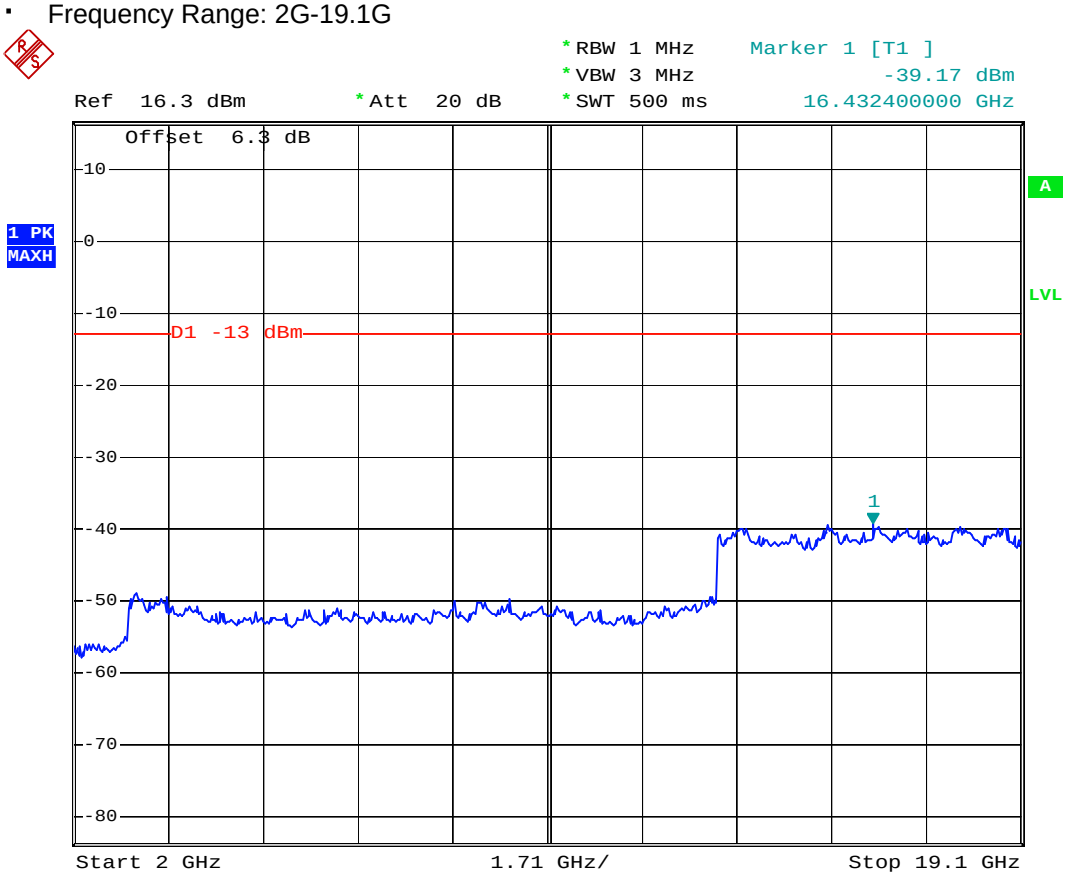
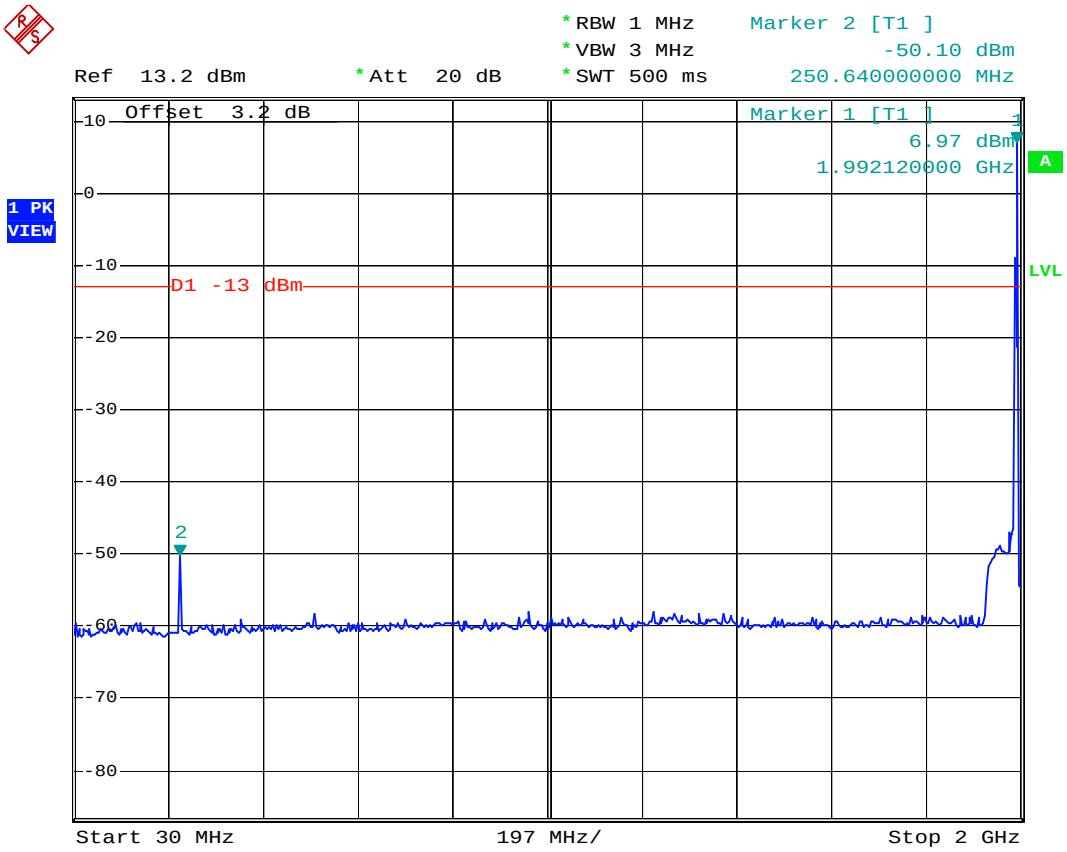
- Frequency Range: 2G-19.1G



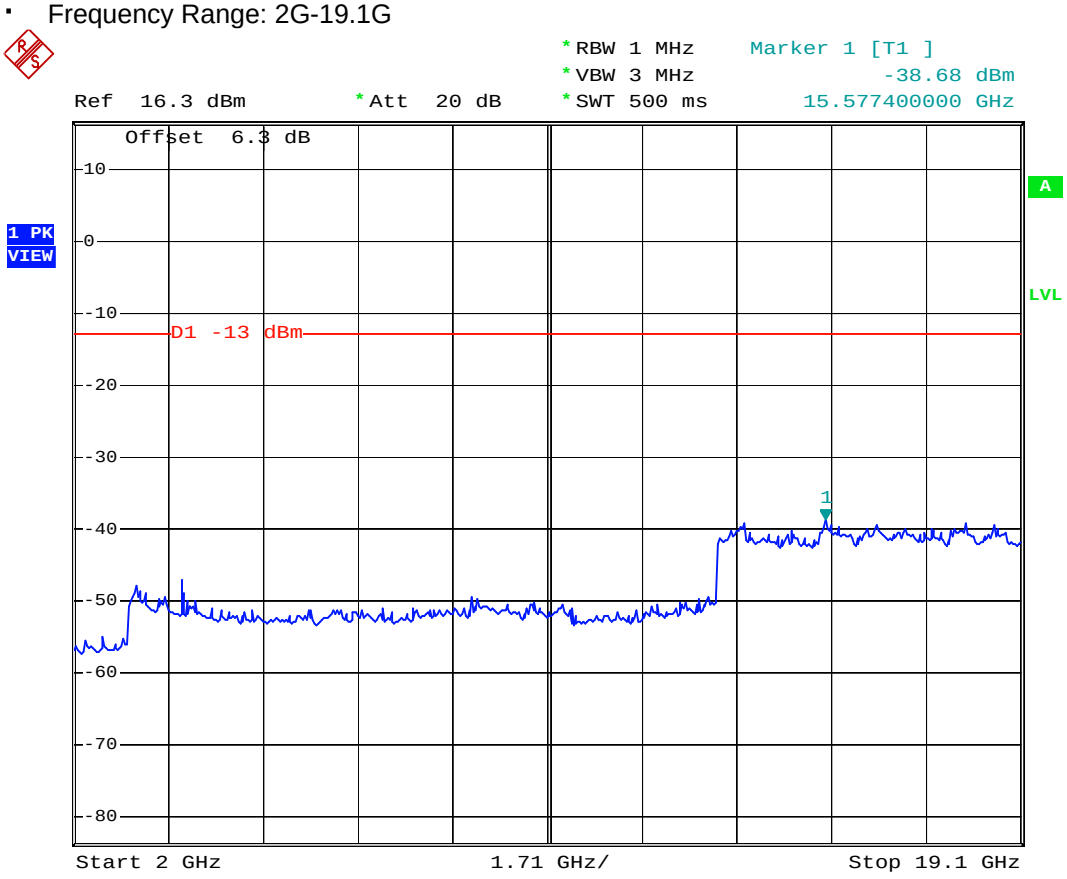
Date: 25.AUG.2006 21:18:09

- Test Mode: PCS 1989.2MHz Downlink Mode
- Frequency Range: 0.3G-2G



Date: 25.AUG.2006 21:37:16

- Frequency Range: 2G-19.1G



Date: 25.AUG.2006 21:38:44

4.4 Field Strength of Spurious Radiation

Equivalent isotropic radiated Power Measurements by substitution method according to ANSI/TIA/EIA-603.

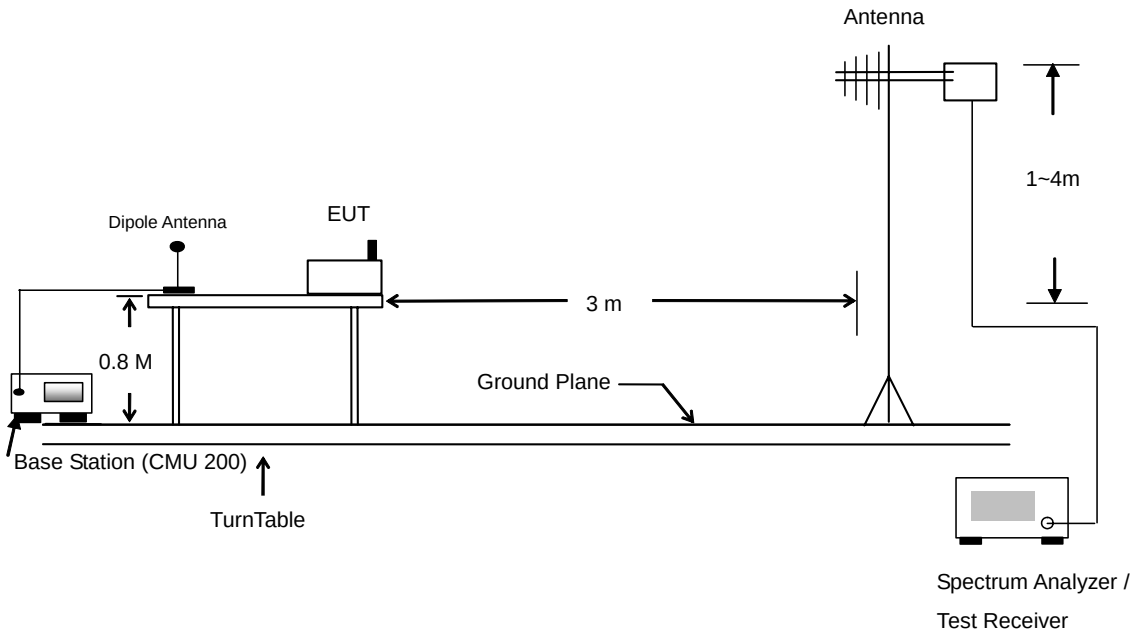
4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

4.5.2 Test Procedure

1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to reach the maximum spurious emission for both horizontal and vertical polarizations.
5. Taking the record of maximum spurious emission.
6. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the recored of output power at antenna port.
9. Repeat step 7 to step 8 for another polariztion.
10. Emission level (dBm) = output power + substituion Gain.

4.5.3 Test Setup Layout



4.5.4 Test Result

- Test Mode : Mode 1

PCS 1850.2MHz Uplink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
103.440	-48.360	-13	-35.36	**44.040**	**-42.070**	**-13**	**-29.07**
118.290	-50.210	-13	-37.21	72.390	-46.600	-13	-33.60
140.430	-54.130	-13	-41.13	83.730	-46.800	-13	-33.80
397.300	-65.800	-13	-52.80	756.400	-60.750	-13	-47.75
754.300	-64.030	-13	-51.03	799.800	-61.520	-13	-48.52
799.800	-63.360	-13	-50.36	988.800	-61.910	-13	-48.91

- Test Mode : Mode 2

PCS 1880MHz Uplink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
41.340	-55.110	-13	-42.11	41.340	-43.750	-13	-30.75
64.830	-46.210	-13	-33.21	103.440	-43.280	-13	-30.28
114.240	-52.550	-13	-39.55	173.640	-48.730	-13	-35.73
700.400	-60.490	-13	-47.49	355.300	-64.070	-13	-51.07
756.400	-61.800	-13	-48.80	383.300	-61.060	-13	-48.06
799.800	-59.530	-13	-46.53	899.900	-61.980	-13	-48.98
1868.000	**-41.790**	**-13**	**-28.79**	1874.000	-54.680	-13	-41.68

- Test Mode : Mode 3

PCS 1909.8MHz Uplink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
38.640	-47.200	-13	-34.20	**44.040**	**-42.280**	**-13**	**-29.28**
103.980	-48.010	-13	-35.01	71.580	-47.360	-13	-34.36
118.290	-50.440	-13	-37.44	86.430	-47.130	-13	-34.13
397.300	-65.700	-13	-52.70	472.200	-58.770	-13	-45.77
754.300	-64.280	-13	-51.28	756.400	-60.480	-13	-47.48
799.800	-63.420	-13	-50.42	824.300	-61.760	-13	-48.76

- Test Mode : Mode 4

PCS 1930.2MHz Downlink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
44.040	-54.720	-13	-41.72	**44.040**	**-41.650**	**-13**	**-28.65**
91.830	-53.800	-13	-40.80	72.930	-44.210	-13	-31.21
117.480	-45.130	-13	-32.13	82.380	-44.300	-13	-31.30
756.400	-64.050	-13	-51.05	756.400	-61.680	-13	-48.68
799.800	-63.740	-13	-50.74	799.800	-62.140	-13	-49.14
913.900	-64.340	-13	-51.34	924.400	-61.390	-13	-48.39
3862.000	-48.300	-13	-35.30				

