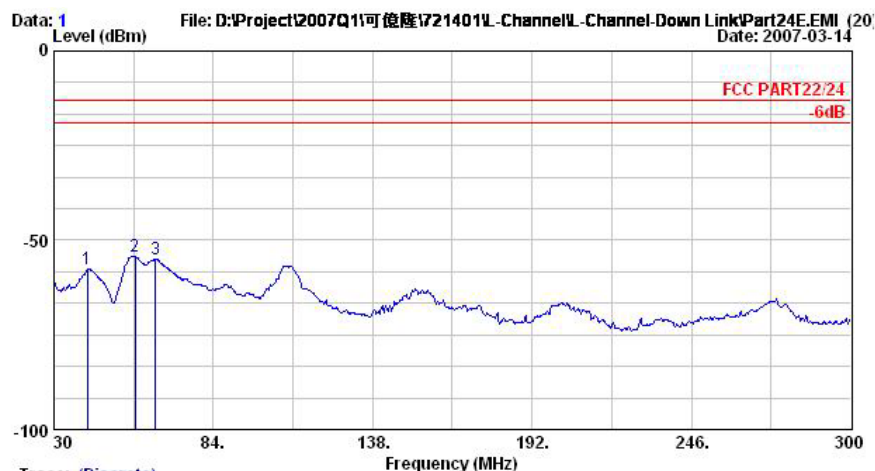


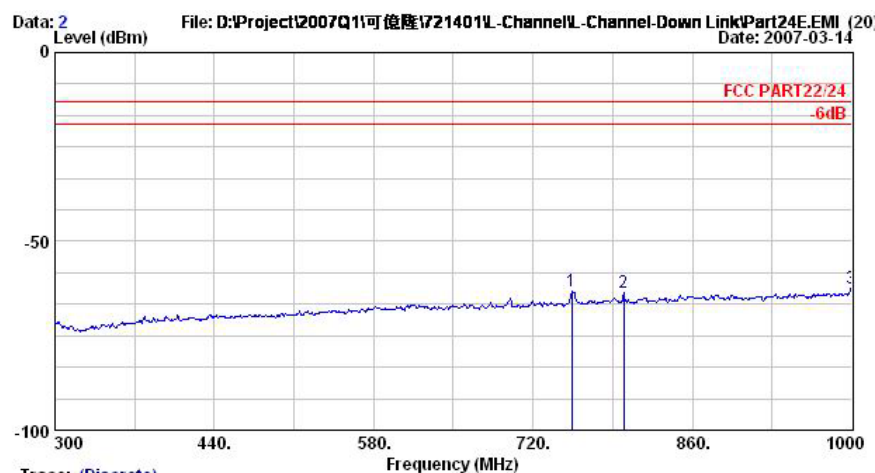


Mode 4
Horizontal Polarization



Trace: (Discrete)
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	41.34	-57.55	-44.55	-13.00	-50.60	-6.95	Peak
2 @	57.54	-54.34	-41.34	-13.00	-41.93	-12.40	Peak
3 @	64.29	-54.90	-41.90	-13.00	-42.52	-12.38	Peak



Trace: (Discrete)
Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

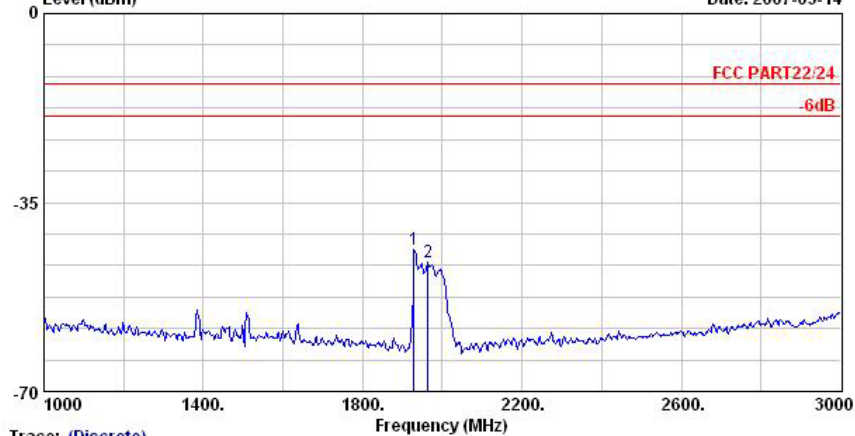
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	754.30	-63.36	-50.36	-13.00	-61.20	-2.16	Peak
2 @	799.80	-63.66	-50.66	-13.00	-61.97	-1.69	Peak
3 @	1000.00	-62.58	-49.58	-13.00	-62.82	0.24	Peak



FCC TEST REPORT

Report No. : FG721401

Data: 3 File: D:\Project\2007Q1\可倫薩\721401\Channel\Channel-Down Link\Part24E\EMI (20) Date: 2007-03-14



Trace: (Discrete)

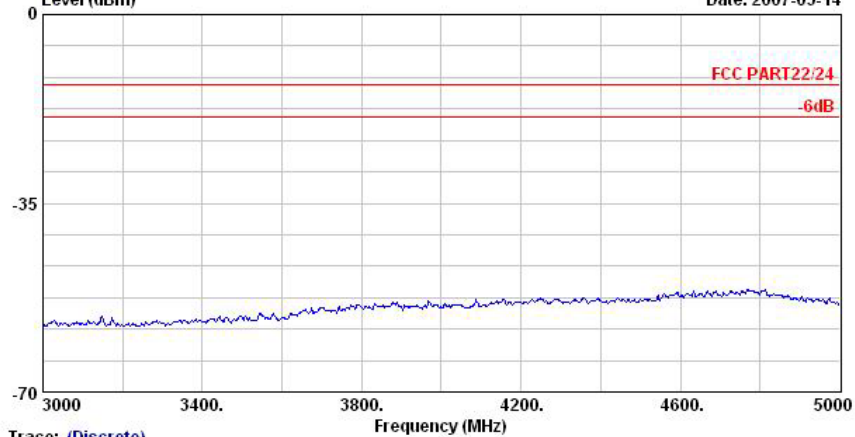
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1928.00	-43.61			-42.80	-0.81	Peak
2 @	1964.00	-46.18			-45.07	-1.11	Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal

Data: 4 File: D:\Project\2007Q1\可倫薩\721401\Channel\Channel-Down Link\Part24E\EMI (20) Date: 2007-03-14



Trace: (Discrete)

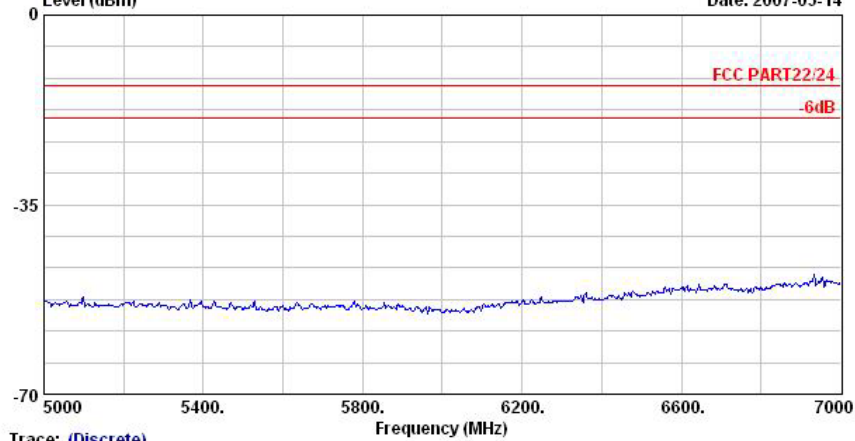
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor



