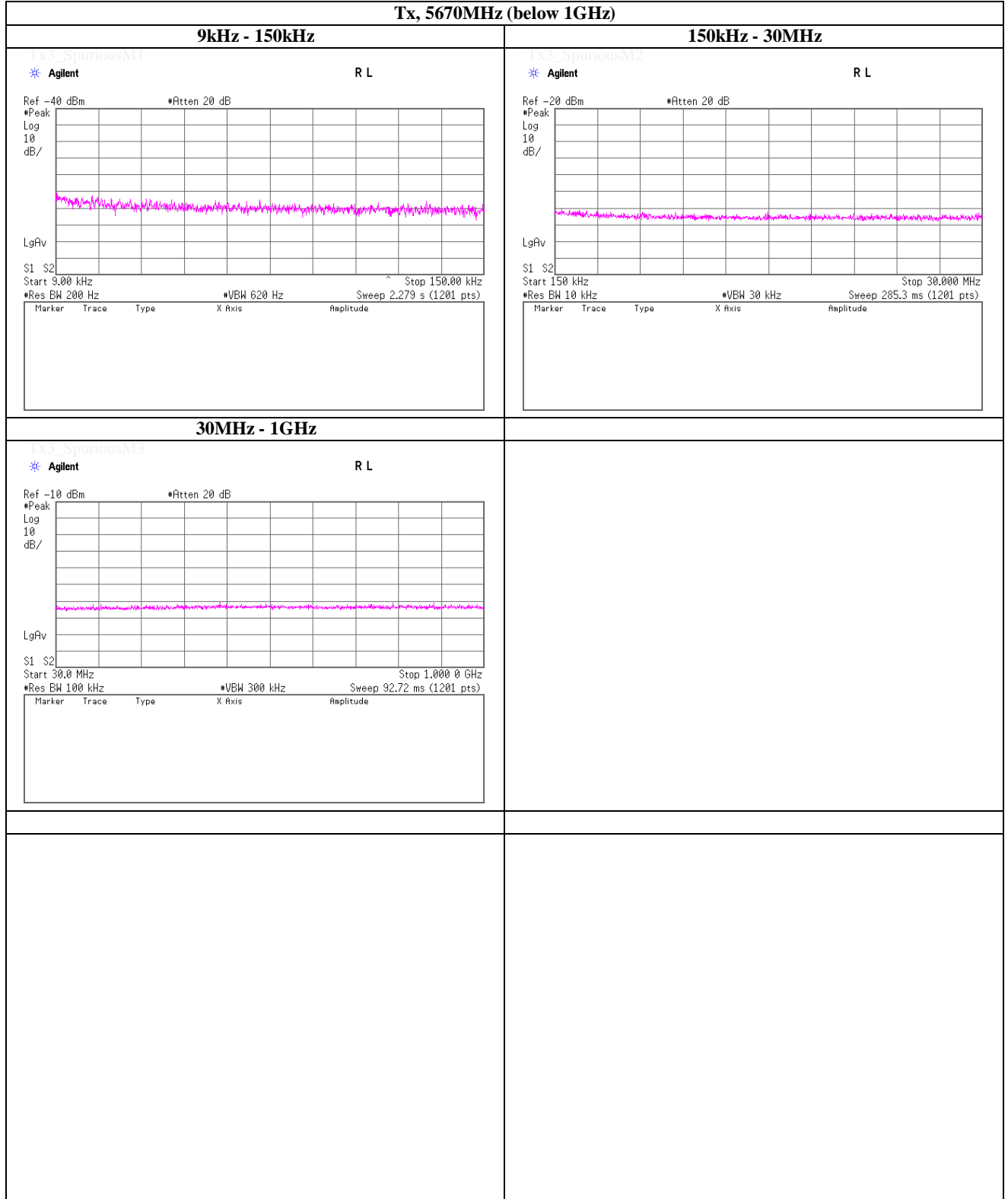
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5670MHz (below 1GHz)**



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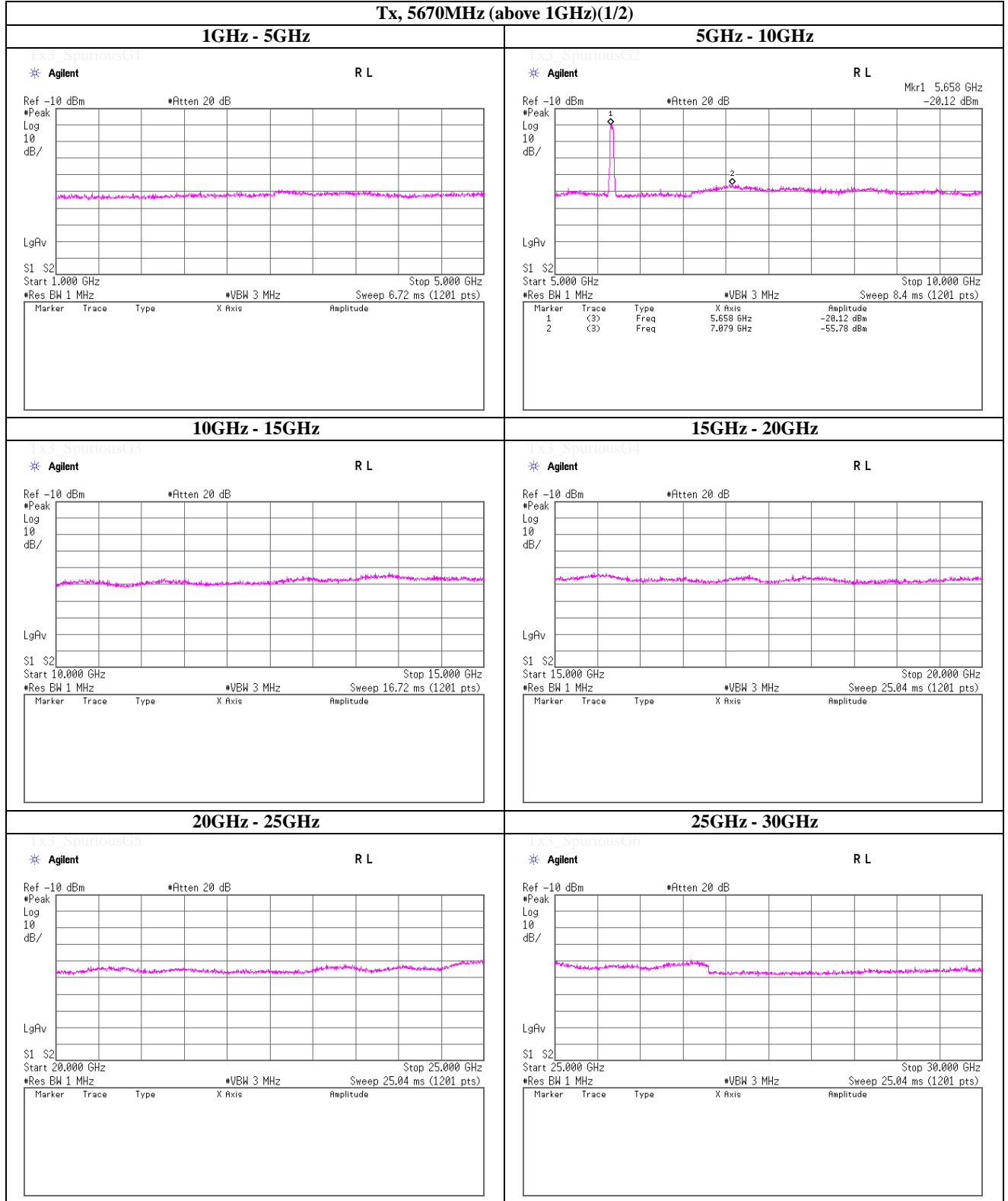
Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5670MHz (above 1GHz)(1/2)**

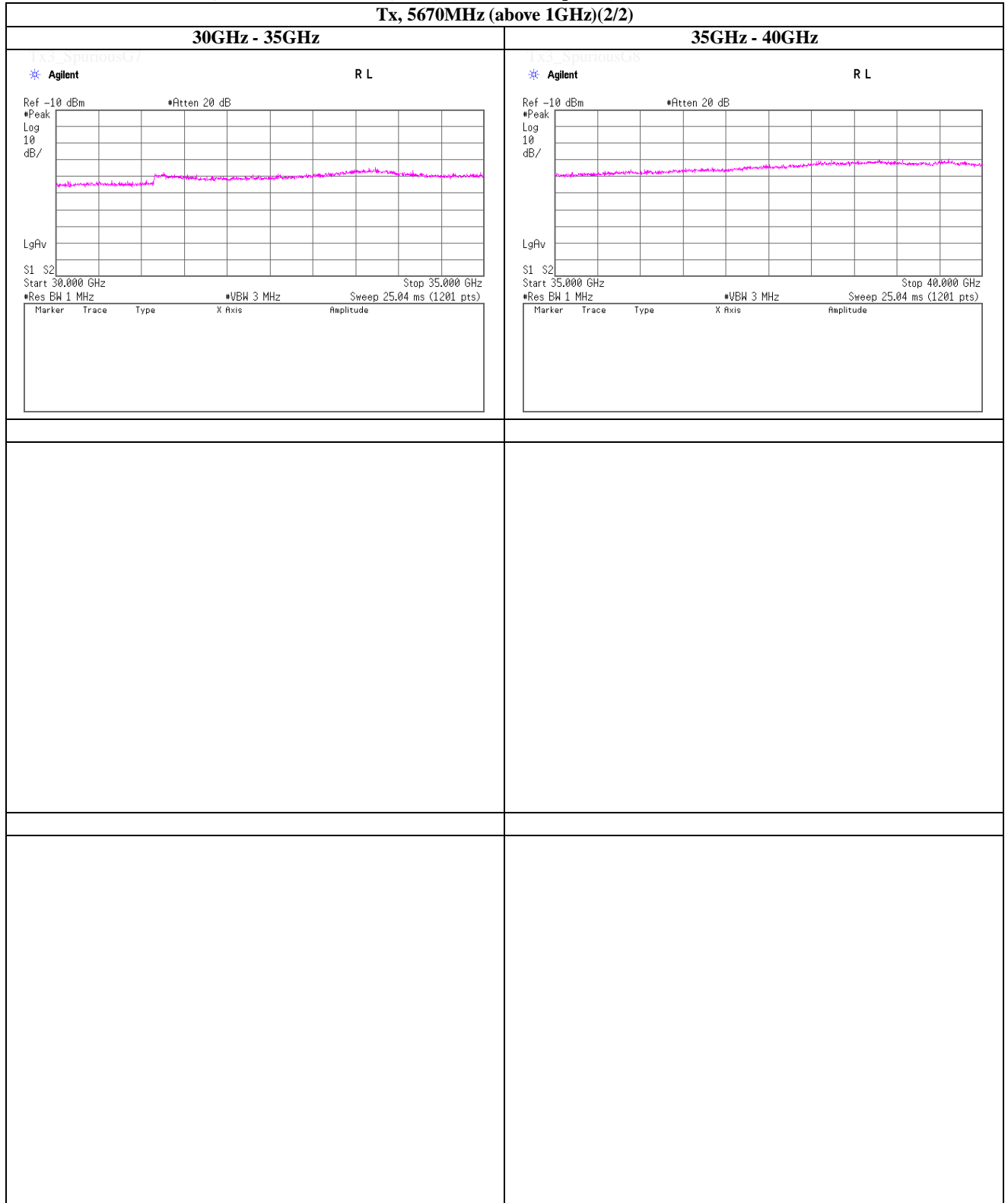


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)**

**Tx, 5670MHz (above 1GHz)(2/2)**



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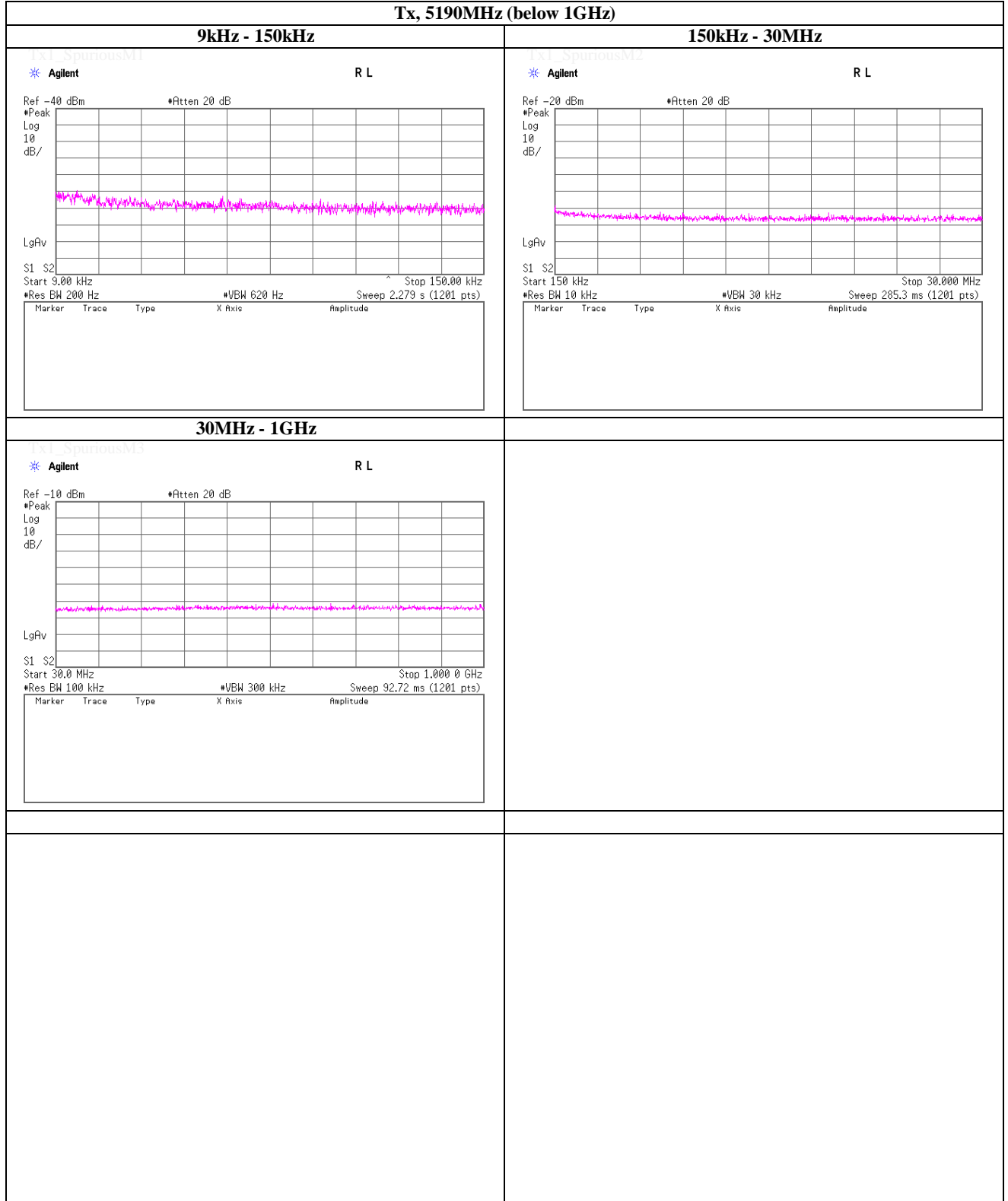
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5190MHz (below 1GHz)**



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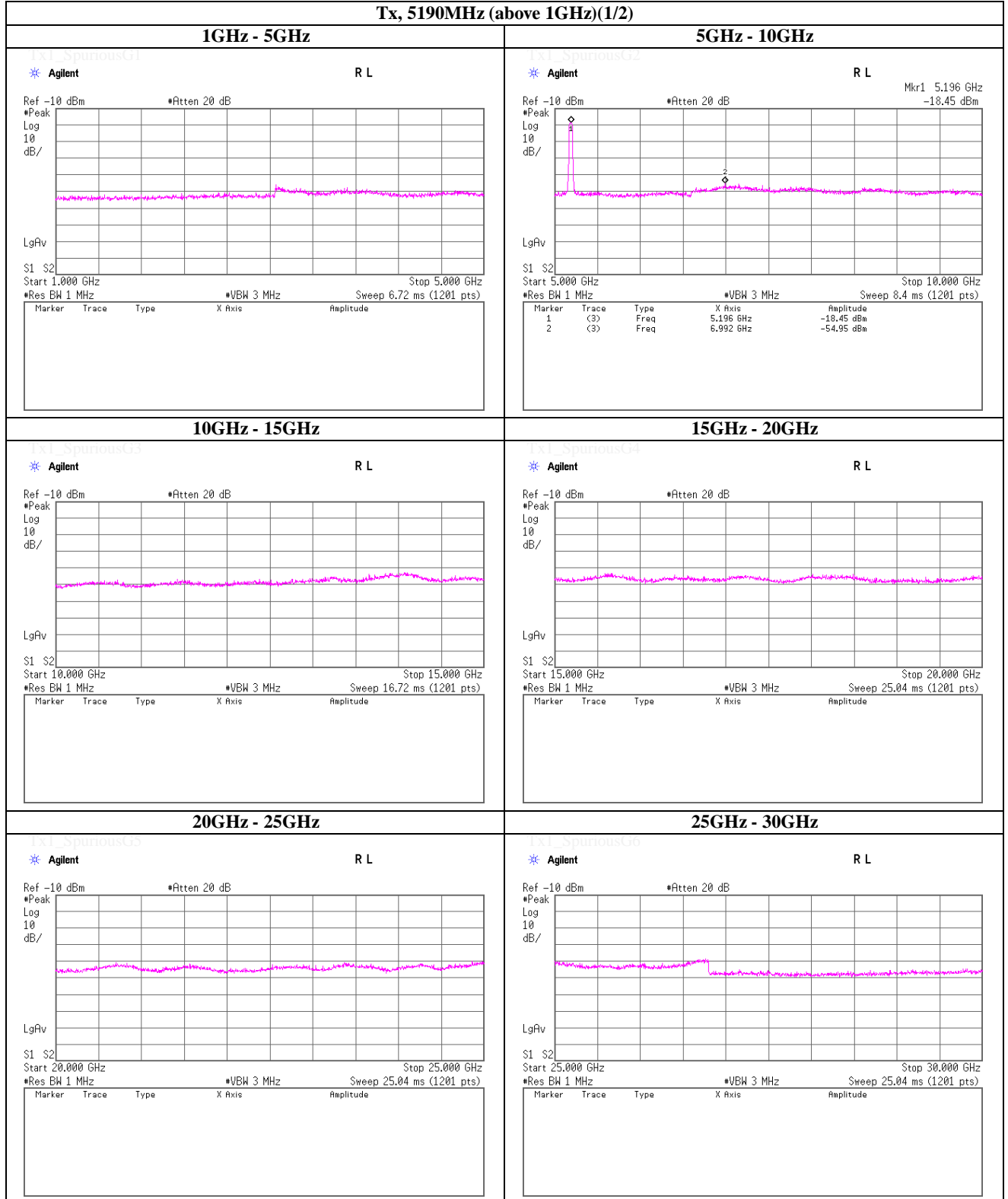
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5190MHz (above 1GHz)(1/2)**

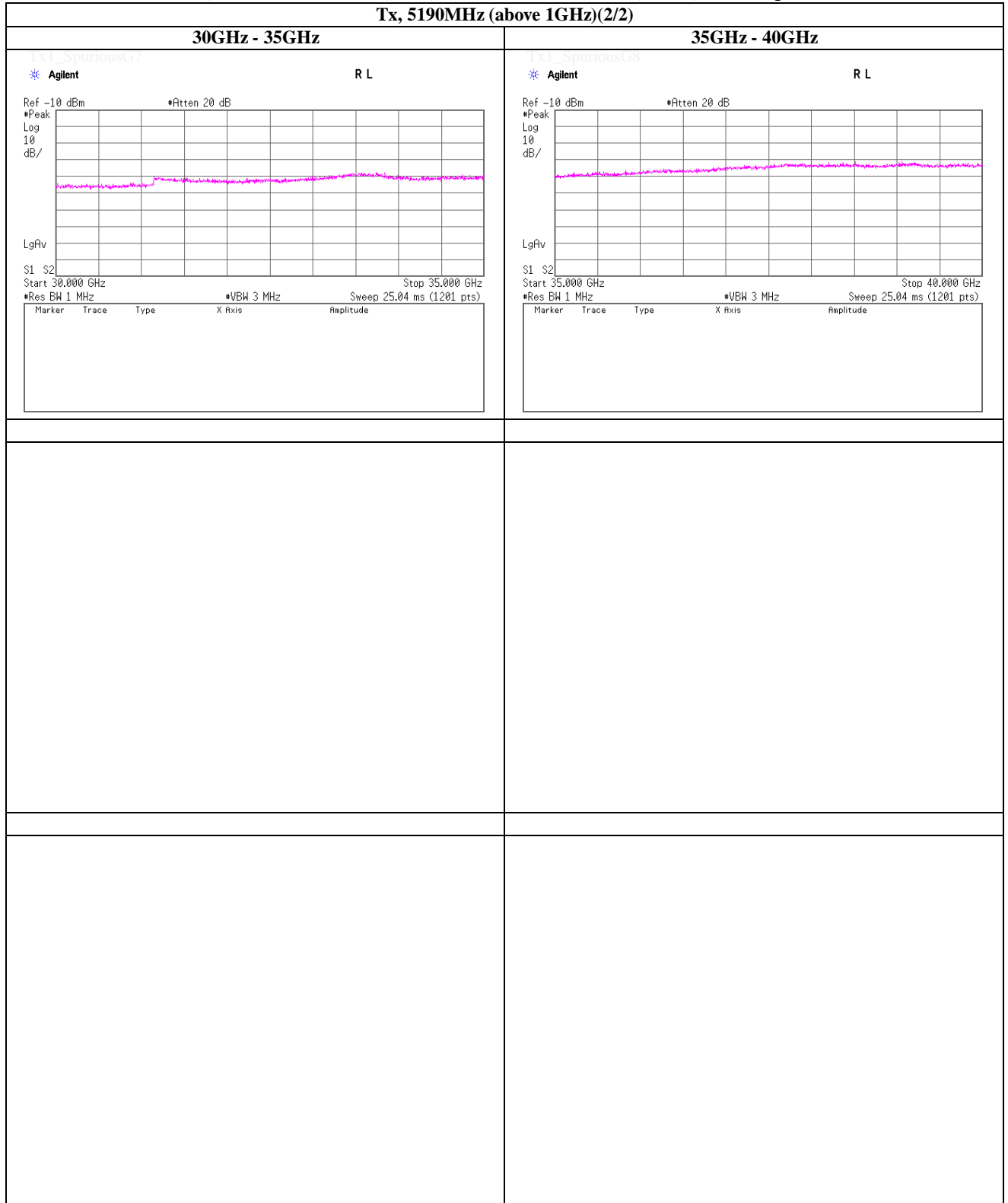


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5190MHz (above 1GHz)(2/2)**

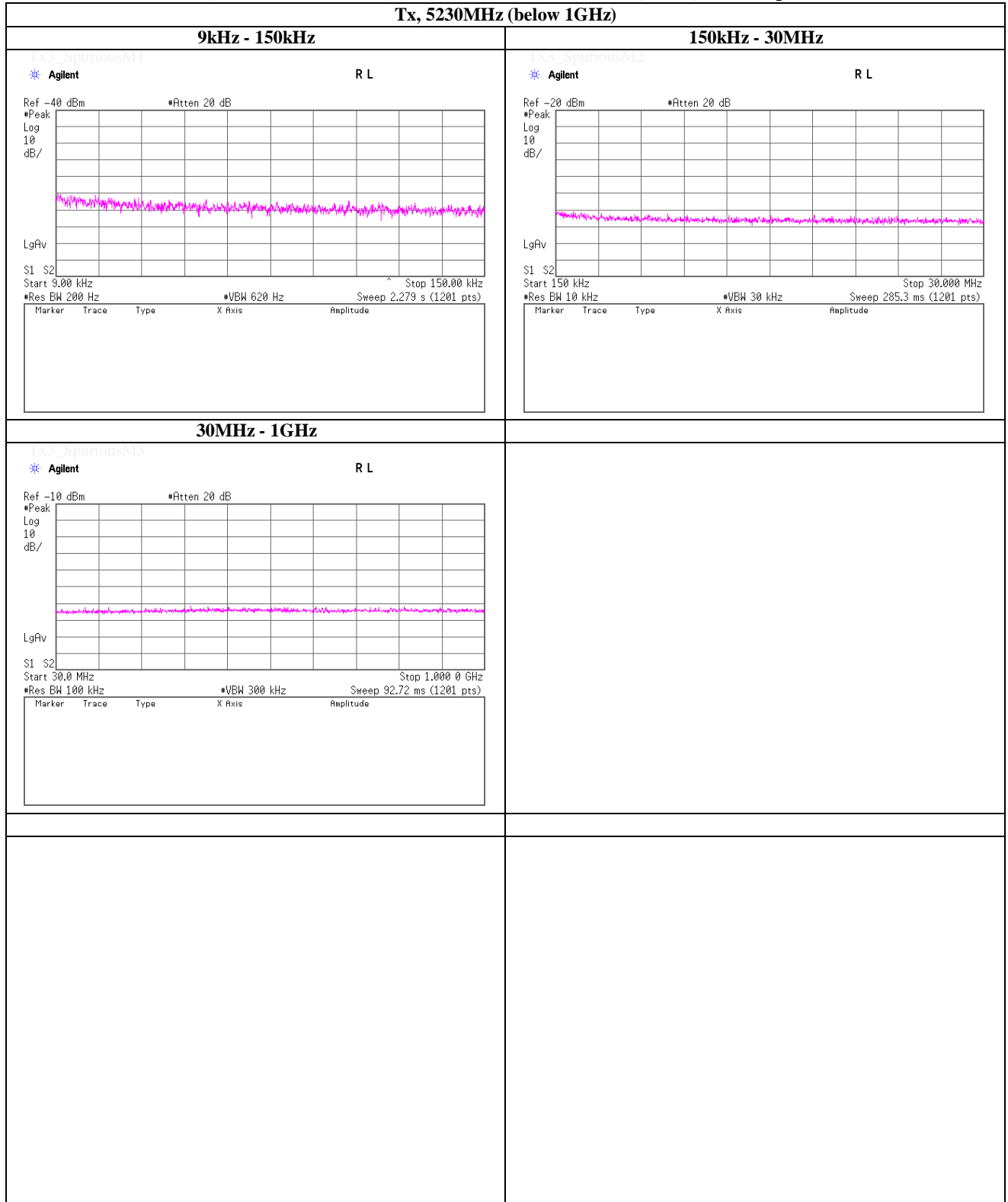


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5230MHz (below 1GHz)**



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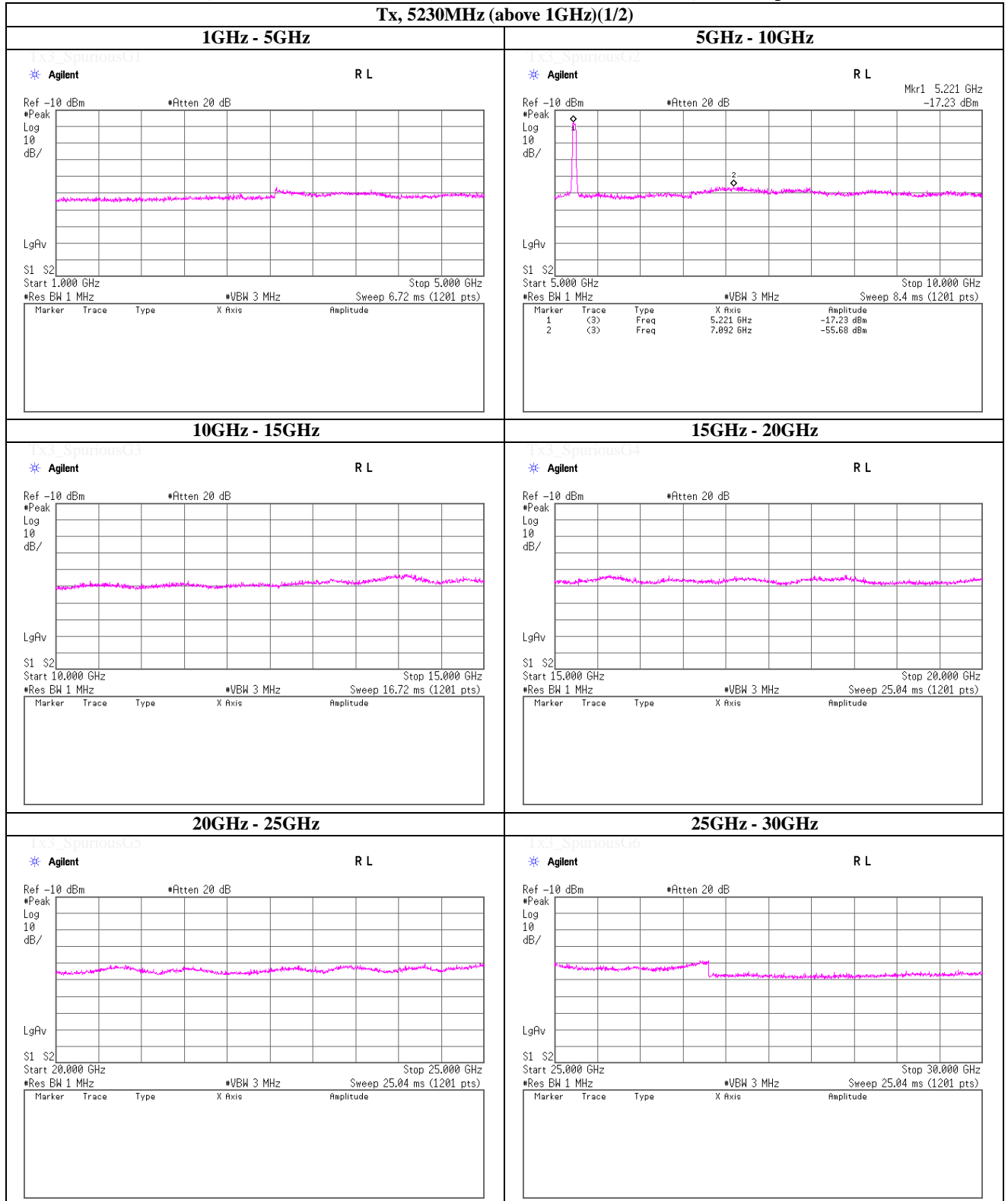
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5230MHz (above 1GHz)(1/2)**