- Test Mode : Mode 5

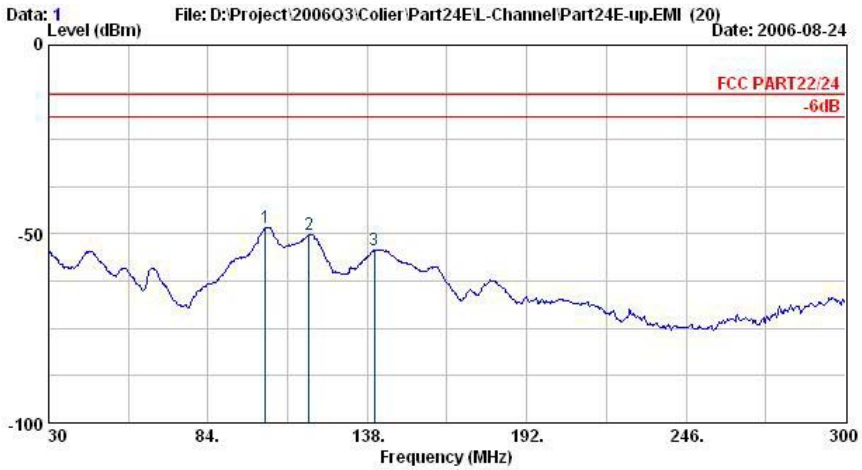
PCS 1960MHz Downlink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
36.480	-56.350	-13	-43.35	38.640	-44.860	-13	-31.86
73.740	-52.090	-13	-39.09	**73.740**	**-37.590**	**-13**	**-24.59**
122.880	-57.470	-13	-44.47	114.240	-41.480	-13	-28.48
353.900	-66.720	-13	-53.72	397.300	-63.860	-13	-50.86
397.300	-66.140	-13	-53.14	430.900	-63.140	-13	-50.14
500.900	-65.260	-13	-52.26	995.800	-60.150	-13	-47.15
1944.000	-56.940	-13	-43.94				
3918.000	-49.080	-13	-36.08				

- Test Mode : Mode 6

PCS 1989.8MHz Downlink Mode Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
43.230	-54.990	-13	-41.99	**44.040**	**-41.620**	**-13**	**-28.62**
91.830	-53.830	-13	-40.83	72.390	-44.410	-13	-31.41
115.590	-45.360	-13	-32.36	81.840	-44.290	-13	-31.29
621.300	-66.730	-13	-53.73	353.900	-63.570	-13	-50.57
756.400	-64.700	-13	-51.70	756.400	-61.220	-13	-48.22
799.800	-63.690	-13	-50.69	799.800	-61.150	-13	-48.15
3978.000	-47.740	-13	-34.74				

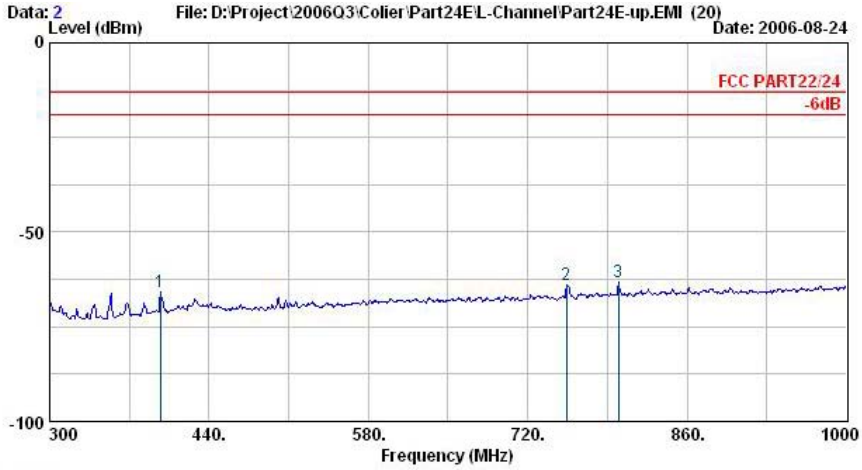
4.5.5 Test Data

Mode 1
Horizontal Polarization



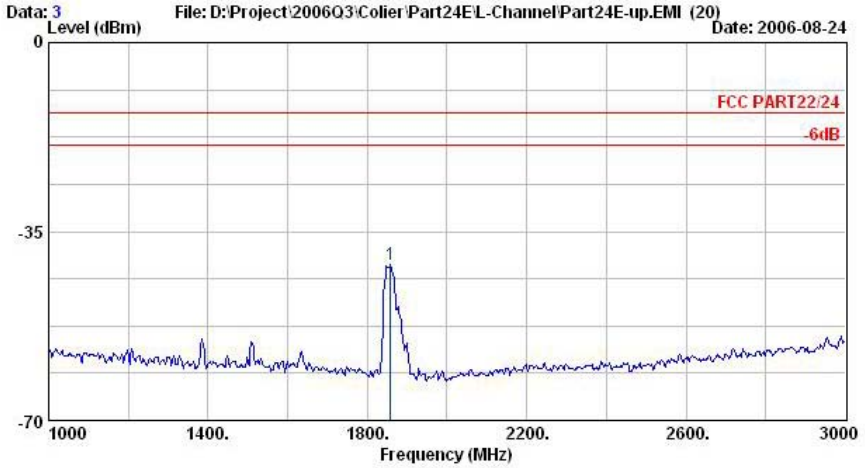
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	103.44	-48.36	-35.36	-13.00	-36.08	-12.28	Peak
2	118.29	-50.21	-37.21	-13.00	-37.76	-12.45	Peak
3	140.43	-54.13	-41.13	-13.00	-41.42	-12.71	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

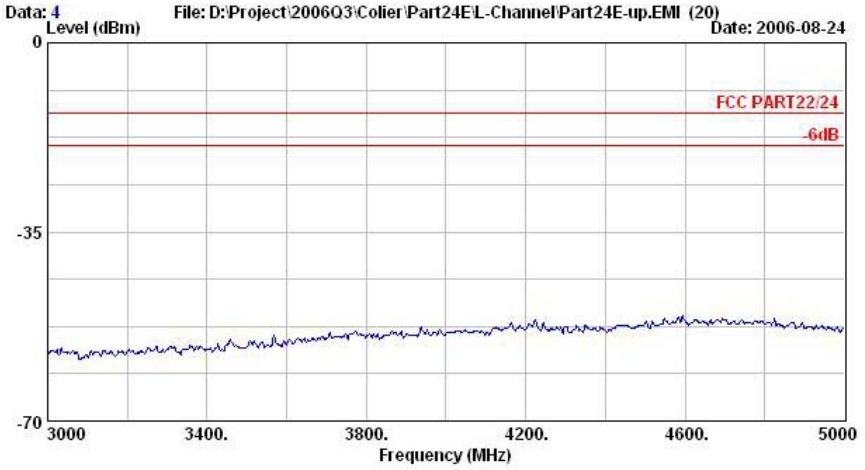
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	397.30	-65.80	-52.80	-13.00	-59.23	-6.57	Peak
2	754.30	-64.03	-51.03	-13.00	-61.87	-2.16	Peak
3	799.80	-63.36	-50.36	-13.00	-61.67	-1.69	Peak



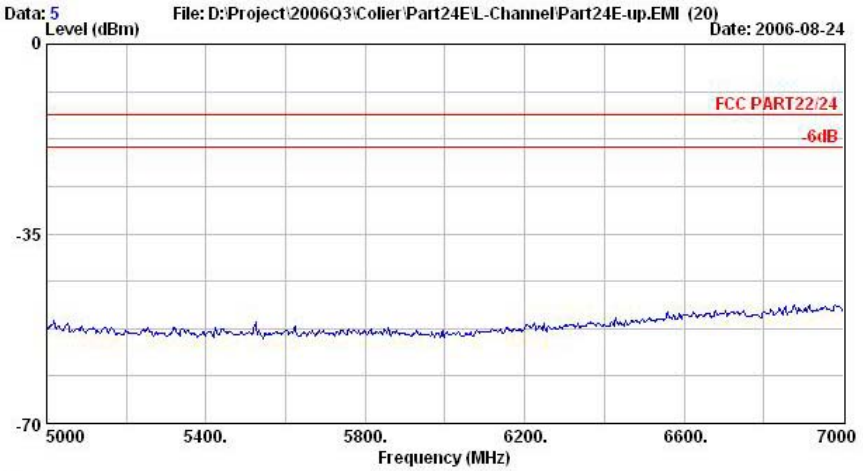
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1858.00	-41.15			-40.64	-0.51	Peak

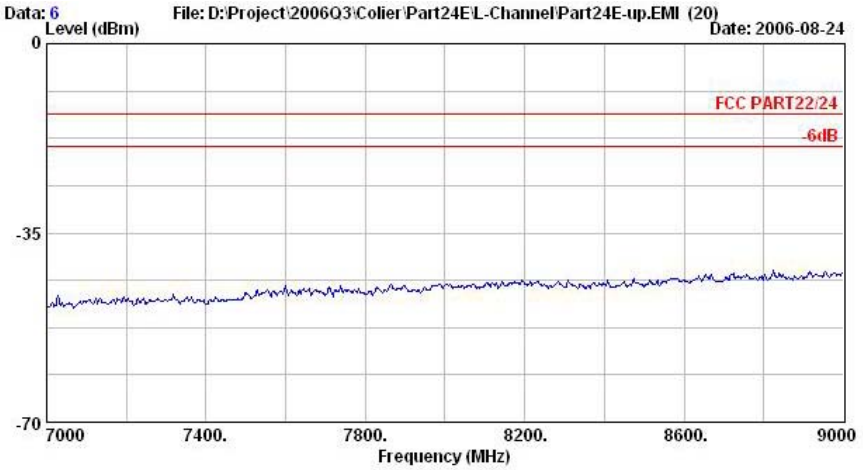
Remark: #1 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

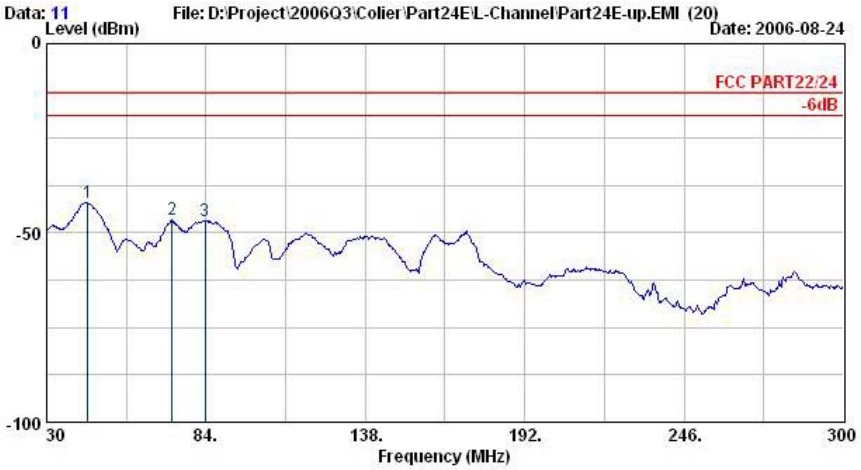


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor



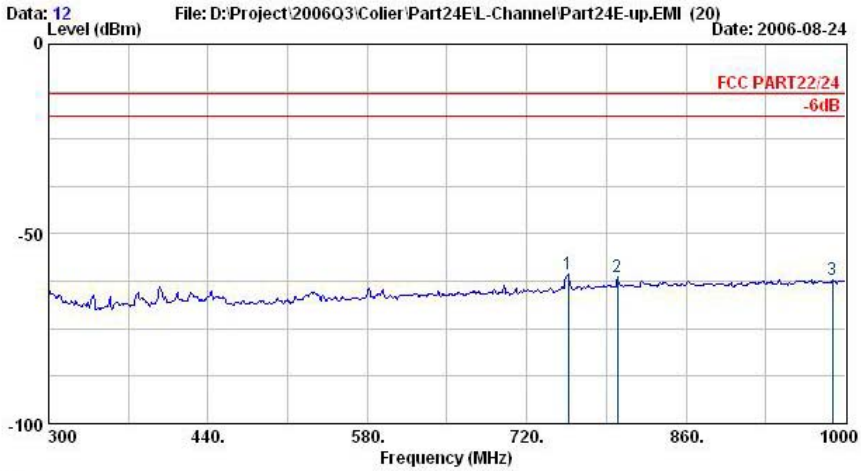
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

Vertical Polarization



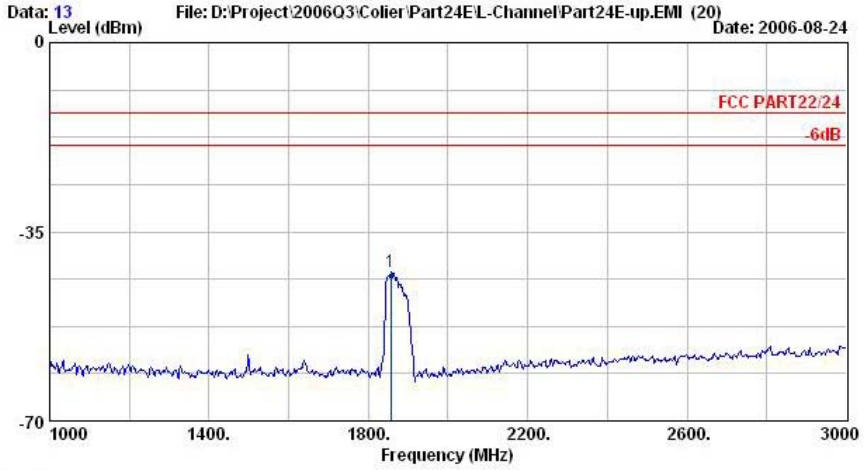
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	44.04	-42.07	-29.07	-13.00	-29.17	-12.90	Peak
2	72.39	-46.60	-33.60	-13.00	-35.00	-11.60	Peak
3	83.73	-46.80	-33.80	-13.00	-36.74	-10.07	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

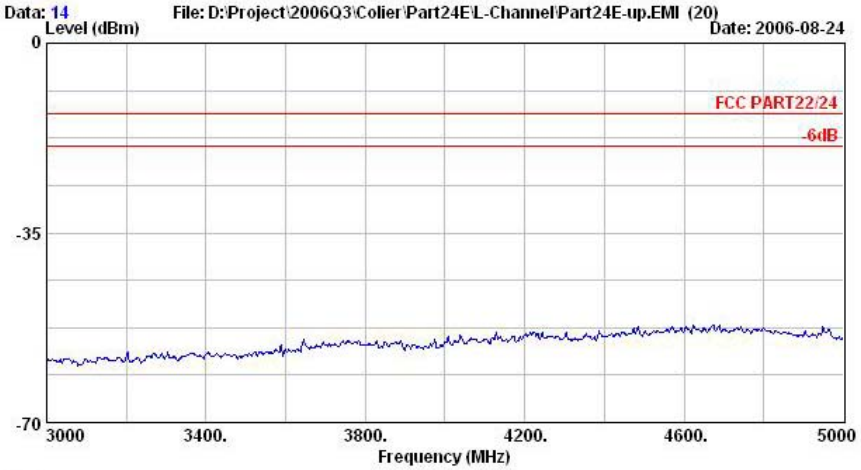
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	756.40	-60.75	-47.75	-13.00	-61.17	0.41	Peak
2	799.80	-61.52	-48.52	-13.00	-62.59	1.07	Peak
3	988.80	-61.91	-48.91	-13.00	-64.48	2.57	Peak