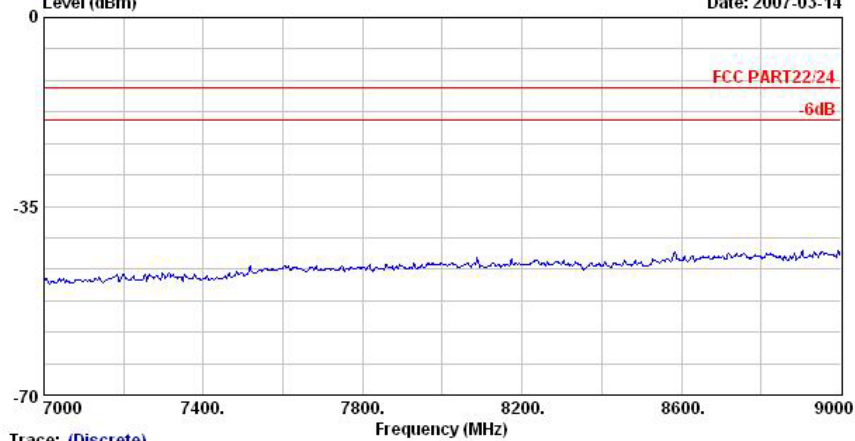
FCC TEST REPORT

Report No. : FG721401

Data: 5 Level (dBm) File: D:\Project\2007Q1\可倫隆\721401\Channel\Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



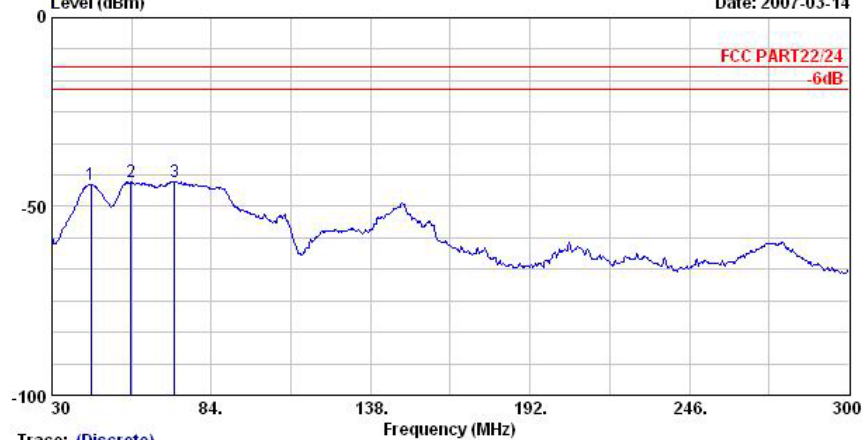
Data: 6 Level (dBm) File: D:\Project\2007Q1\可倫隆\721401\Channel\Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14





Vertical Polarization

Data: 11 File: D:\Project\2007Q1\可倫薩\721401\Channel\Channel-Down Link\Part24E.EMI (20) Level (dBm) Date: 2007-03-14

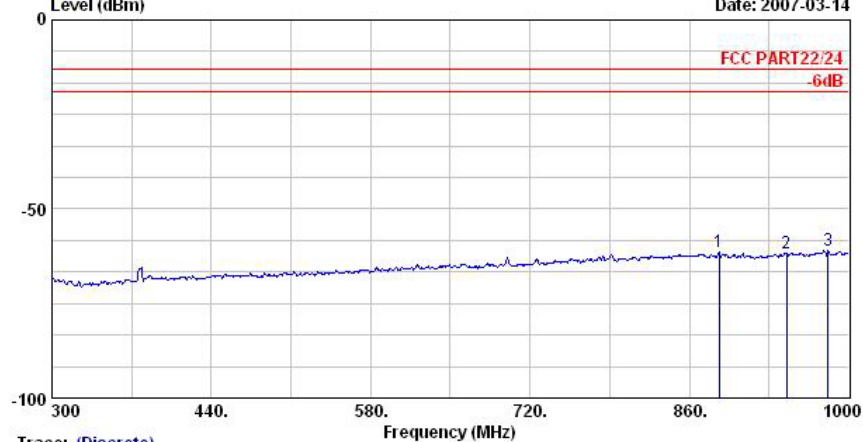


Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

		Over	Limit	Read		
	Freq	Level	Limit	Line	Level	Factor Remark
	MHz	dBm	dB	dBm	dB	
1 @	43.23	-44.11	-31.11	-13.00	-31.21	-12.90 Peak
2 @	56.73	-43.44	-30.44	-13.00	-29.60	-13.84 Peak
3 @	71.58	-43.44	-30.44	-13.00	-31.69	-11.74 Peak

Data: 12 File: D:\Project\2007Q1\可倫薩\721401\Channel\Channel-Down Link\Part24E.EMI (20) Level (dBm) Date: 2007-03-14



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

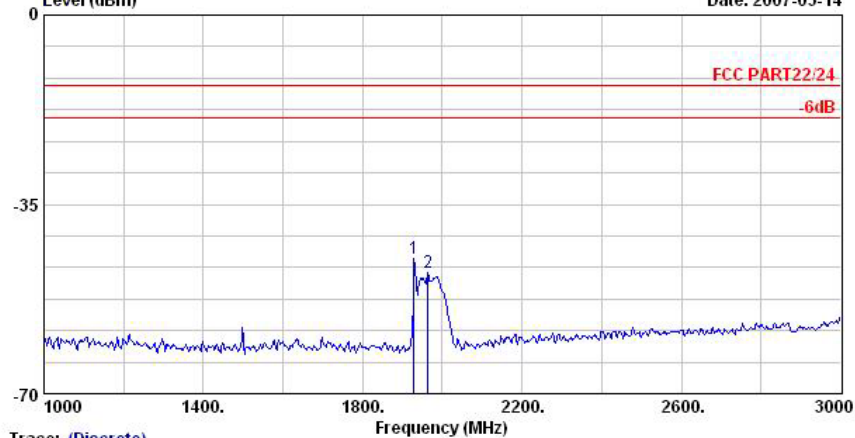
		Over	Limit	Read		
	Freq	Level	Limit	Line	Level	Factor Remark
	MHz	dBm	dB	dBm	dB	
1 @	885.90	-61.51	-48.51	-13.00	-63.26	1.75 Peak
2 @	945.40	-61.79	-48.79	-13.00	-64.02	2.23 Peak
3 @	981.80	-61.01	-48.01	-13.00	-63.52	2.51 Peak



FCC TEST REPORT

Report No. : FG721401

Data: 13 File: D:\Project\2007Q1\可倫隆\721401\Channel\Channel-Down Link\Part24E.EMI (20) Level (dBm) Date: 2007-03-14