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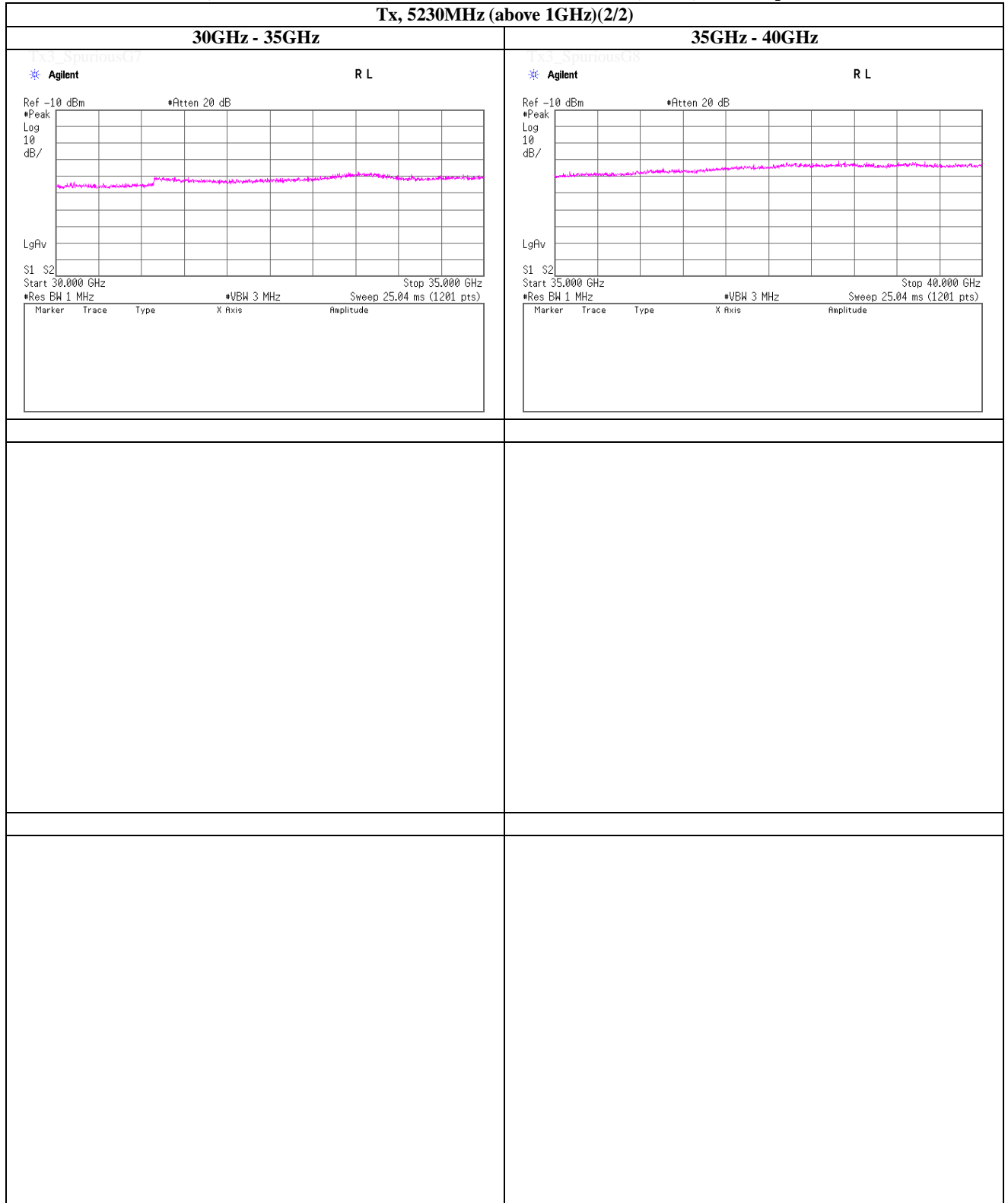
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5230MHz (above 1GHz)(2/2)**



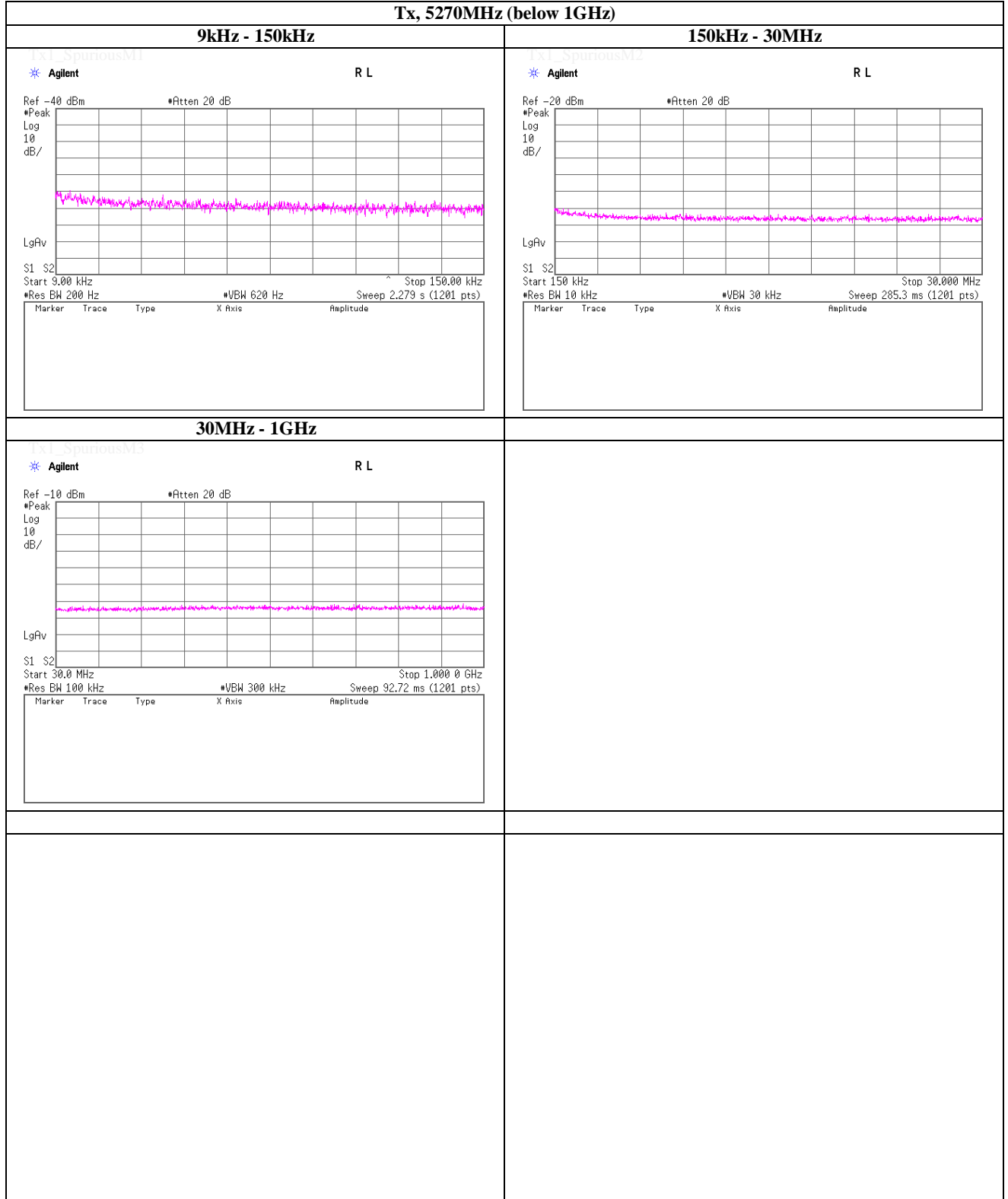
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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5270MHz (below 1GHz)**



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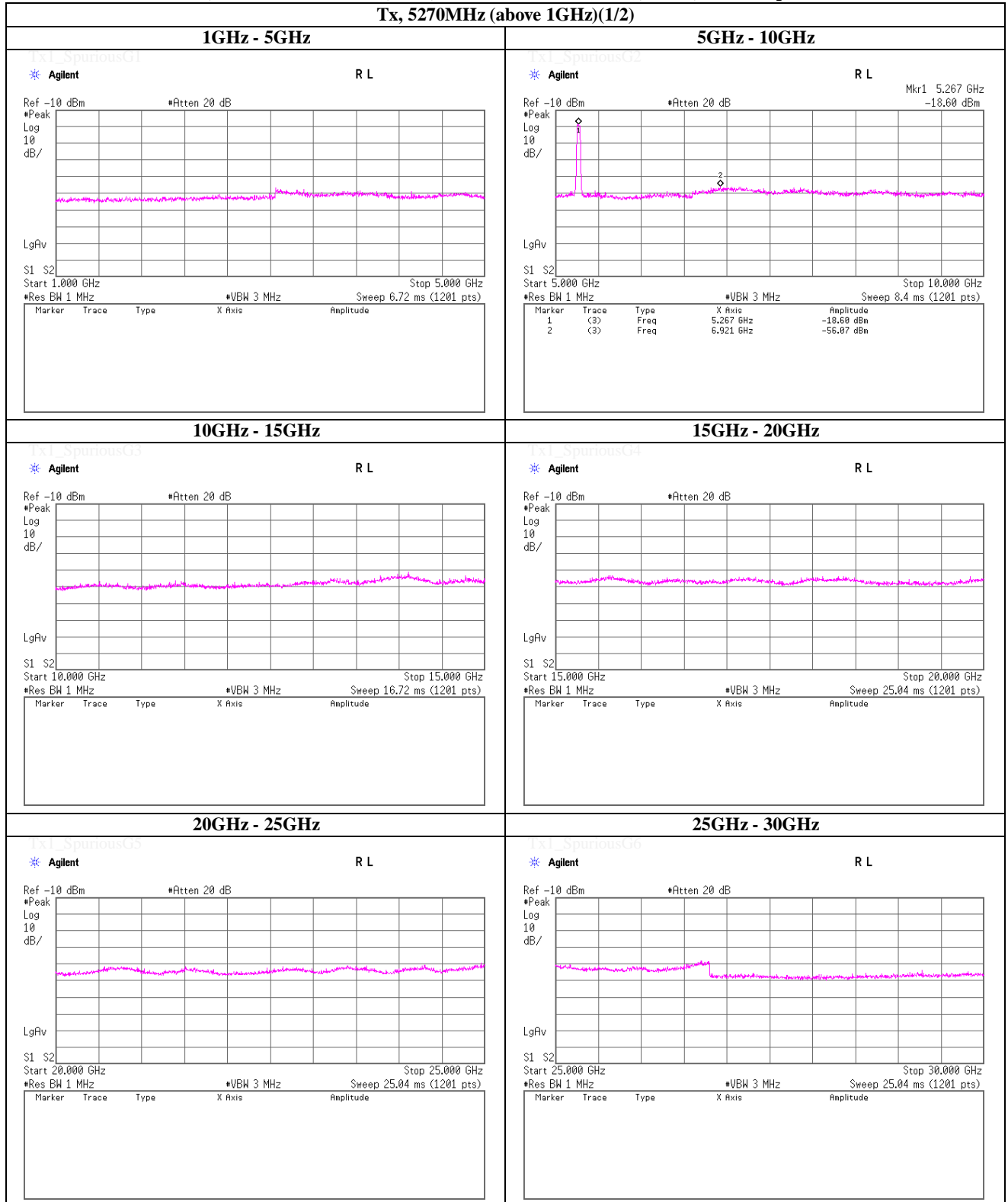
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5270MHz (above 1GHz)(1/2)**

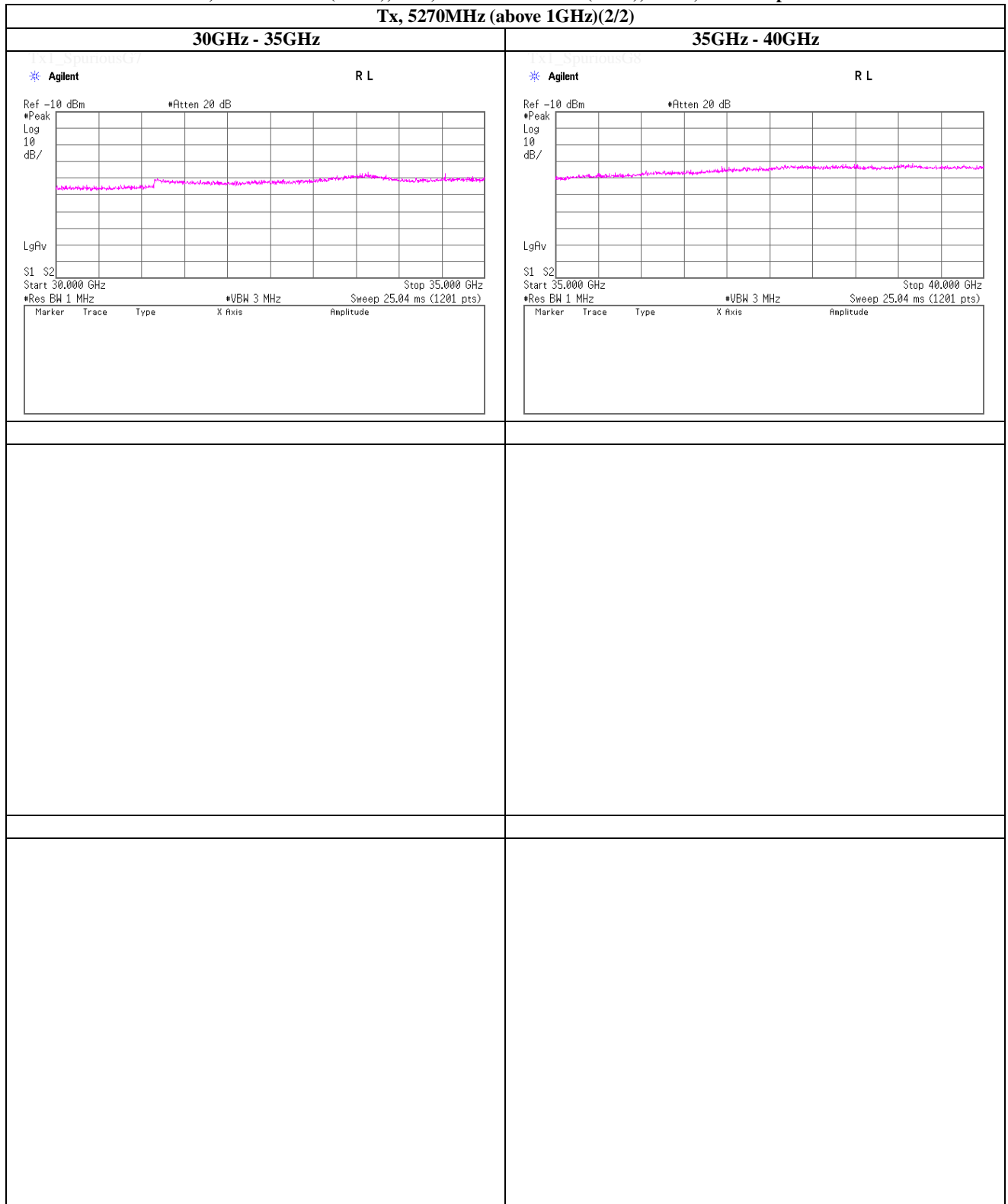


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5270MHz (above 1GHz)(2/2)**

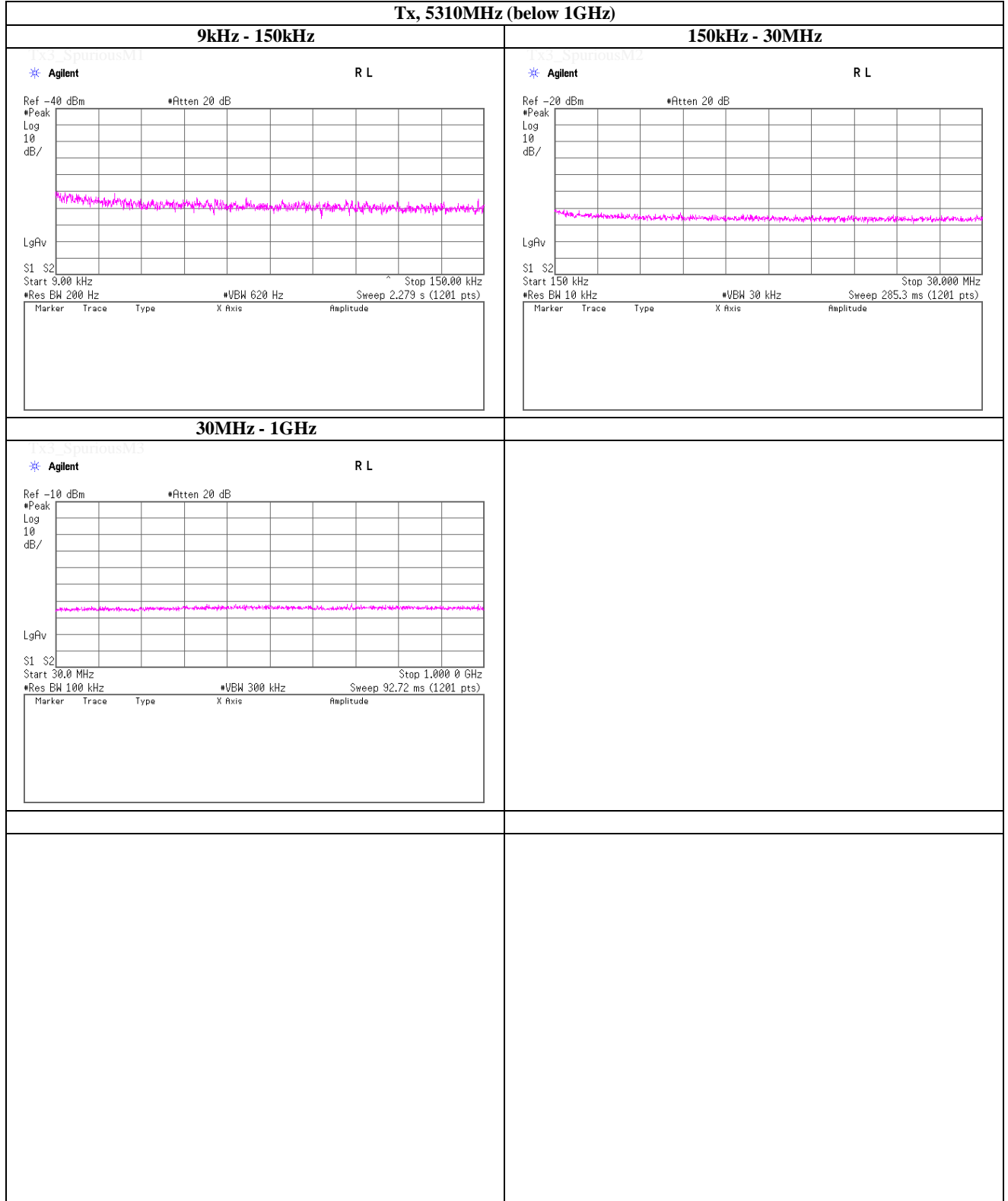


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5310MHz (below 1GHz)**



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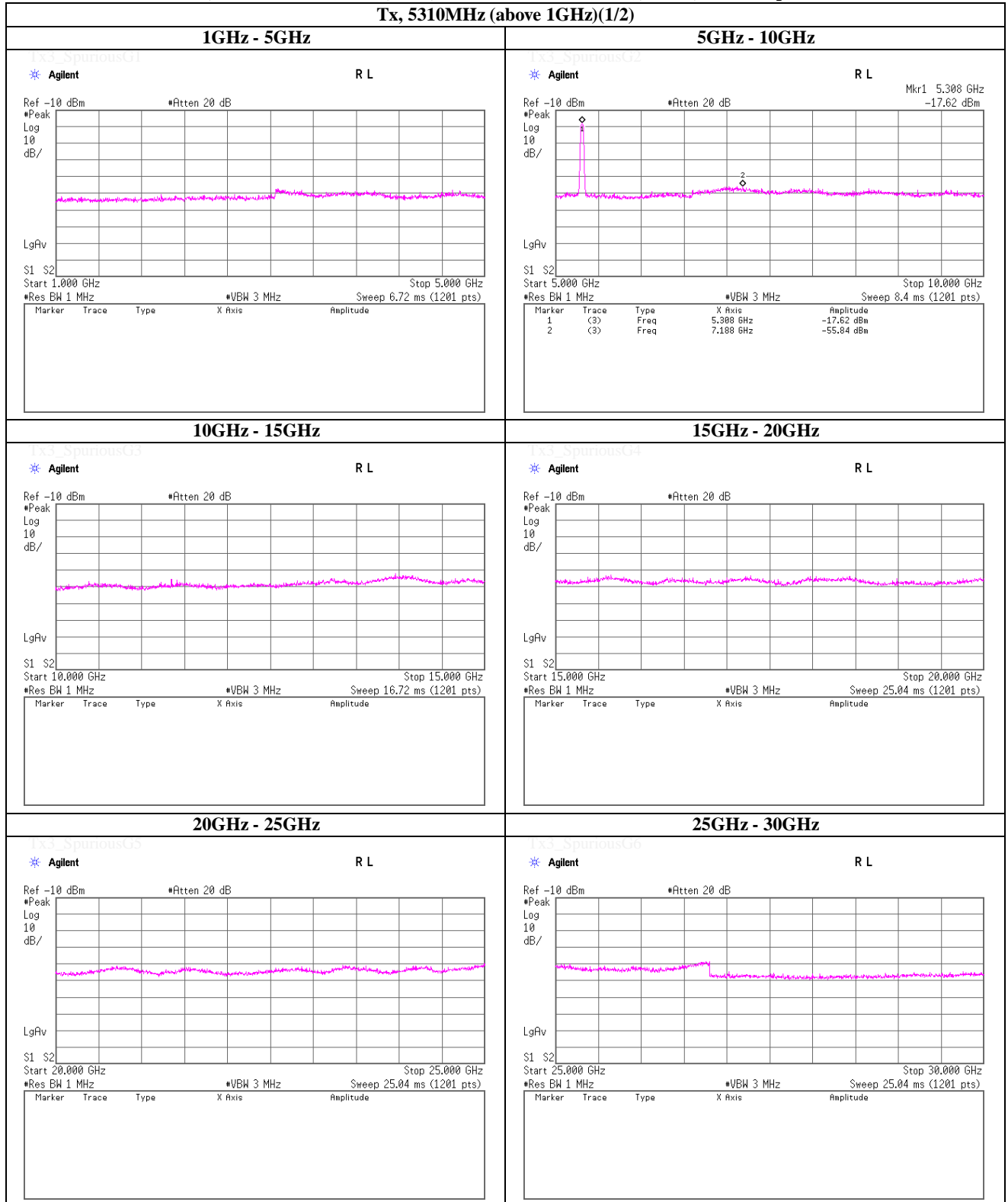
Telephone : +81 463 50 6400

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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5310MHz (above 1GHz)(1/2)**

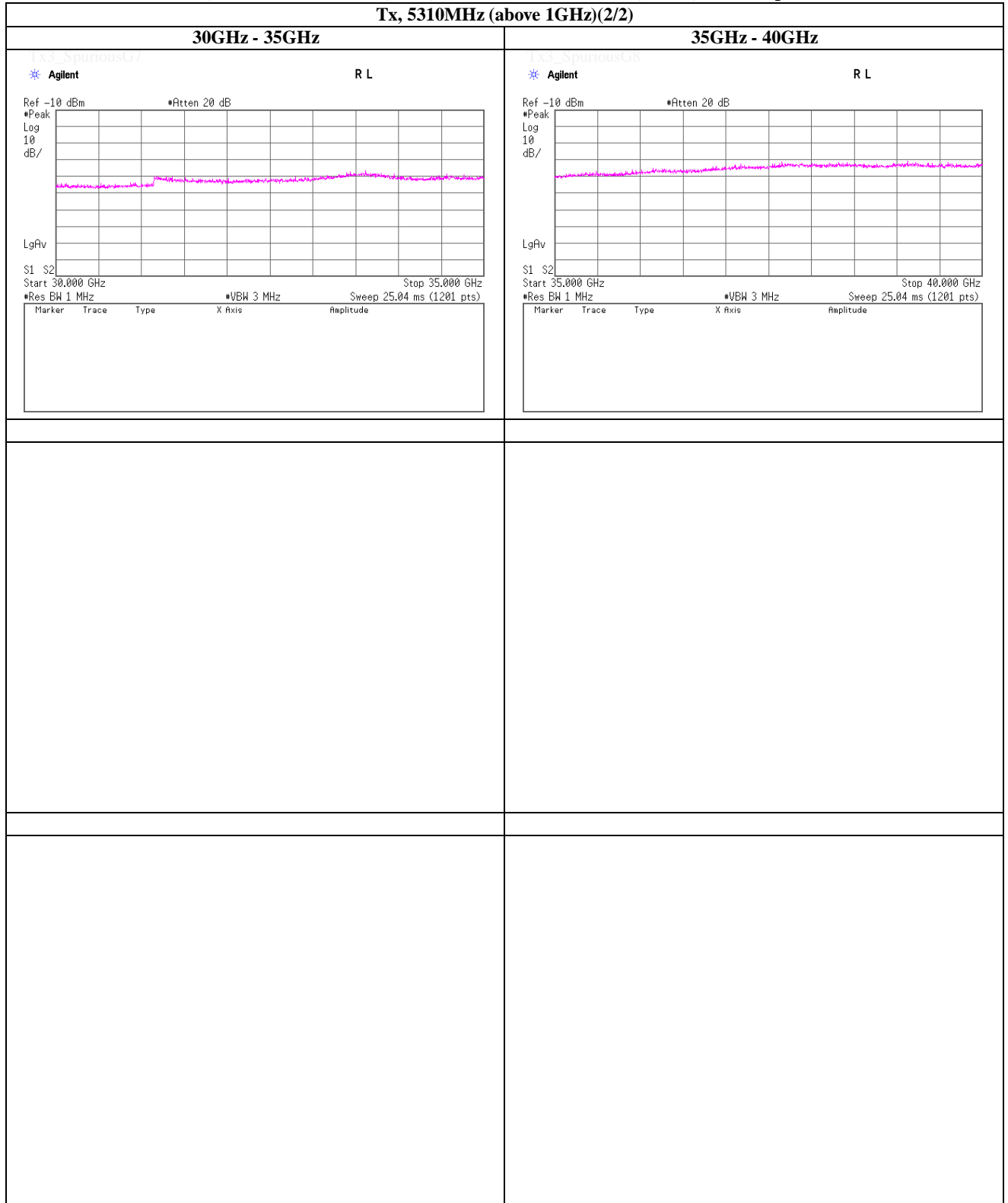


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5310MHz (above 1GHz)(2/2)**

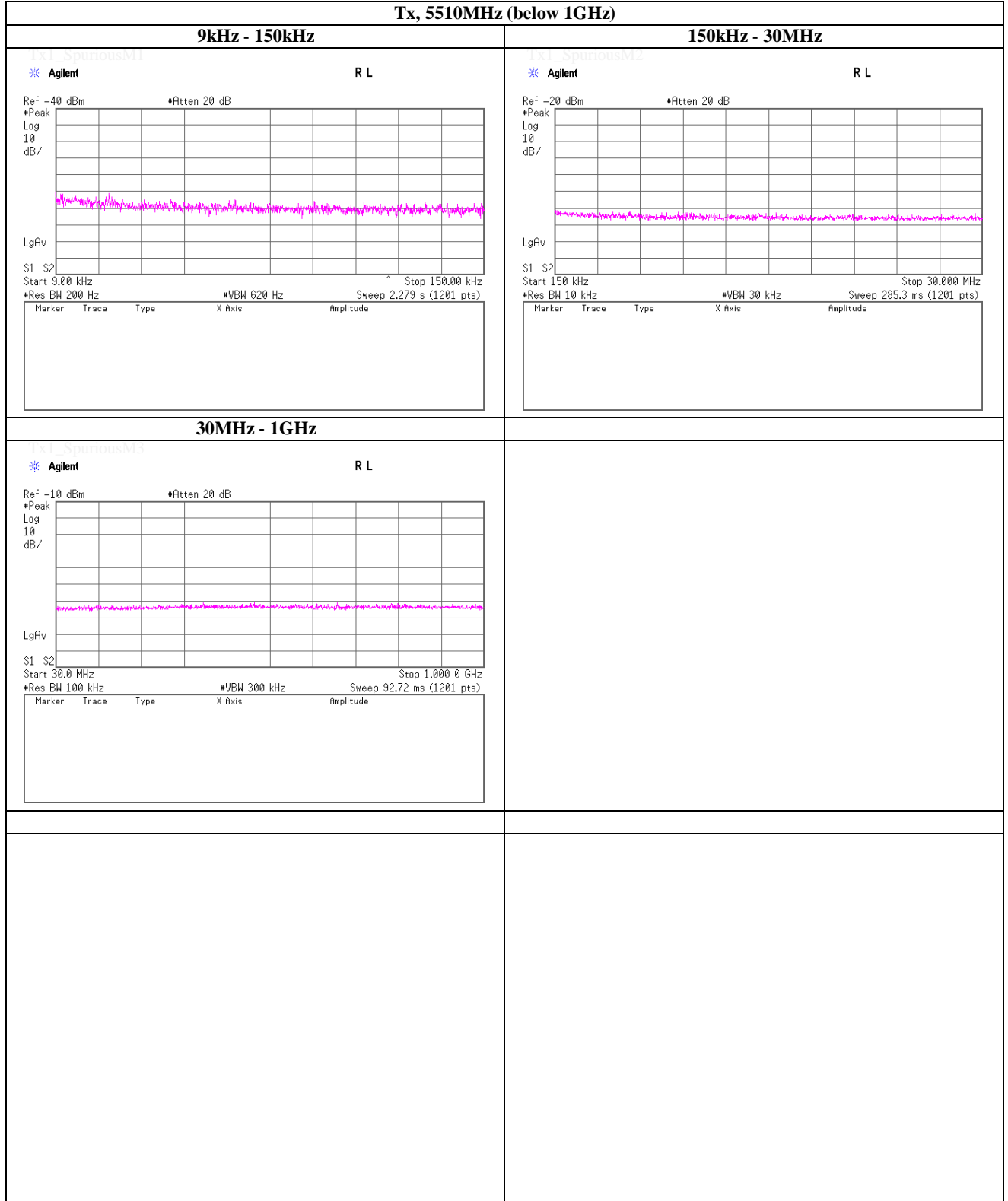


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5510MHz (below 1GHz)**



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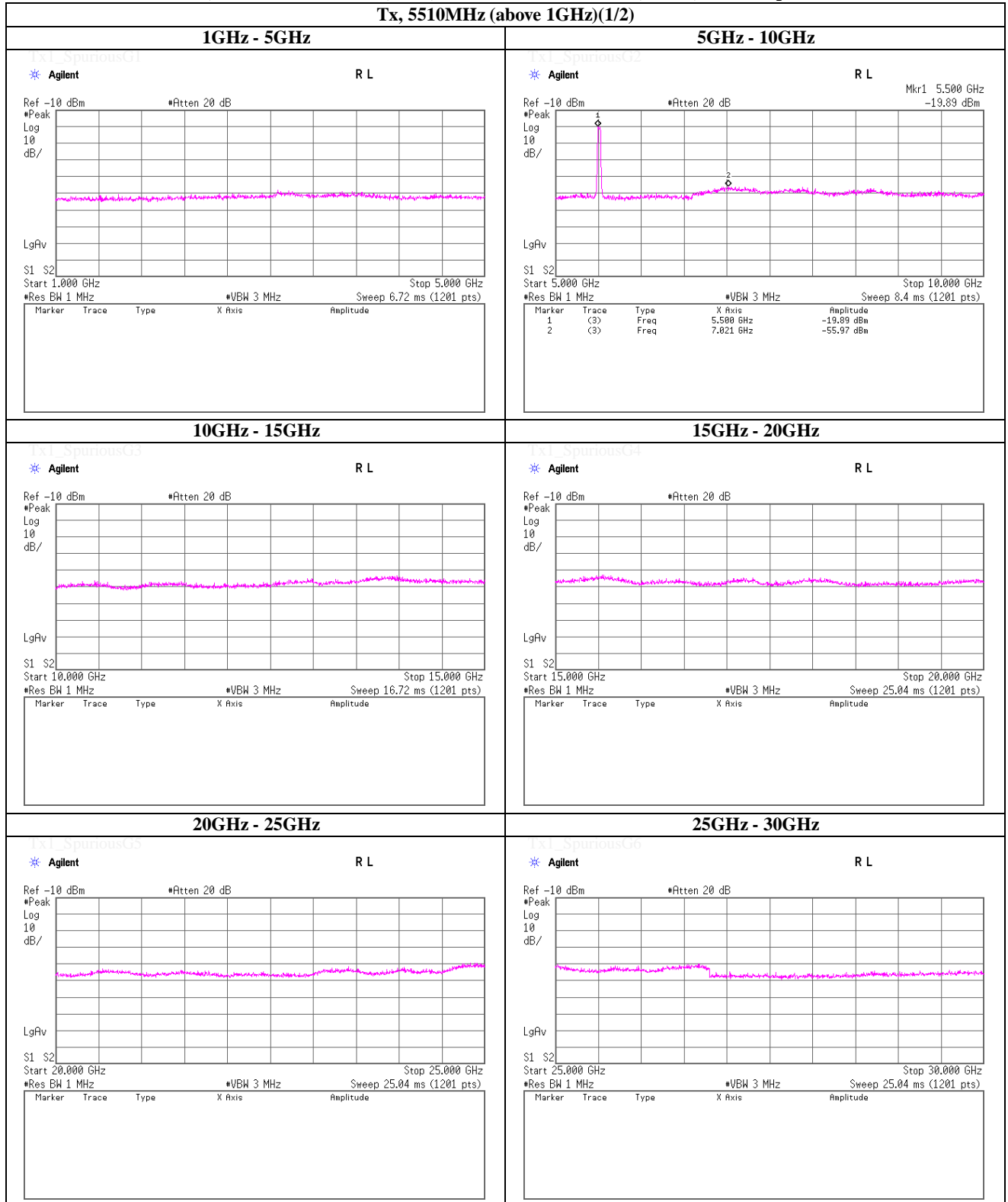
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5510MHz (above 1GHz)(1/2)**