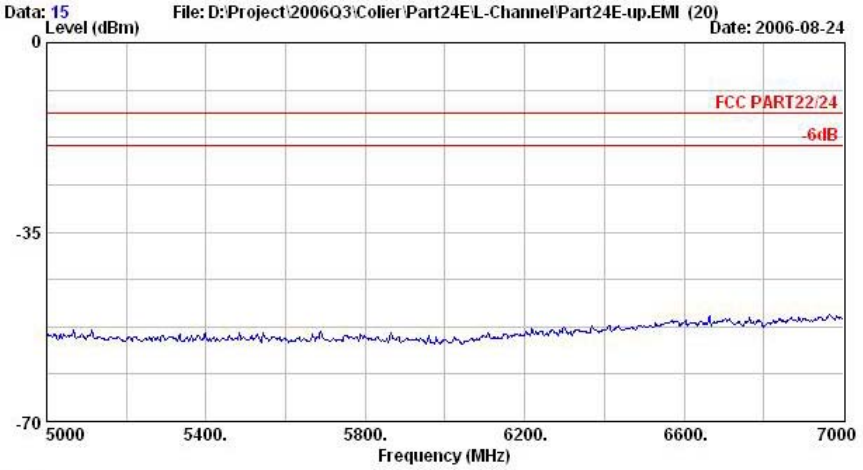
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1856.00	-42.54			-42.14	-0.40	Peak

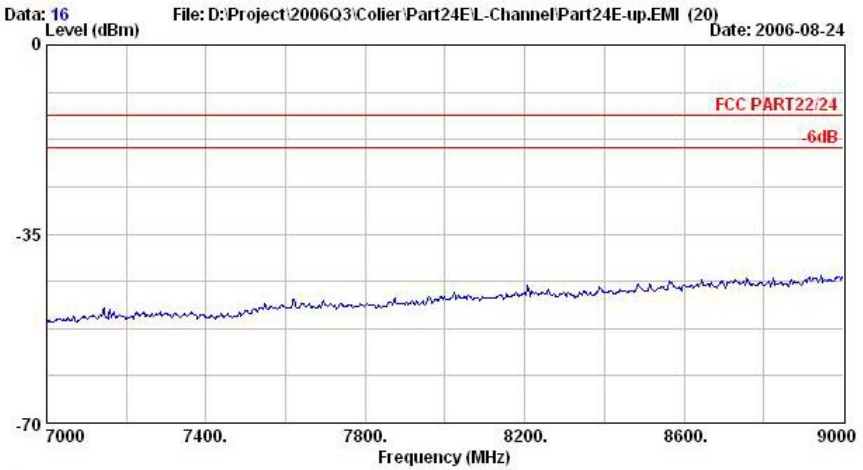
Remark: #1 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor



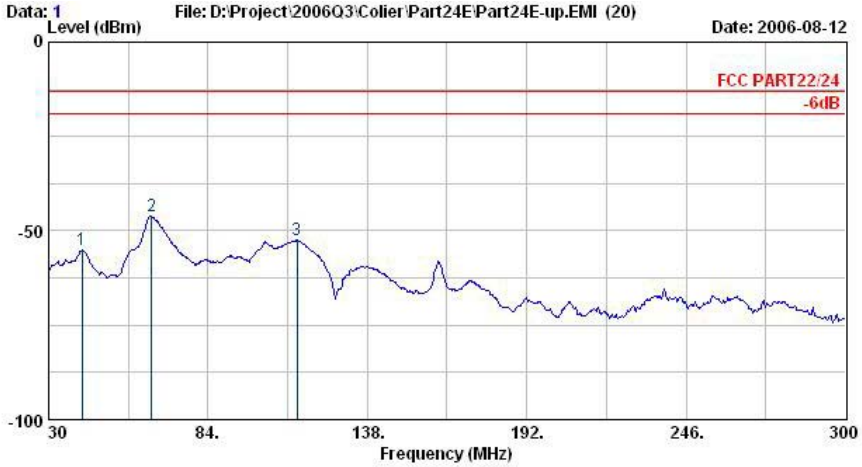
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1850.2 MHz uplink mode +Adaptor

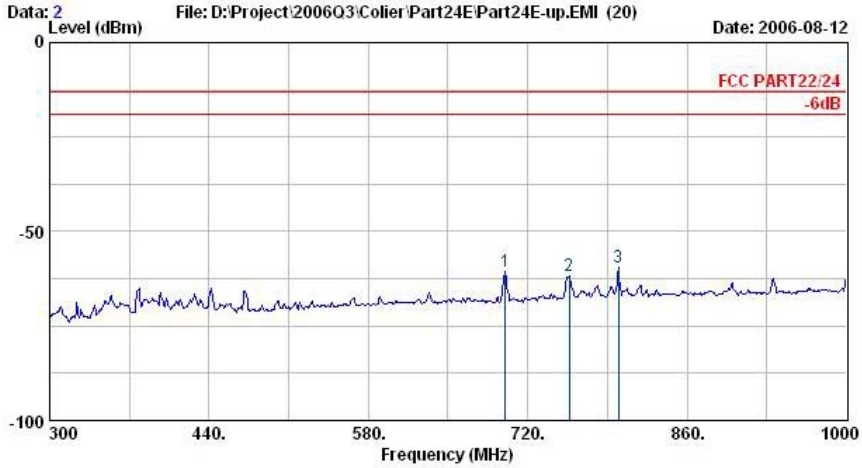
Remark: There is no more obvious spurious emission except the listings above.

Mode 2
Horizontal Polarization



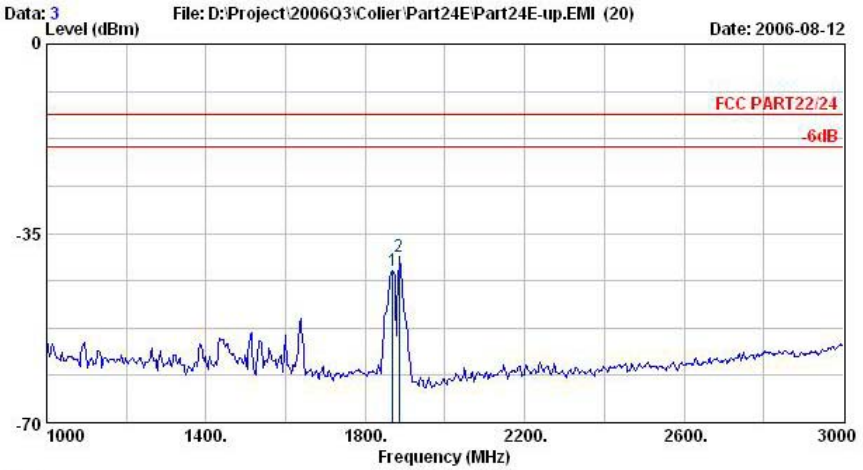
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	41.34	-55.11	-42.11	-13.00	-48.16	-6.95	Peak
2 @	64.83	-46.21	-33.21	-13.00	-33.84	-12.37	Peak
3	114.24	-52.55	-39.55	-13.00	-40.14	-12.41	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

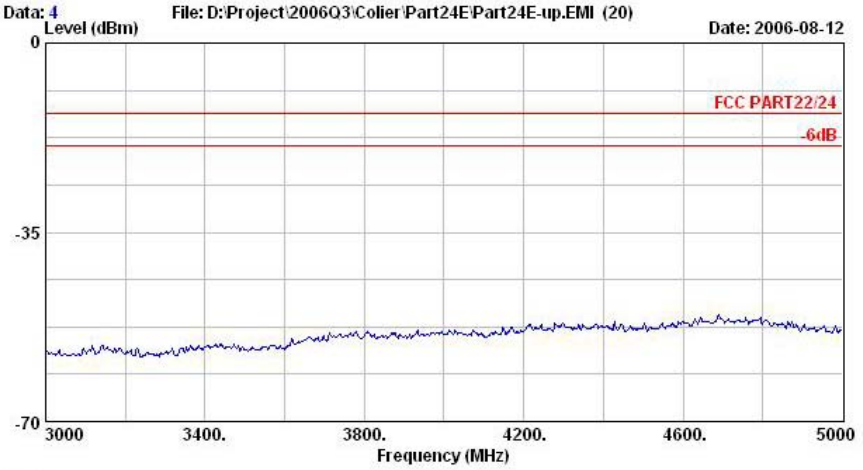
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	700.40	-60.49	-47.49	-13.00	-57.77	-2.72	Peak
2	756.40	-61.80	-48.80	-13.00	-59.67	-2.14	Peak
3	799.80	-59.53	-46.53	-13.00	-57.84	-1.69	Peak



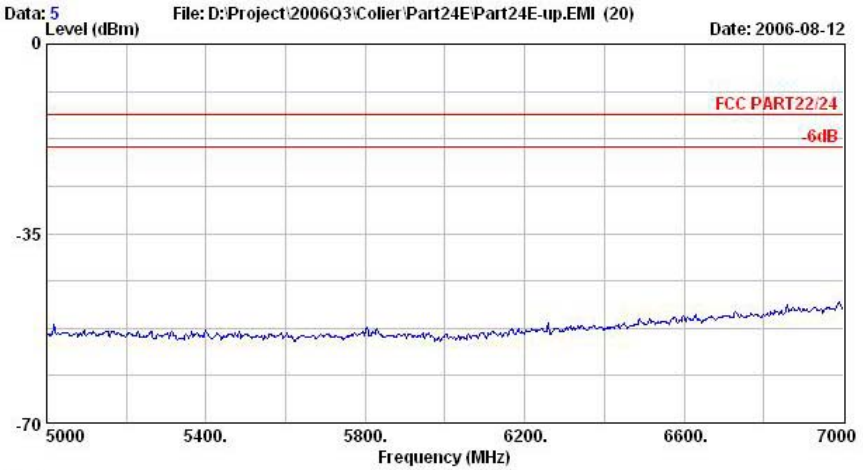
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1868.00	-41.79	-28.79	-13.00	-41.28	-0.51	Peak
2 @	1884.00	-39.27			-38.59	-0.68	Peak

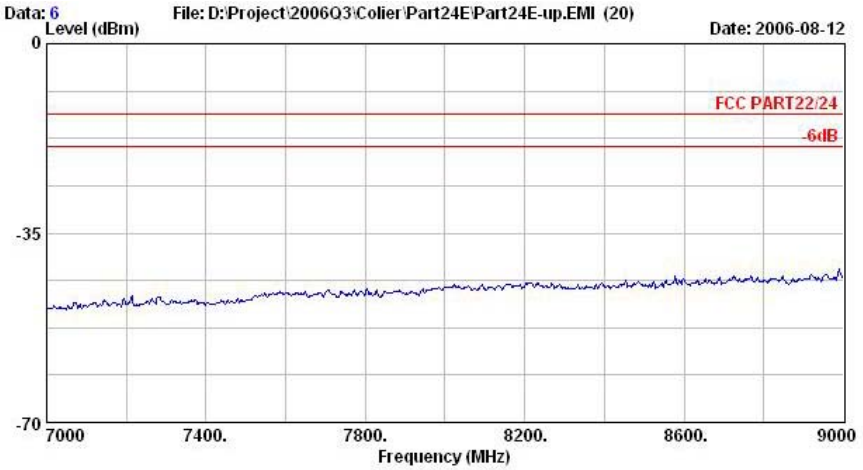
Remark: #2 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

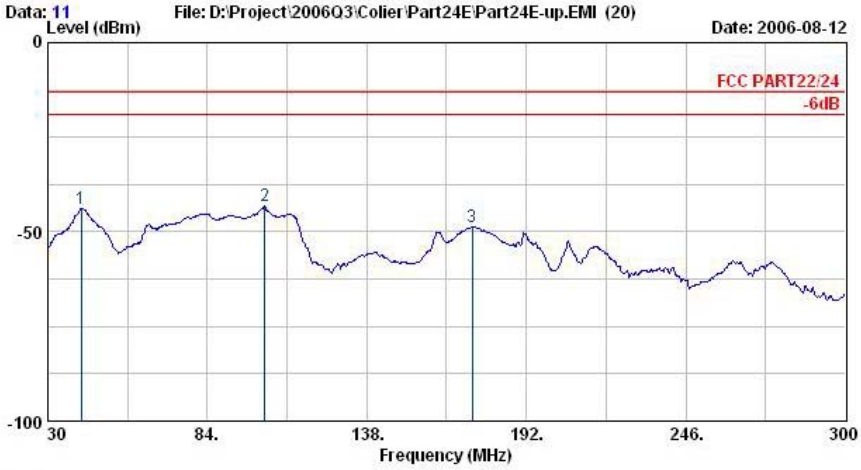


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode



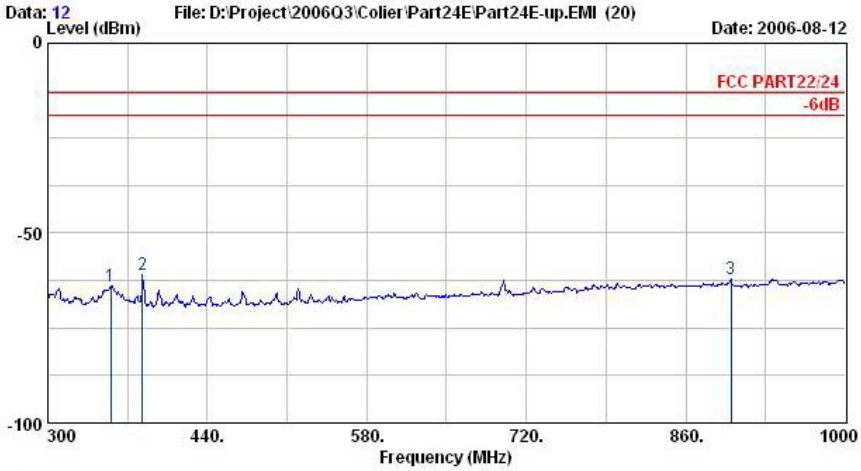
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