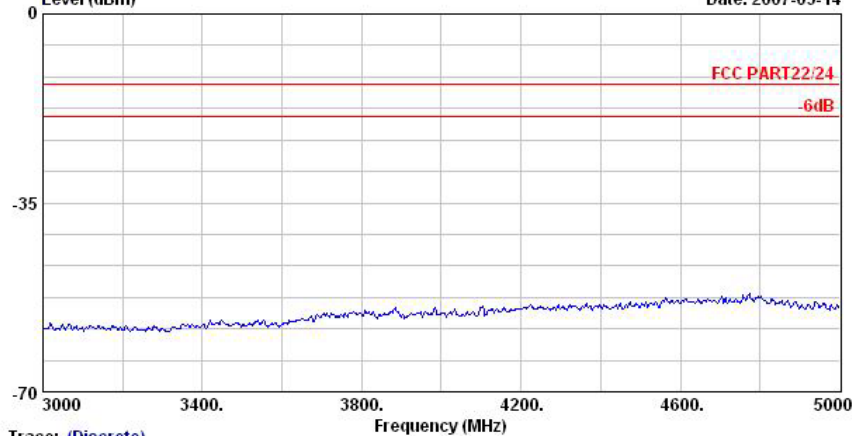
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1928.00	-44.90			-44.40	-0.50	Peak
2 @	1964.00	-47.73			-47.13	-0.60	Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal

Data: 14 File: D:\Project\2007Q1\可倫隆\721401\Channel\Channel-Down Link\Part24E.EMI (20) Level (dBm) Date: 2007-03-14

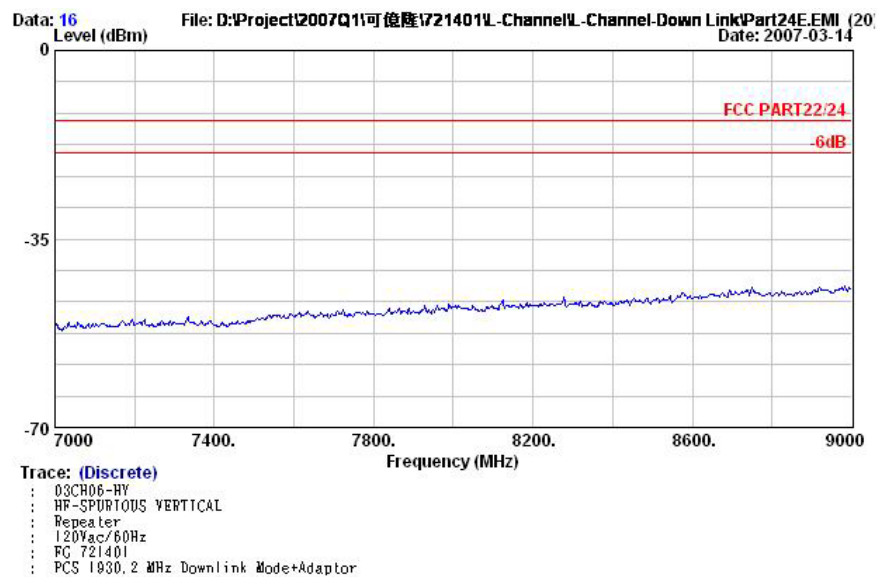
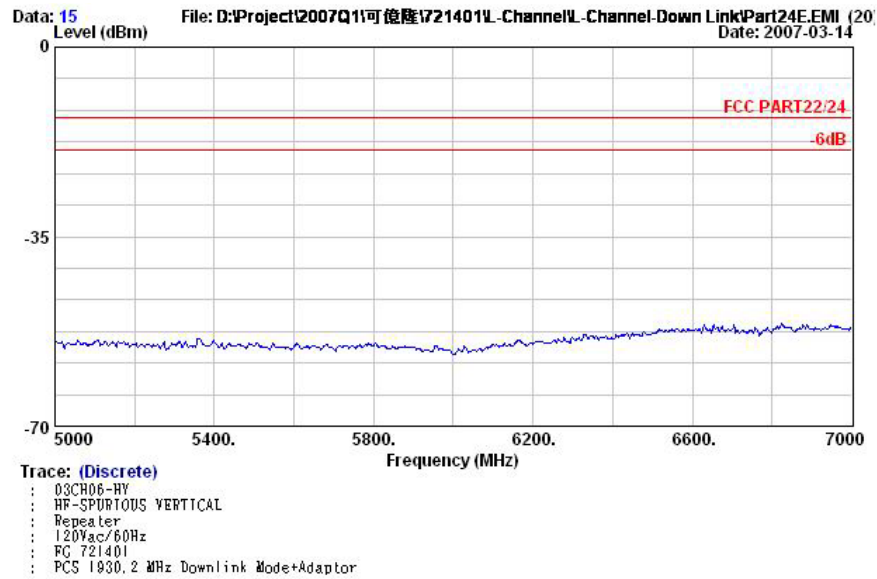


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1930.2 MHz Downlink Mode+Adaptor



FCC TEST REPORT

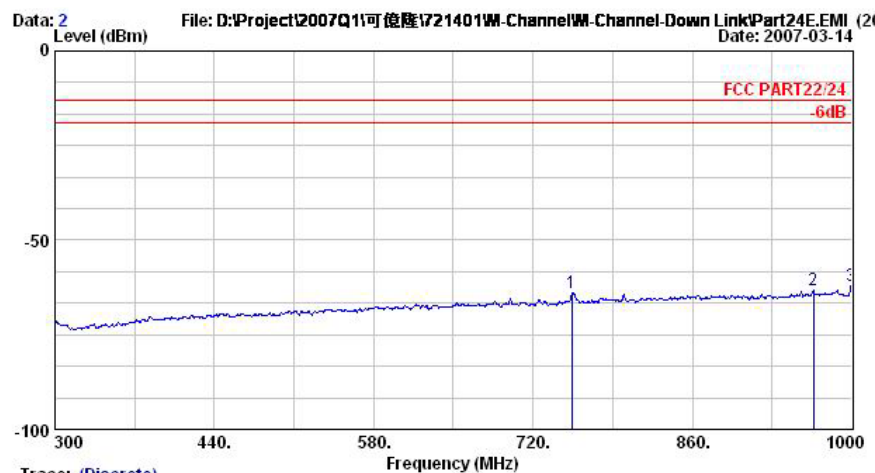
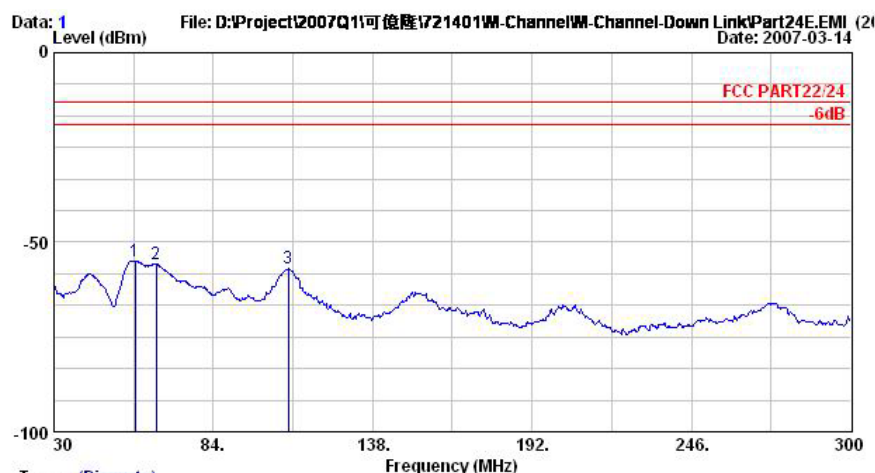
Report No. : FG721401