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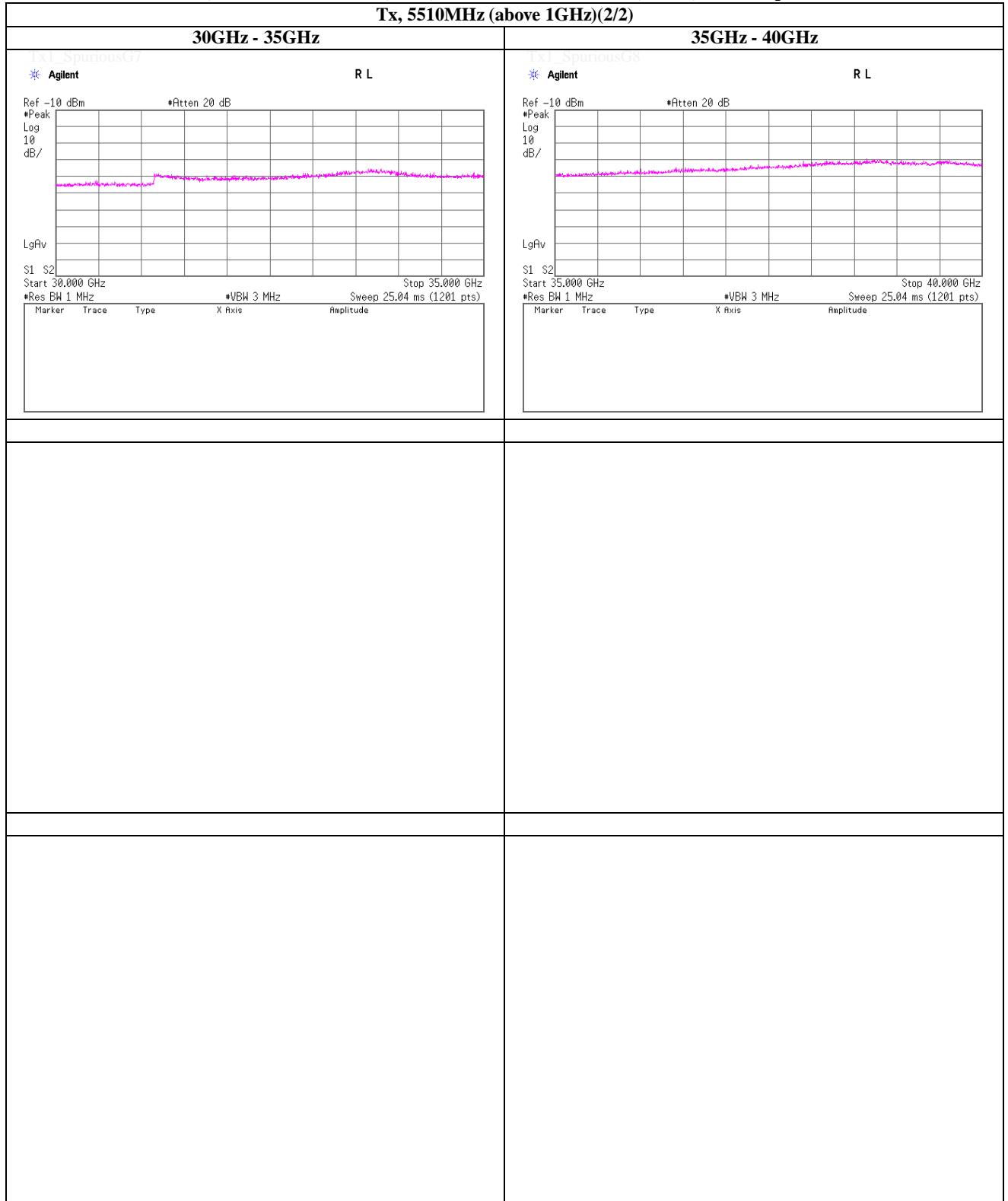
Facsimile : +81 463 50 6401



**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5510MHz (above 1GHz)(2/2)**

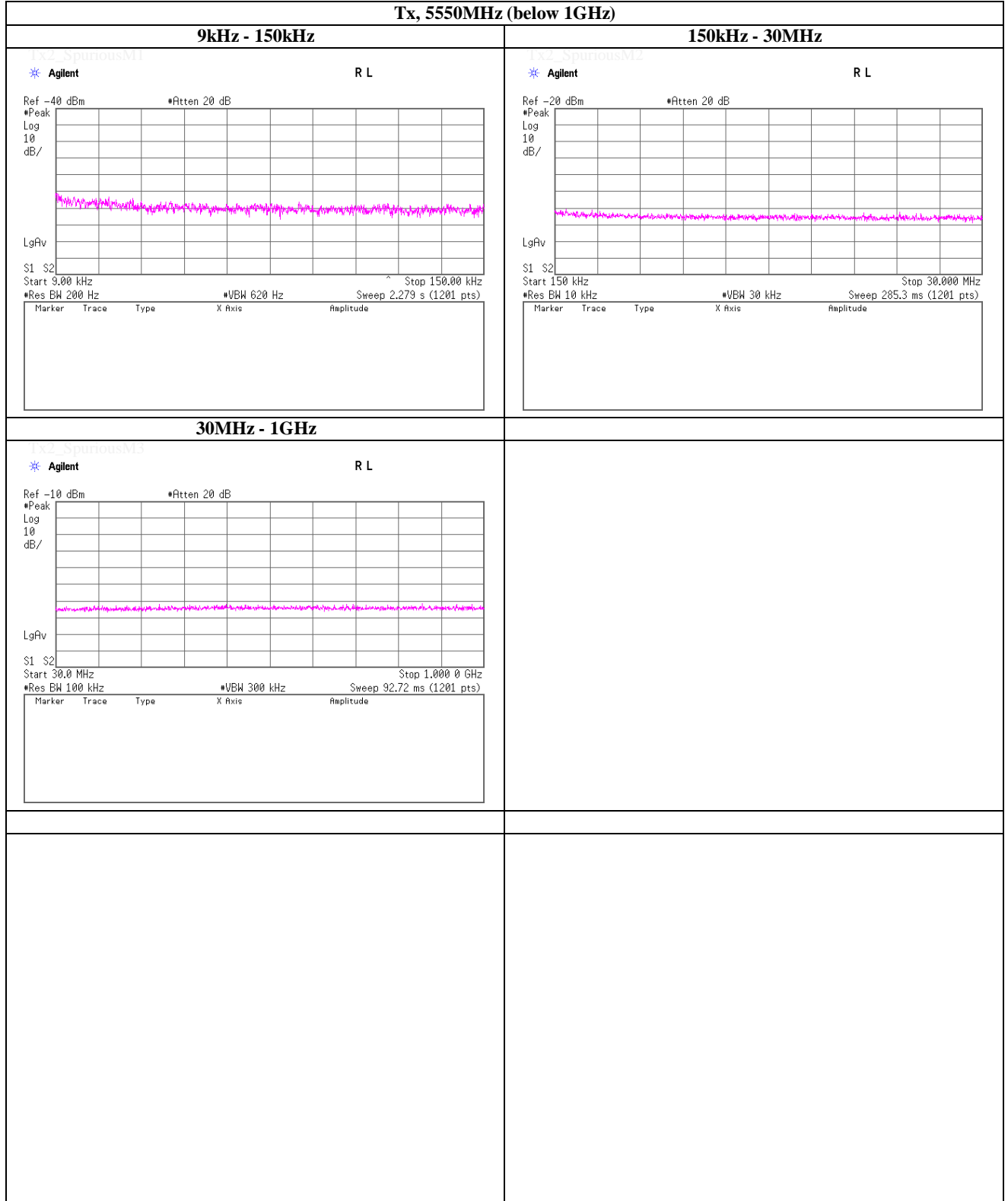


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 Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5550MHz (below 1GHz)**



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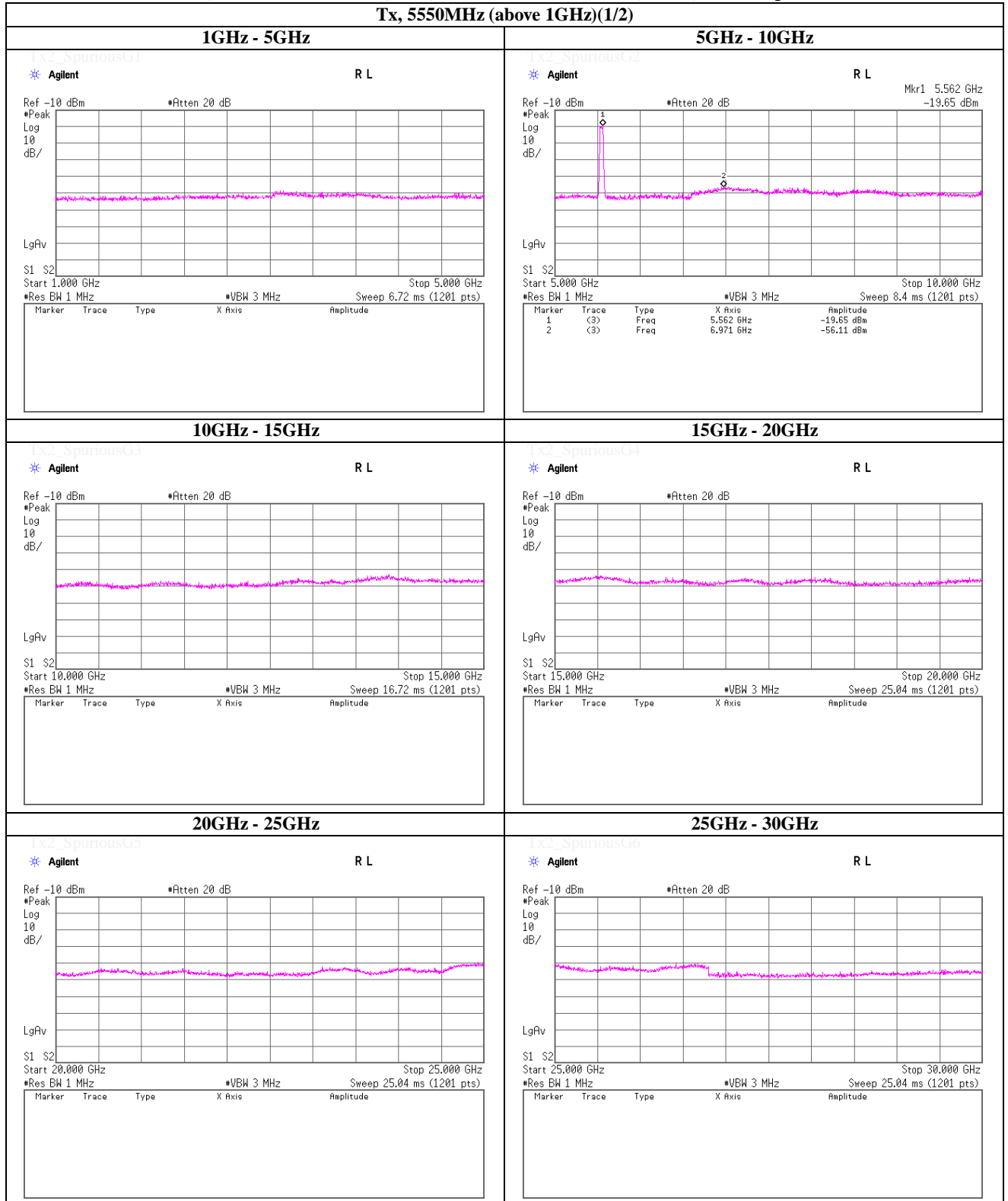
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5550MHz (above 1GHz)(1/2)**



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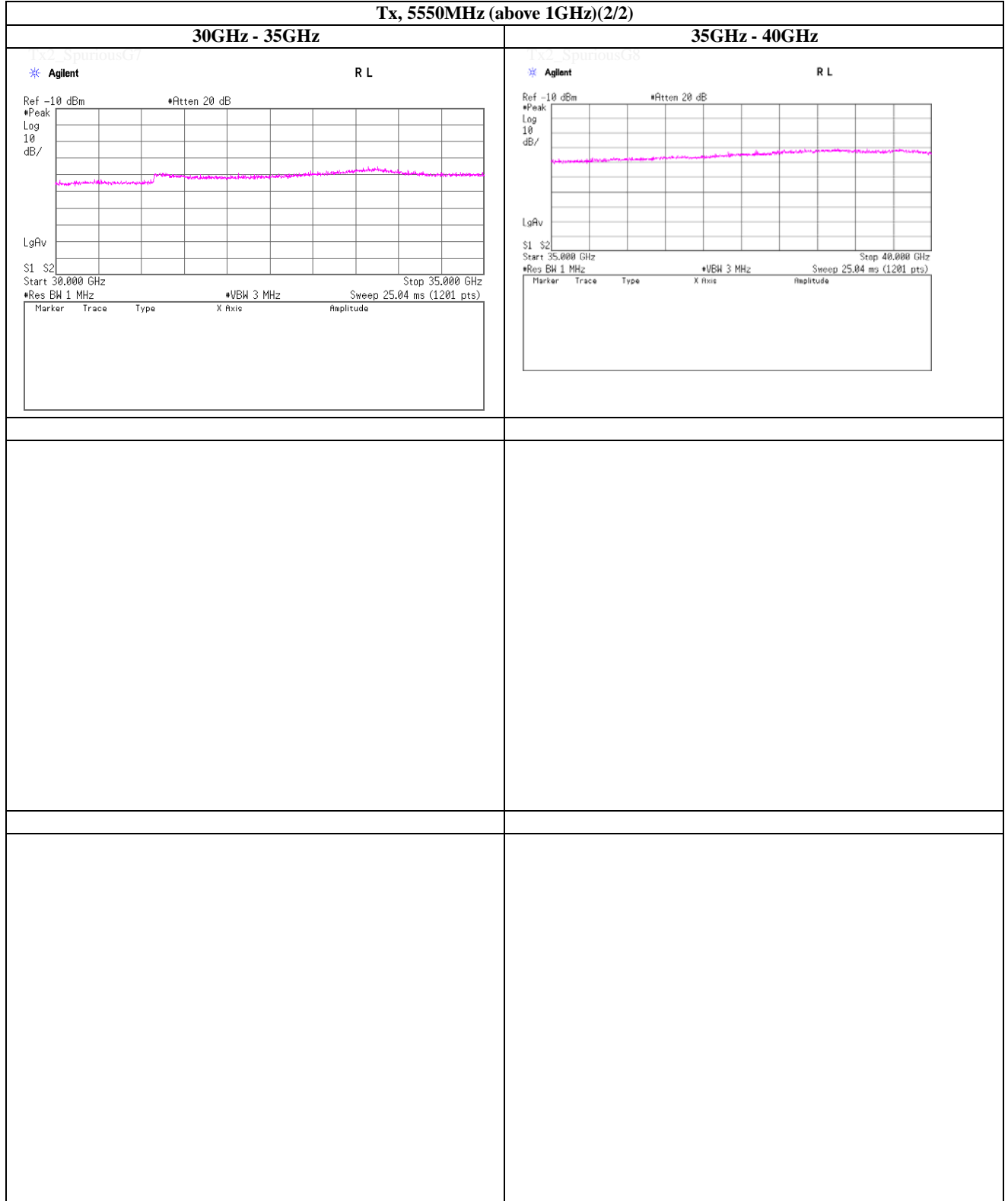
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5550MHz (above 1GHz)(2/2)**



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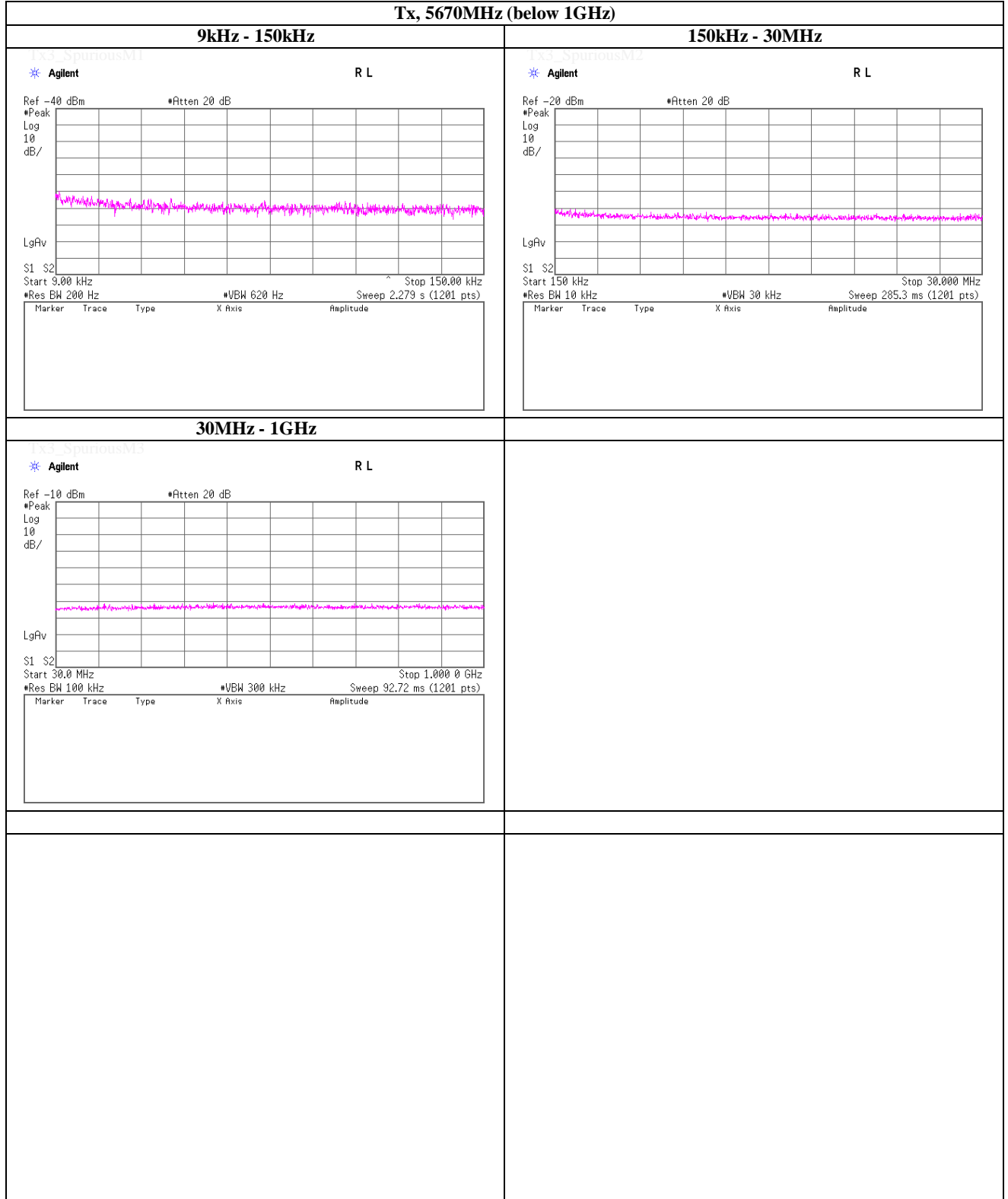
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5670MHz (below 1GHz)**

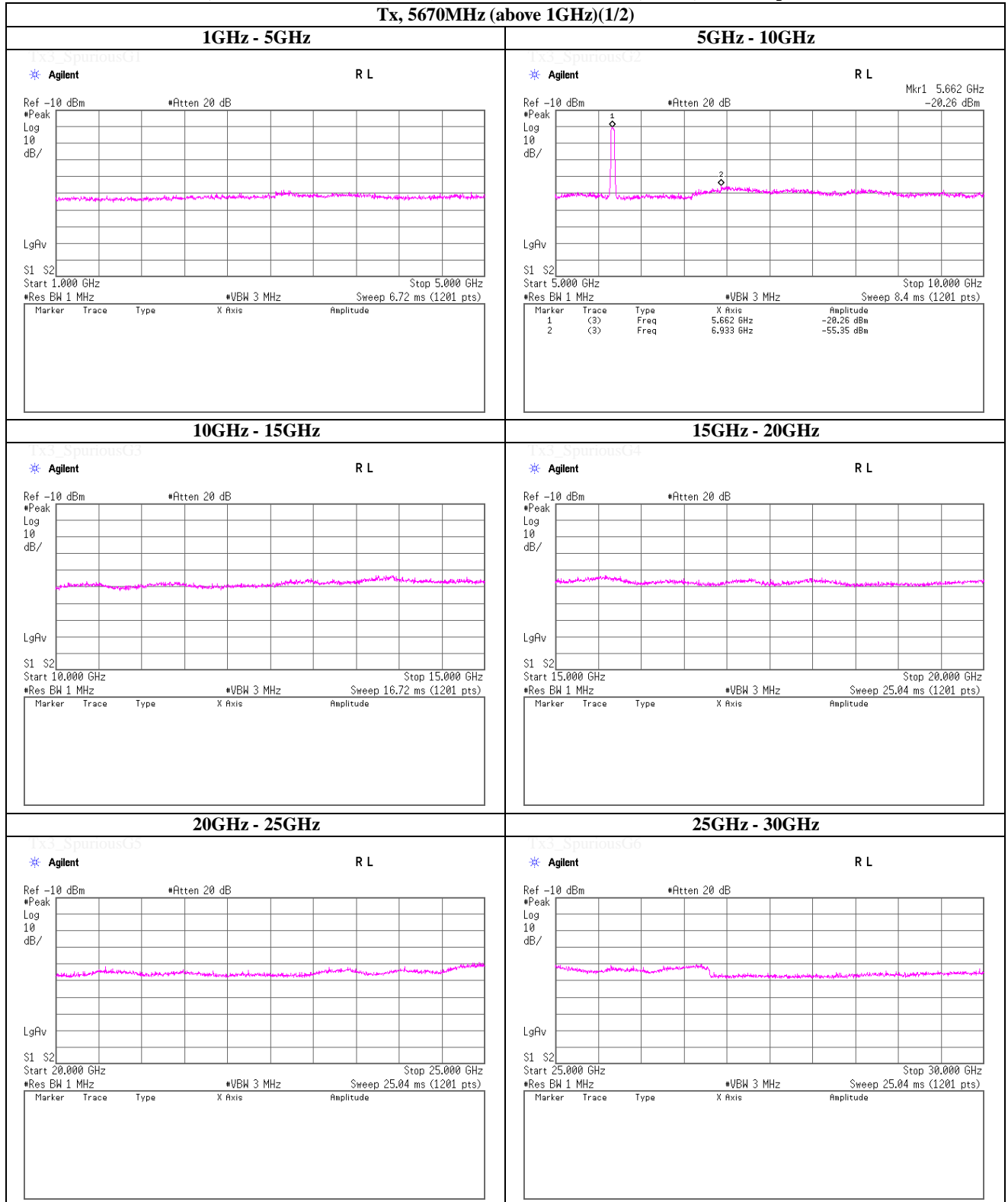


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**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5670MHz (above 1GHz)(1/2)**



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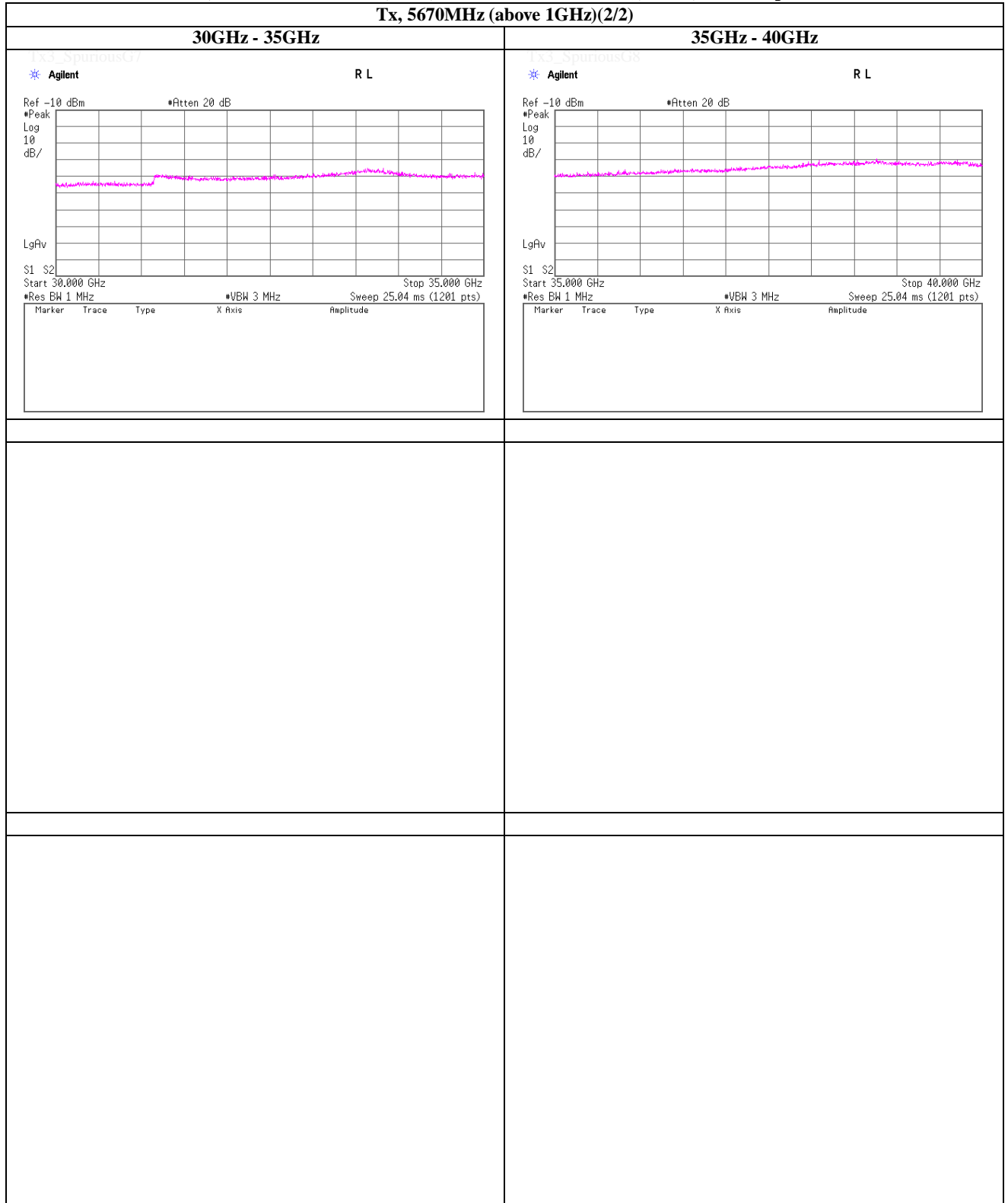
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**(Reference) Spurious emission (Conducted)**

**Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1**

**Tx, 5670MHz (above 1GHz)(2/2)**



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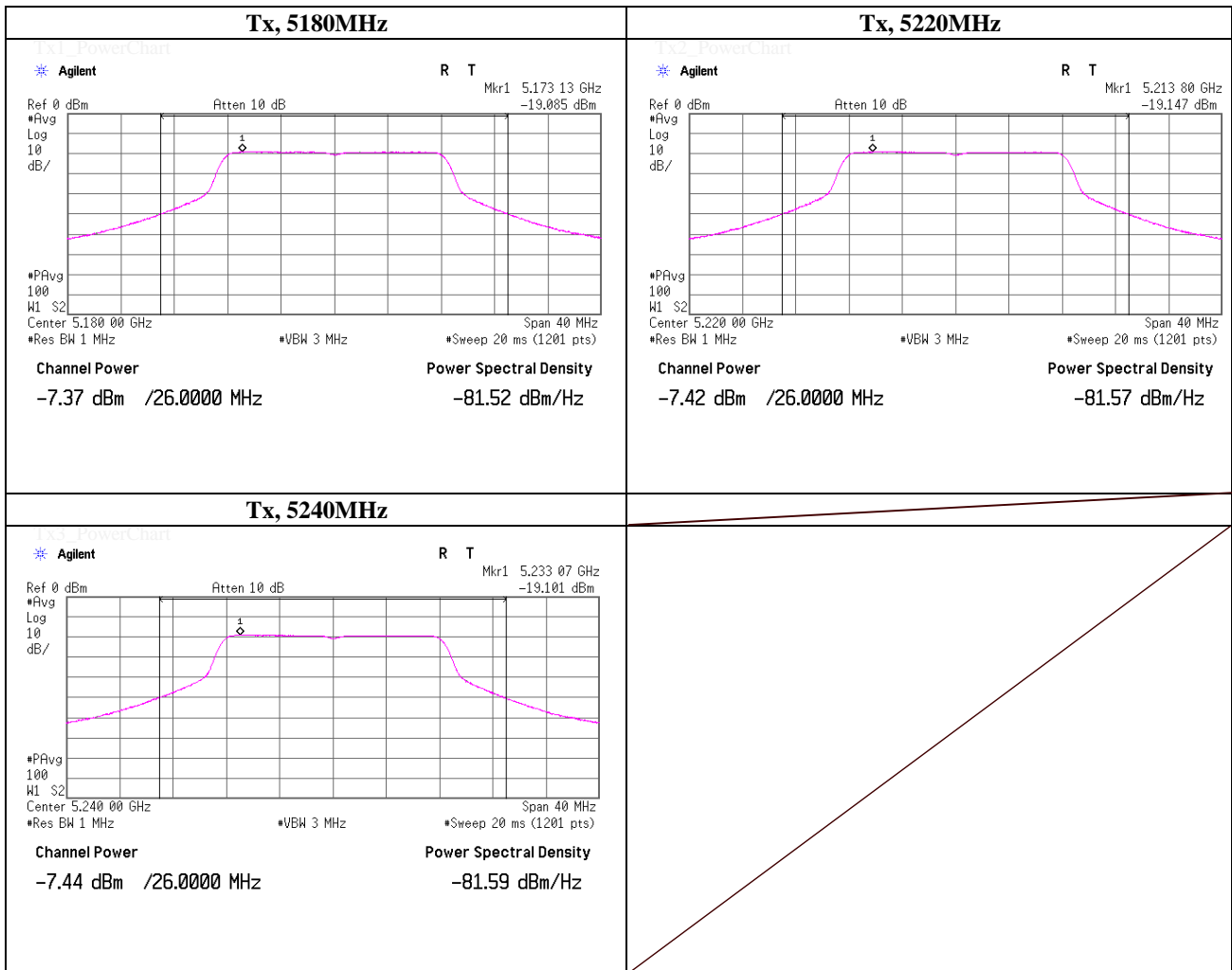
### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Antenna Gain [dBi]	Result (e.i.r.p.) [dBm/MHz]	Limit (e.i.r.p.) [dBm]	Margin [dB]
5180.0000	5173.13	-19.09	2.21	20.24	0.02	5.18	8.57	10.00	1.44
5220.0000	5213.80	-19.15	2.22	20.24	0.02	5.18	8.51	10.00	1.49
5240.0000	5233.07	-19.10	2.39	20.24	0.02	5.18	8.73	10.00	1.27

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor + Antenna Gain



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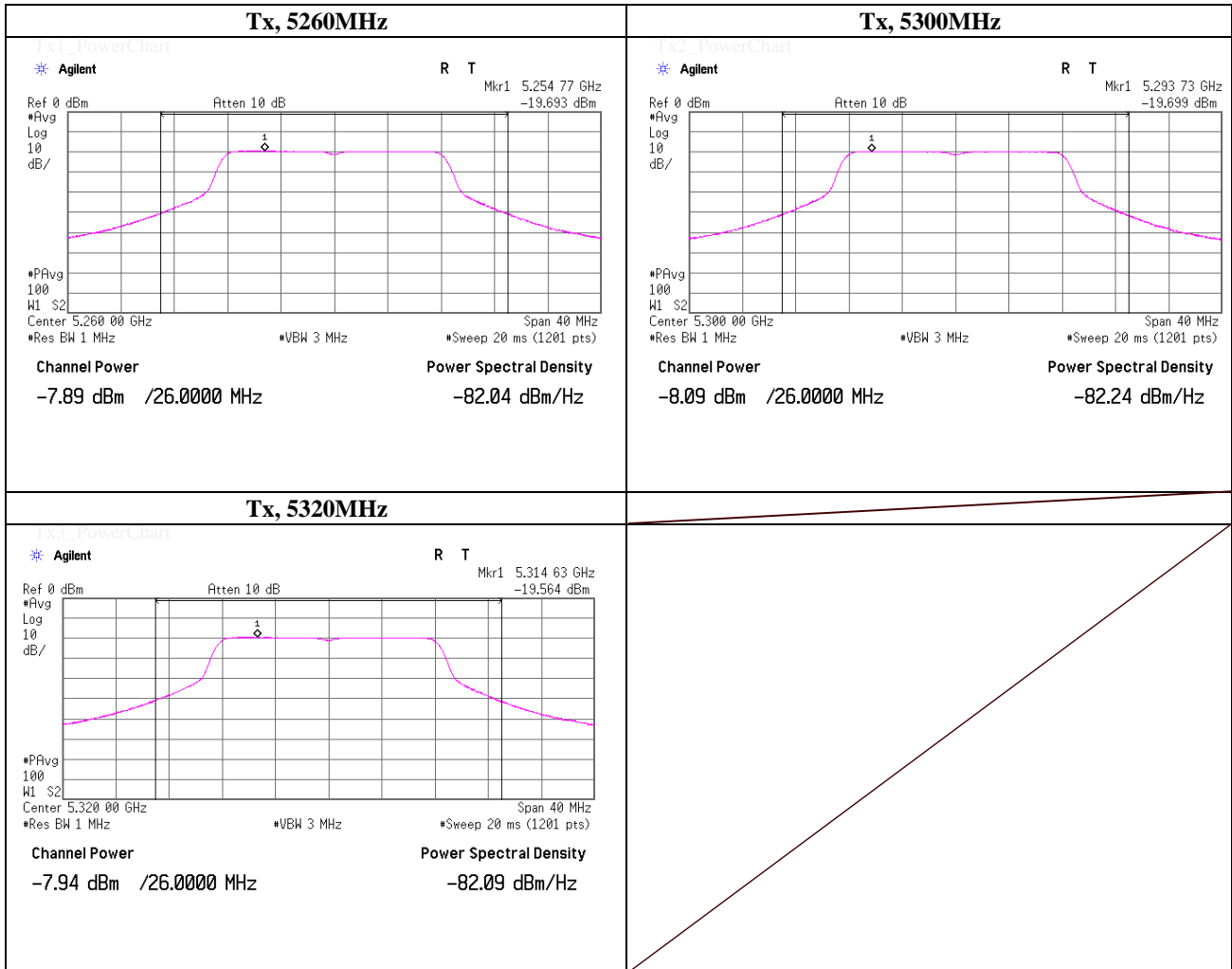


### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 7, 2012	
Temperature / Humidity	25deg.C , 52%RH	
Engineer	Kenichi Adachi	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5260.0000	5254.77	-19.69	3.15	20.23	0.03	3.72	11.00	7.28
5300.0000	5293.73	-19.70	3.16	20.23	0.03	3.73	11.00	7.28
5320.0000	5314.63	-19.56	3.25	20.23	0.03	3.95	11.00	7.05

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



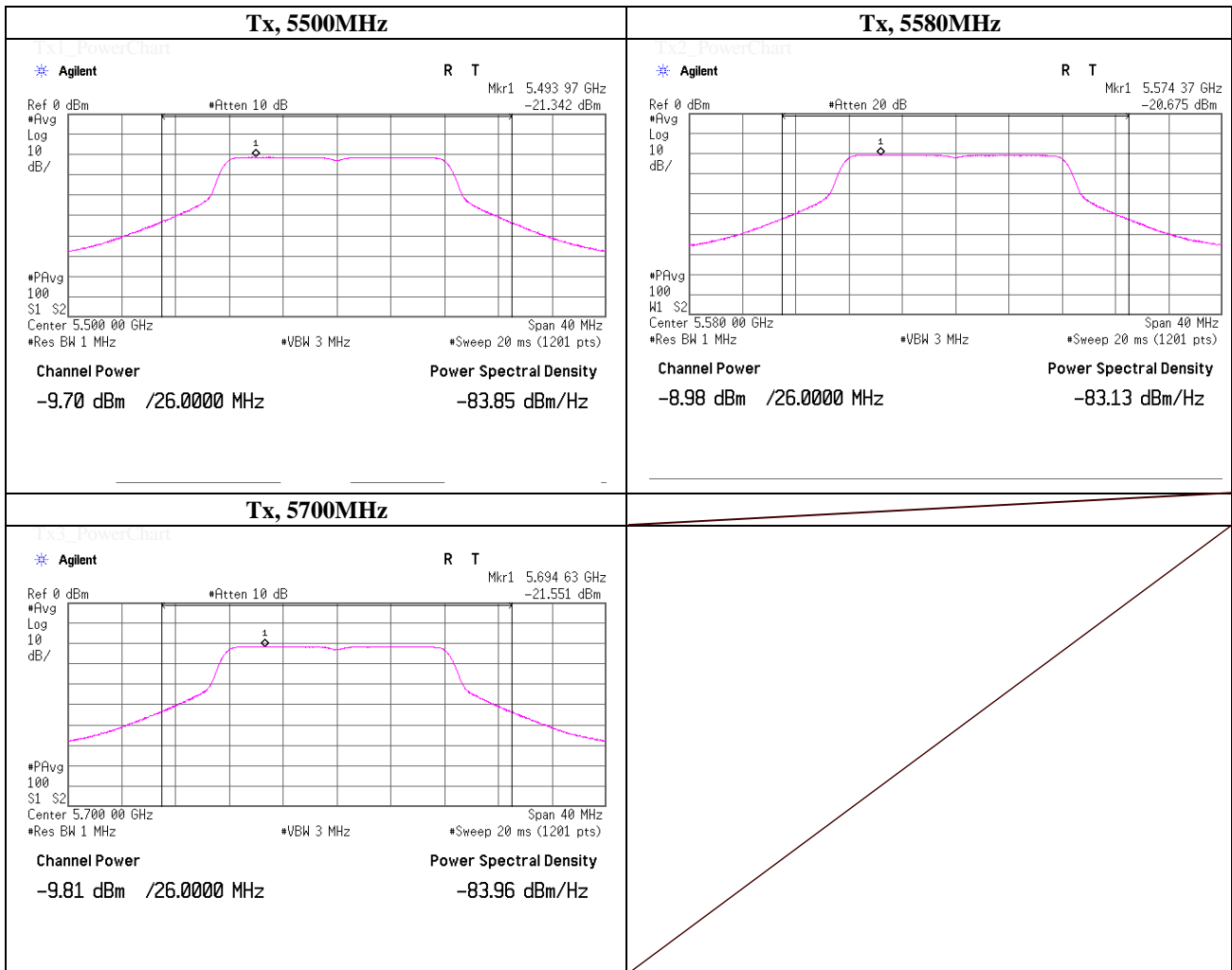
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 Facsimile : +81 463 50 6401

### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 21, 2012	
Temperature / Humidity	27 deg.C , 54 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5500.0000	5493.97	-21.34	3.31	20.21	0.02	2.20	11.00	8.80
5580.0000	5574.37	-20.68	3.33	20.21	0.02	2.89	11.00	8.11
5700.0000	5694.63	-21.55	3.16	20.21	0.02	1.84	11.00	9.16

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



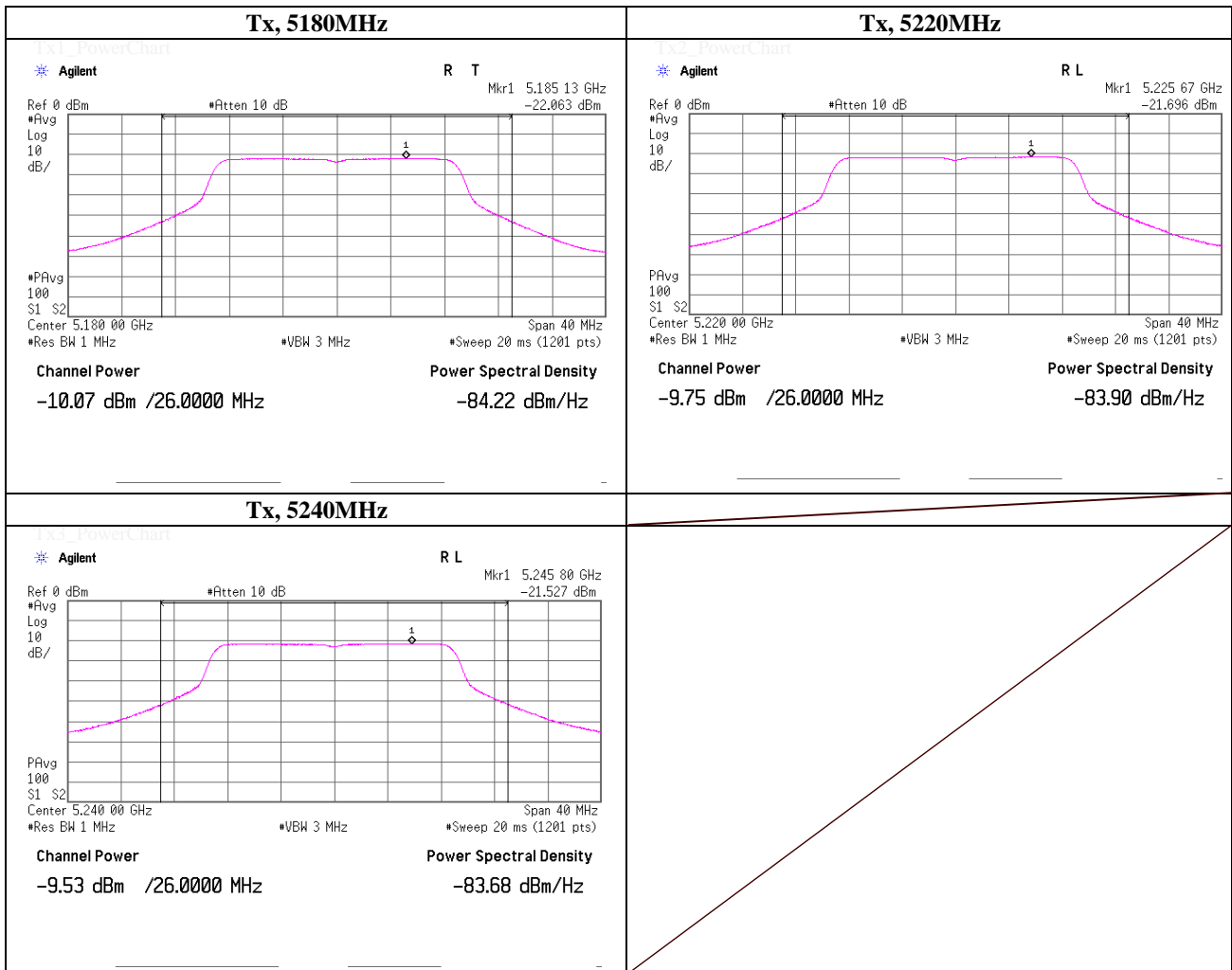
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 Facsimile : +81 463 50 6401

### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5180.0000	5185.13	-22.06	2.24	20.24	0.02	0.44	4.00	3.56
5220.0000	5225.67	-21.70	2.24	20.24	0.02	0.80	4.00	3.20
5240.0000	5245.80	-21.53	2.33	20.24	0.02	1.06	4.00	2.94

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



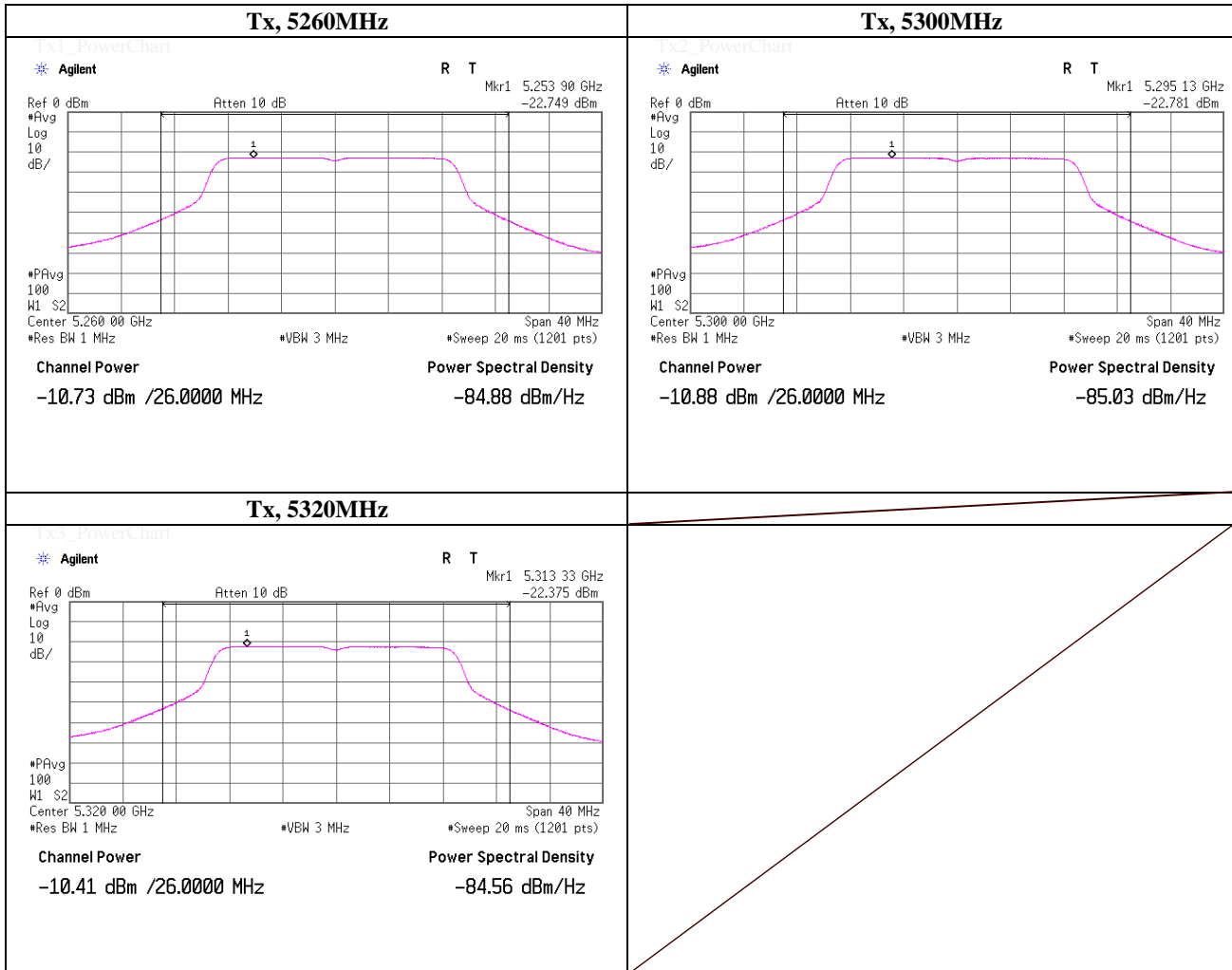
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 Telephone : +81 463 50 6400  
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### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 7, 2012	
Temperature / Humidity	25deg.C , 52%RH	
Engineer	Kenichi Adachi	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5260.0000	5253.90	-22.75	3.15	20.23	0.04	0.67	11.00	10.33
5300.0000	5295.13	-22.78	3.16	20.23	0.04	0.64	11.00	10.36
5320.0000	5313.33	-22.38	3.25	20.23	0.04	1.14	11.00	9.86

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



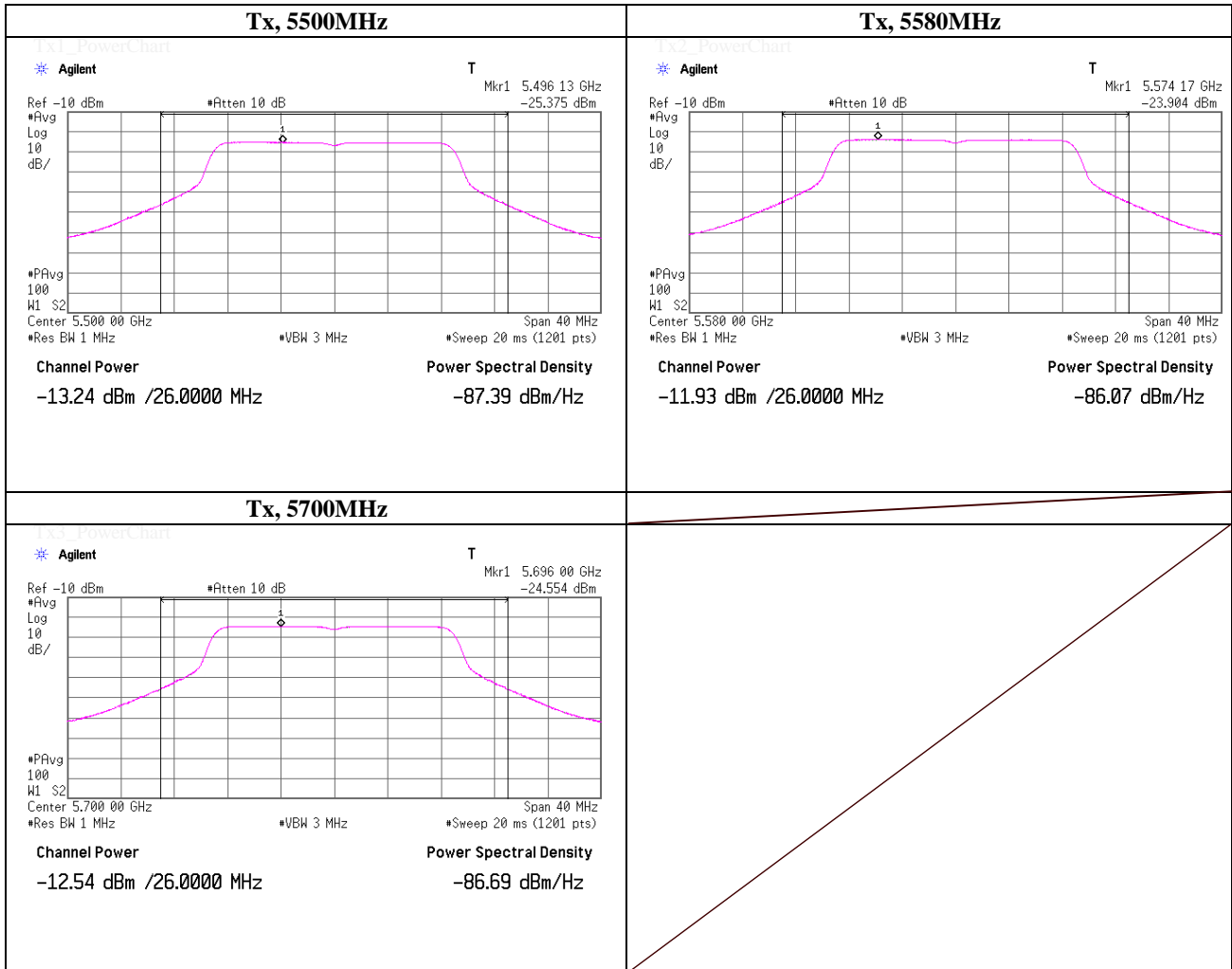
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### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 22, 2012	
Temperature / Humidity	25deg.C , 50%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5500.0000	5496.13	-25.38	3.31	20.21	0.02	-1.83	11.00	12.83
5580.0000	5574.17	-23.90	3.33	20.21	0.02	-0.34	11.00	11.34
5700.0000	5696.00	-24.55	3.16	20.21	0.02	-1.16	11.00	12.16

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



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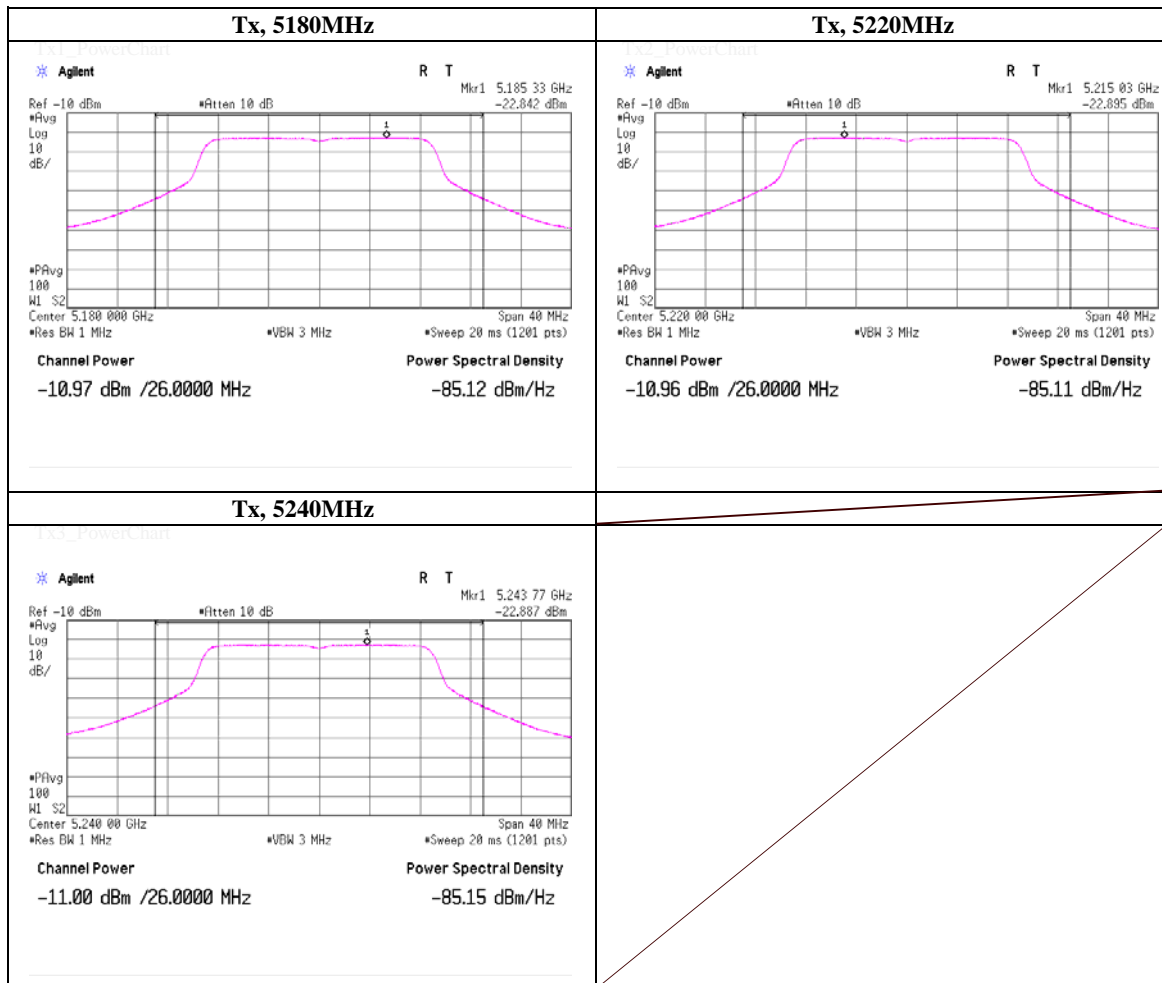
### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 30, 2012  
 Temperature / Humidity: 25deg.C , 45%RH  
 Engineer: Hikaru Shirasawa  
 Mode: Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

#### Antenna 1

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5180.0000	5185.33	-22.84	3.02	20.24	0.04	0.46	4.00	3.54
5220.0000	5215.03	-22.90	3.03	20.24	0.04	0.42	4.00	3.59
5240.0000	5243.77	-22.89	3.12	20.24	0.04	0.51	4.00	3.49

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



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### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 30, 2012  
 Temperature / Humidity: 25deg.C , 45%RH  
 Engineer: Hikaru Shirasawa  
 Mode: Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**Total**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5180.0000	5186.13	3.51	4.00	0.49
5220.0000	5227.67	3.31	4.00	0.69
5240.0000	5246.27	3.34	4.00	0.66