Vertical Polarization



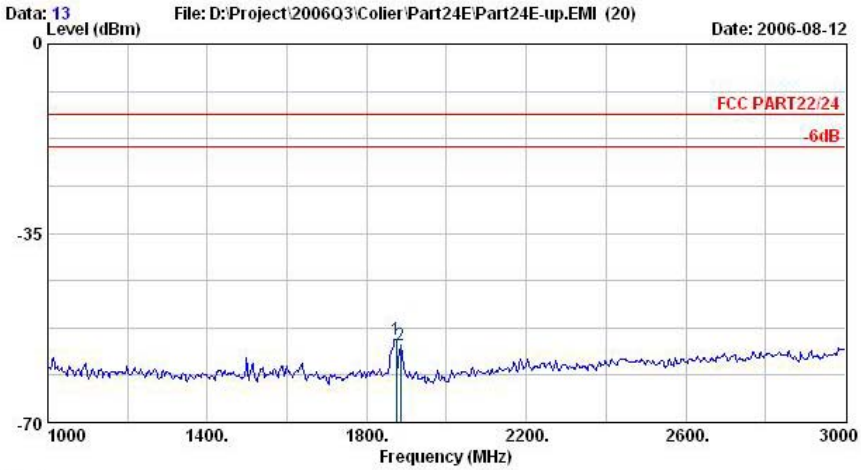
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	41.34	-43.75	-30.75	-13.00	-31.39	-12.36	Peak
2 @	103.44	-43.28	-30.28	-13.00	-35.55	-7.72	Peak
3	173.64	-48.73	-35.73	-13.00	-40.38	-8.35	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

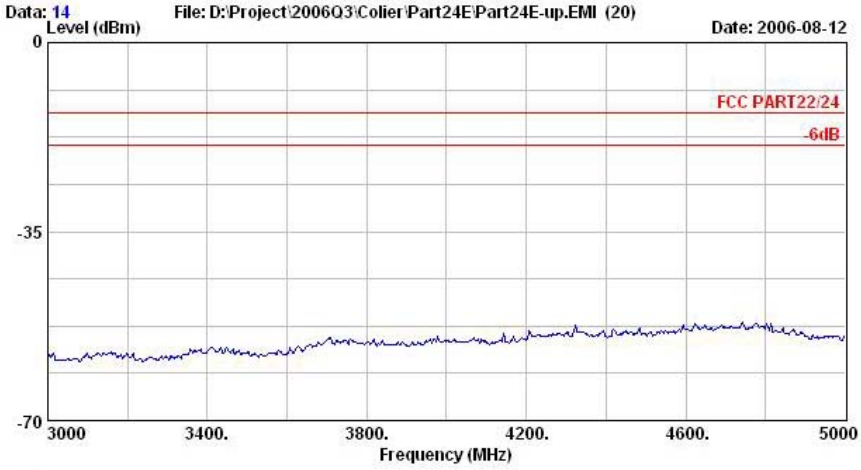
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	355.30	-64.07	-51.07	-13.00	-58.79	-5.28	Peak
2	383.30	-61.06	-48.06	-13.00	-56.38	-4.68	Peak
3	899.90	-61.98	-48.98	-13.00	-63.85	1.87	Peak



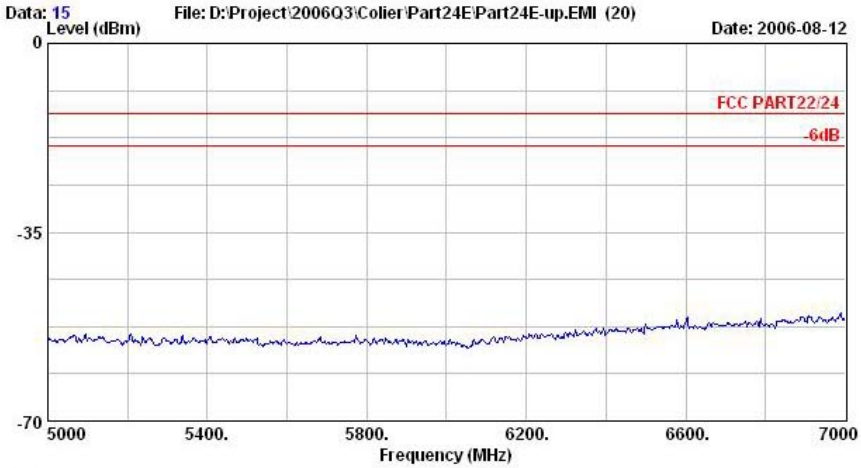
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	1874.00	-54.68	-41.68	-13.00	-54.28	-0.40	Peak
2	1884.00	-55.69			-55.19	-0.50	Peak

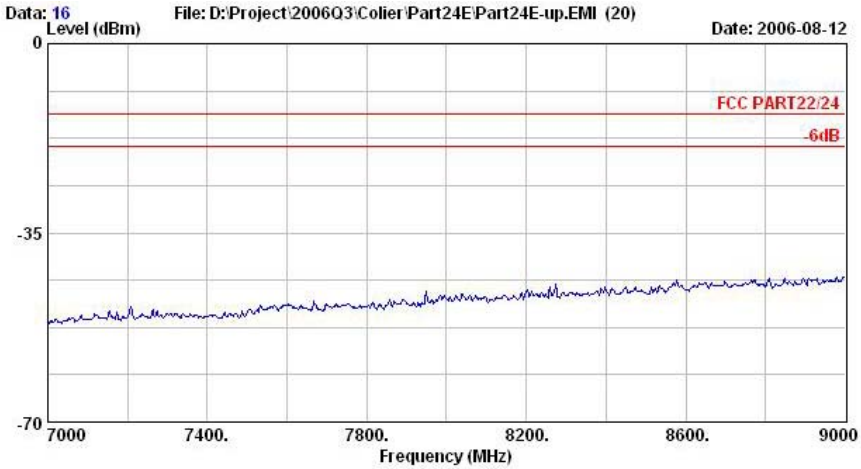
Remark: #2 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

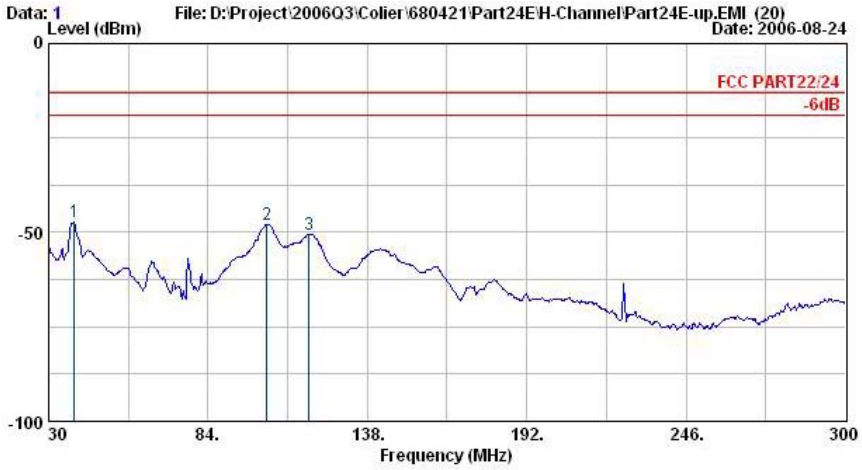


Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode



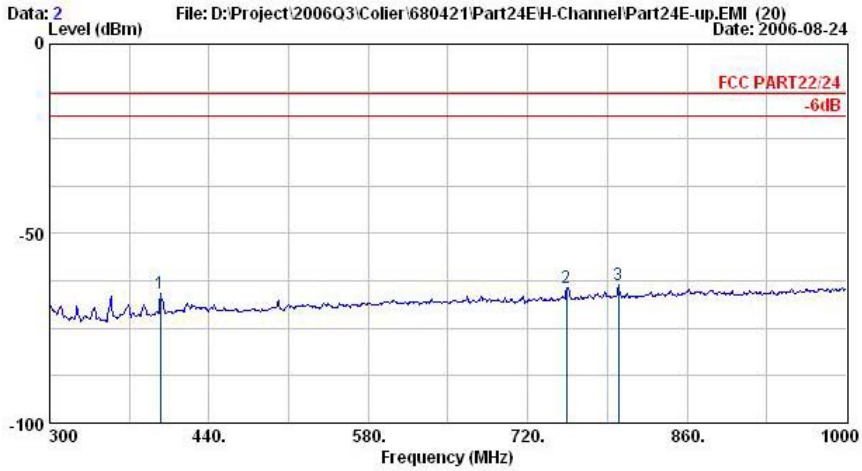
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1880 MHz uplink mode

Mode 3
Horizontal Polarization



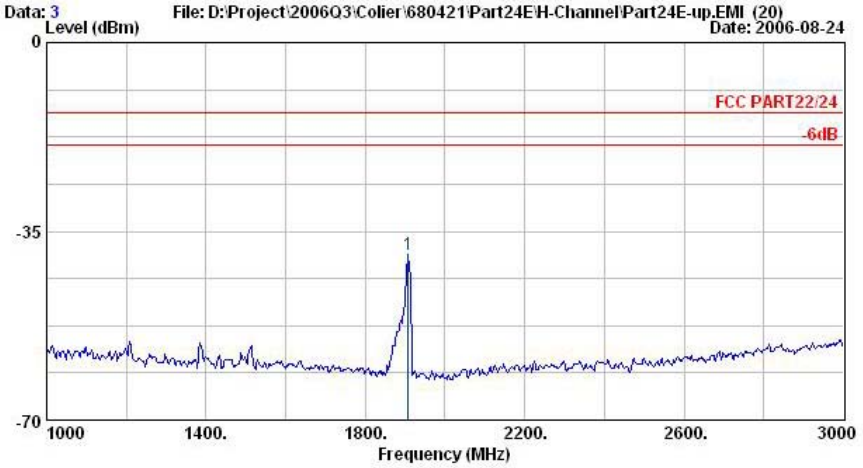
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	38.64	-47.20	-34.20	-13.00	-42.08	-5.12	Peak
2	103.98	-48.01	-35.01	-13.00	-35.73	-12.28	Peak
3	118.29	-50.44	-37.44	-13.00	-37.99	-12.45	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

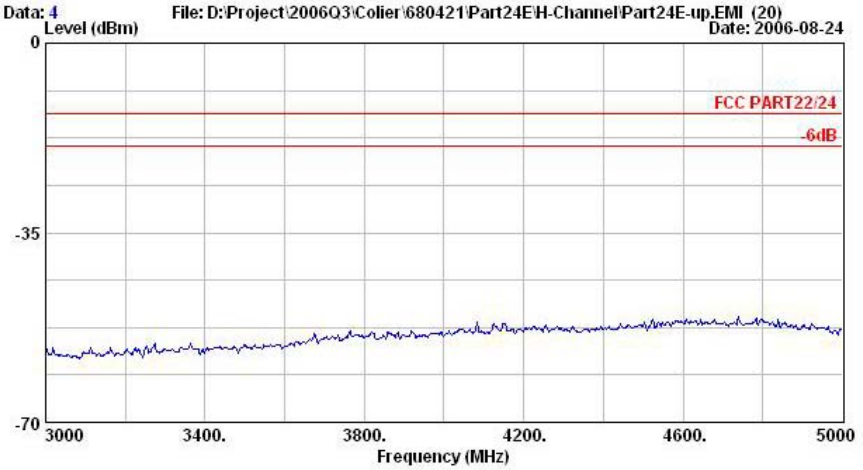
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	397.30	-65.70	-52.70	-13.00	-59.13	-6.57	Peak
2	754.30	-64.28	-51.28	-13.00	-62.12	-2.16	Peak
3	799.80	-63.42	-50.42	-13.00	-61.73	-1.69	Peak



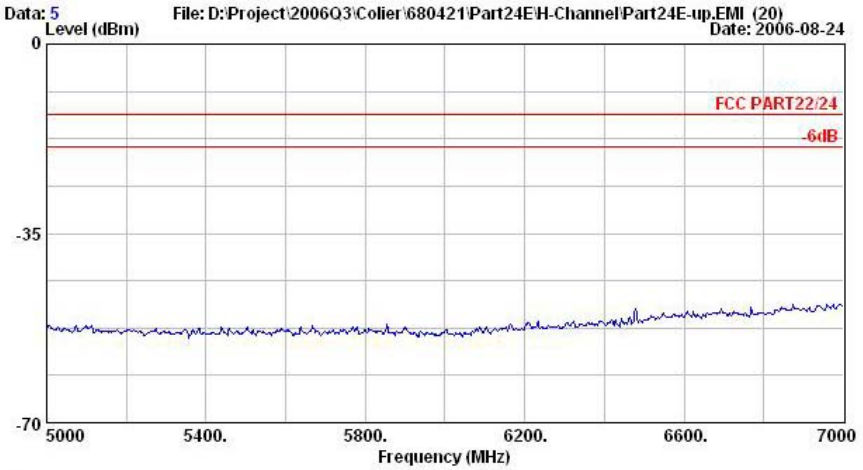
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1908.00	-39.42			-38.61	-0.81	Peak

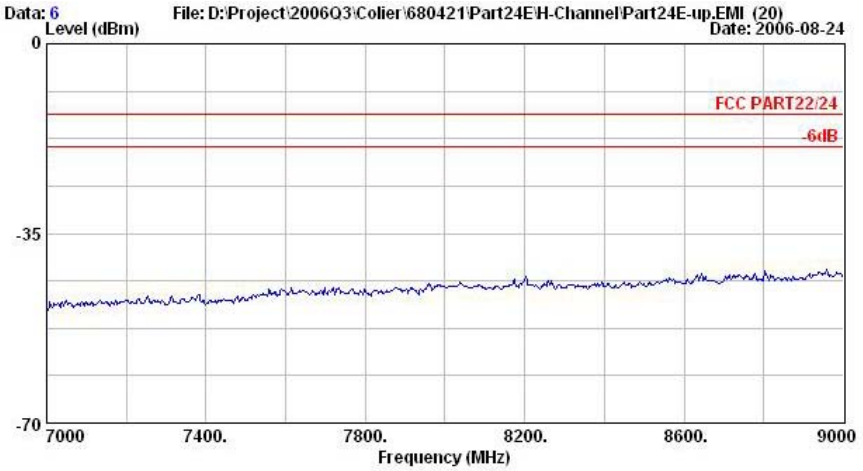
Remark: #1 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