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



Mode 5
Horizontal Polarization

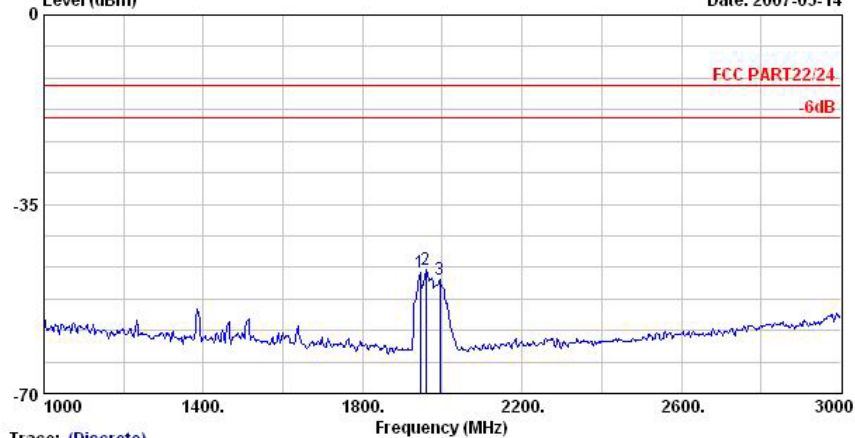




FCC TEST REPORT

Report No. : FG721401

Data: 3 File: D:\Project\2007Q1\可倫薩\721401\W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



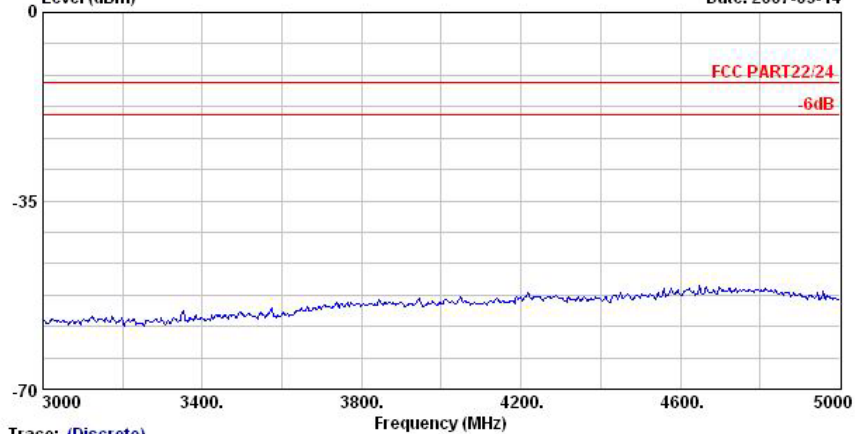
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1944.00	-47.72			-46.77	-0.94	Peak
2 @	1958.00	-46.98			-45.87	-1.11	Peak
3 @	1994.00	-48.93			-47.65	-1.28	Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal
3. #3: Downlink Signal

Data: 4 File: D:\Project\2007Q1\可倫薩\721401\W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



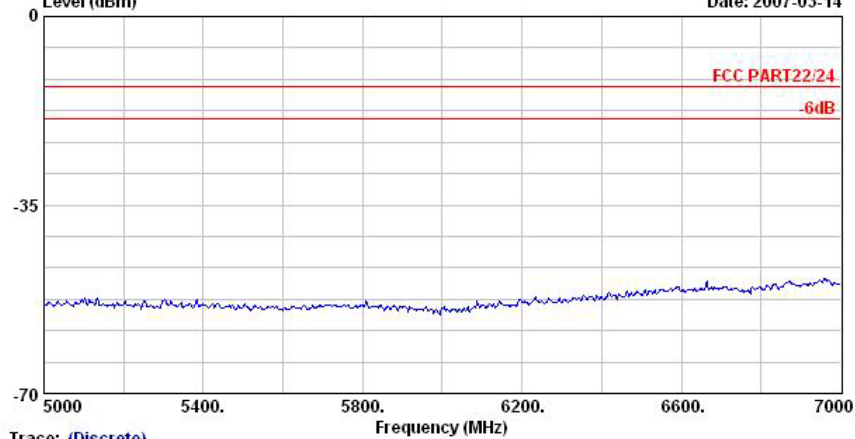
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor



FCC TEST REPORT

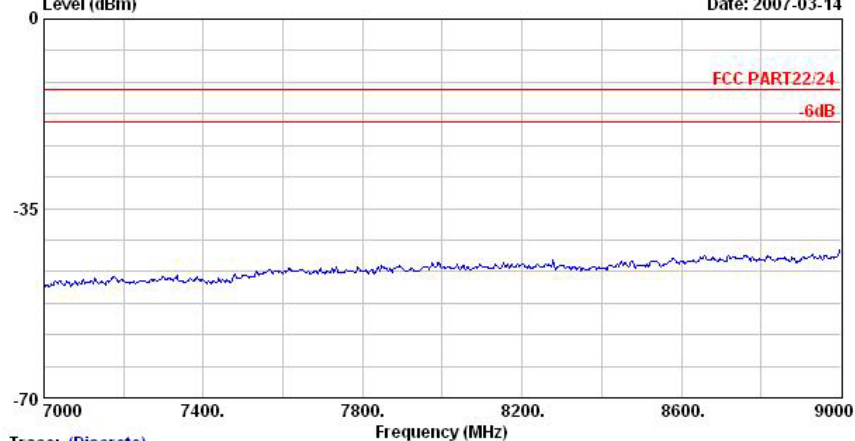
Report No. : FG721401

Data: 5 File: D:\Project\2007Q1\可倫隆\721401\W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor