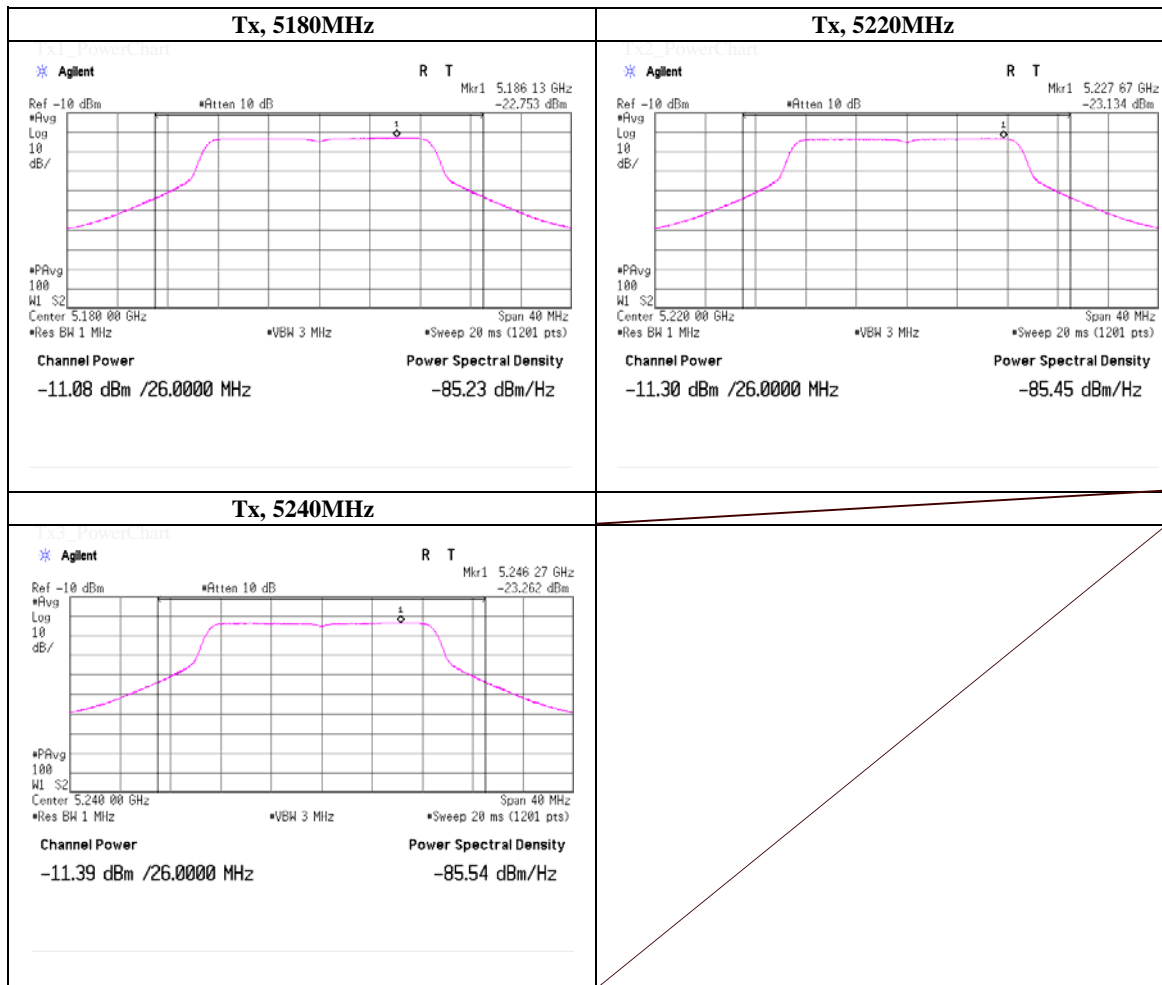
Sample Calculation: Total Result [dBm/MHz] = 10 x log ( 10 ^ ( (Antenna 1 Result [dBm/MHz]) / 10 ) + 10 ^ ( (Antenna 2 Result [dBm/MHz]) / 10 ) )

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5180.0000	5186.13	-22.75	3.02	20.24	0.04	0.55	4.00	3.45
5220.0000	5227.67	-23.13	3.03	20.24	0.04	0.18	4.00	3.82
5240.0000	5246.27	-23.26	3.12	20.24	0.04	0.14	4.00	3.86

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



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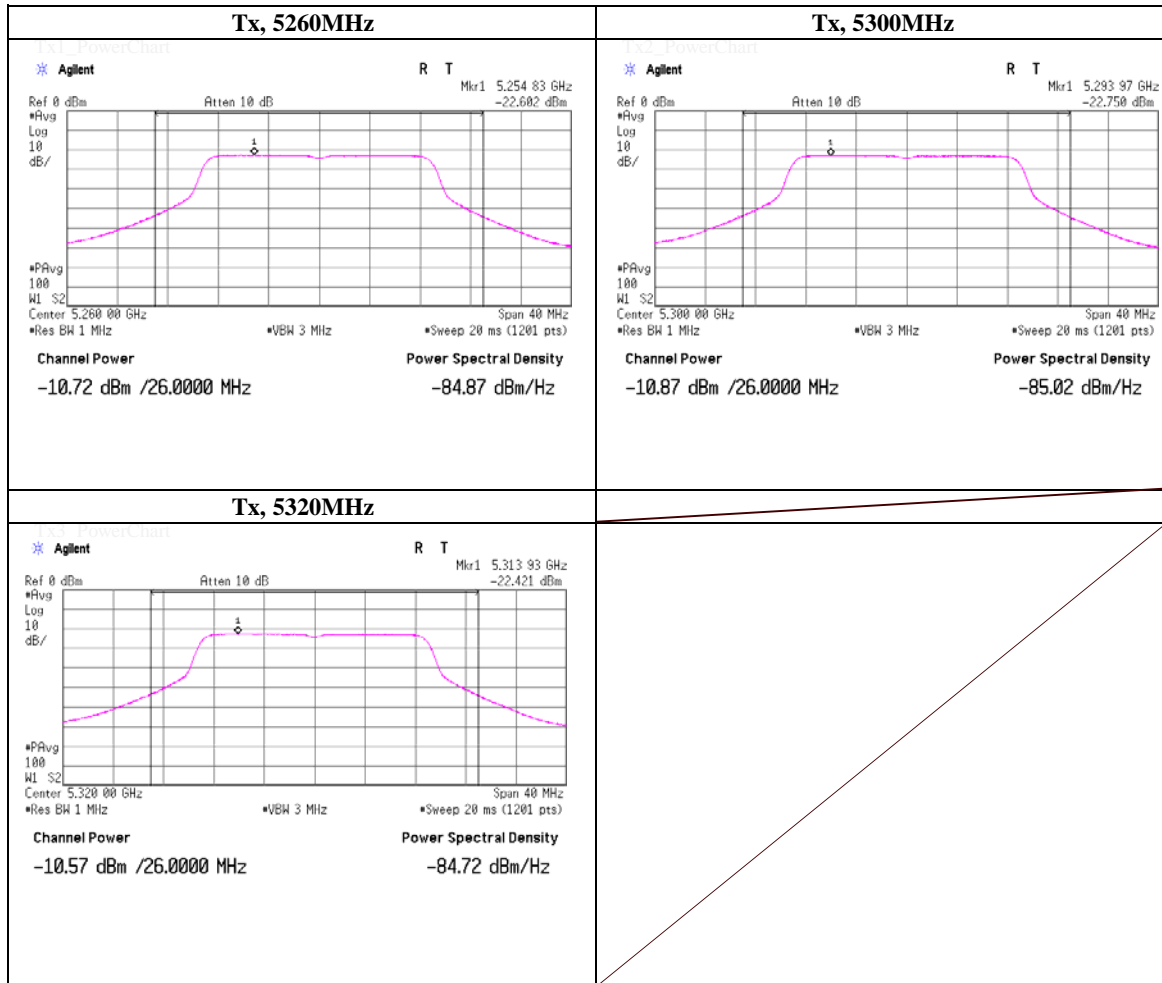
### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 7, 2012  
 Temperature / Humidity: 25deg.C , 52%RH  
 Engineer: Kenichi Adachi  
 Mode: Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**Antenna 1**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5260.0000	5254.83	-22.60	3.15	20.23	0.04	0.82	11.00	10.18
5300.0000	5293.97	-22.75	3.16	20.23	0.04	0.68	11.00	10.32
5320.0000	5313.93	-22.42	3.25	20.23	0.04	1.10	11.00	9.90

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor





### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 7, 2012  
 Temperature / Humidity: 25deg.C , 52%RH  
 Engineer: Kenichi Adachi  
 Mode: Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**Total**

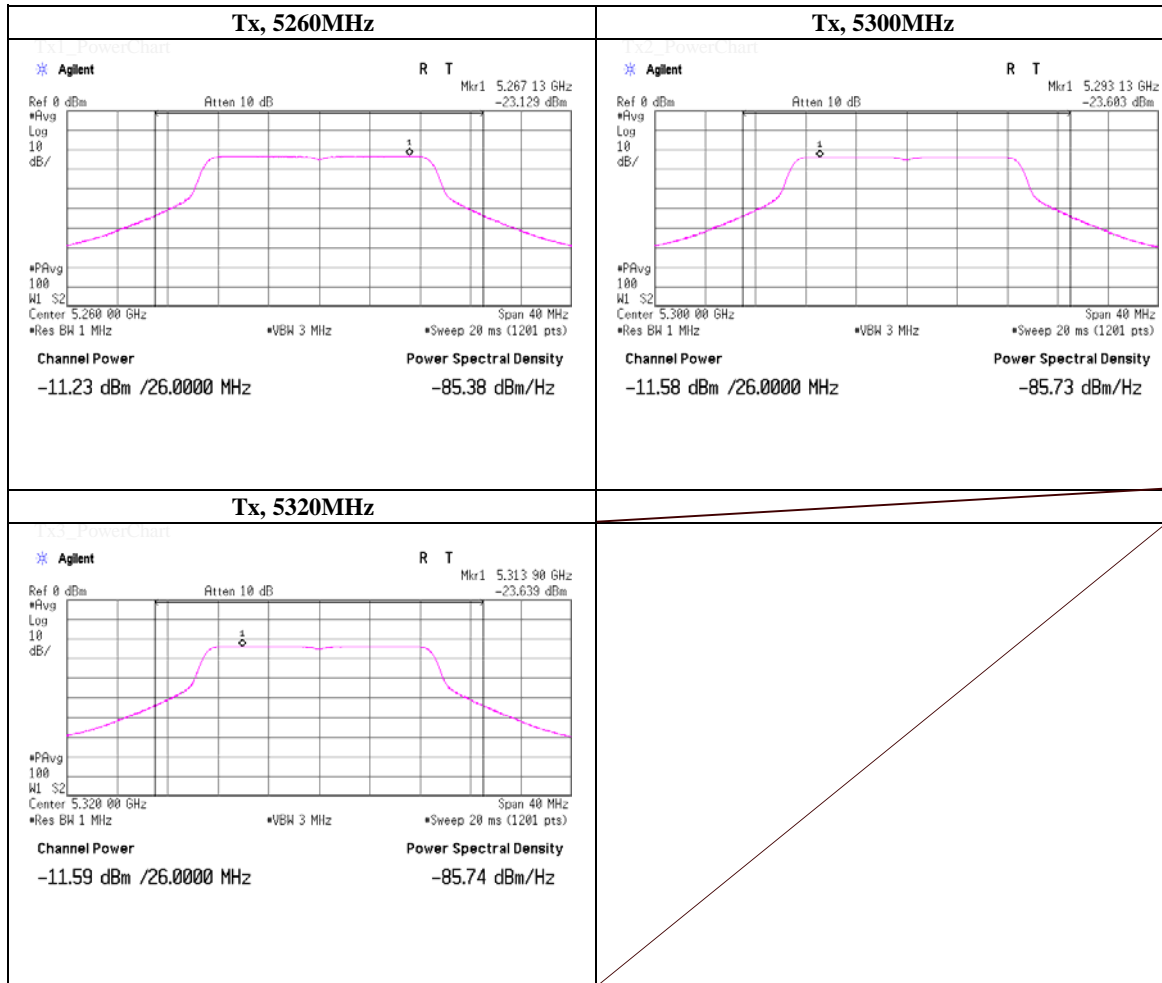
Ch. Freq. [MHz]	Freq. Reading [MHz]	Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5260.0000	5267.13	3.57	11.00	7.43
5300.0000	5293.13	3.28	11.00	7.72
5320.0000	5313.90	3.54	11.00	7.46

Sample Calculation: Total Result [dBm/MHz] = 10 x log ( 10 ^ ( (Antenna 1 Result [dBm/MHz]) / 10 ) + 10 ^ ( (Antenna 2 Result [dBm/MHz]) / 10 ) )

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5260.0000	5267.13	-23.13	3.15	20.23	0.04	0.29	11.00	10.71
5300.0000	5293.13	-23.60	3.16	20.23	0.04	-0.17	11.00	11.17
5320.0000	5313.90	-23.64	3.25	20.23	0.04	-0.12	11.00	11.12

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



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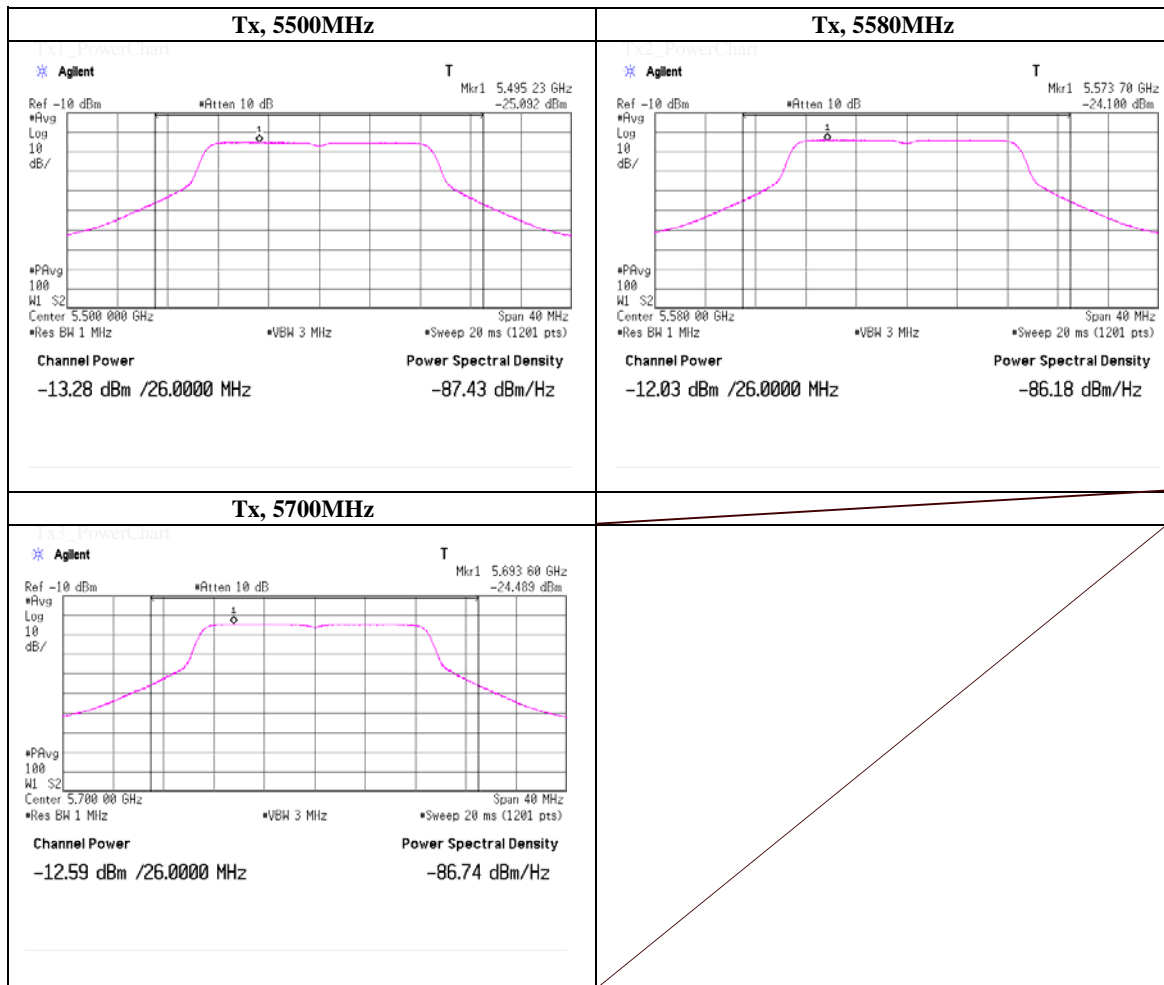
### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 30, 2012	
Temperature / Humidity	25deg.C , 45%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo	

**Antenna 1**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5500.0000	5295.23	-25.09	3.31	20.21	0.04	-1.53	11.00	12.53
5580.0000	5573.70	-24.10	3.33	20.21	0.04	-0.52	11.00	11.52
5700.0000	5693.60	-24.49	3.16	20.21	0.04	-1.08	11.00	12.08

Sample Calculation:  
Result = Reading + Cable Loss + Atten.Loss + Duty factor



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### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 30, 2012  
 Temperature / Humidity: 25deg.C , 45%RH  
 Engineer: Hikaru Shirasawa  
 Mode: Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo

**Total**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5500.0000	5249.97	1.32	11.00	9.68
5580.0000	5573.50	2.34	11.00	8.66
5700.0000	5692.63	1.94	11.00	9.06

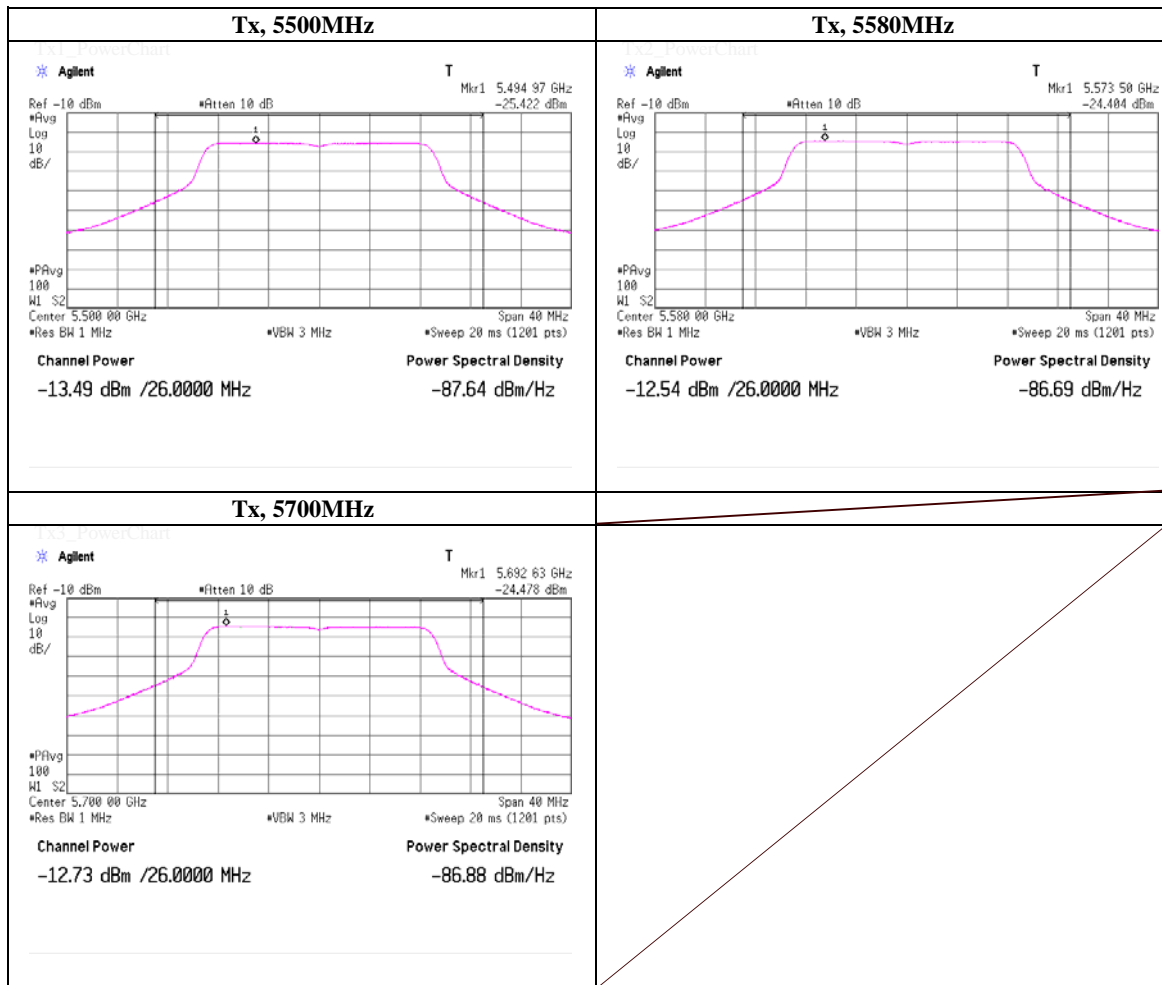
Sample Calculation: Total Result [dBm/MHz] = 10 x log ( 10 ^ ( (Antenna 1 Result [dBm/MHz]) / 10 ) + 10 ^ ( (Antenna 2 Result [dBm/MHz]) / 10 ) )

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5500.0000	5249.97	-25.42	3.31	20.21	0.04	-1.86	11.00	12.86
5580.0000	5573.50	-24.40	3.33	20.21	0.04	-0.82	11.00	11.82
5700.0000	5692.63	-24.48	3.16	20.21	0.04	-1.07	11.00	12.07

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



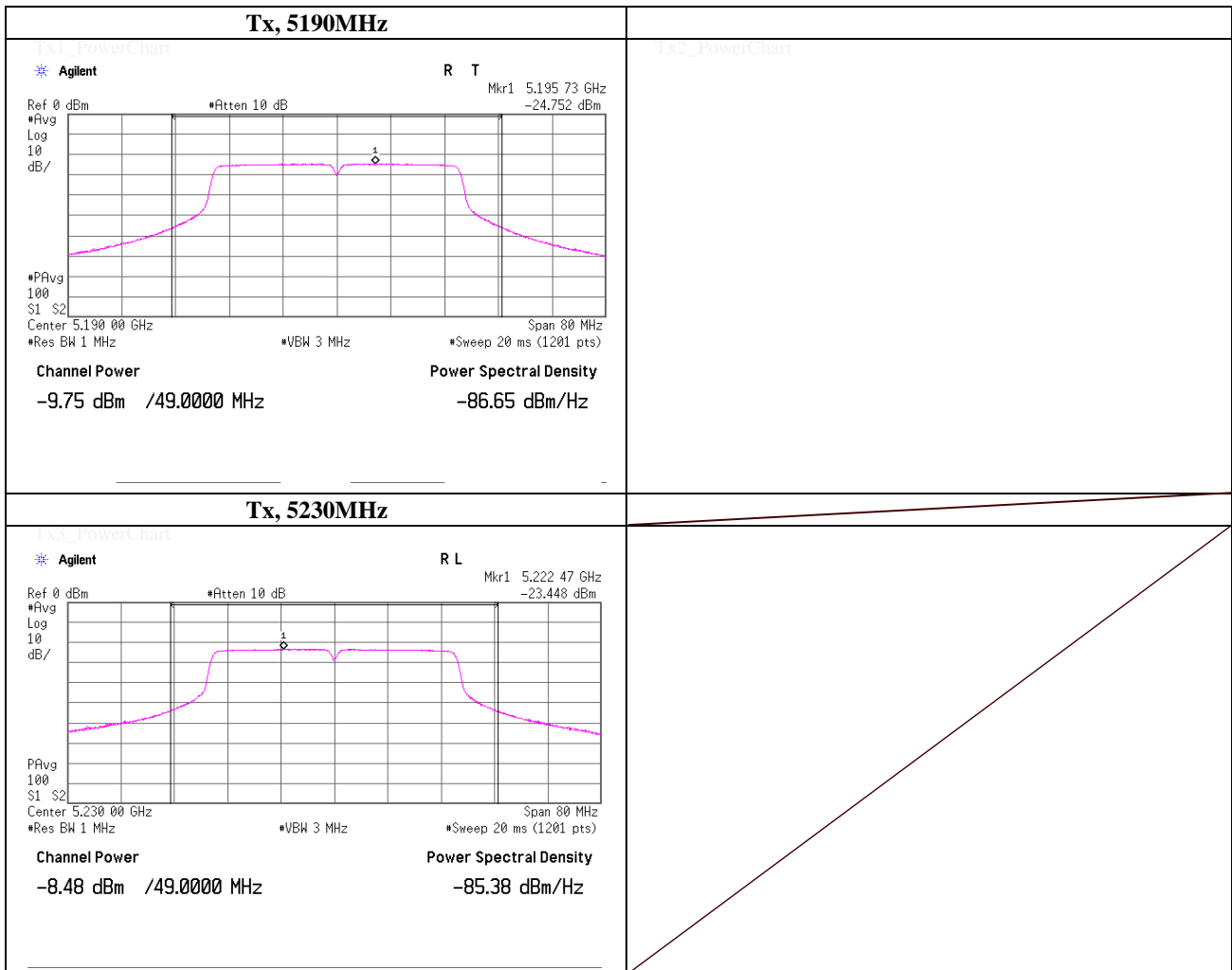
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### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5190.0000	5195.73	-24.75	2.22	20.24	0.04		-2.25	4.00	6.25
5230.0000	5222.47	-23.45	2.22	20.24	0.04		-0.95	4.00	4.95

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



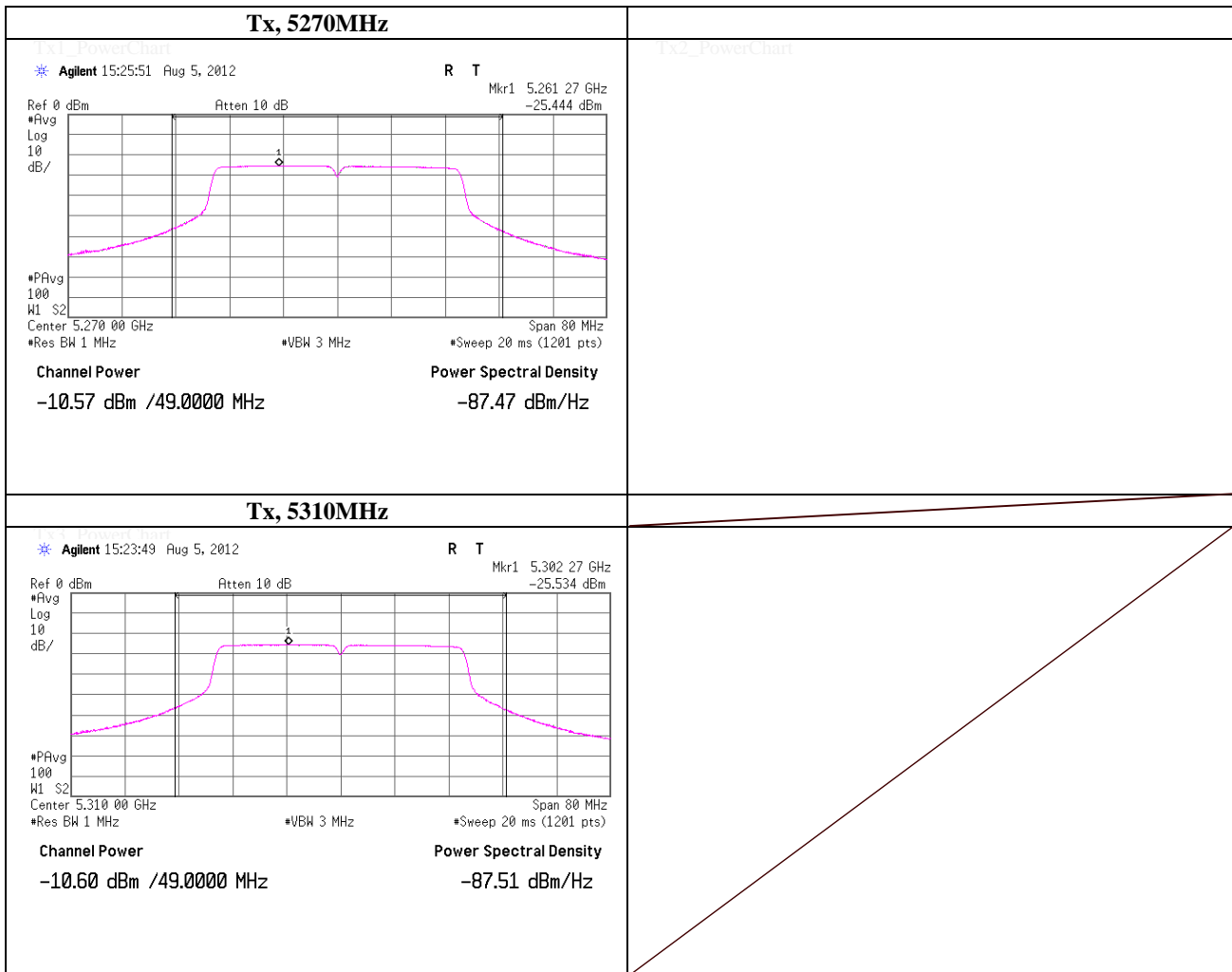
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### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 21, 2012	
Temperature / Humidity	27 deg.C , 54 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5270.0000	5261.27	-25.44	3.15	20.23	0.04		-2.02	11.00	13.02
5310.0000	5302.27	-25.53	3.16	20.23	0.04		-2.10	11.00	13.10

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



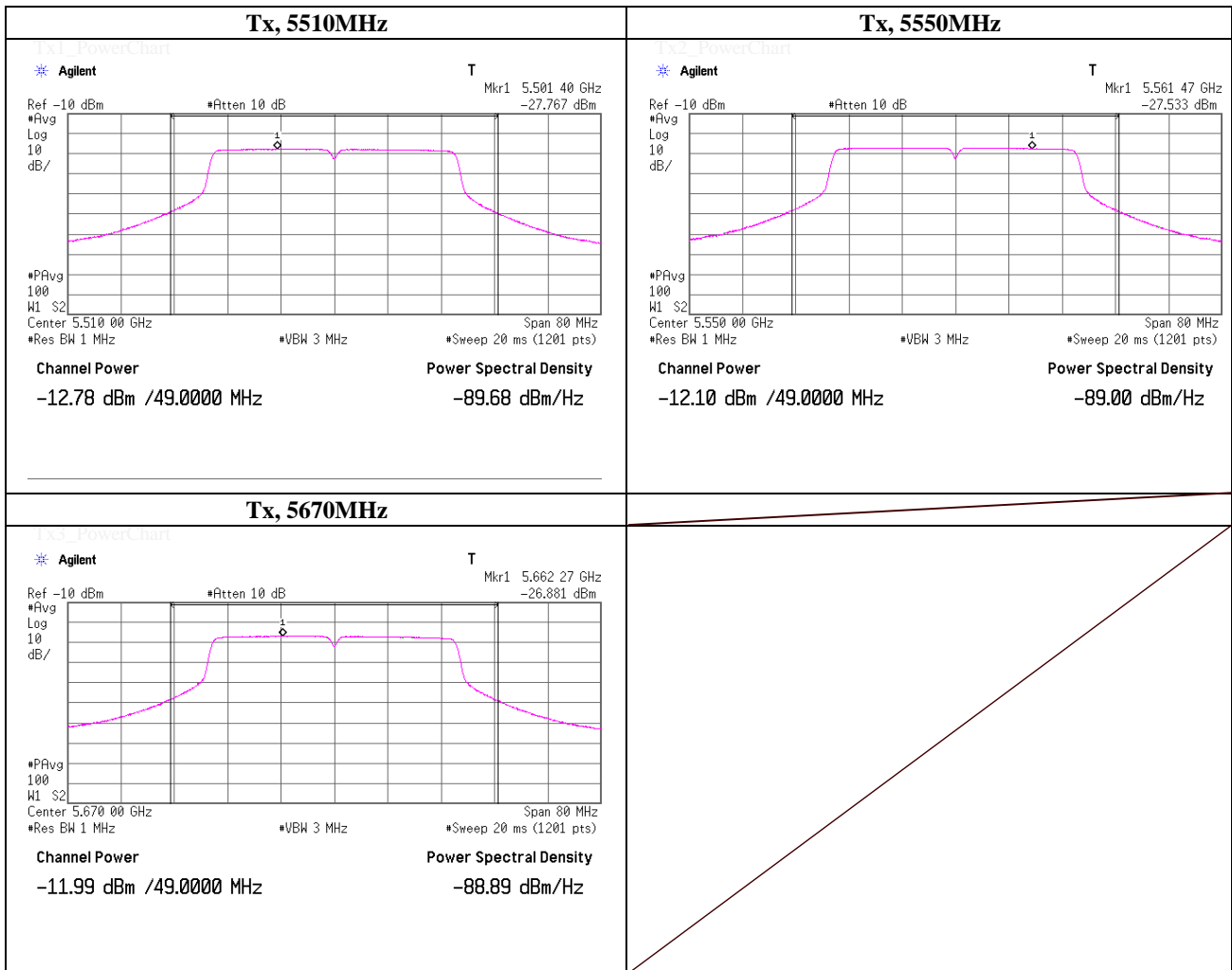
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### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 22, 2012	
Temperature / Humidity	25 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5510.0000	5501.40	-27.77	3.32	20.21	0.04	-4.20	11.00	15.20
5550.0000	5561.47	-27.53	3.32	20.21	0.00	-4.00	11.00	15.00
5670.0000	5662.27	-26.88	3.25	20.21	0.04	-3.38	11.00	14.38