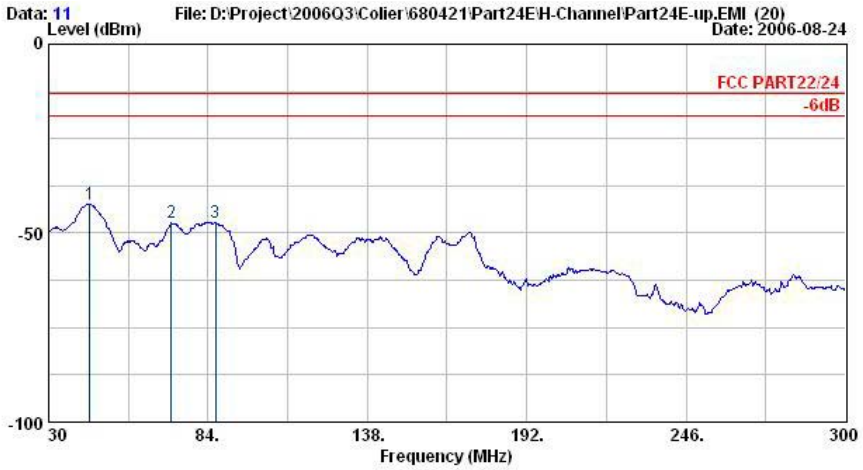


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor



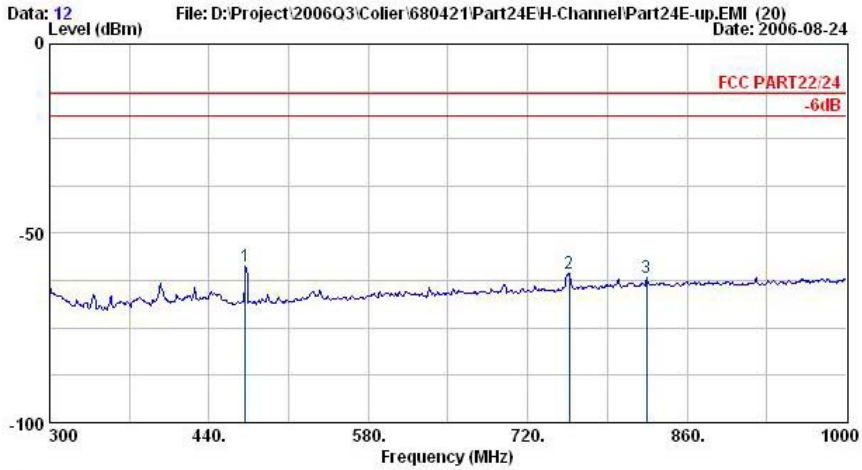
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

Vertical Polarization



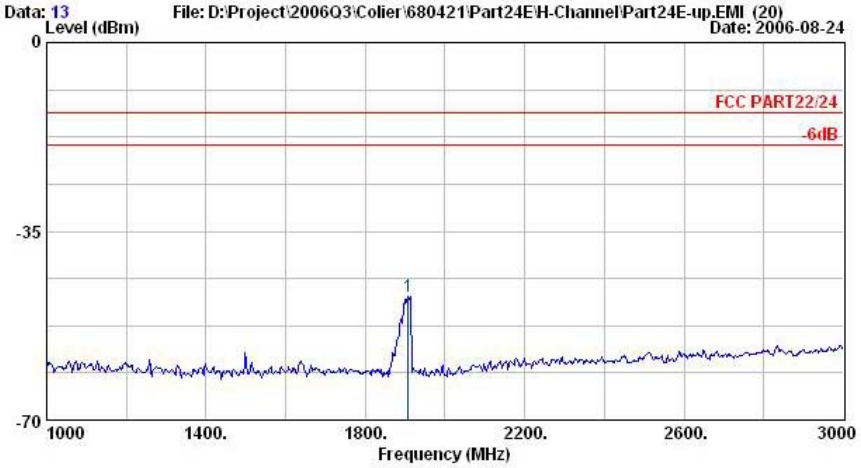
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	44.04	-42.28	-29.28	-13.00	-29.38	-12.90	Peak
2	71.58	-47.36	-34.36	-13.00	-35.62	-11.74	Peak
3	86.43	-47.13	-34.13	-13.00	-37.49	-9.65	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

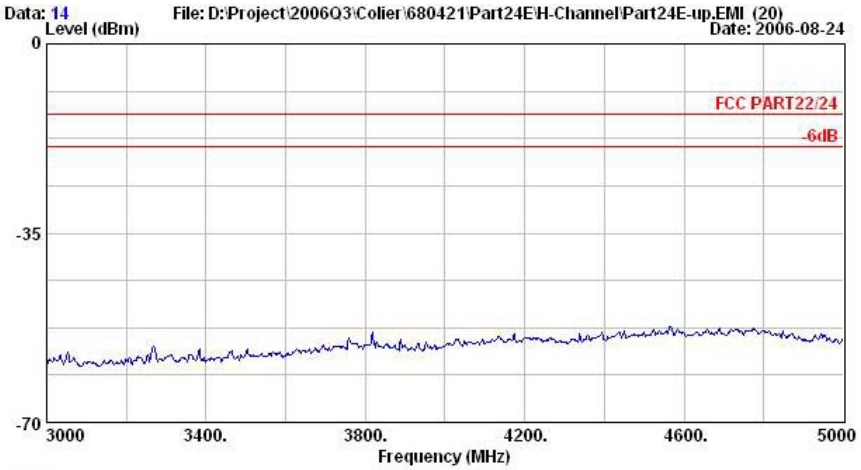
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	472.20	-58.77	-45.77	-13.00	-55.31	-3.46	Peak
2	756.40	-60.48	-47.48	-13.00	-60.89	0.41	Peak
3	824.30	-61.76	-48.76	-13.00	-63.02	1.26	Peak



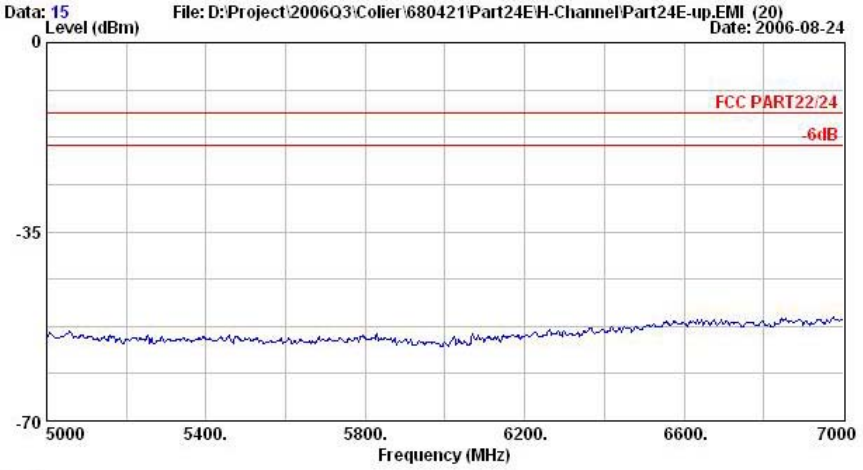
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1908.00	-47.08			-46.58	-0.50	Peak

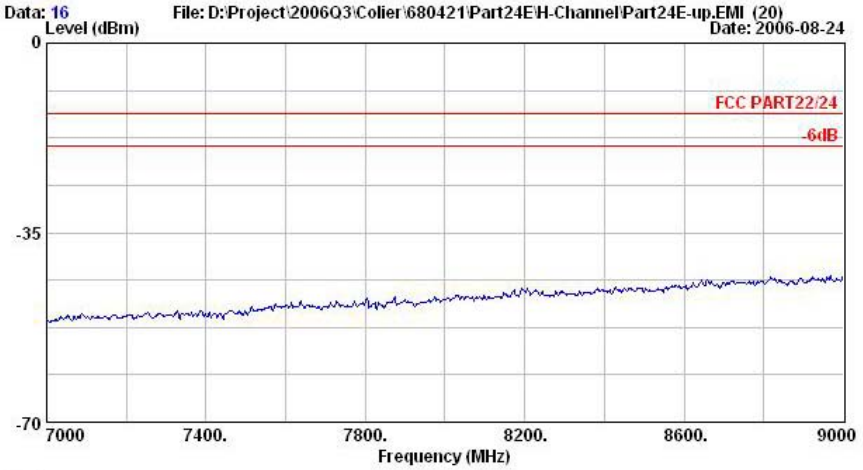
Remark: #1 Uplink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor



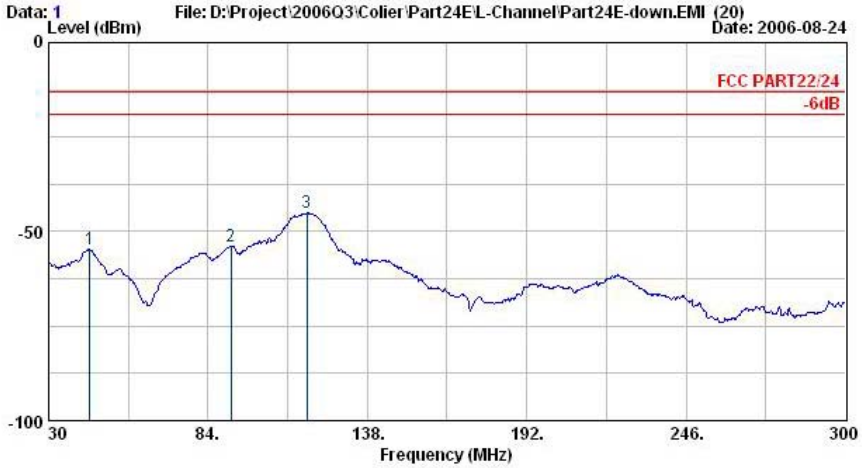
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1909.8 MHz uplink mode +Adaptor

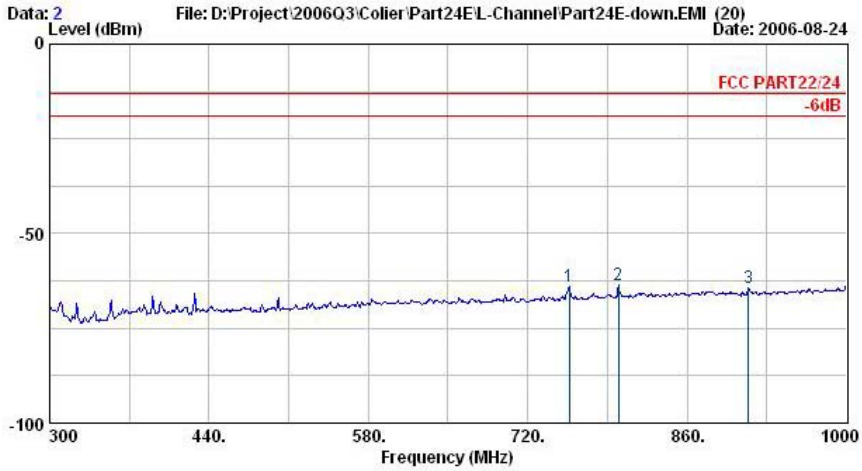
Remark: There is no more obvious spurious emission except the listings above.

Mode 4
Horizontal Polarization



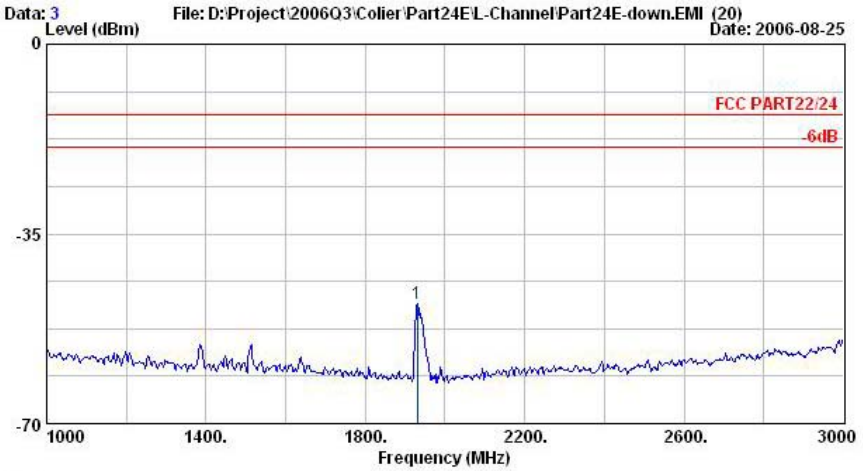
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	44.04	-54.72	-41.72	-13.00	-46.56	-8.17	Peak
2 @	91.83	-53.80	-40.80	-13.00	-41.53	-12.27	Peak
3 @	117.48	-45.13	-32.13	-13.00	-32.69	-12.44	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

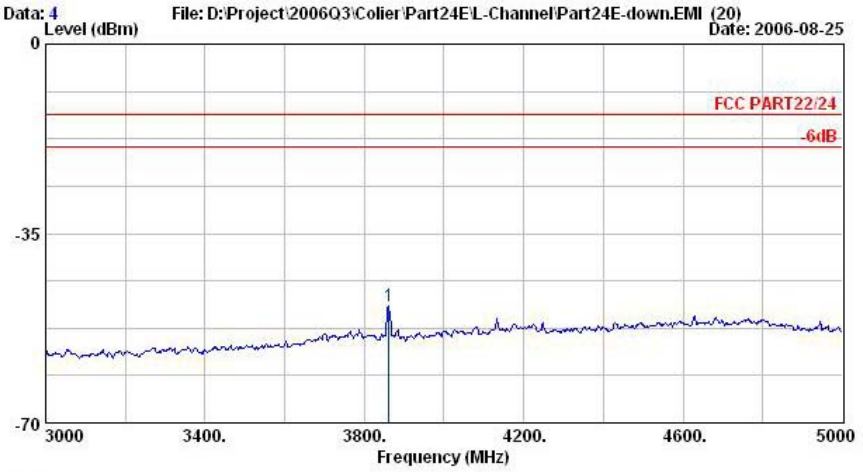
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	756.40	-64.05	-51.05	-13.00	-61.91	-2.14	Peak
2 @	799.80	-63.74	-50.74	-13.00	-62.05	-1.69	Peak
3 @	913.90	-64.34	-51.34	-13.00	-63.75	-0.59	Peak



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

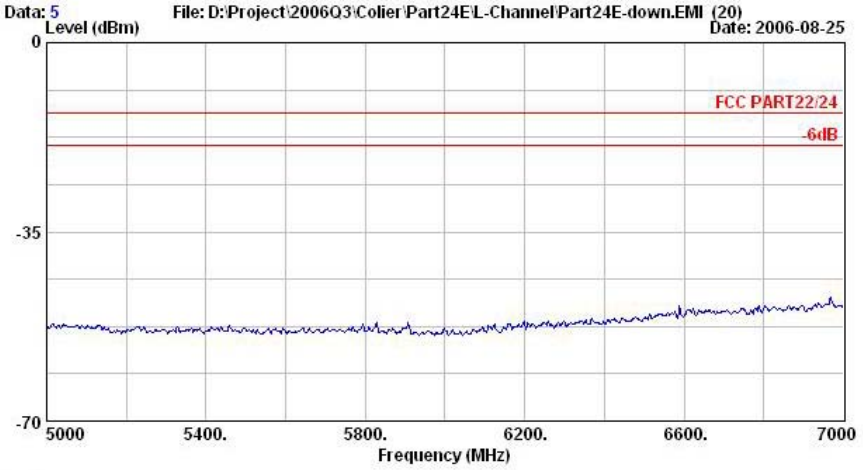
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1930.00	-47.84			-47.03	-0.81	Peak