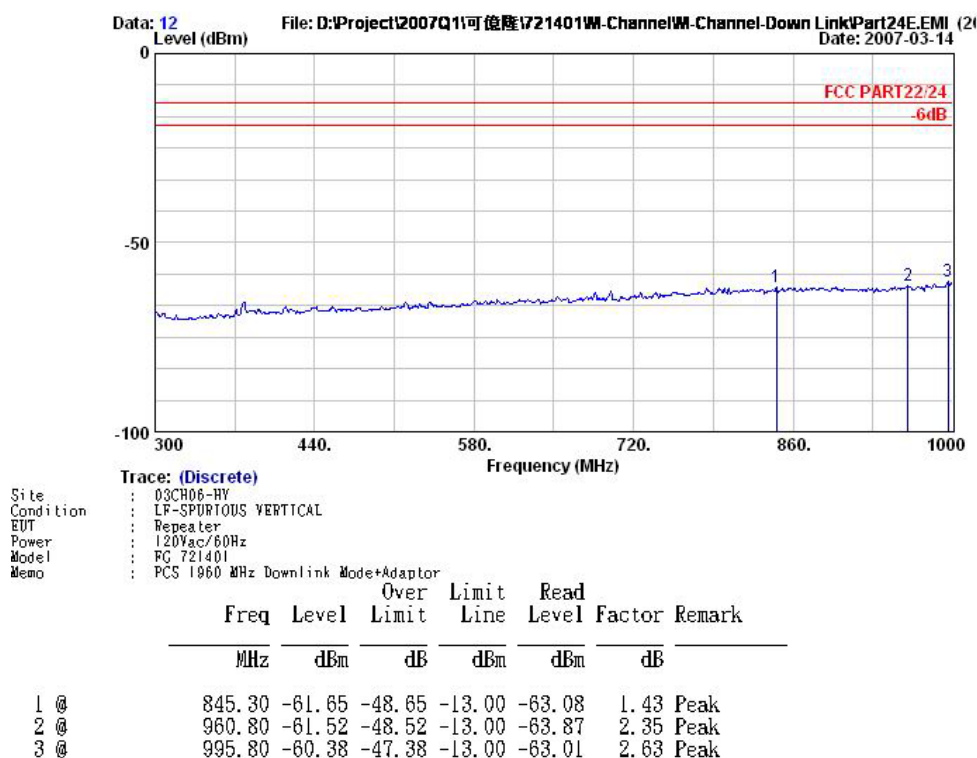
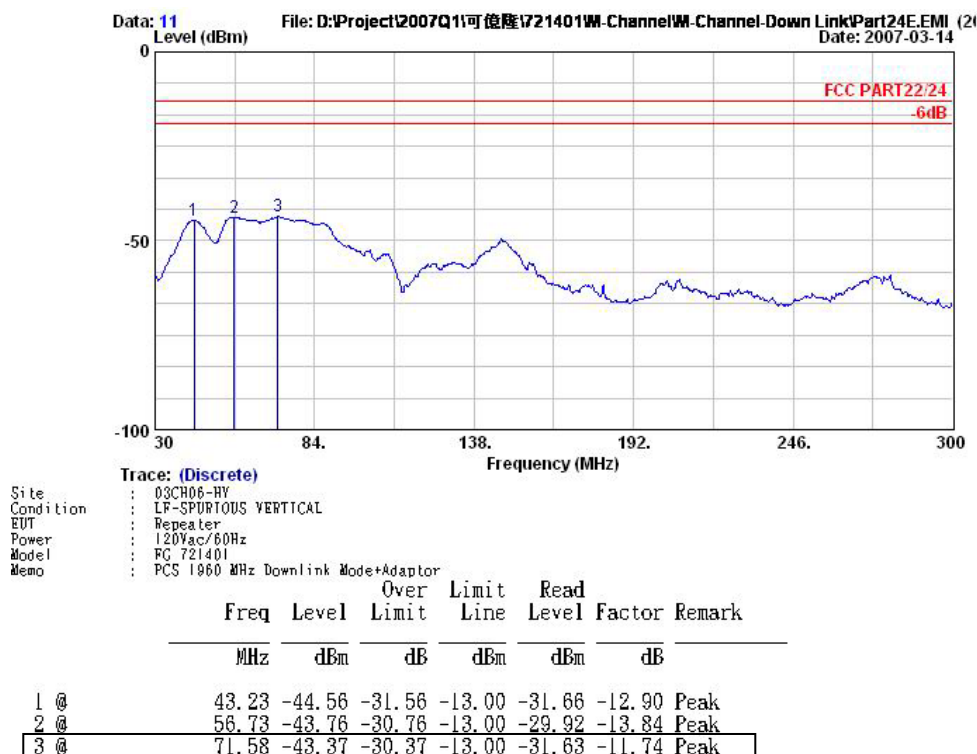
Data: 6 File: D:\Project\2007Q1\可倫隆\721401\W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor



Vertical Polarization

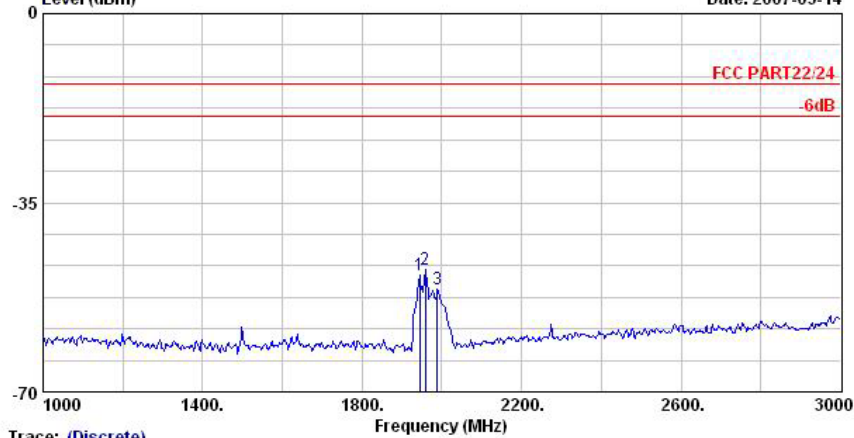




FCC TEST REPORT

Report No. : FG721401

Data: 13 File: D:\Project\2007Q1\可倫隆\721401W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



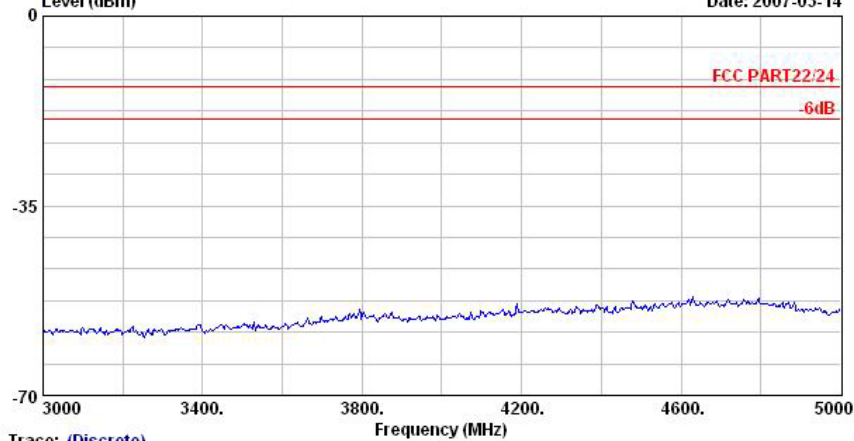
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read	
	MHz	dBm	dB	dBm	dBm	Factor Remark
1 @	1944.00	-48.42			-47.93	-0.50 Peak
2 @	1958.00	-47.36			-46.77	-0.60 Peak
3 @	1988.00	-51.11			-50.42	-0.69 Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal
3. #3: Downlink Signal

Data: 14 File: D:\Project\2007Q1\可倫隆\721401W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



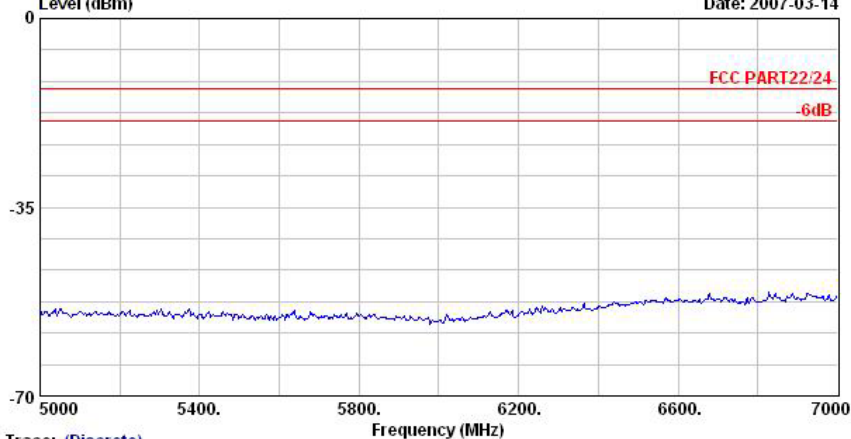
Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor



FCC TEST REPORT

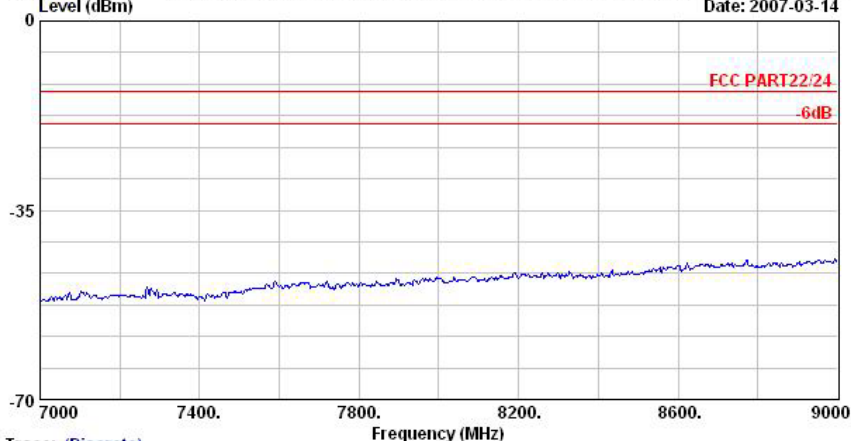
Report No. : FG721401

Data: 15 File: D:\Project\2007Q1\可倫隆\721401W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor

Data: 16 File: D:\Project\2007Q1\可倫隆\721401W-Channel\W-Channel-Down Link\Part24E.EMI (2) Date: 2007-03-14

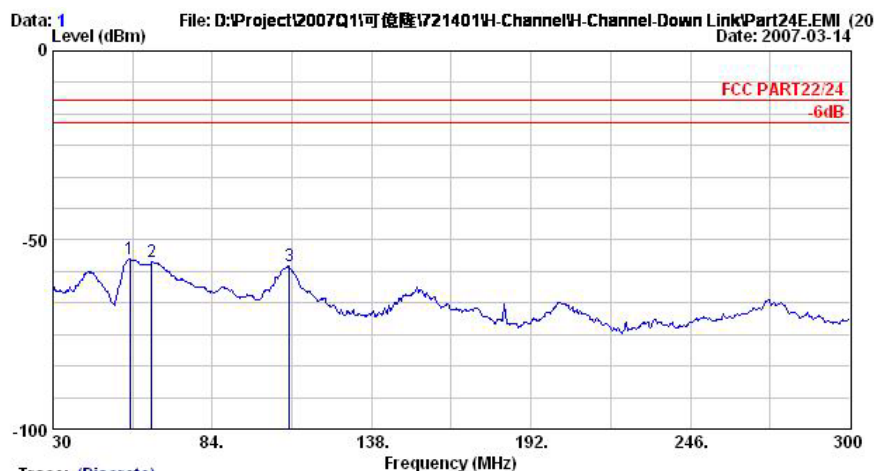


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1960 MHz Downlink Mode+Adaptor

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

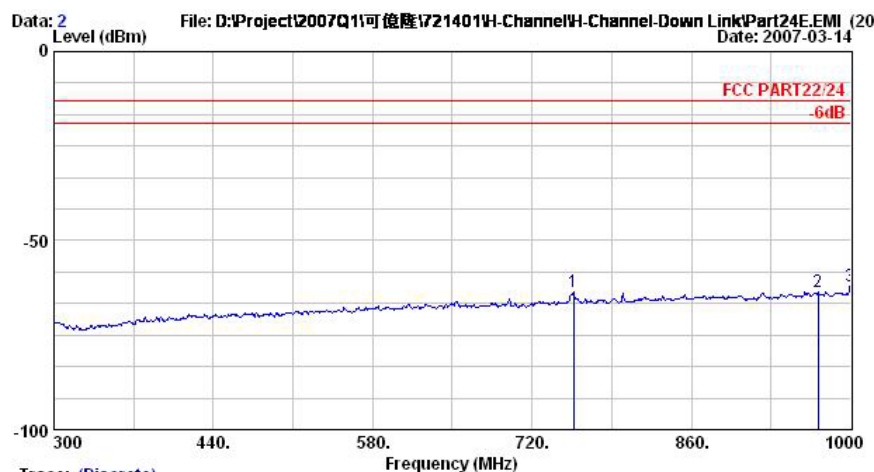


Mode 6
Horizontal Polarization



Trace: (Discrete)
Site : 03CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1989.8 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	56.19	-55.13	-42.13	-13.00	-42.72	-12.41	Peak
2 @	63.48	-55.72	-42.72	-13.00	-43.34	-12.38	Peak
3 @	110.19	-56.81	-43.81	-13.00	-44.45	-12.36	Peak



Trace: (Discrete)
Site : 03CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1989.8 MHz Downlink Mode+Adaptor

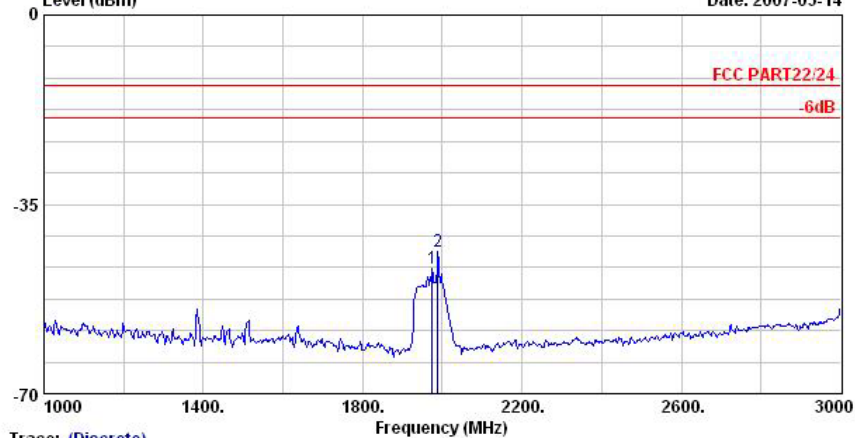
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	756.40	-63.69	-50.69	-13.00	-61.55	-2.14	Peak
2 @	971.30	-63.51	-50.51	-13.00	-63.47	-0.04	Peak
3 @	1000.00	-62.03	-49.03	-13.00	-62.27	0.24	Peak



FCC TEST REPORT

Report No. : FG721401

Data: 3 Level (dBm) File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



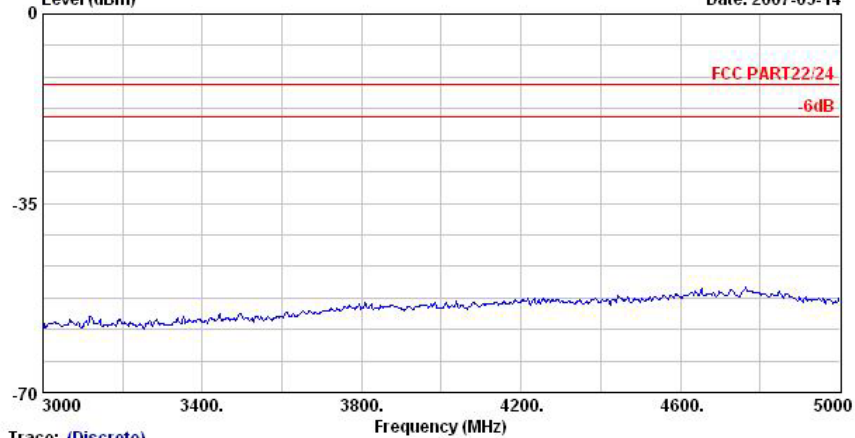
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1989.8 MHz Downlink Mode+Adaptor