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor



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**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
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### Power Density

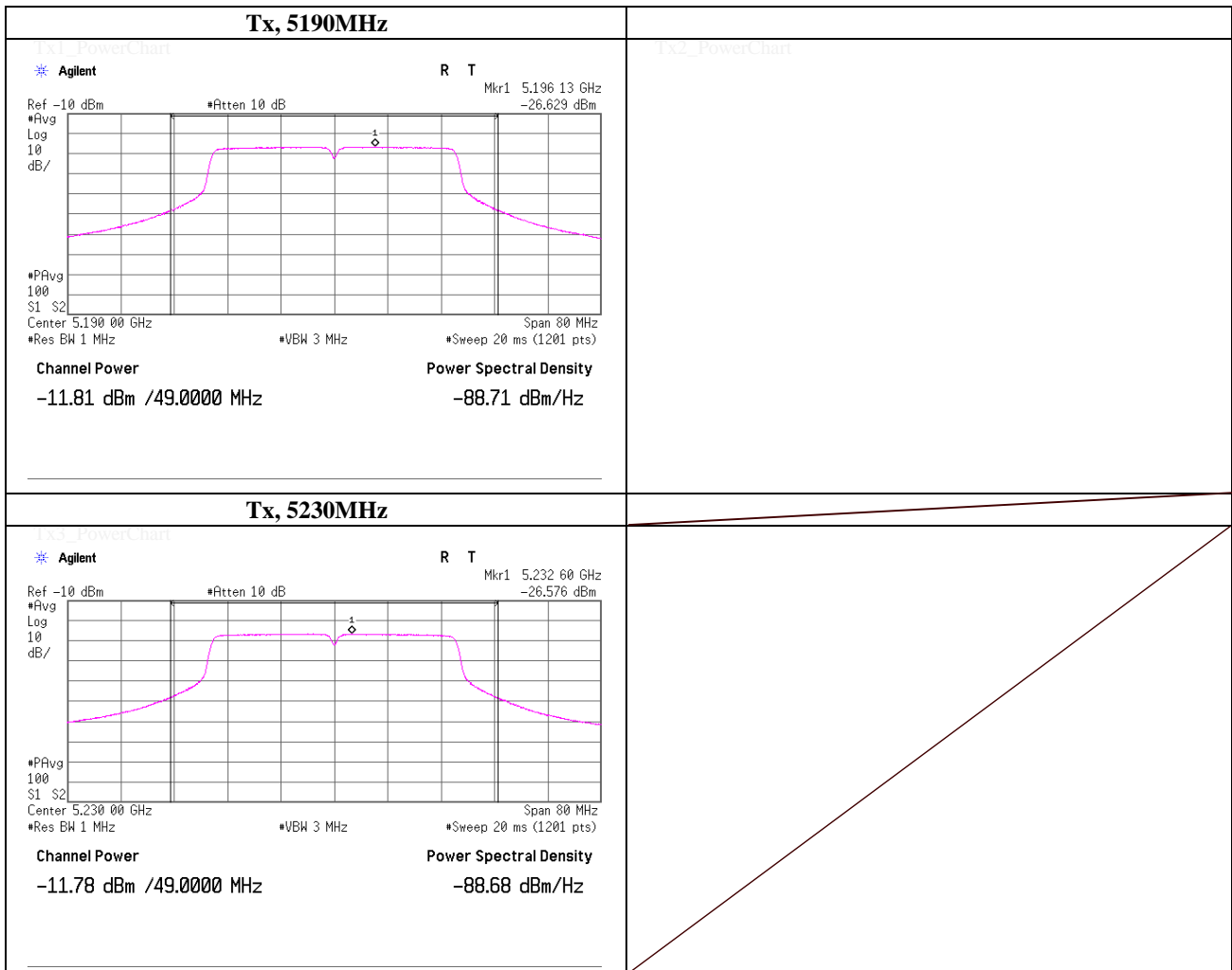
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo	

**Antenna 1**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5190.0000	5196.13	-26.63	3.02	20.24	0.08		-3.29	4.00	7.29
5230.0000	5232.60	-26.58	3.03	20.24	0.08		-3.23	4.00	7.23

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



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1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28deg.C , 50%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo	

**Total**

Ch. Freq. [MHz]	Freq. Reading [MHz]		Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5190.0000	5201.93		1.57	4.00	2.43
5230.0000	5234.93		1.52	4.00	2.48

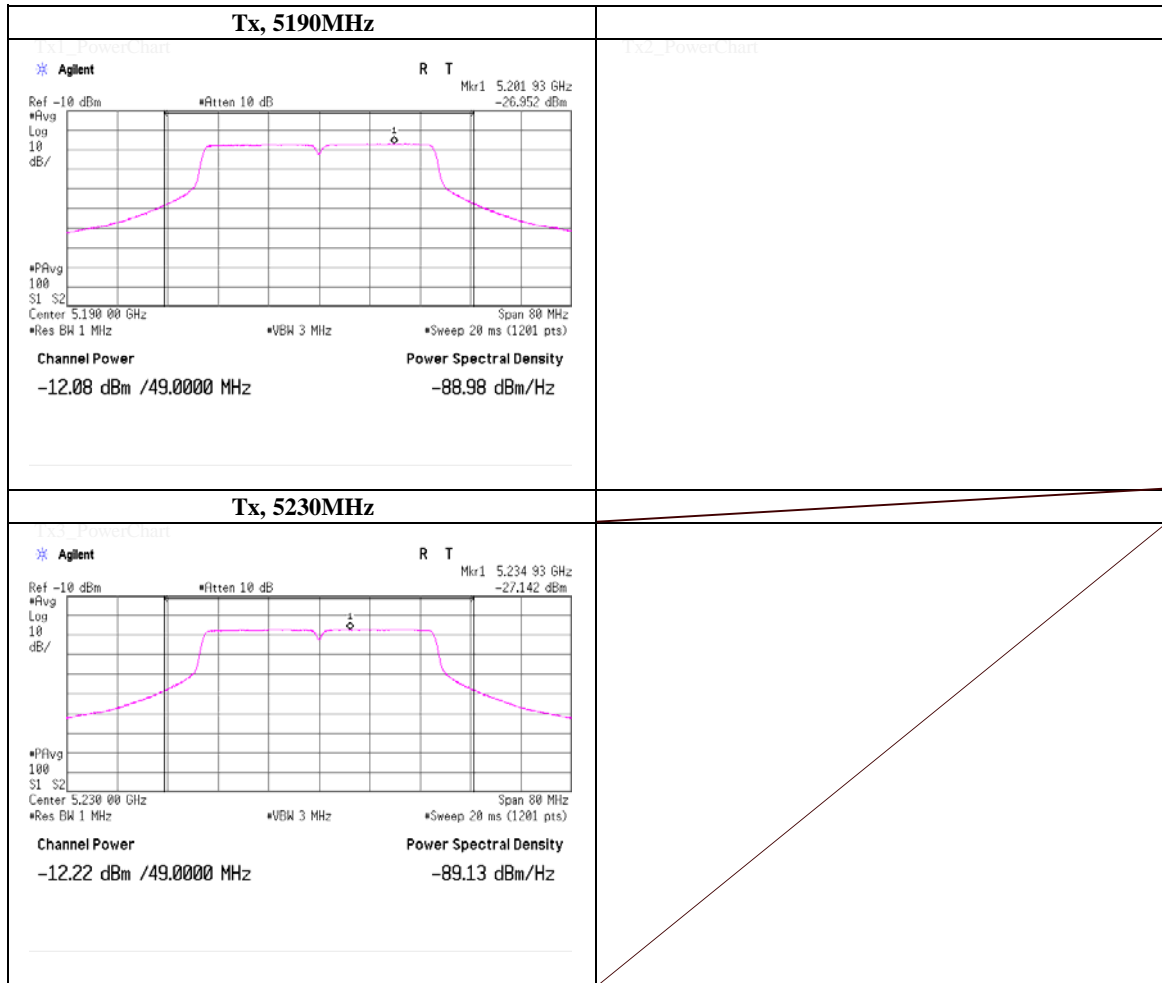
Sample Calculation: Total Result [dBm/MHz] =  $10 \times \log ( 10 ^ { ( \text{Antenna 1 Result [dBm/MHz]} ) / 10 } + 10 ^ { ( \text{Antenna 2 Result [dBm/MHz]} ) / 10 } )$

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5190.0000	5201.93	-26.95	3.02	20.24	0.08		-3.61	4.00	7.61
5230.0000	5234.93	-27.14	3.03	20.24	0.08		-3.79	4.00	7.79

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor





## Power Density

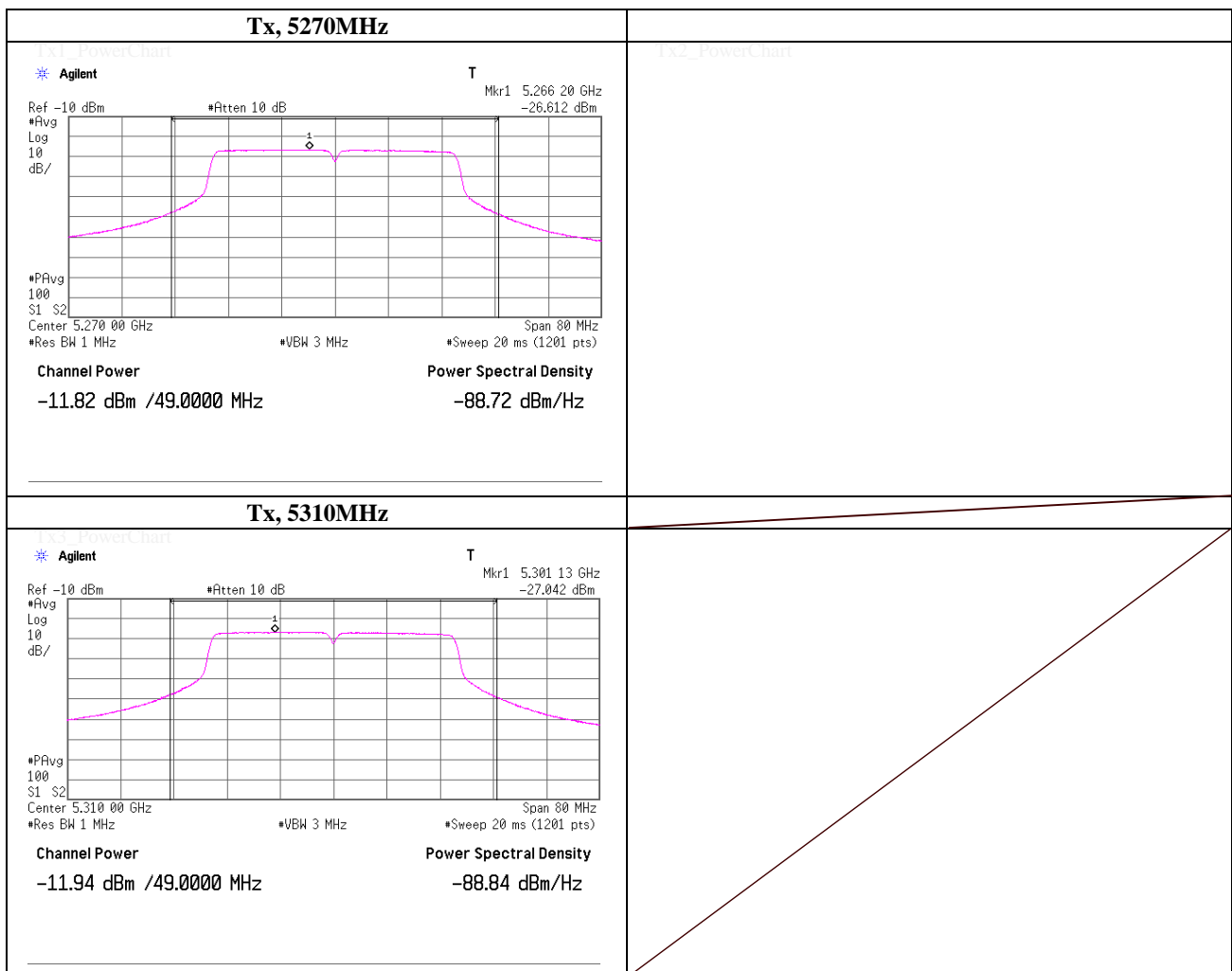
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo	

### Antenna 1

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5270.0000	5266.20	-26.61	3.15	20.23	0.08		-3.15	11.00	14.15
5310.0000	5301.13	-27.04	3.16	20.23	0.08		-3.57	11.00	14.57

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



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1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

### Power Density

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28deg.C , 50%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo	

**Total**

Ch. Freq. [MHz]	Freq. Reading [MHz]		Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5270.0000	5265.00		1.52	11.00	9.48
5310.0000	5314.93		1.38	11.00	9.62

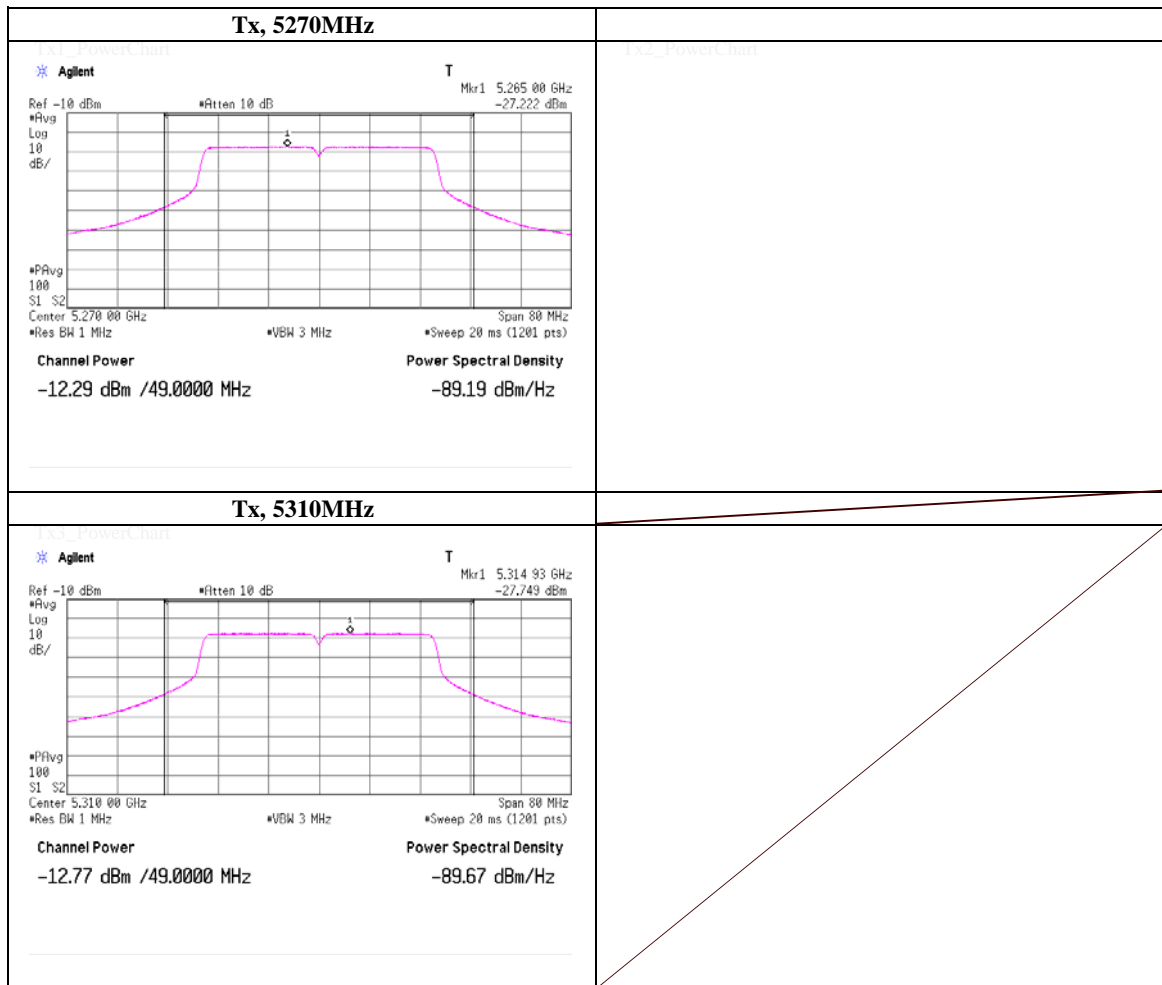
Sample Calculation: Total Result [dBm/MHz] =  $10 \times \log ( 10 ^ { ( \text{Antenna 1 Result [dBm/MHz]} ) / 10 } + 10 ^ { ( \text{Antenna 2 Result [dBm/MHz]} ) / 10 } )$

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]		Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5270.0000	5265.00	-27.22	3.15	20.23	0.08		-3.76	11.00	14.76
5310.0000	5314.93	-27.75	3.16	20.23	0.08		-4.28	11.00	15.28

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



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### Power Density

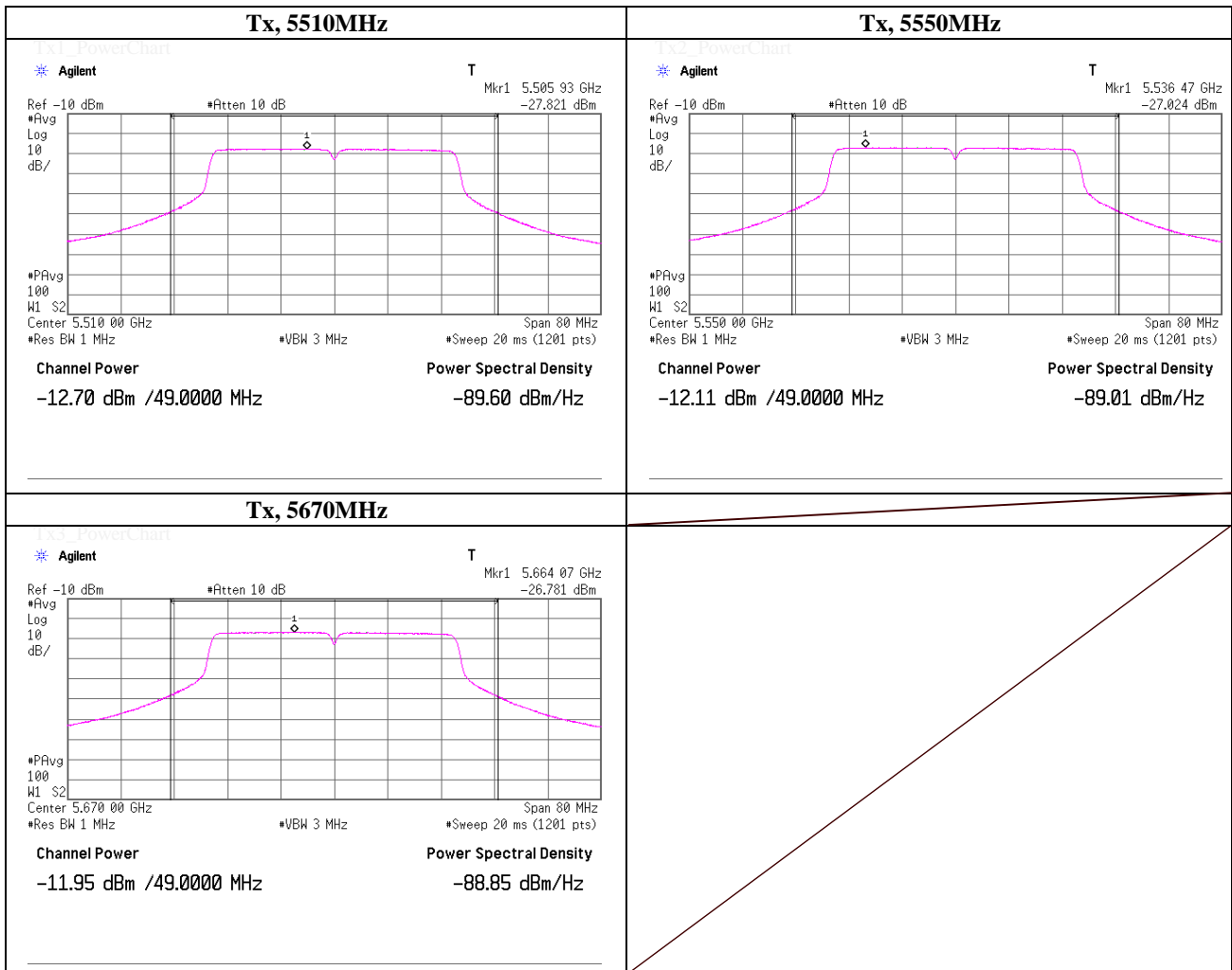
Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 30, 2012	
Temperature / Humidity	25deg.C , 45%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo	

**Antenna 1**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5510.0000	5505.93	-27.82	3.32	20.21	0.08	-4.21	11.00	15.21
5550.0000	5536.47	-27.02	3.32	20.21	0.08	-3.41	11.00	14.41
5670.0000	5664.07	-26.78	3.25	20.21	0.08	-3.24	11.00	14.24

Sample Calculation:

Result = Reading + Cable Loss + Atten.Loss + Duty factor



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Facsimile : +81 463 50 6401

### Power Density

Test place: UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date: August 30, 2012  
 Temperature / Humidity: 25deg.C , 45%RH  
 Engineer: Hikaru Shirasawa  
 Mode: Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo

**Total**

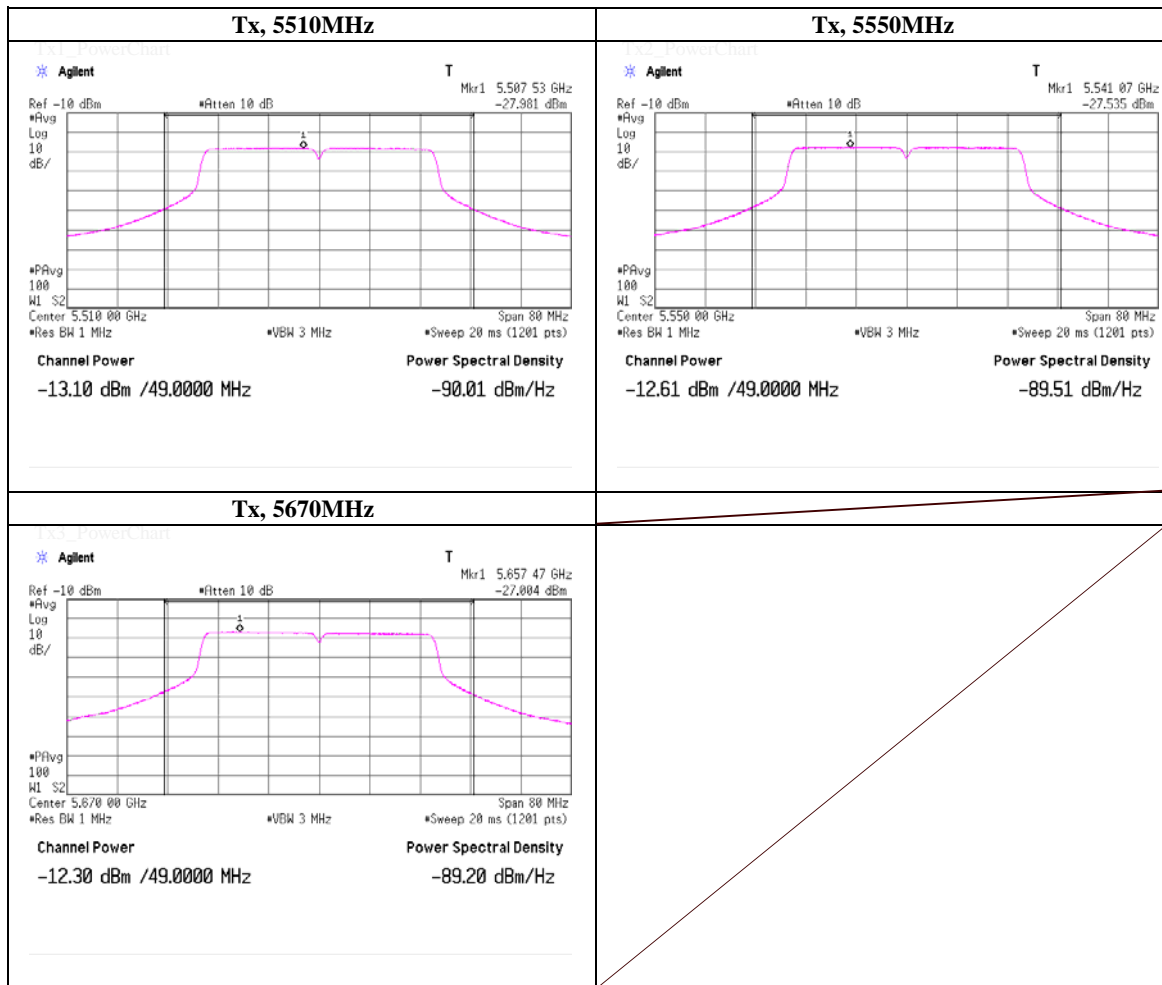
Ch. Freq. [MHz]	Freq. Reading [MHz]	Total Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5510.0000	5507.53	1.35	11.00	9.65
5550.0000	5541.07	1.48	11.00	9.52
5670.0000	5657.47	1.61	11.00	9.39

Sample Calculation: Total Result [dBm/MHz] = 10 x log ( 10 ^ ( (Antenna 1 Result [dBm/MHz]) / 10 ) + 10 ^ ( (Antenna 2 Result [dBm/MHz]) / 10 ) )

**Antenna 2**

Ch. Freq. [MHz]	Freq. Reading [MHz]	Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm/MHz]	Limit [dBm]	Margin [dB]
5510.0000	5507.53	-27.98	3.32	20.21	0.08	-4.37	11.00	15.37
5550.0000	5541.07	-27.54	3.32	20.21	0.08	-3.93	11.00	14.93
5670.0000	5657.47	-27.00	3.25	20.21	0.08	-3.46	11.00	14.46

Sample Calculation:  
 Result = Reading + Cable Loss + Atten.Loss + Duty factor

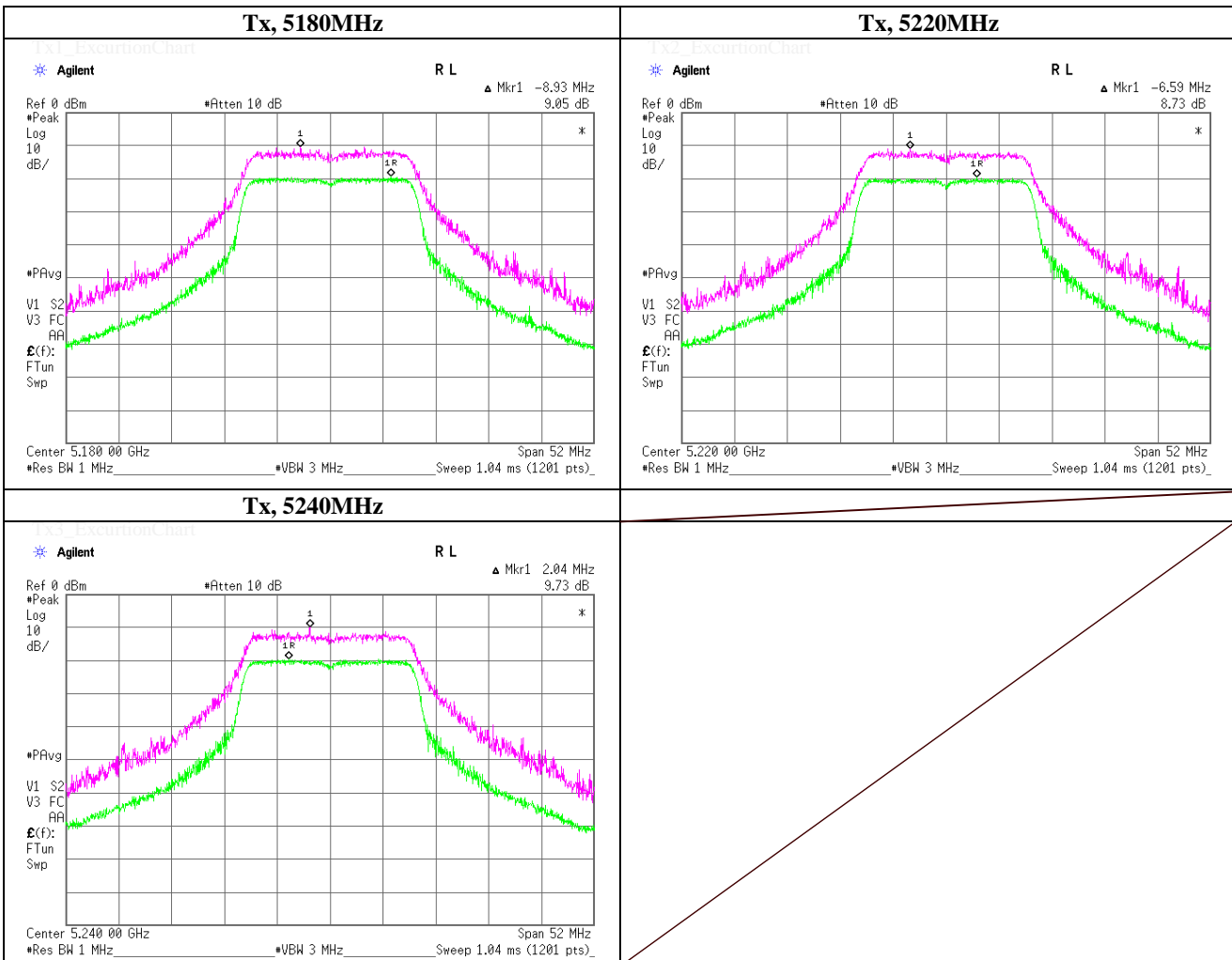


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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5180.0000	9.05	=<13.0	3.95
5220.0000	8.73	=<13.0	4.27
5240.0000	9.73	=<13.0	3.27