Remark: #1 Downlink Signal

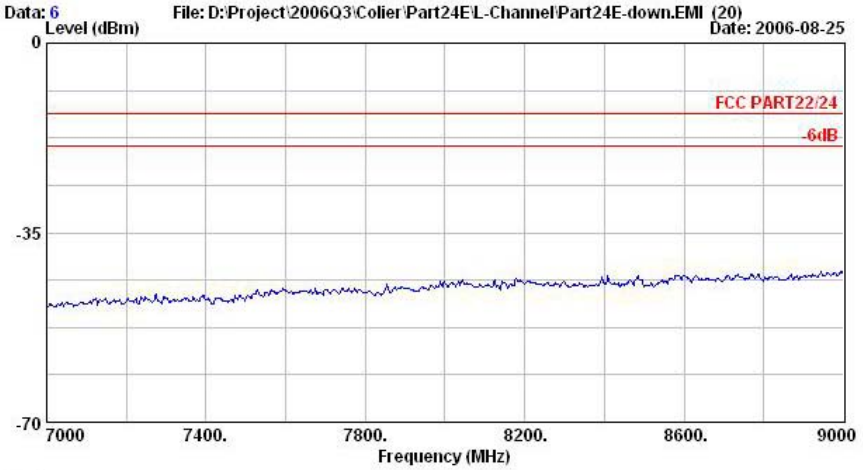


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3862.00	-48.30	-35.30	-13.00	-56.80	8.50	Peak

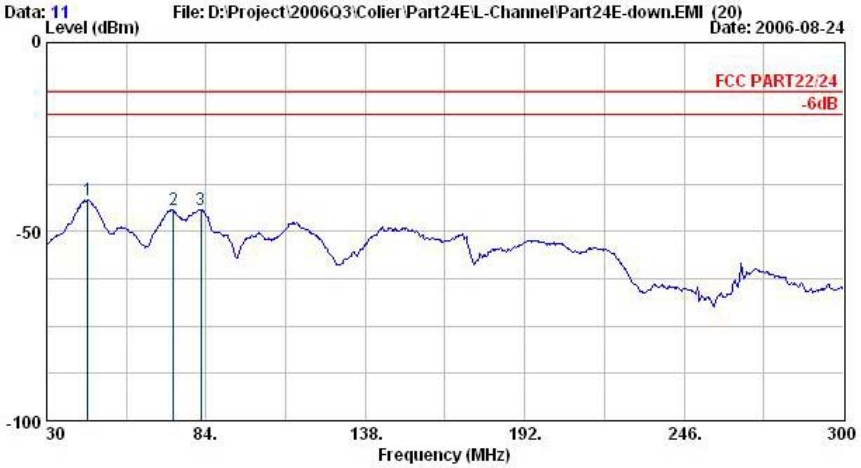


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor



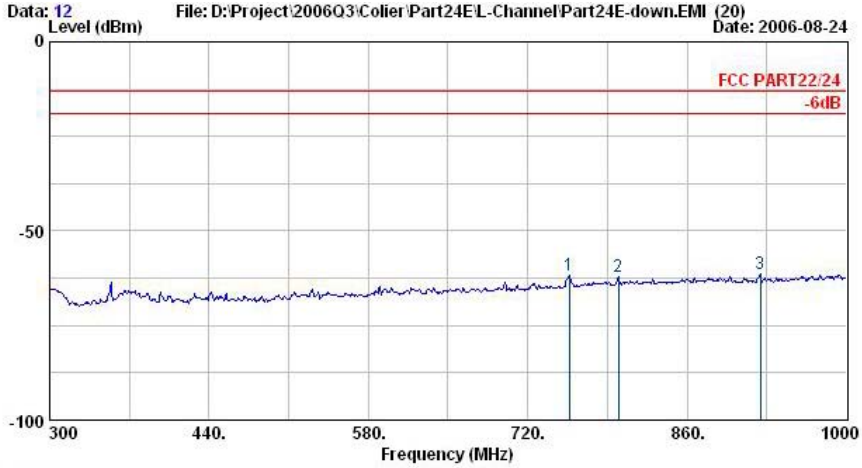
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

Vertical Polarization



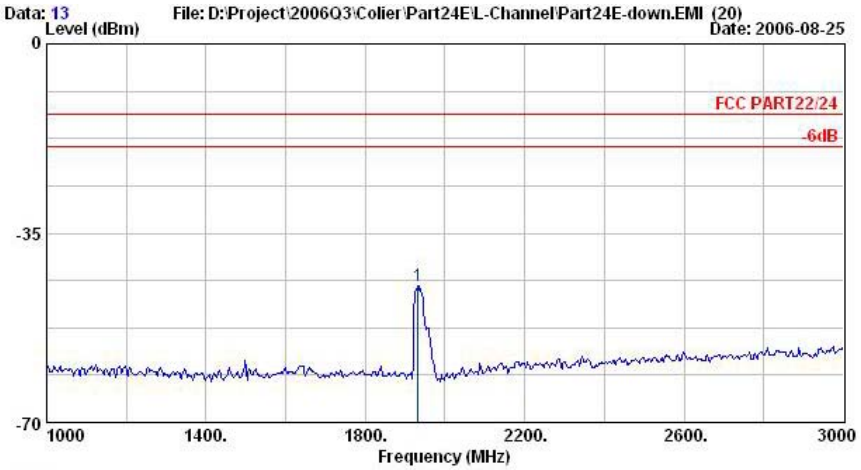
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	44.04	-41.65	-28.65	-13.00	-28.75	-12.90	Peak
2 @	72.93	-44.21	-31.21	-13.00	-32.60	-11.60	Peak
3 @	82.38	-44.30	-31.30	-13.00	-34.09	-10.21	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

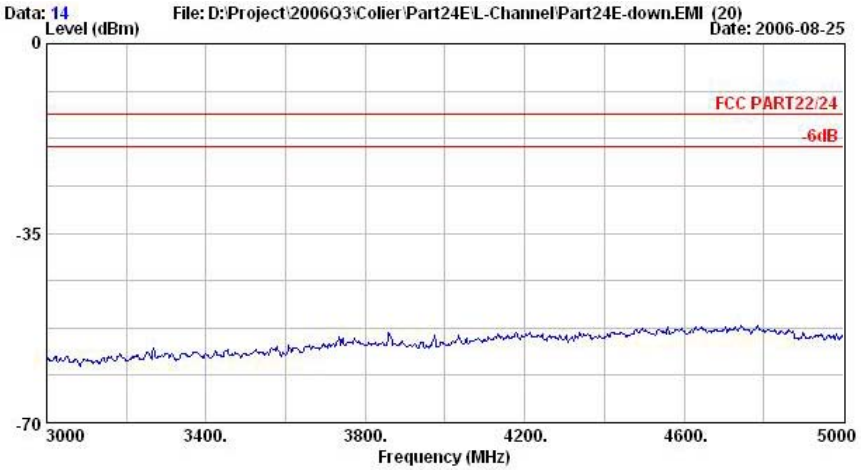
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	756.40	-61.68	-48.68	-13.00	-62.09	0.41	Peak
2 @	799.80	-62.14	-49.14	-13.00	-63.21	1.07	Peak
3 @	924.40	-61.39	-48.39	-13.00	-63.45	2.06	Peak



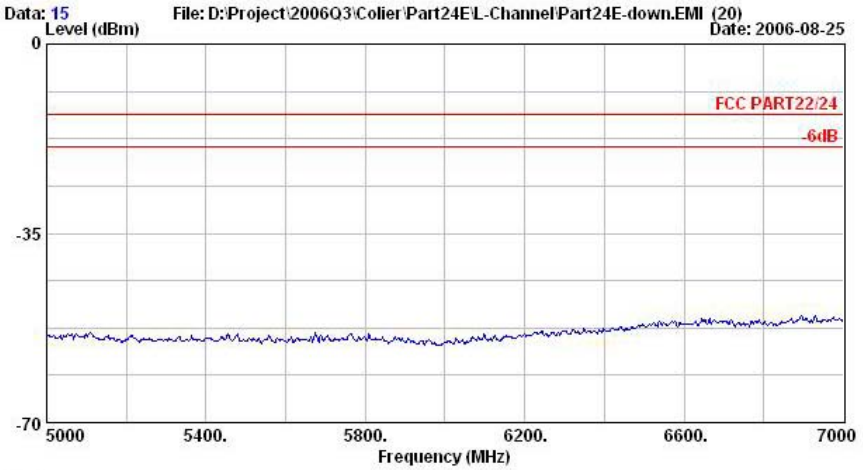
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1932.00	-44.65			-44.15	-0.50	Peak

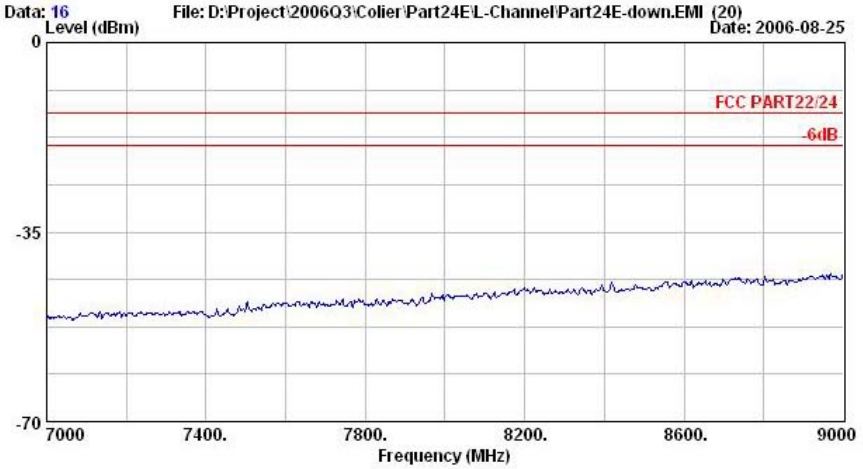
Remark: #1 Downlink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor



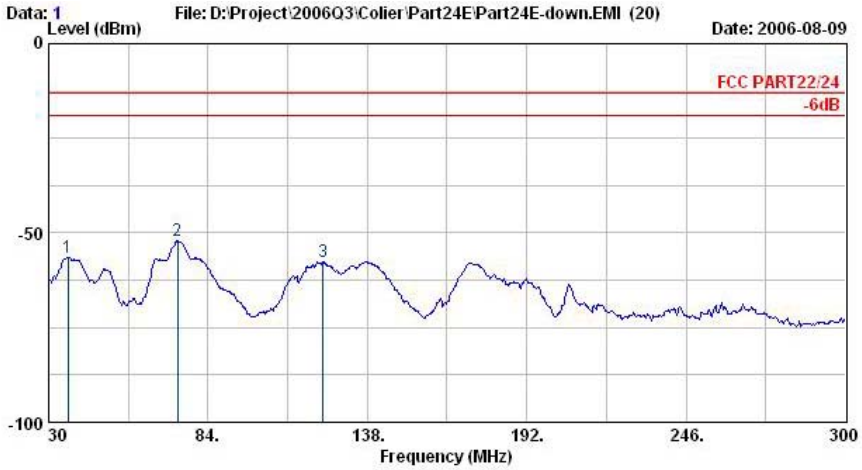
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1930.2 MHz downlink mode+Adaptor

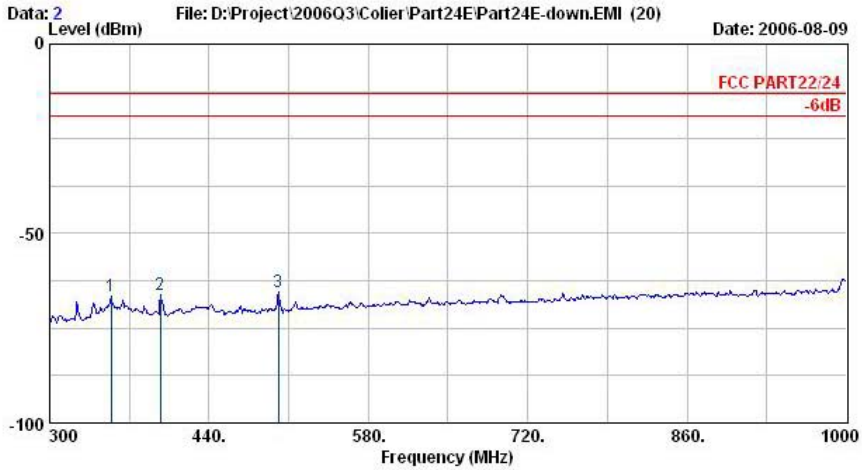
Remark: There is no more obvious spurious emission except the listings above.

Mode 5
Horizontal Polarization



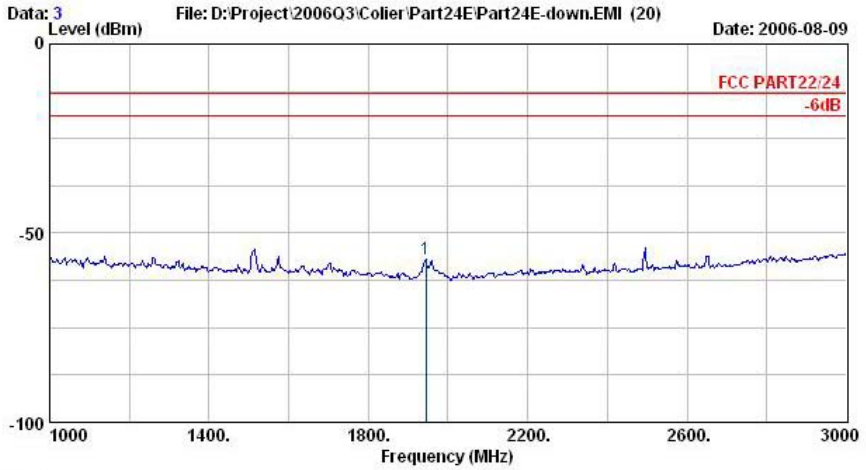
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	36.48	-56.35	-43.35	-13.00	-52.45	-3.90	Peak
2 @	73.74	-52.09	-39.09	-13.00	-39.75	-12.34	Peak
3 @	122.88	-57.47	-44.47	-13.00	-44.97	-12.51	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

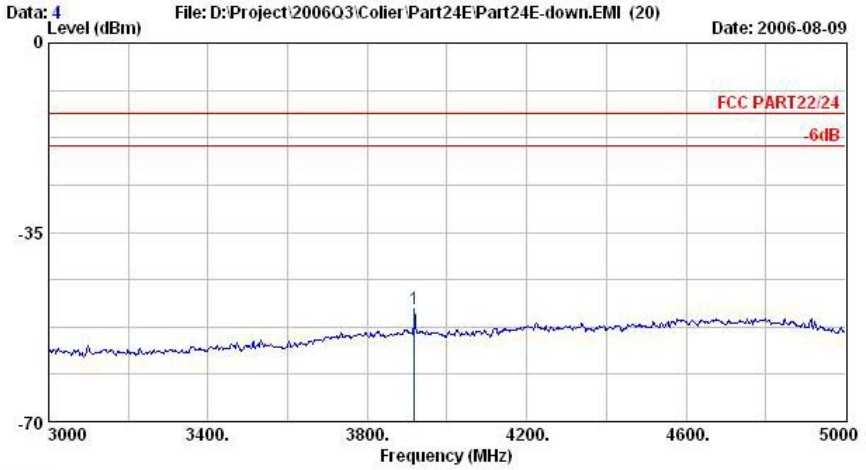
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	353.90	-66.72	-53.72	-13.00	-58.65	-8.07	Peak
2 @	397.30	-66.14	-53.14	-13.00	-59.58	-6.57	Peak
3 @	500.90	-65.26	-52.26	-13.00	-60.14	-5.11	Peak