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
1 @	1974.00	-46.77			-45.66	-1.11	Peak
2 @	1988.00	-43.60			-42.33	-1.28	Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal

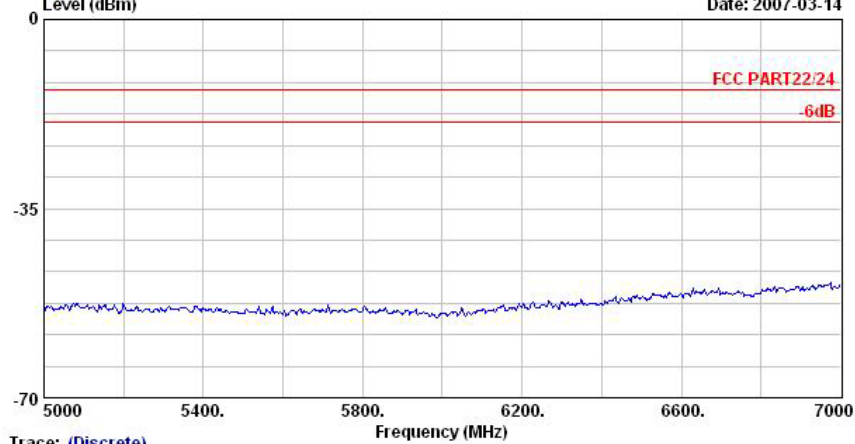
Data: 4 Level (dBm) File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1989.8 MHz Downlink Mode+Adaptor

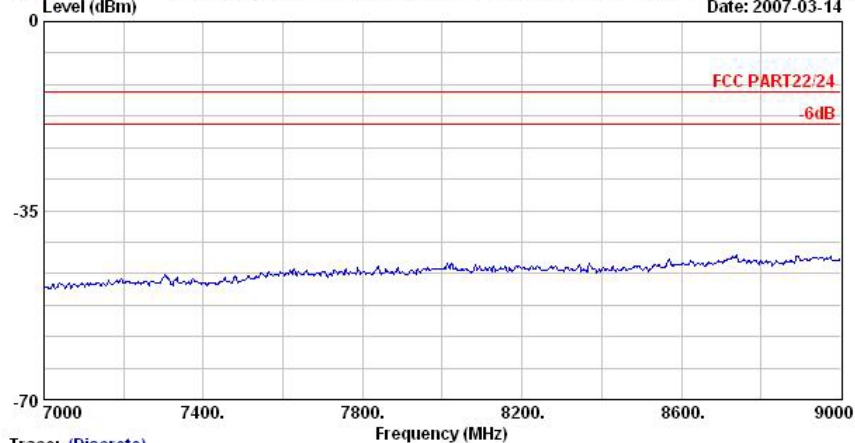


Data: 5 File: D:\Project\2007Q1\可倫薩\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FC 721401
Memo : PCS 1900.8 MHz Downlink Mode+Adaptor

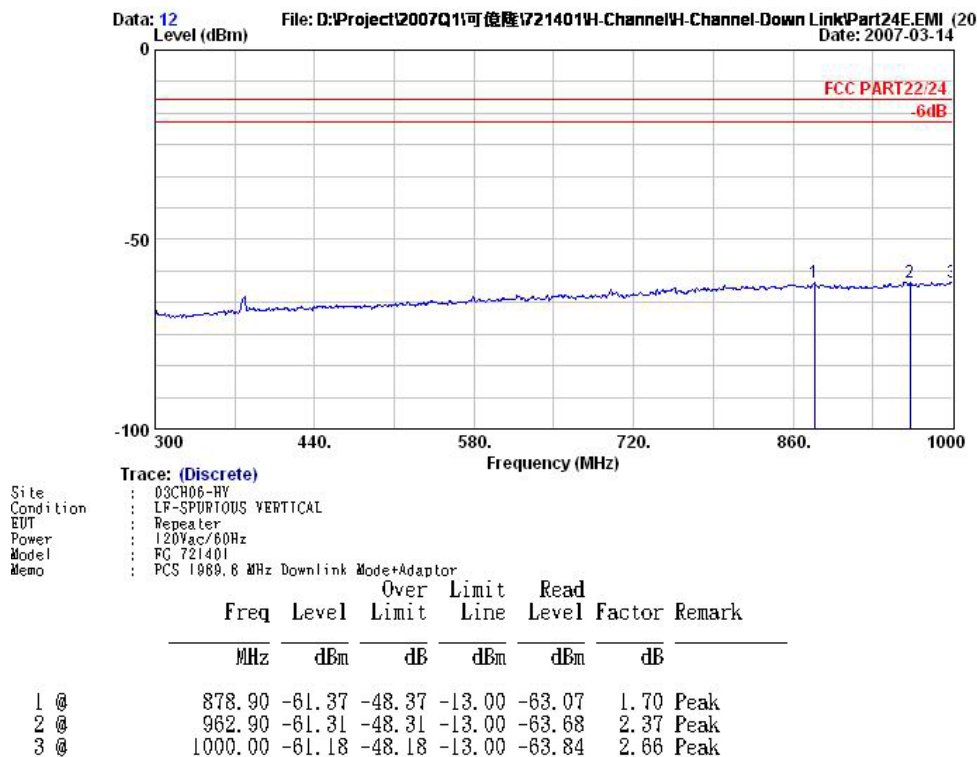
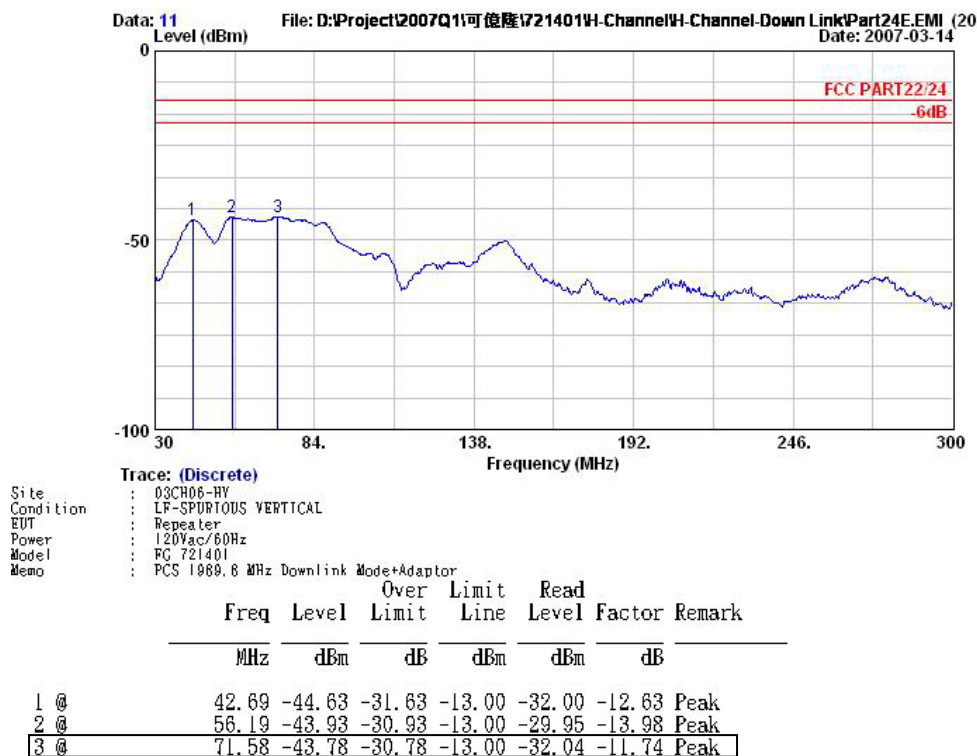
Data: 6 File: D:\Project\2007Q1\可倫薩\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FC 721401
Memo : PCS 1900.8 MHz Downlink Mode+Adaptor



