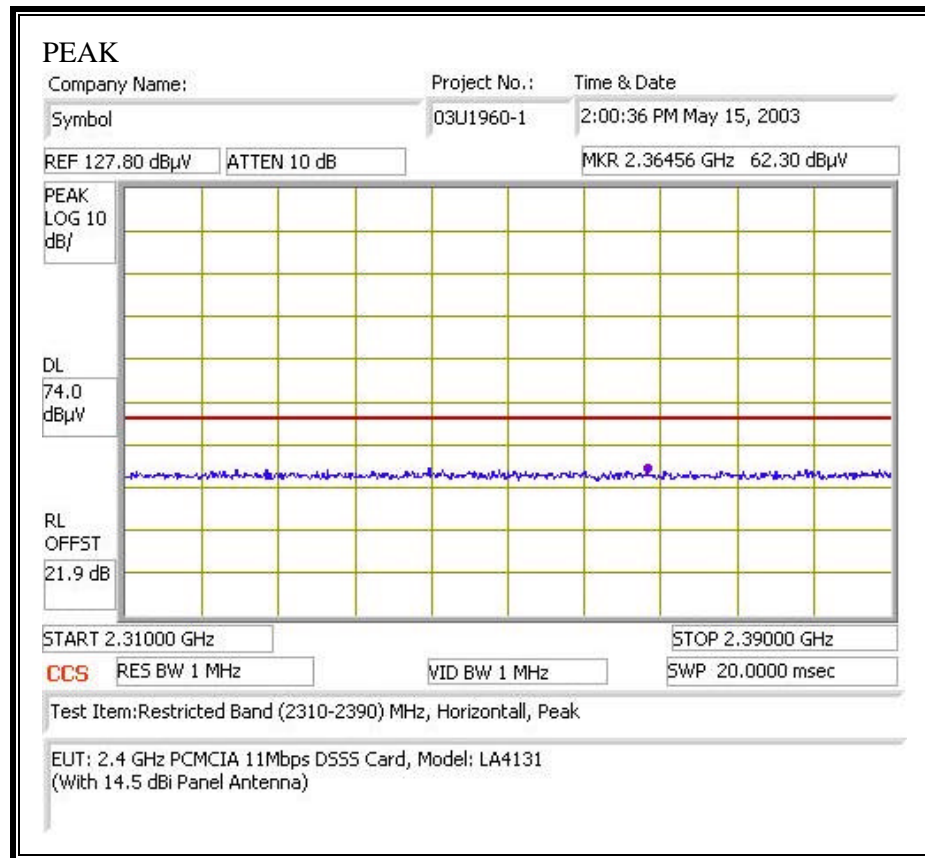
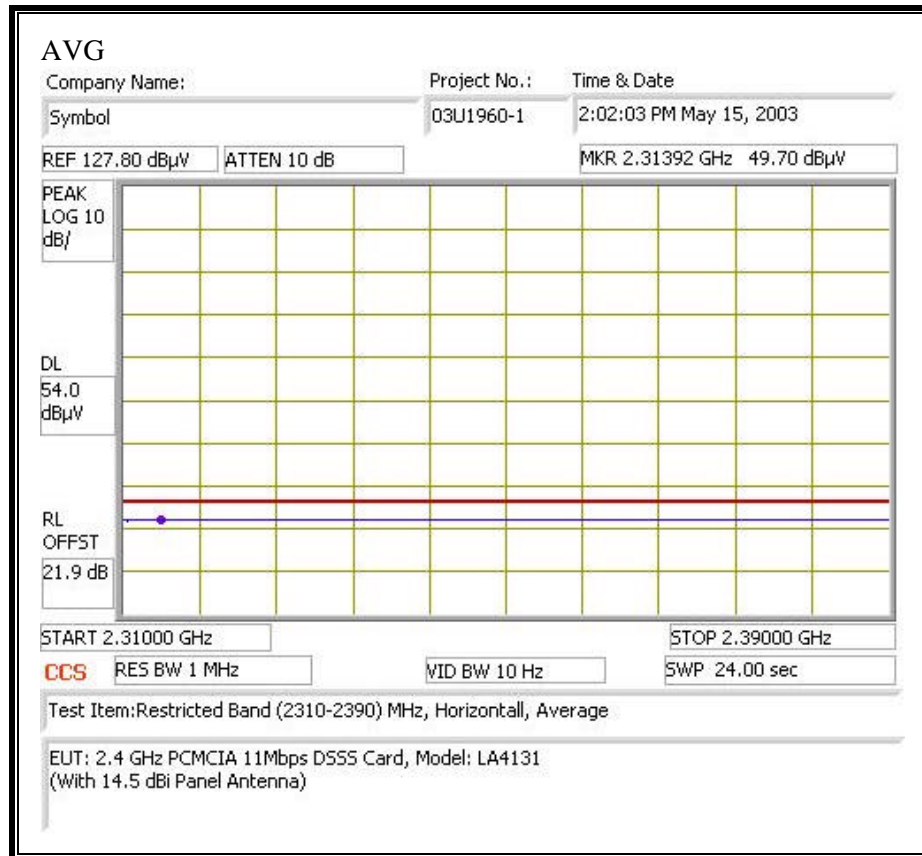


RADIATED BACK PHOTO