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

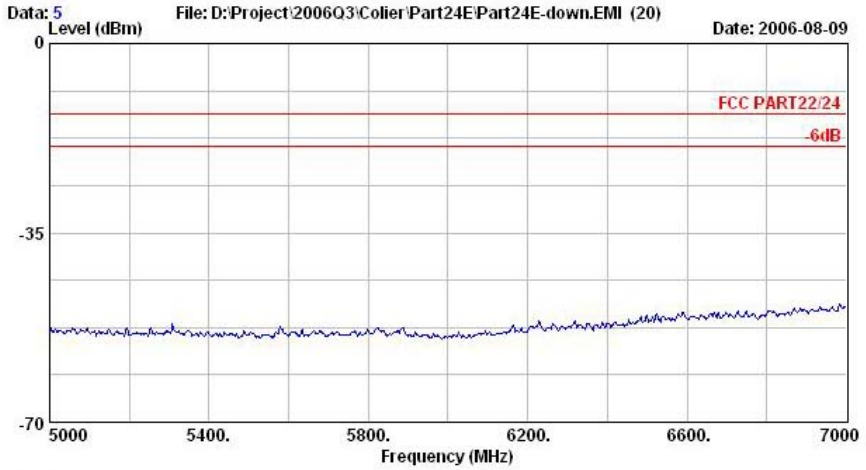
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1944.00	-56.94			-55.99	-0.94	Peak

Remark: #1 Downlink Signal

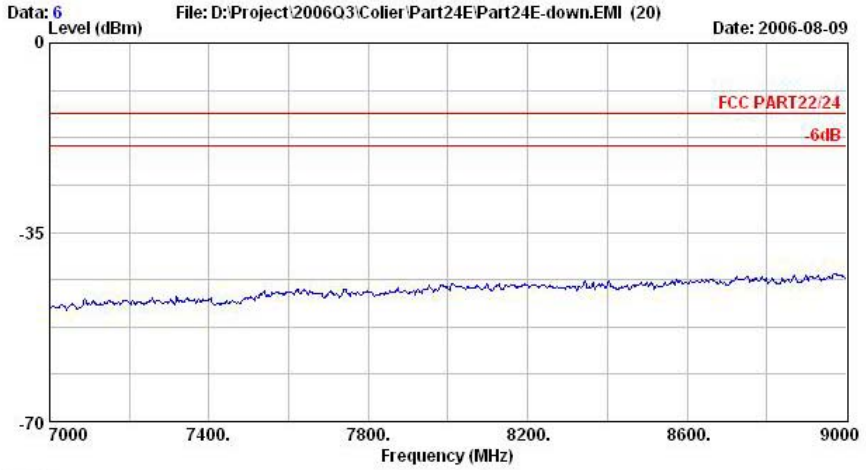


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3918.00	-49.08	-36.08	-13.00	-57.80	8.72	Peak

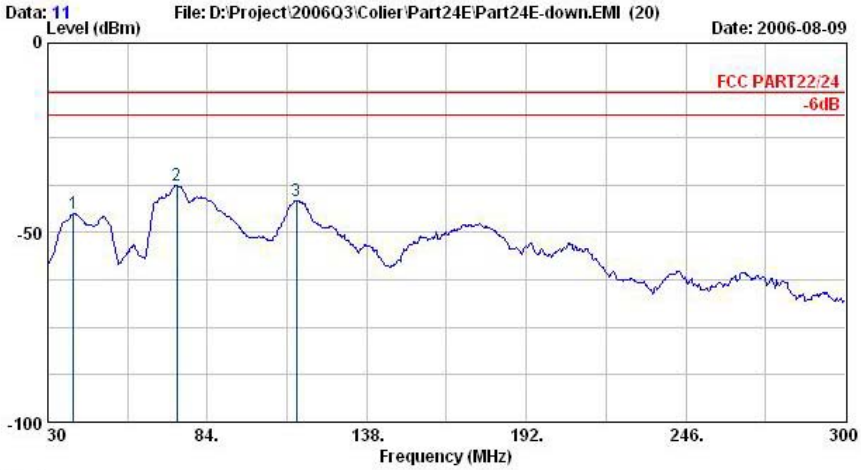


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode



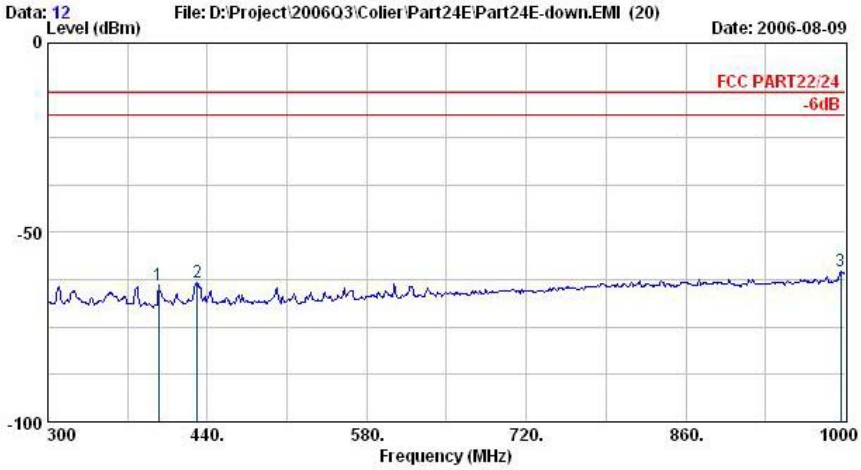
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

Vertical Polarization



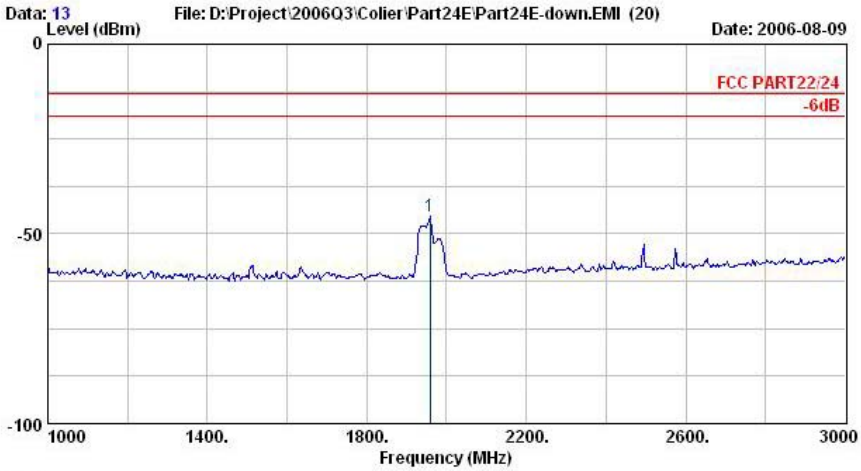
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	38.64	-44.86	-31.86	-13.00	-33.32	-11.53	Peak
2 @	73.74	-37.59	-24.59	-13.00	-26.12	-11.46	Peak
3 @	114.24	-41.48	-28.48	-13.00	-33.66	-7.82	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

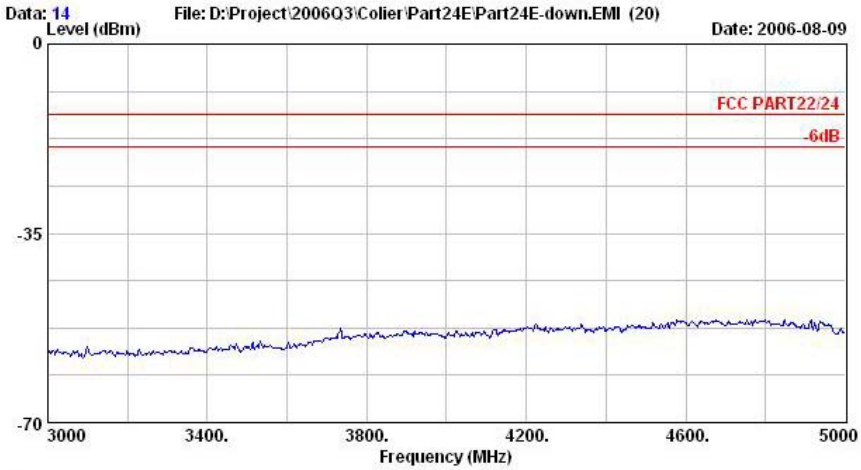
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	397.30	-63.86	-50.86	-13.00	-59.49	-4.37	Peak
2	430.90	-63.14	-50.14	-13.00	-59.18	-3.96	Peak
3 @	995.80	-60.15	-47.15	-13.00	-62.78	2.63	Peak



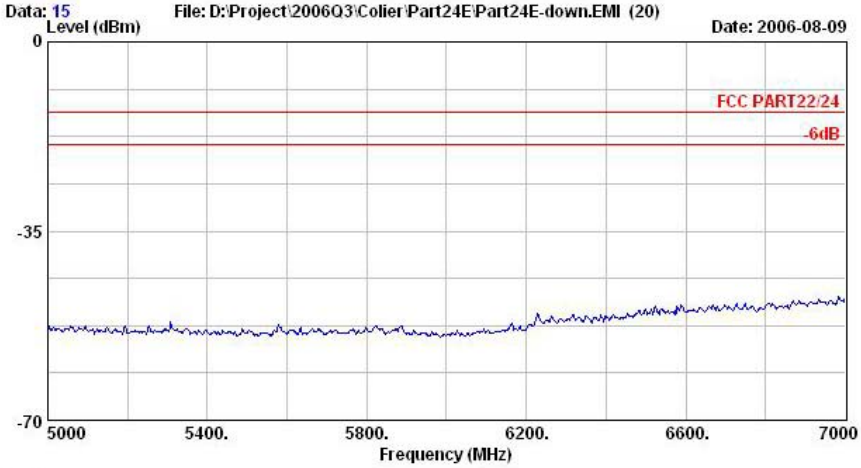
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1958.00	-45.33			-44.74	-0.60	Peak

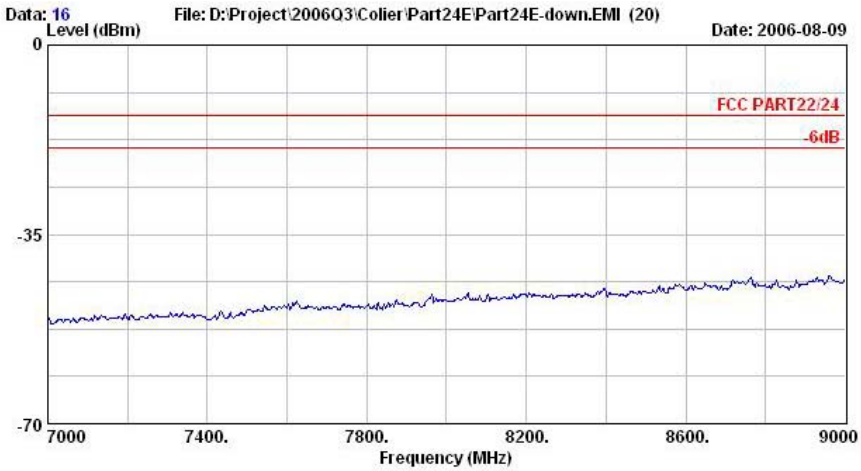
Remark: #1 Downlink Signal



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode



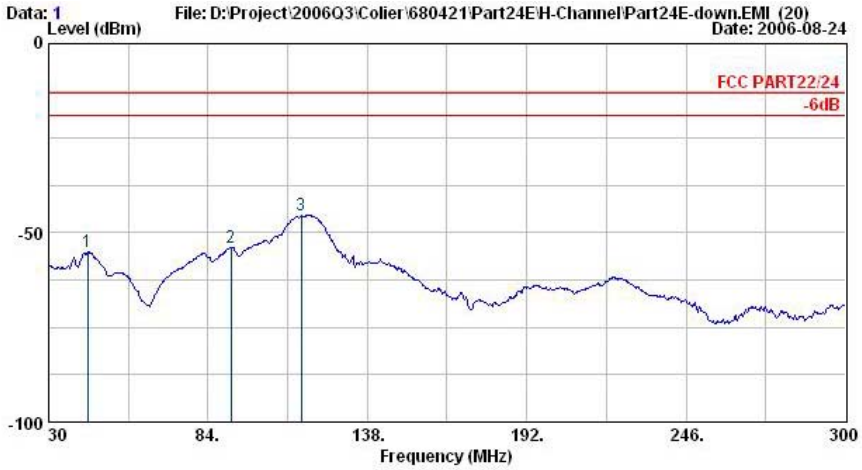
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1960 MHz downlink mode

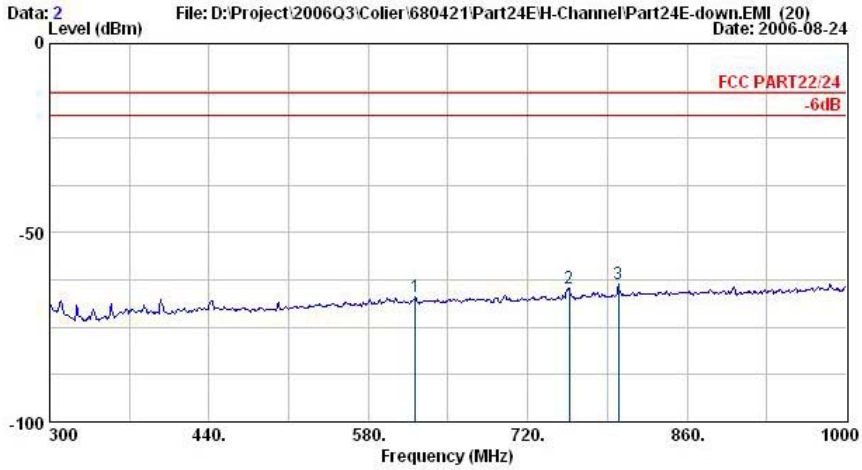
Remark: There is no more obvious spurious emission except the listings above.