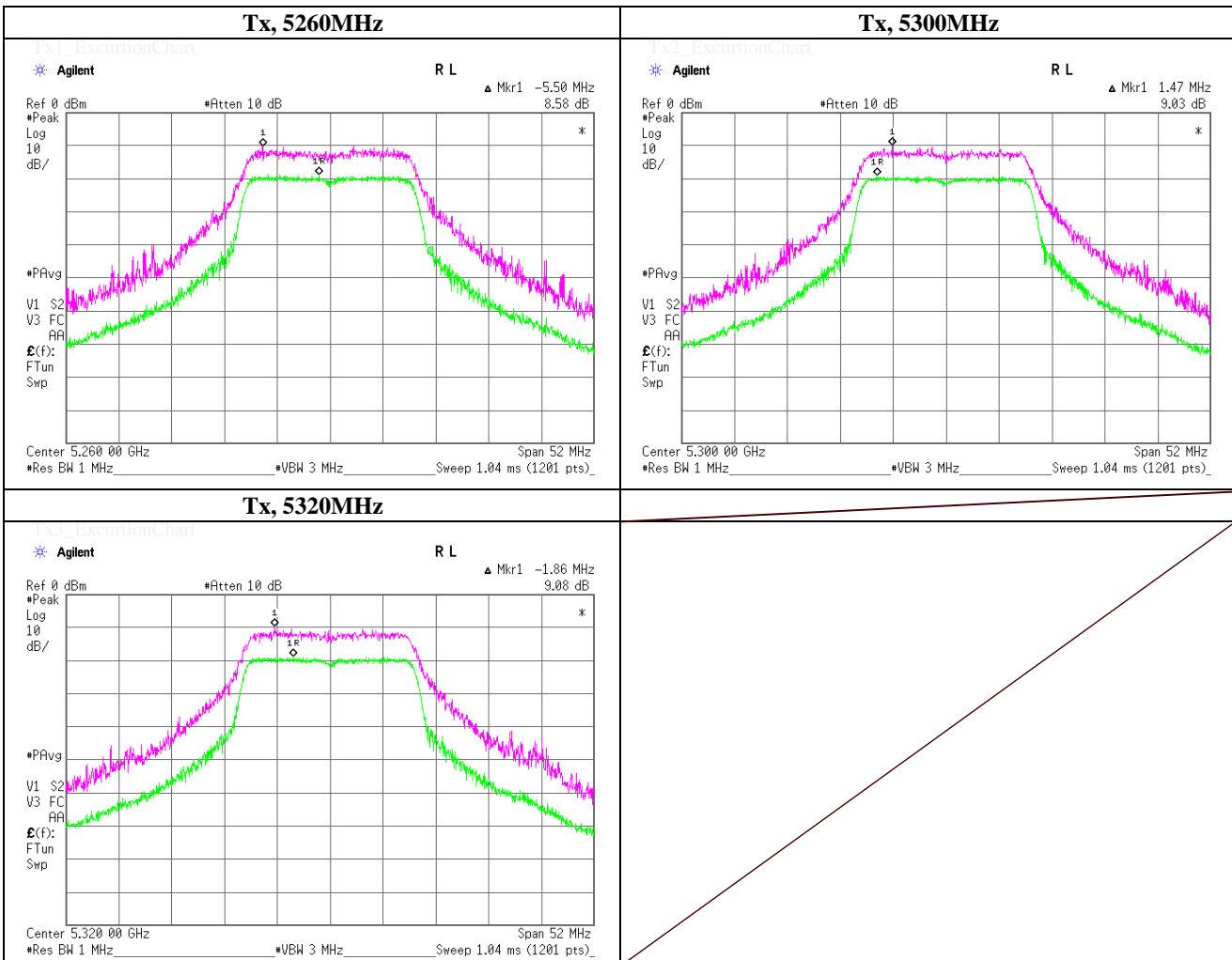


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 Facsimile : +81 463 50 6401

### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 21, 2012	
Temperature / Humidity	27 deg.C , 54 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5260.0000	8.58	=<13.0	4.42
5300.0000	9.03	=<13.0	3.97
5320.0000	9.08	=<13.0	3.92

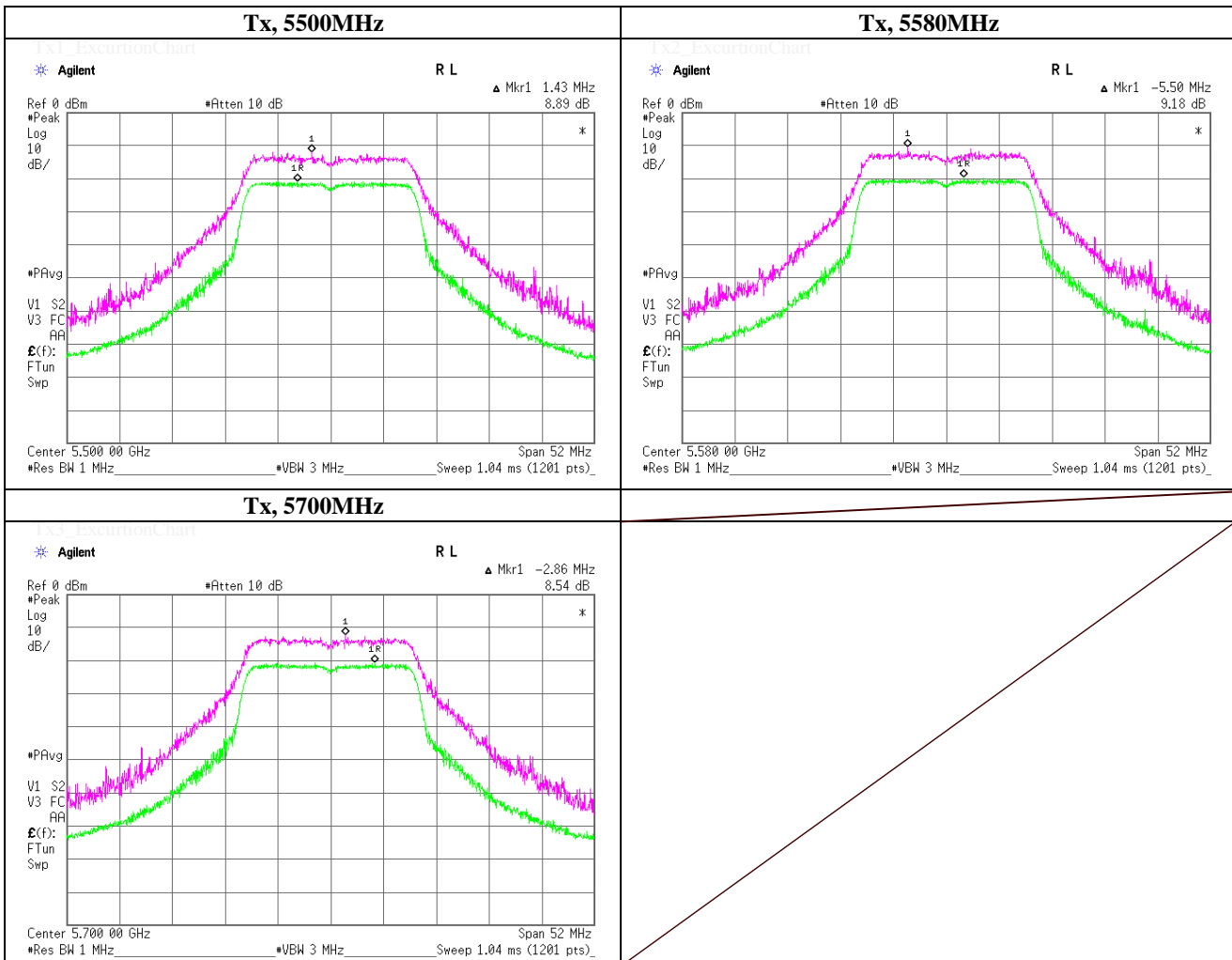


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 Facsimile : +81 463 50 6401

### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 22, 2012	
Temperature / Humidity	25 deg.C , 50%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 6Mbps	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5500.0000	8.89	=<13.0	4.11
5580.0000	9.18	=<13.0	3.82
5700.0000	8.54	=<13.0	4.46

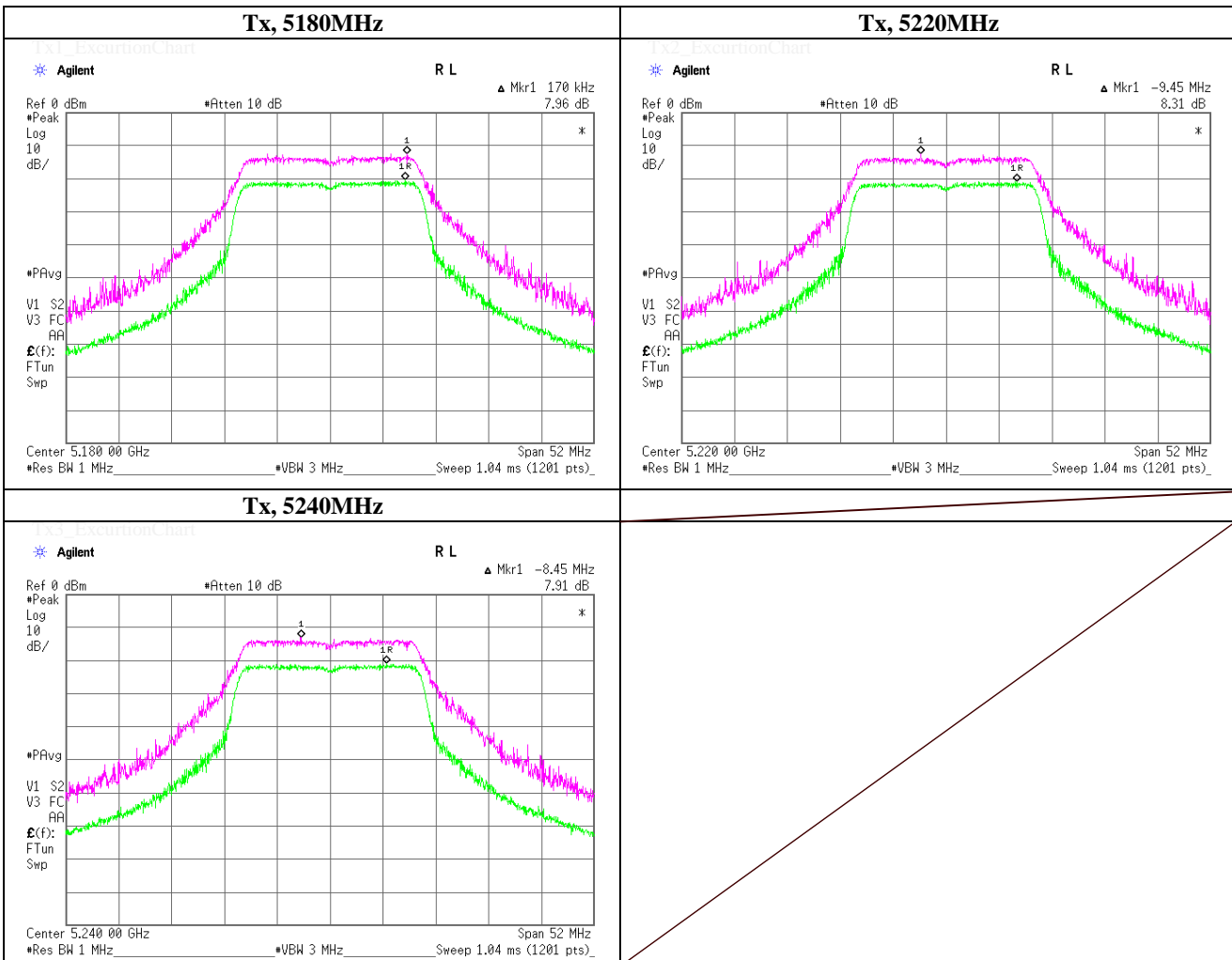


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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5180.0000	7.96	=<13.0	5.04
5220.0000	8.31	=<13.0	4.69
5240.0000	7.91	=<13.0	5.09



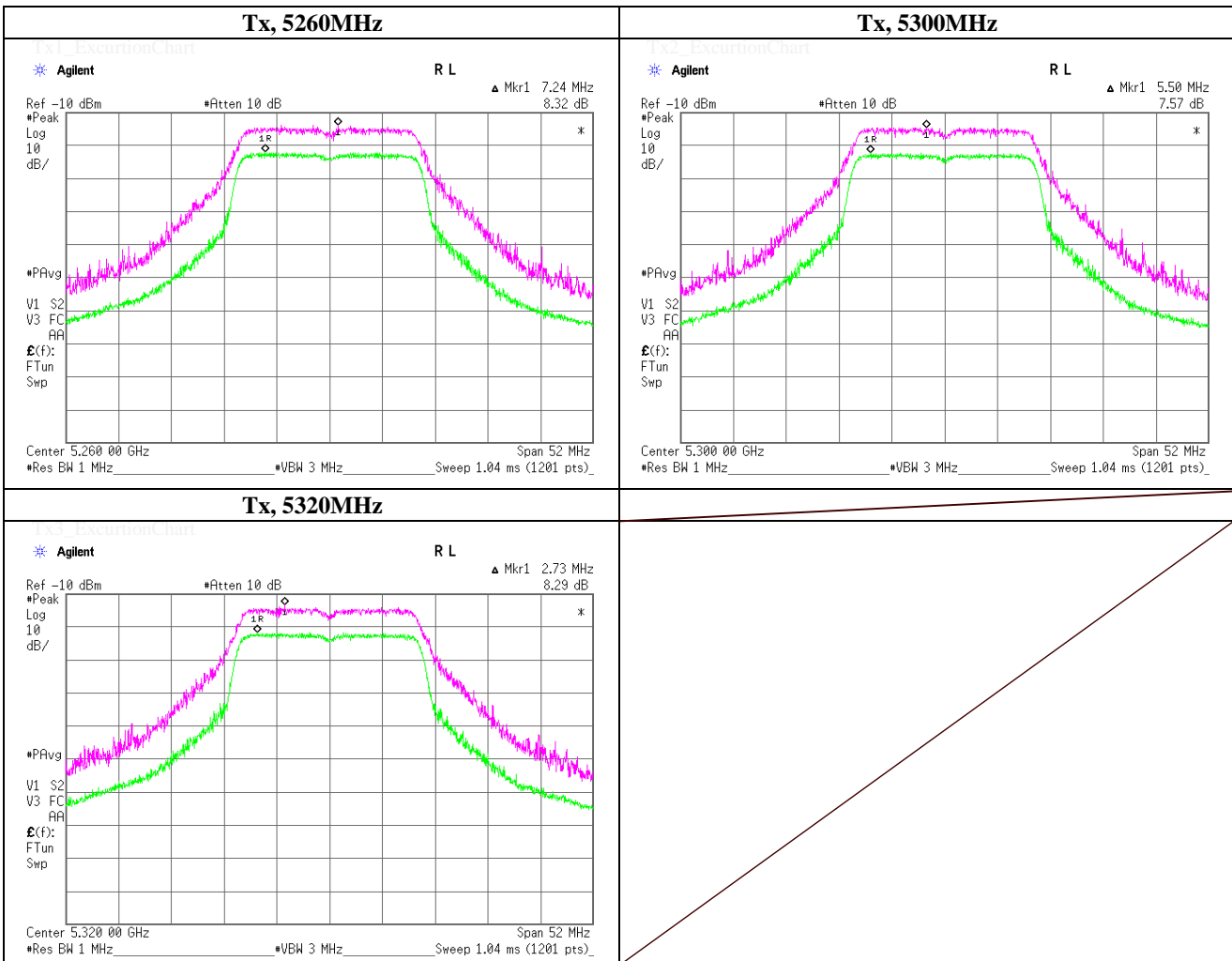
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 21, 2012	
Temperature / Humidity	27 deg.C , 54 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5260.0000	8.32	=<13.0	4.68
5300.0000	7.57	=<13.0	5.43
5320.0000	8.30	=<13.0	4.71

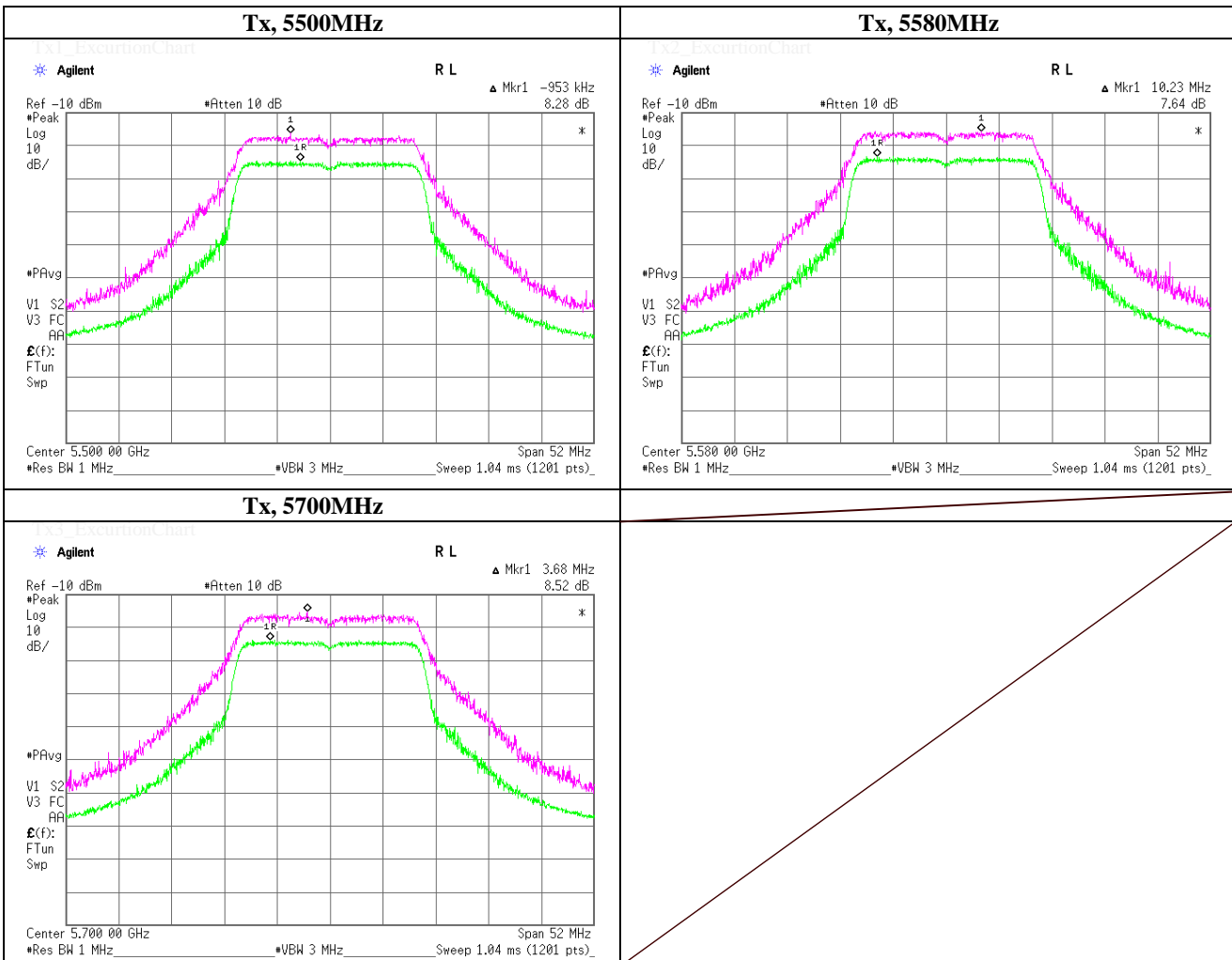


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 Facsimile : +81 463 50 6401

### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 22, 2012	
Temperature / Humidity	25deg.C , 50%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5500.0000	8.28	=<13.0	4.72
5580.0000	7.64	=<13.0	5.36
5700.0000	8.52	=<13.0	4.48

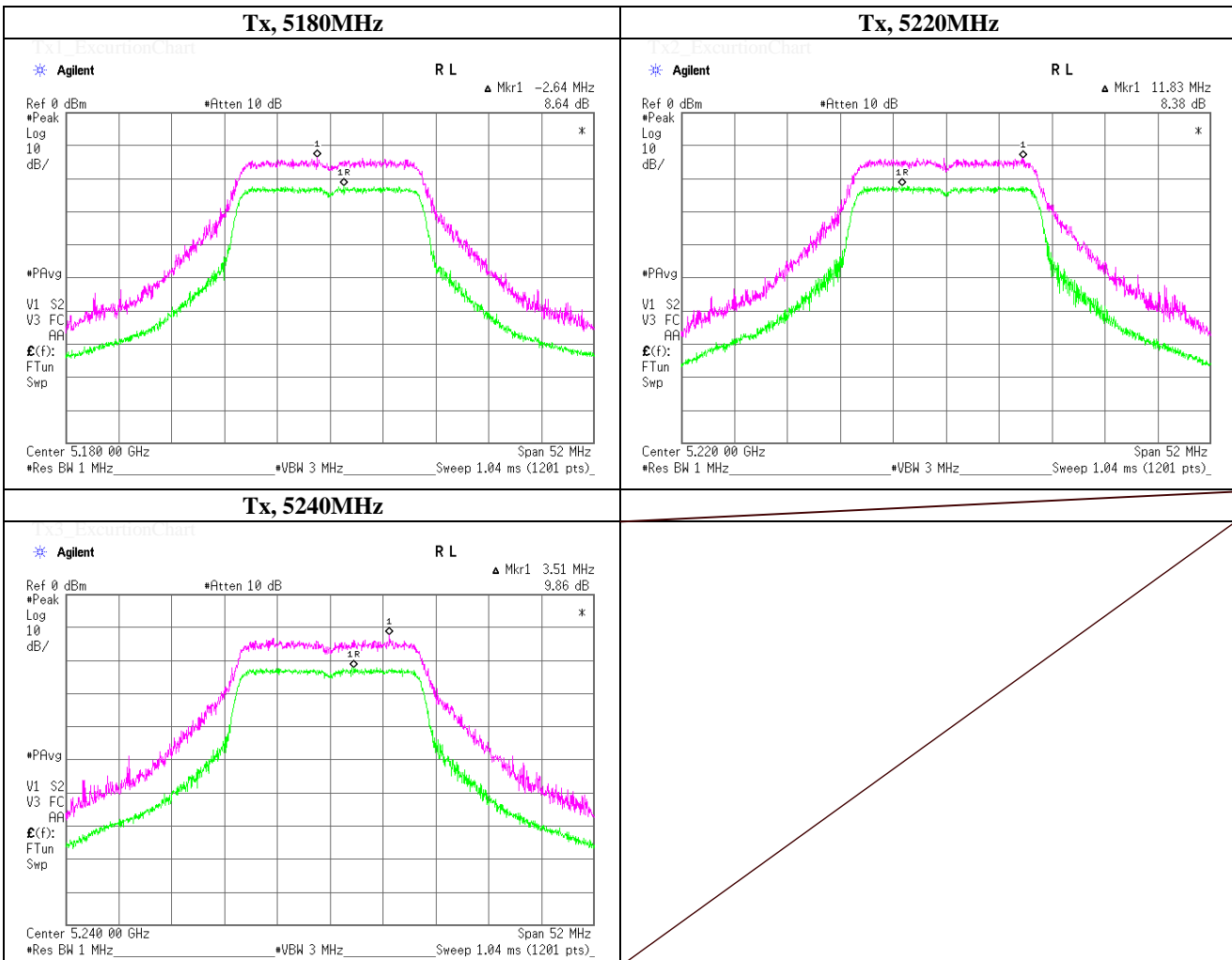


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 Facsimile : +81 463 50 6401

### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 30, 2012	
Temperature / Humidity	25deg.C , 45%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5180.0000	8.64	=<13.0	4.36
5220.0000	8.38	=<13.0	4.62
5240.0000	9.86	=<13.0	3.14

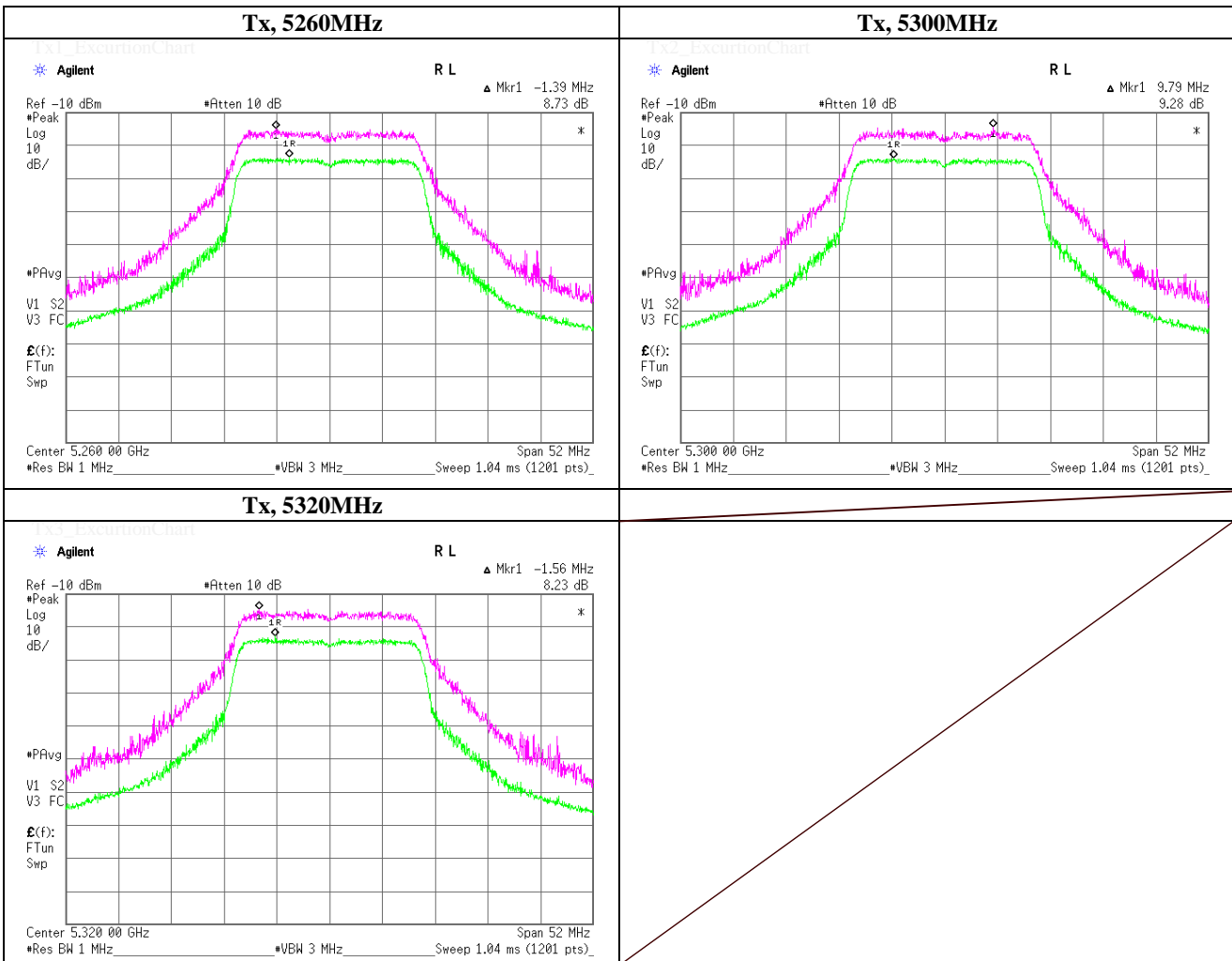


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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5260.0000	8.73	=<13.0	4.27
5300.0000	9.28	=<13.0	3.72
5320.0000	8.23	=<13.0	4.77