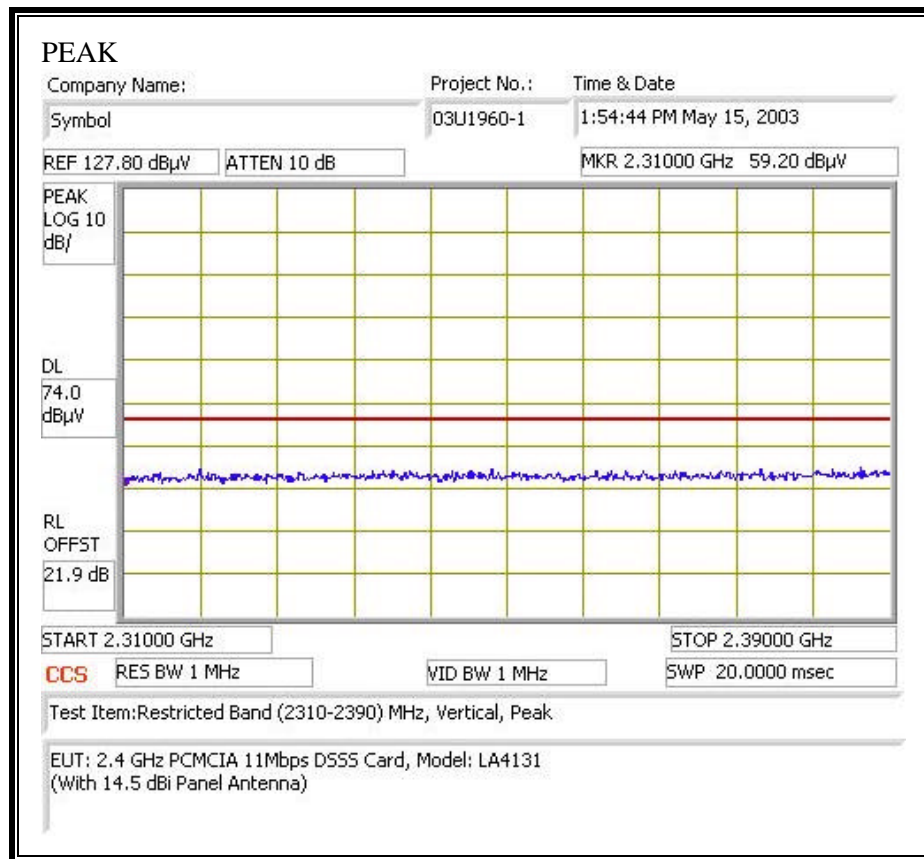


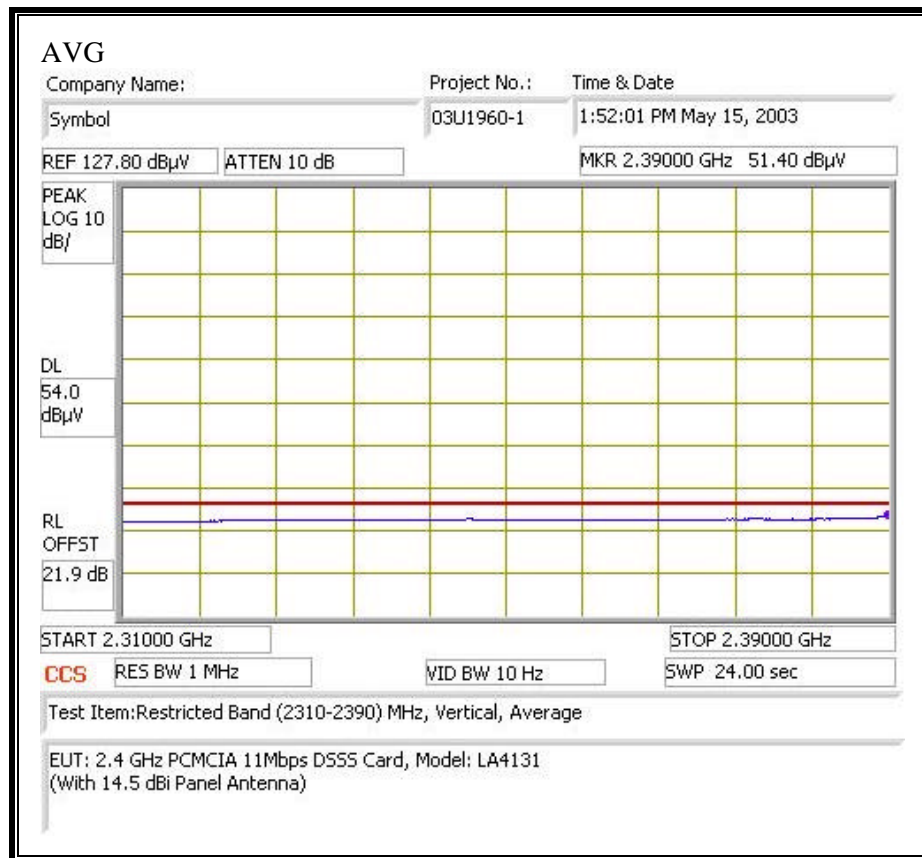
ADJACENT RESTRICTED