Mode 6
Horizontal Polarization



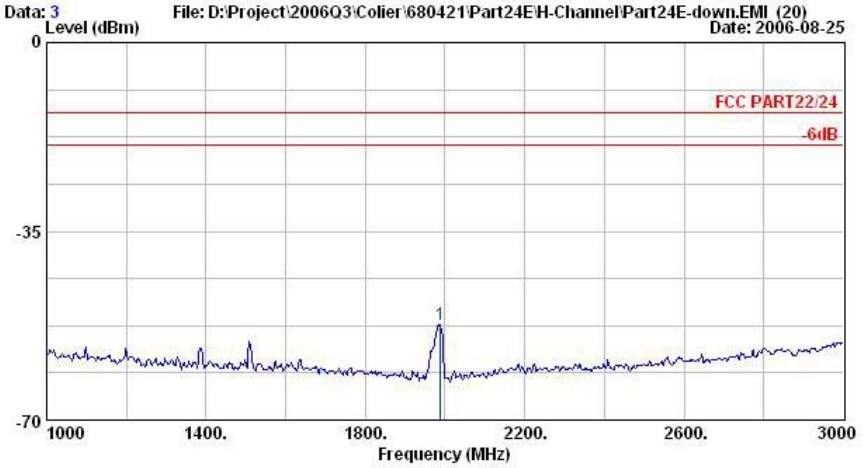
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	43.23	-54.99	-41.99	-13.00	-46.83	-8.17	Peak
2	91.83	-53.83	-40.83	-13.00	-41.56	-12.27	Peak
3	115.59	-45.36	-32.36	-13.00	-32.94	-12.42	Peak



Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

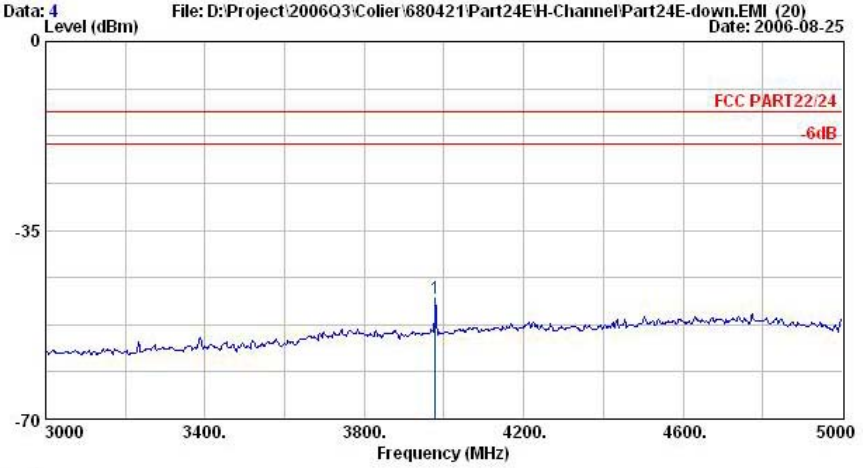
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	621.30	-66.73	-53.73	-13.00	-63.21	-3.52	Peak
2	756.40	-64.70	-51.70	-13.00	-62.56	-2.14	Peak
3	799.80	-63.69	-50.69	-13.00	-62.00	-1.69	Peak



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

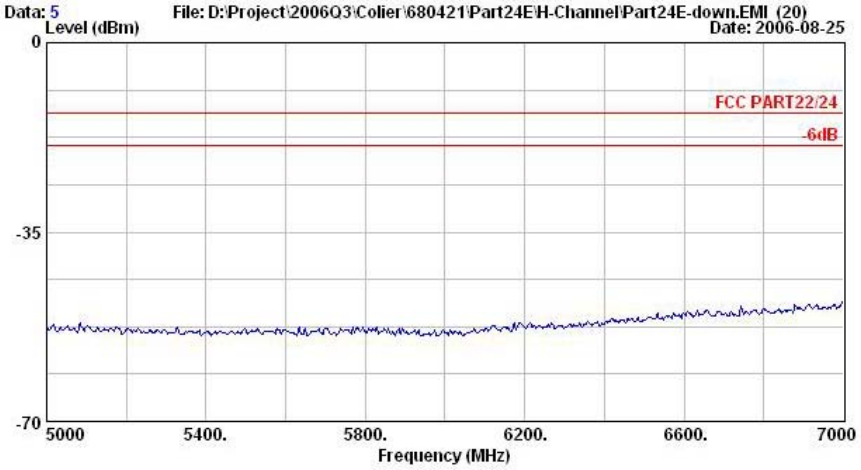
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	1988.00	-52.28			-51.00	-1.28	Peak

Remark: #1 Downlink Signal

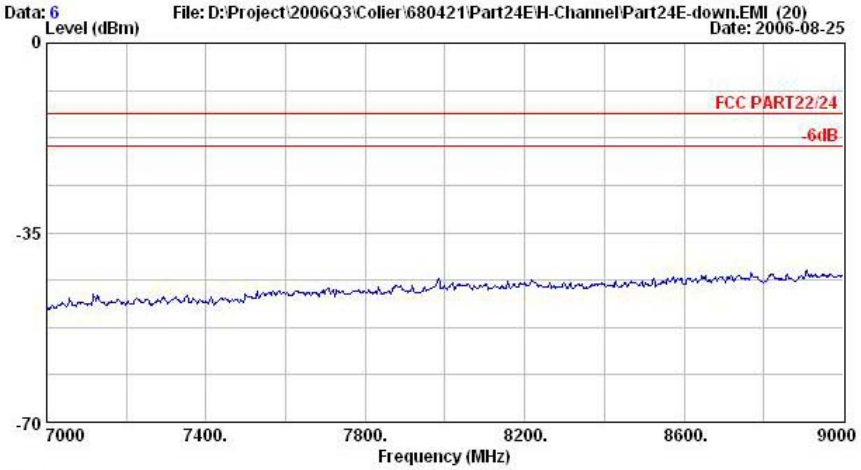


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	3978.00	-47.74	-34.74	-13.00	-56.85	9.11	Peak

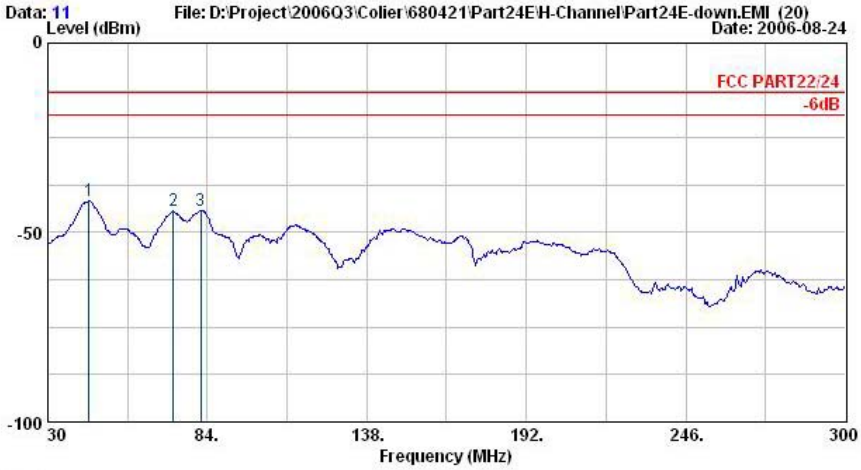


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor



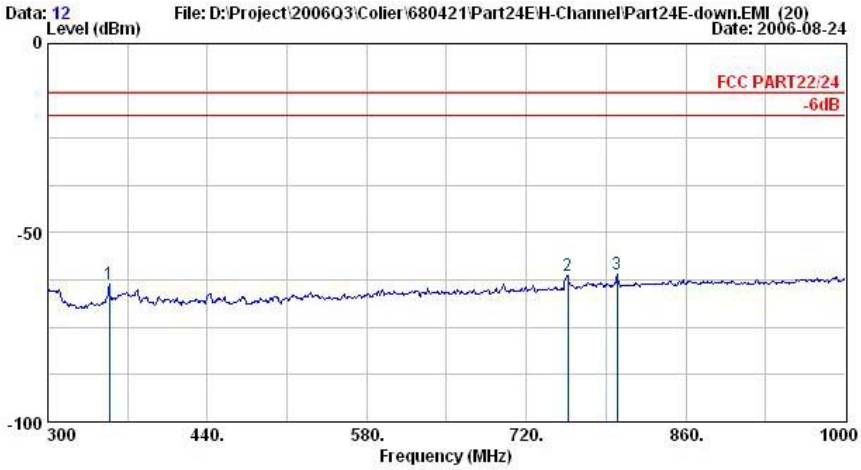
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

Vertical Polarization



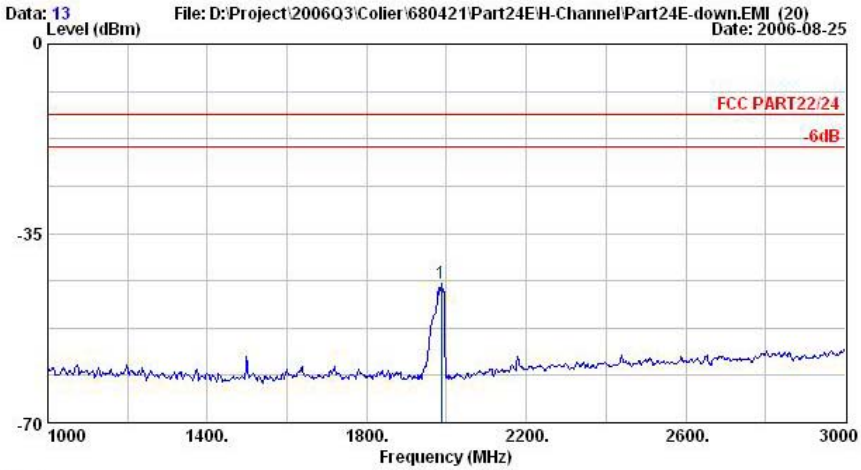
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	44.04	-41.62	-28.62	-13.00	-28.72	-12.90	Peak
2	72.39	-44.41	-31.41	-13.00	-32.81	-11.60	Peak
3	81.84	-44.29	-31.29	-13.00	-33.95	-10.35	Peak



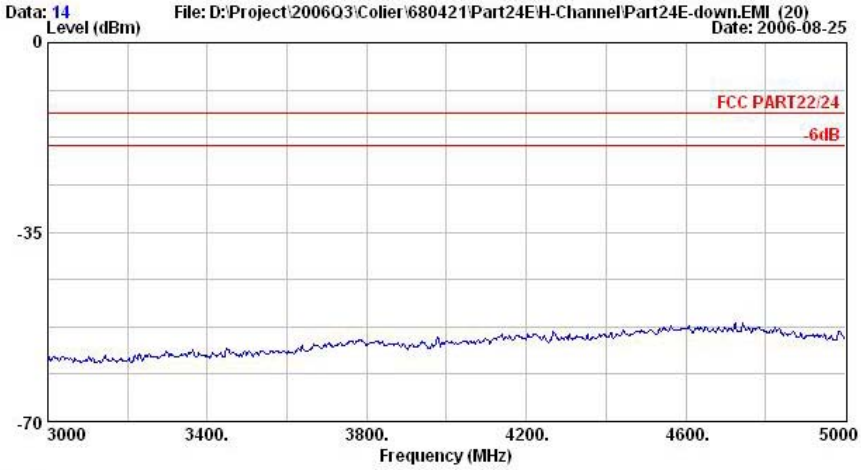
Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	353.90	-63.57	-50.57	-13.00	-58.27	-5.30	Peak
2	756.40	-61.22	-48.22	-13.00	-61.64	0.41	Peak
3	799.80	-61.15	-48.15	-13.00	-62.22	1.07	Peak

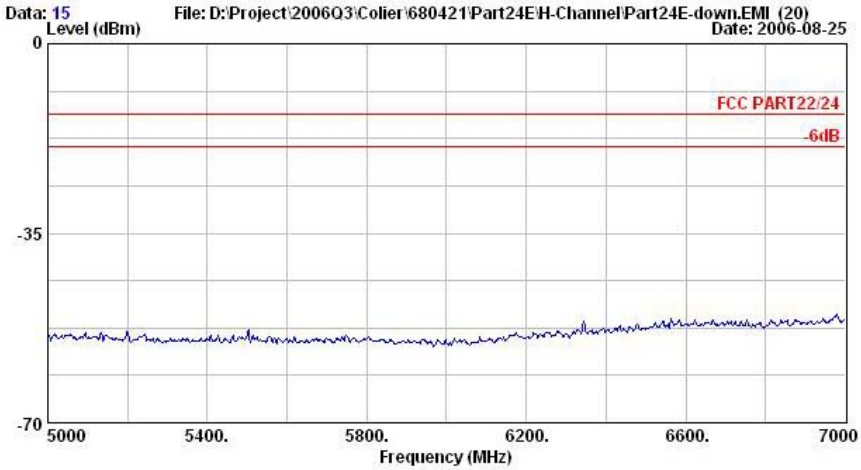


Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

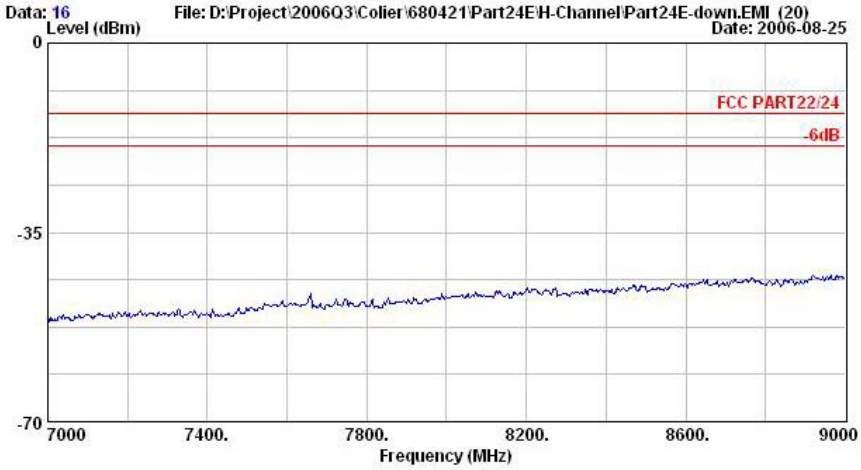
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1986.00	-44.29	-31.29	-13.00	-43.59	-0.69	Peak



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeter
Power : 120Vac/60Hz
Model : FG680421
Memo : PCS 1989.8 MHz downlink mode+Adaptor

Remark: There is no more obvious spurious emission except the listings above.

5. List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2006	Jul. 24, 2007	Radiation (03CH06-HY)
Spectrum analyzer	R&S	FSP40	100057	9KHz-40GHz	Jun. 15, 2006	Jun. 14, 2007	Radiation (03CH06-HY)
Network analyzer	Agilent	E8358A	US40260131	300KHz-9GHz	Sep.16.2005	Sep.16.2006	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 26, 2006	Jun. 25, 2007	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 22, 2004	Nov. 21, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 22, 2006	Feb. 21, 2007	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Dec. 17, 2005	Dec. 16, 2006	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

6. Uncertainty Evaluation

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	**4.72**				

END OF TEST REPORT