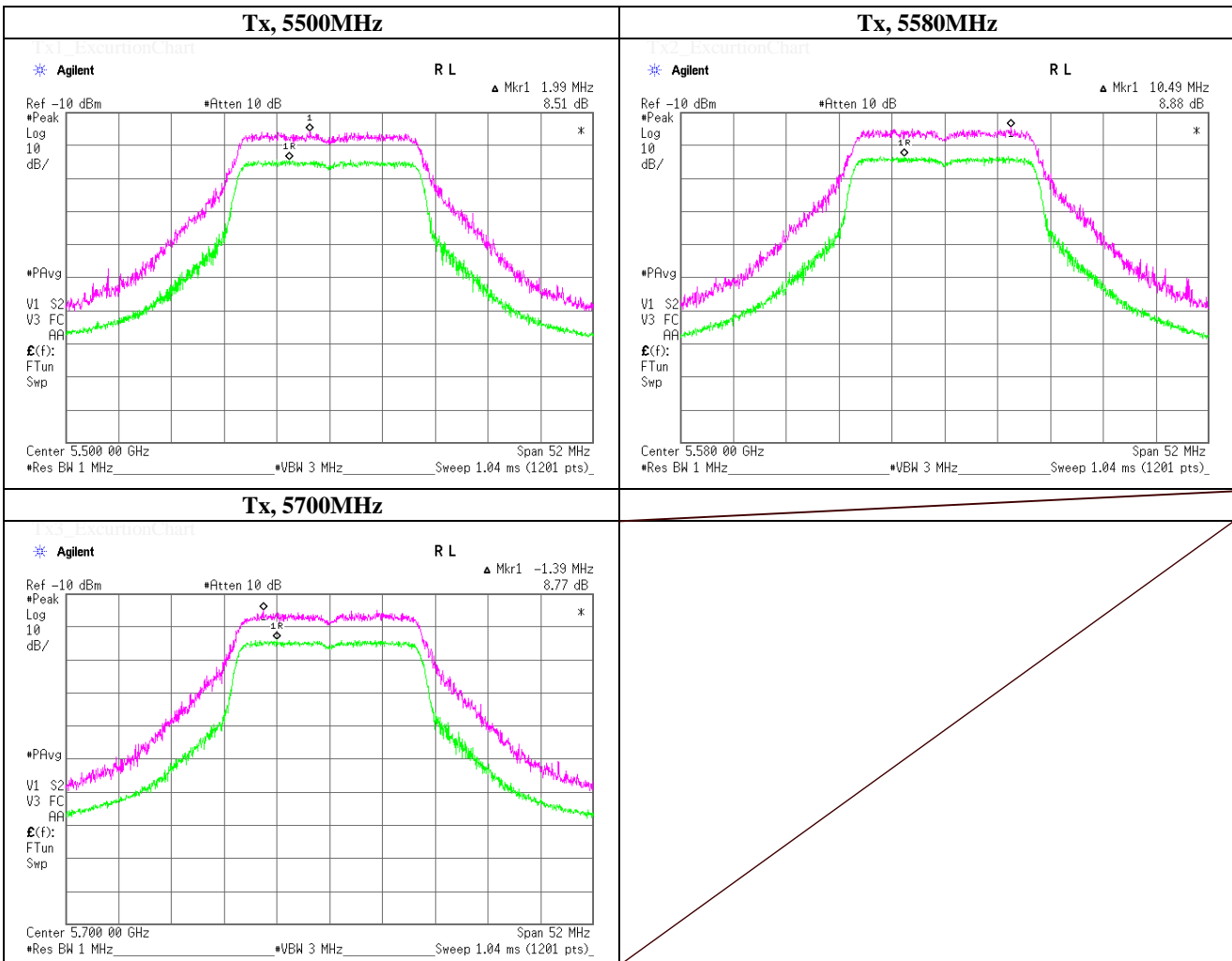


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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 30, 2012	
Temperature / Humidity	25deg.C , 45%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT20), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5500.0000	8.51	=<13.0	4.49
5580.0000	8.88	=<13.0	4.13
5700.0000	8.77	=<13.0	4.24

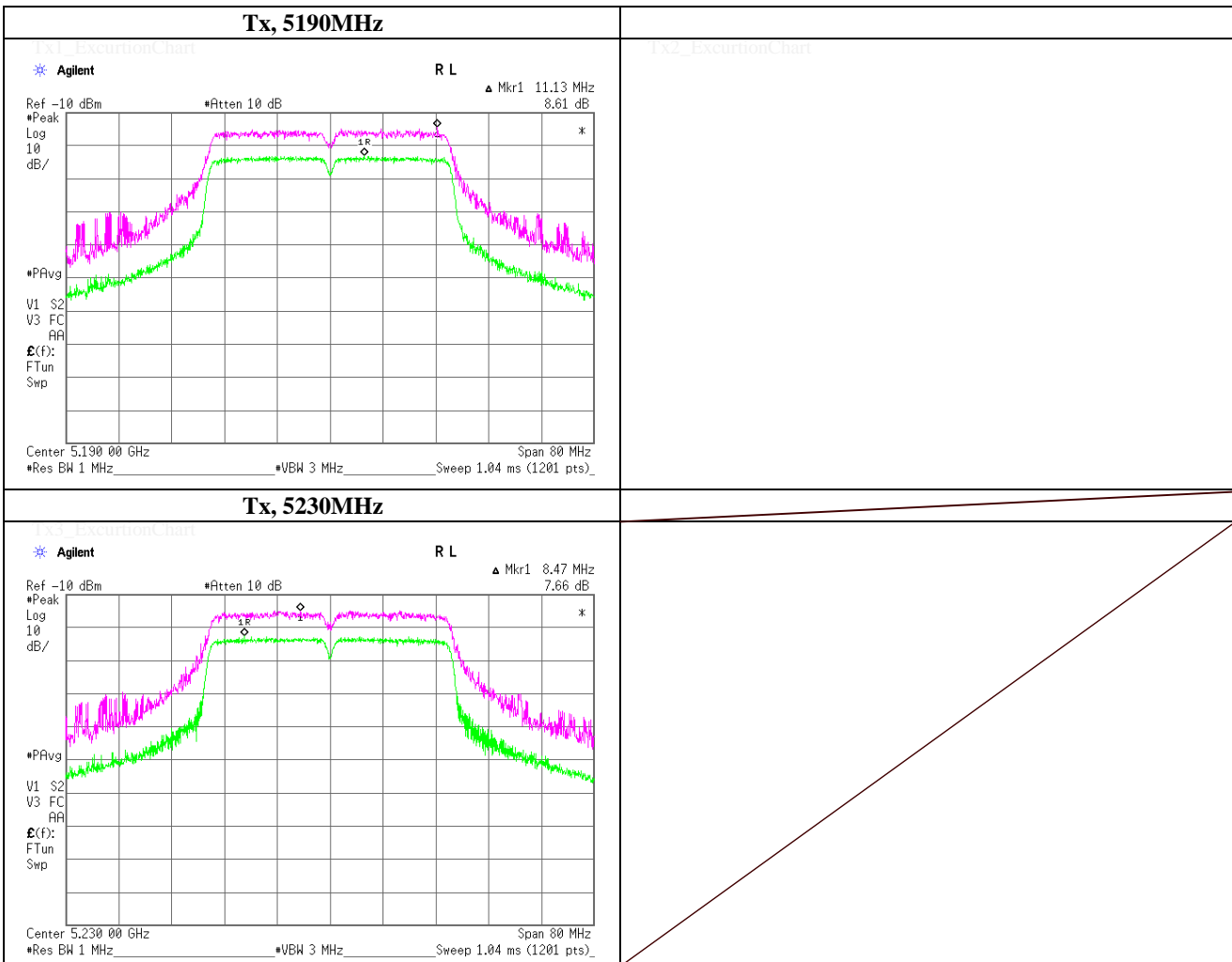


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 Facsimile : +81 463 50 6401

### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 3, 2012	
Temperature / Humidity	26 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5190.0000	8.61	=<13.0	4.39
5230.0000	7.66	=<13.0	5.34



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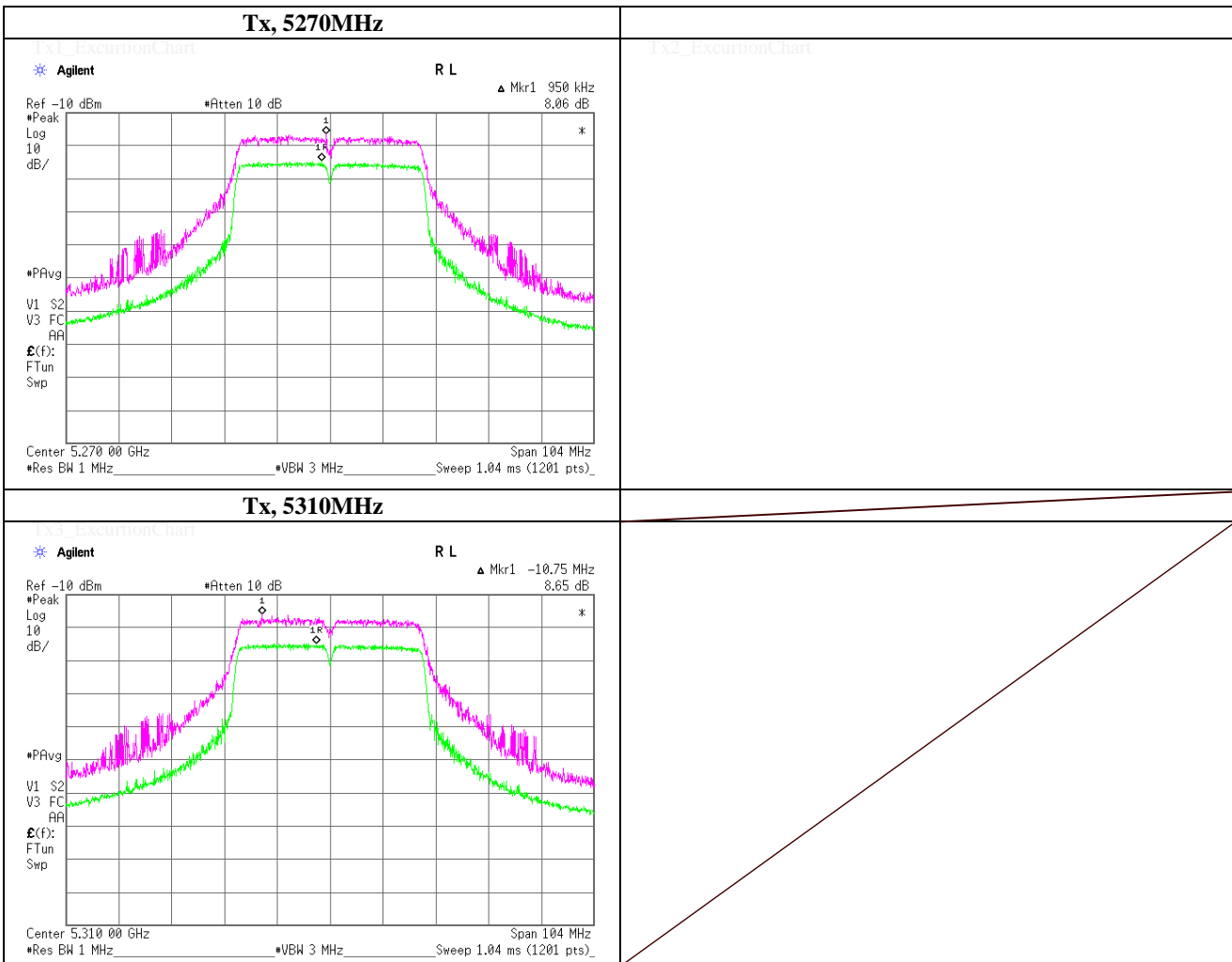
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 21, 2012	
Temperature / Humidity	27 deg.C , 54 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5270.0000	8.06	=<13.0	4.94
5310.0000	8.65	=<13.0	4.35



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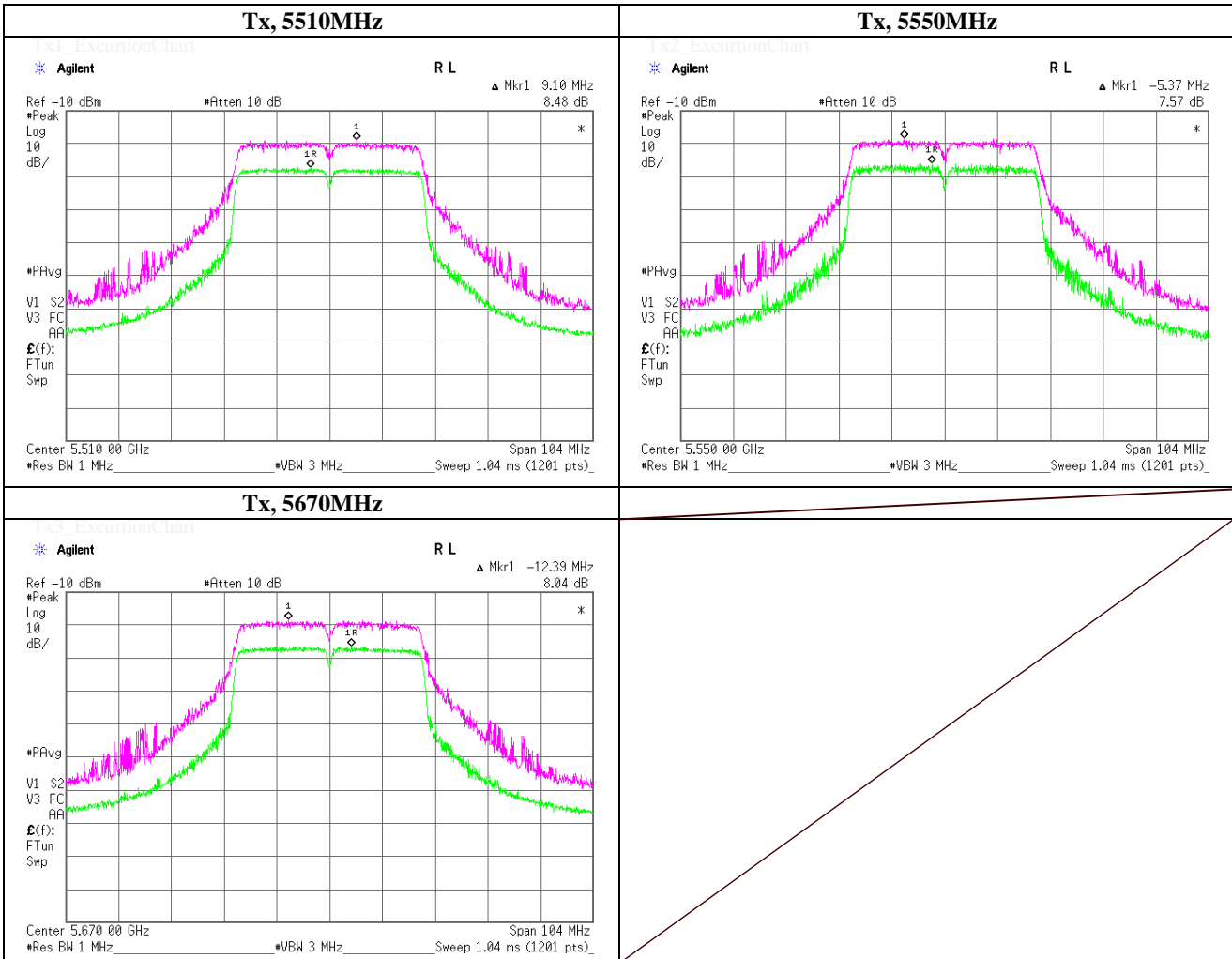
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 22, 2012	
Temperature / Humidity	25 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst antenna port 1, worst data mode 0(MCS)	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5510.0000	8.48	=<13.0	4.52
5550.0000	7.57	=<13.0	5.43
5670.0000	8.04	=<13.0	4.96



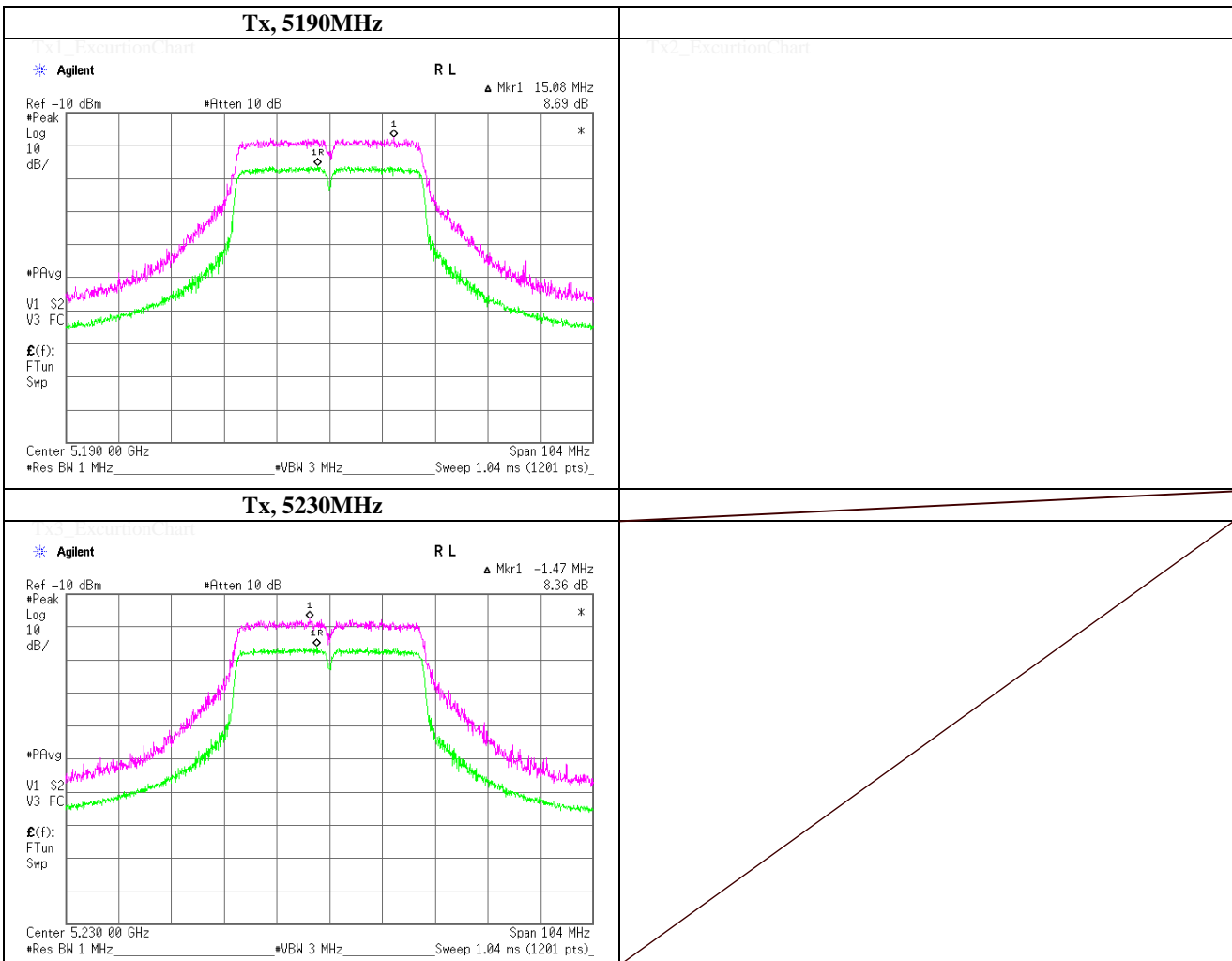
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5190.0000	8.69	=<13.0	4.31
5230.0000	8.36	=<13.0	4.64



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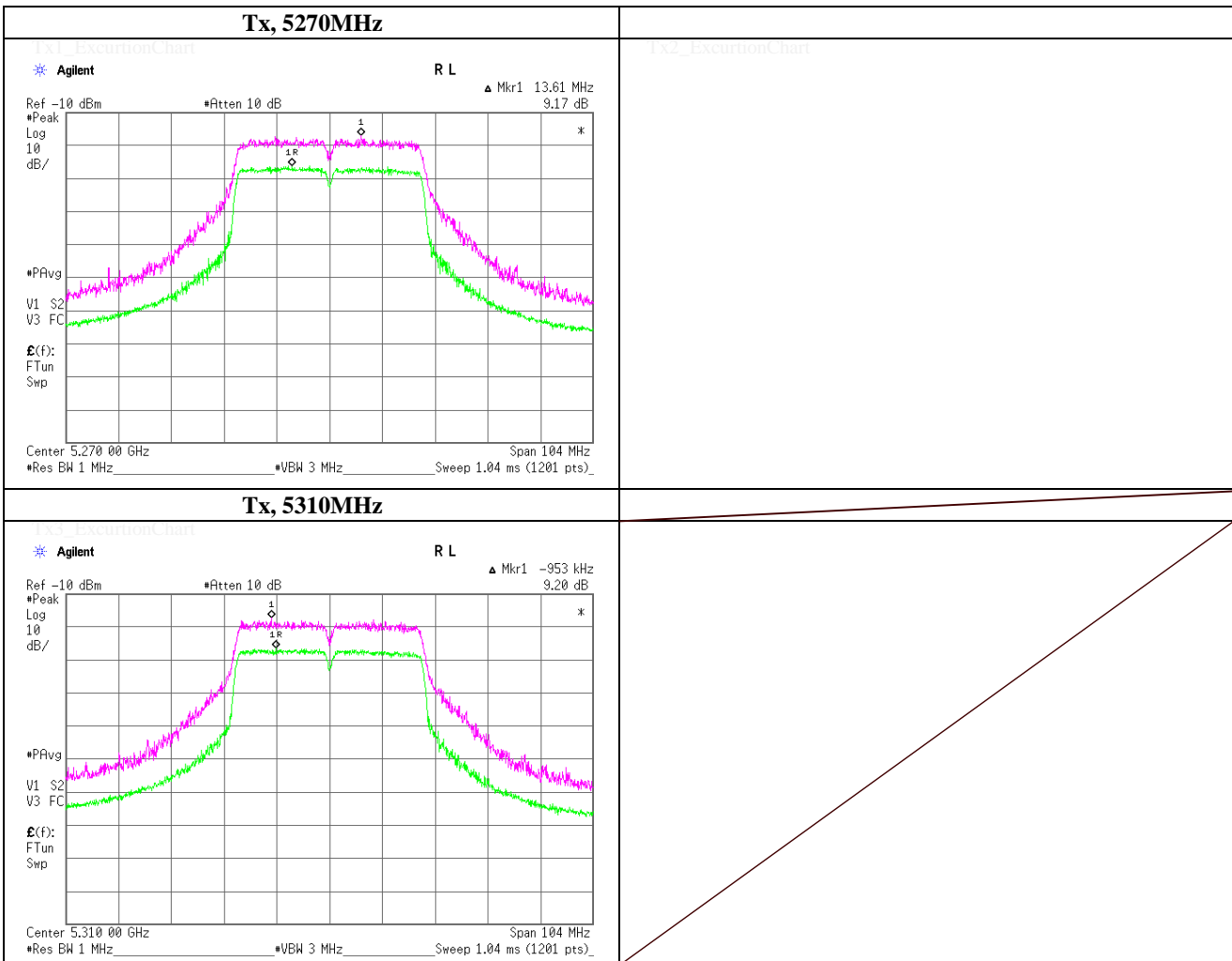
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 24, 2012	
Temperature / Humidity	28 deg.C , 50 %RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5270.0000	9.17	=<13.0	3.83
5310.0000	9.20	=<13.0	3.81



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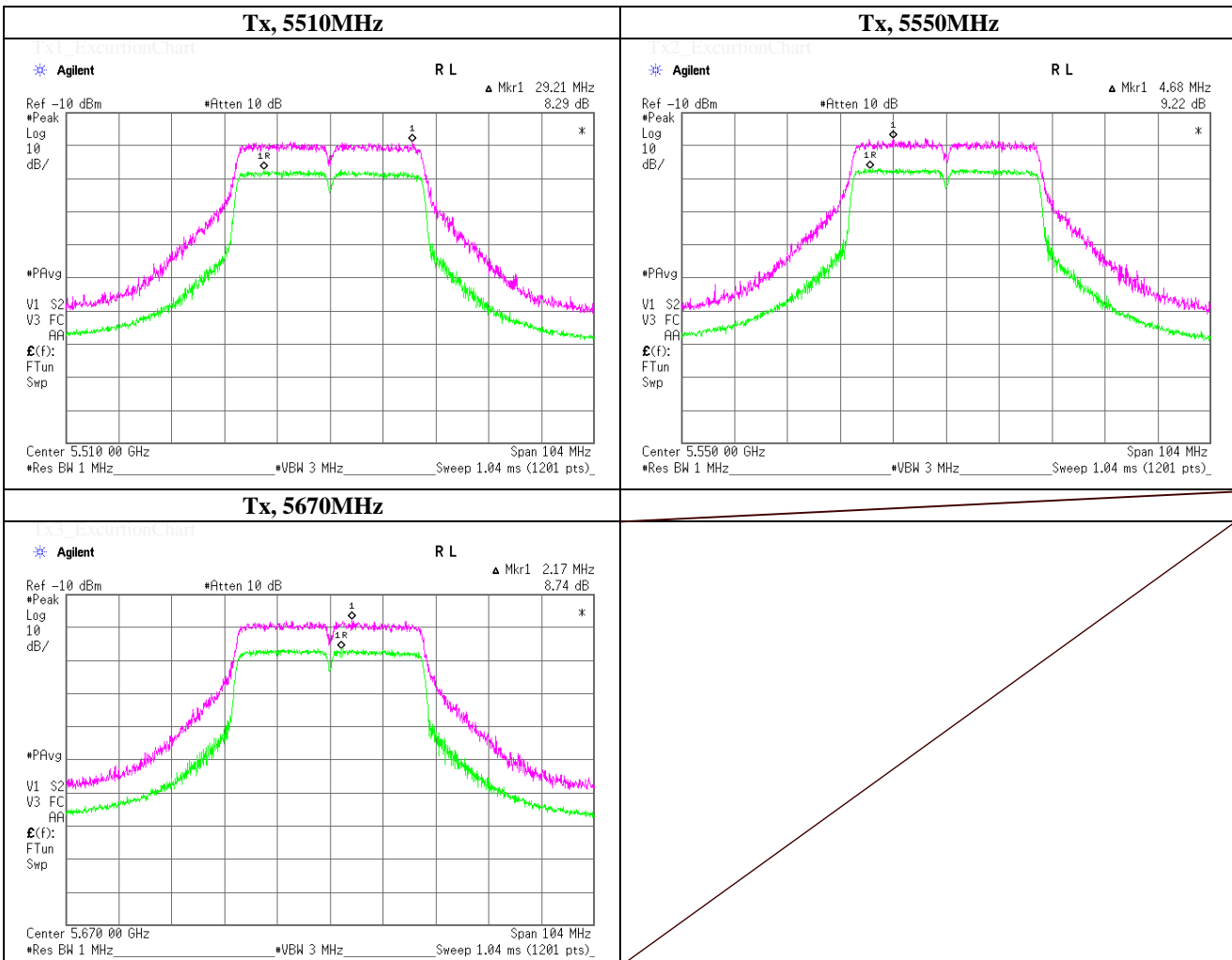
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### Peak Excursion Ratio

Test place	UL Japan, Inc. Shonan EMC Lab.	No.5 Shielded Room
Date	August 30, 2012	
Temperature / Humidity	25deg.C , 45%RH	
Engineer	Hikaru Shirasawa	
Mode	Tx, IEEE802.11n (HT40), PN9, worst data mode 8(MCS), mimo, Antenna port 1	

Ch. Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]	Margin [dB]
5510.0000	8.29	=<13.0	4.71
5550.0000	9.22	=<13.0	3.78
5670.0000	8.75	=<13.0	4.26



**UL Japan, Inc.**  
**Shonan EMC Lab.**  
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN  
 Telephone : +81 463 50 6400  
 Facsimile : +81 463 50 6401

**APPENDIX 2**  
**Test Instruments**

**EMI test equipment**

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SSA-02	Spectrum Analyzer	Agilent	E4448A	MY48250106	AT,RE	2012/03/16 * 12
SCC-G12	Coaxial Cable	Suhner	SUCOFLEX 102	30790/2	AT	2012/03/12 * 12
SAT20-07	Attenuator	Weinschel Corp.	54A-20	31484	AT	2012/04/12 * 12
SCC-H2	Microwave cable	Hirose Electric	U.FL-2LP-066J1-A-(200)	-	AT	Pre Check
SCC-H3	Microwave cable	Hirose Electric	U.FL-2LP-066J1-A-(200)	-	AT	Pre Check
STM-G5	Terminator	Weinschel	M1459A	U6594	AT	2012/07/18 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	2012/03/26 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	AT	2011/12/05 * 12
SCC-G14	Coaxial Cable	Suhner	SUCOFLEX 102	31600/2	AT	2012/03/12 * 12
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	AT,RE	2012/02/16 * 12
SAEC-03(NSA)	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2011/09/23 * 12
SAF-06	Pre Amplifier	TOYO Corporation	TPA0118-36	1440491	RE	2012/07/18 * 12
SCC-G03	Coaxial Cable	Suhner	SUCOFLEX 104A	46499/4A	RE	2012/04/10 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	2012/05/22 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	2012/08/17 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2012/02/06 * 12
SJM-10	Measure	PROMART	SEN1935	-	RE/CE	-
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE, RFLMF)	-	RE/CE	-
SAT10-06	Attenuator	Agilent	8493C-010	74865	RE	2011/12/27 * 12
SFL-03	Highpass Filter	MICRO-TRONICS	HPM50112	028	RE	2011/12/27 * 12
SHA-04	Horn Antenna	ETS LINDGREN	3160-09	LM3640	RE	2012/03/30 * 12
SAF-08	Pre Amplifier	TOYO Corporation	HAP18-26W	00000019	RE	2012/03/12 * 12
SCC-G17	Coaxial Cable	Suhner	SUCOFLEX 104A	46291/4A	RE	2012/03/12 * 12
SHA-06	Horn Antenna	ETS LINDGREN	3160-10	LM3459	RE	2012/03/30 * 12
SAF-10	Pre Amplifier	TOYO Corporation	HAP26-40W	00000010	RE	2012/03/12 * 12
SCC-G19	Coaxial Cable	Suhner	SUCOFLEX 102A	1188/2A	RE	2012/03/12 * 12
SAT10-05	Attenuator(above1GHz)	Agilent	8493C-010	74864	RE	2011/12/27 * 12
SHA-05	Horn Antenna	ETS LINDGREN	3160-09	LM4210	RE	2012/03/30 * 12
SAF-09	Pre Amplifier	TOYO Corporation	HAP18-26W	00000018	RE	2012/03/12 * 12
SCC-G18	Coaxial Cable	Suhner	SUCOFLEX 104A	46292/4A	RE	2012/03/12 * 12
SAF-03	Pre Amplifier	SONOMA	310N	290213	RE	2012/02/10 * 12
SAT6-03	Attenuator	JFW	50HF-006N	-	RE	2012/02/10 * 12
SBA-03	Biconical Antenna	Schwarzbeck	BBA9106	91032666	RE	2011/10/23 * 12
SCC-C1/C2/C3/C4/C5/C10/SRSE-03	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	RE	2012/04/10 * 12
SLA-03	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0901	RE	2011/10/23 * 12
STR-06	Test Receiver	Rohde & Schwarz	ESCI	101259	RE/CE	2012/02/07 * 12
SCC-C9/C10/SRSE-03	Coaxial Cable&RF Selector	Suhner/Suhner/TOYO	RG223U/141PE/NS4906	-/0901-271(RF Selector)	CE	2012/04/10 * 12
SLS-05	LISN	Rohde & Schwarz	ENV216	100516	CE	2012/02/23 * 12
SAT3-03	Attenuator	JFW	50HF-003N	-	CE	2012/02/17 * 12
SOS-06	Humidity Indicator	A&D	AD-5681	4062118	CE	2012/03/26 * 12

The expiration date of the calibration is the end of the expired month .  
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

- CE: Conducted emission ,
- RE: Radiated emission ,
- AT: Antenna terminal conducted