Vertical Polarization

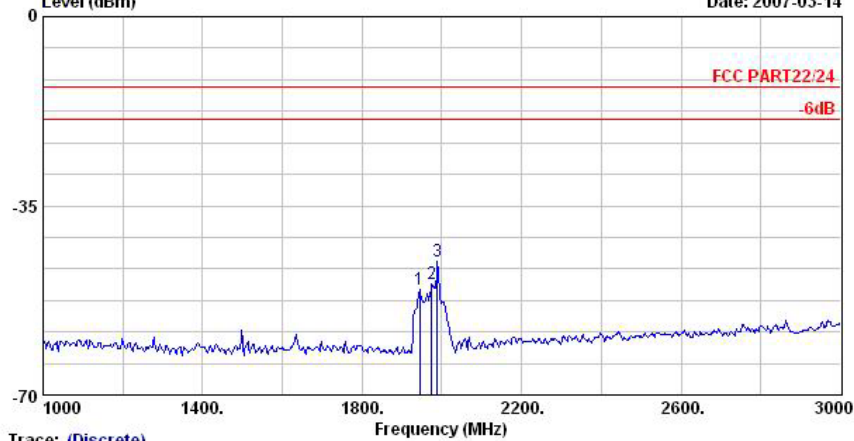




FCC TEST REPORT

Report No. : FG721401

Data: 13 File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1988.8 MHz Downlink Mode+Adaptor

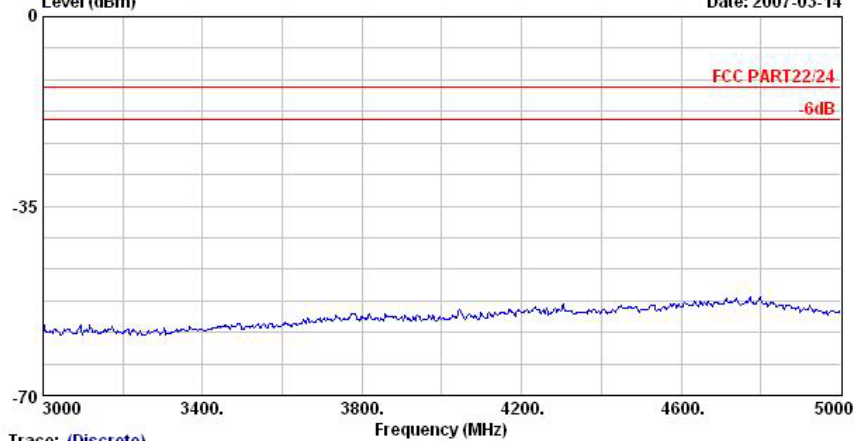
Trace: (Discrete)

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1 @	1944.00	-50.56			-50.07	-0.50 Peak
2 @	1974.00	-49.44			-48.85	-0.60 Peak
3 @	1988.00	-45.17			-44.47	-0.69 Peak

Remark:

1. #1: Downlink Signal
2. #2: Downlink Signal
3. #3: Downlink Signal

Data: 14 File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1988.8 MHz Downlink Mode+Adaptor

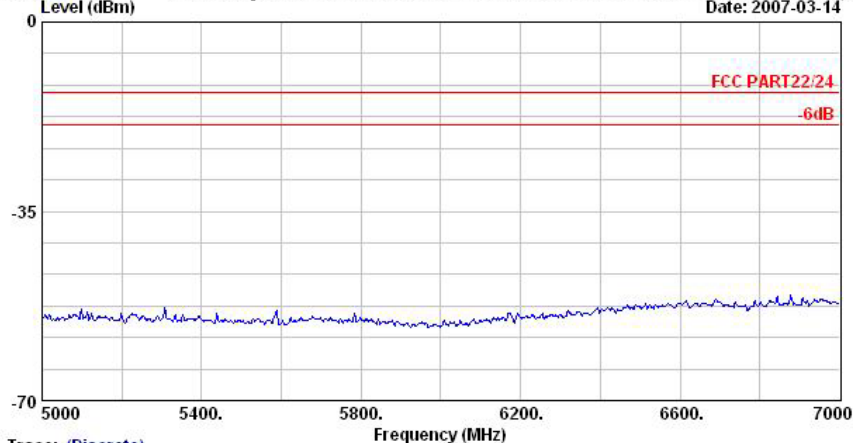
Trace: (Discrete)



FCC TEST REPORT

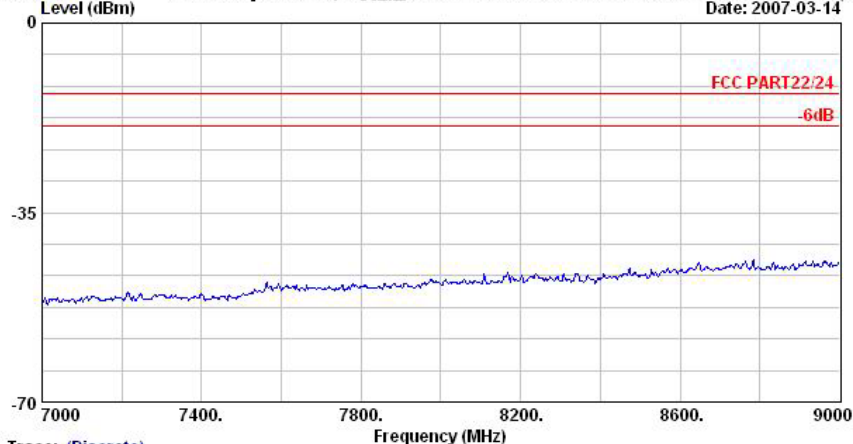
Report No. : FG721401

Data: 15 File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
Memo : PCS 1989.8 MHz Downlink Mode+Adaptor

Data: 16 File: D:\Project\2007Q1\可倫隆\721401\H-Channel\H-Channel-Down Link\Part24E.EMI (20 Date: 2007-03-14



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : Repeater
Power : 120Vac/60Hz
Model : FG 721401
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)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 28, 2006	Jun. 27, 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. 21, 2006	Nov. 21, 2008	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Mar. 29, 2006	Mar. 29, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2006	Jul. 20, 2007	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)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 08, 2007	Feb. 08, 2008	Radiation (03CH06-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 08, 2007	Feb. 08, 2008	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 $U_c(y)$	1.27		
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$	2.54		

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

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	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 $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$	4.72				

END OF TEST REPORT