BAND (LOW CHANNEL, HORIZONTAL)



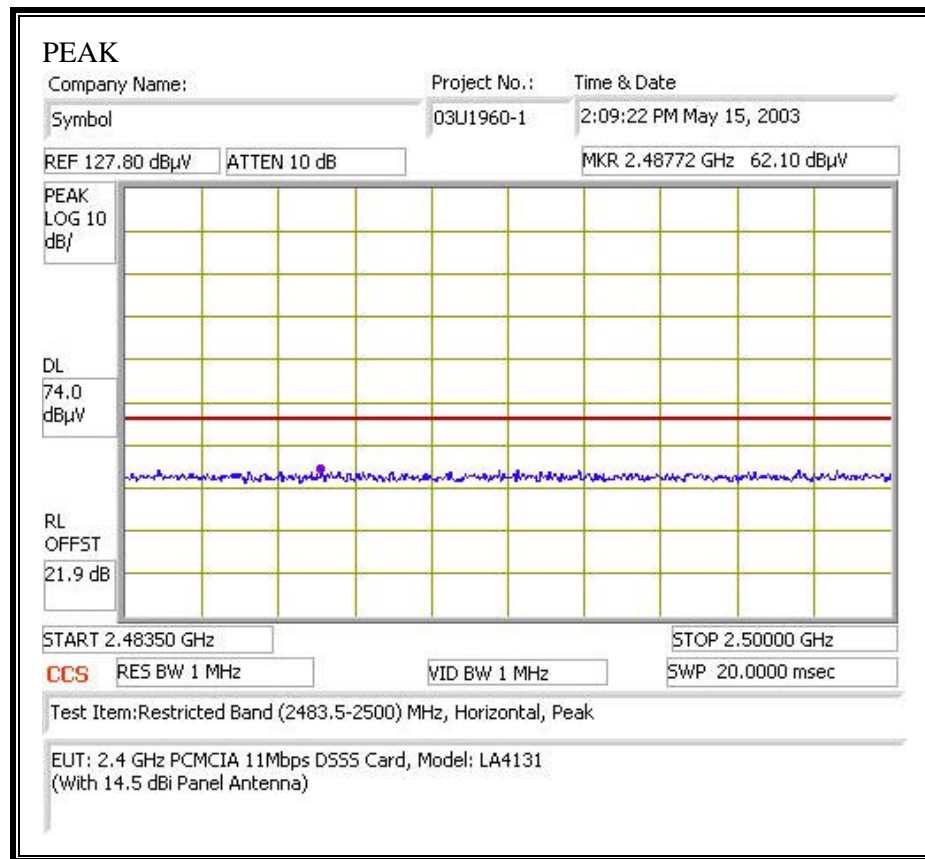


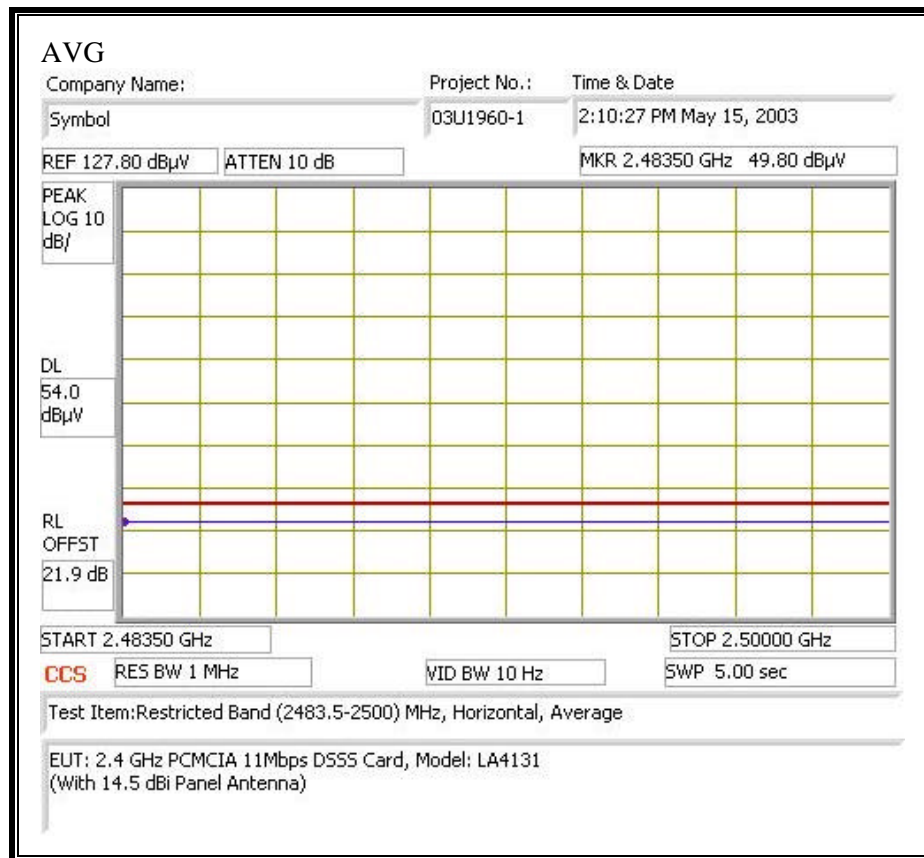
ADJACENT RESTRICTED BAND (LOW CHANNEL, VERTICAL)



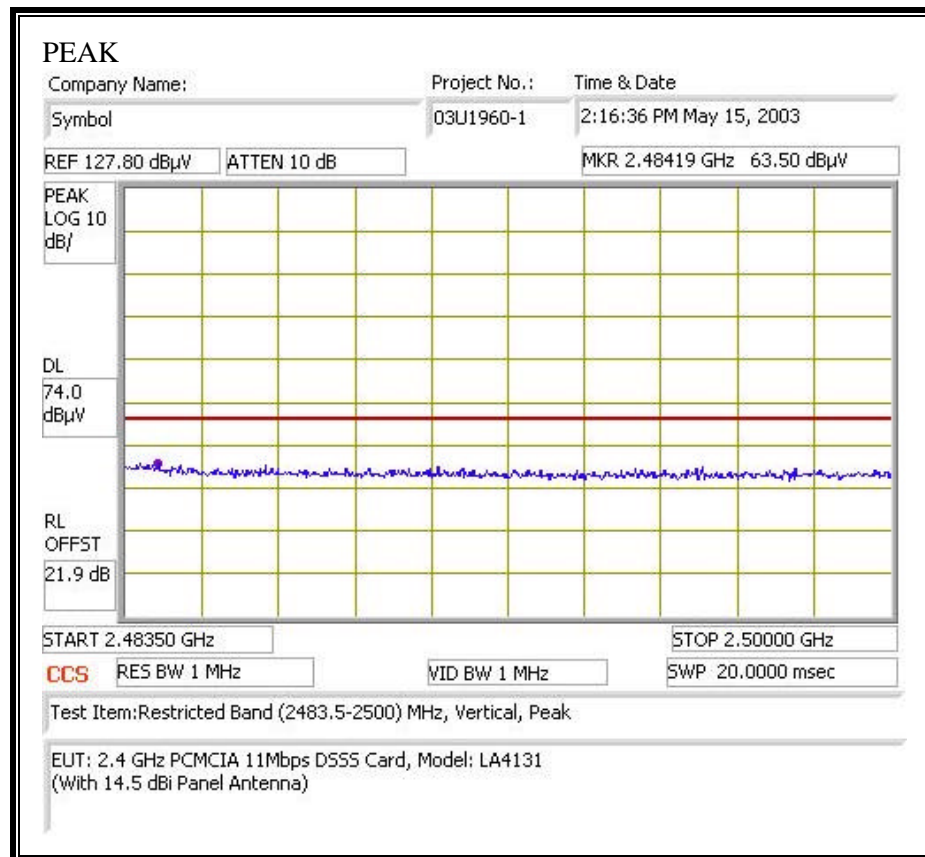


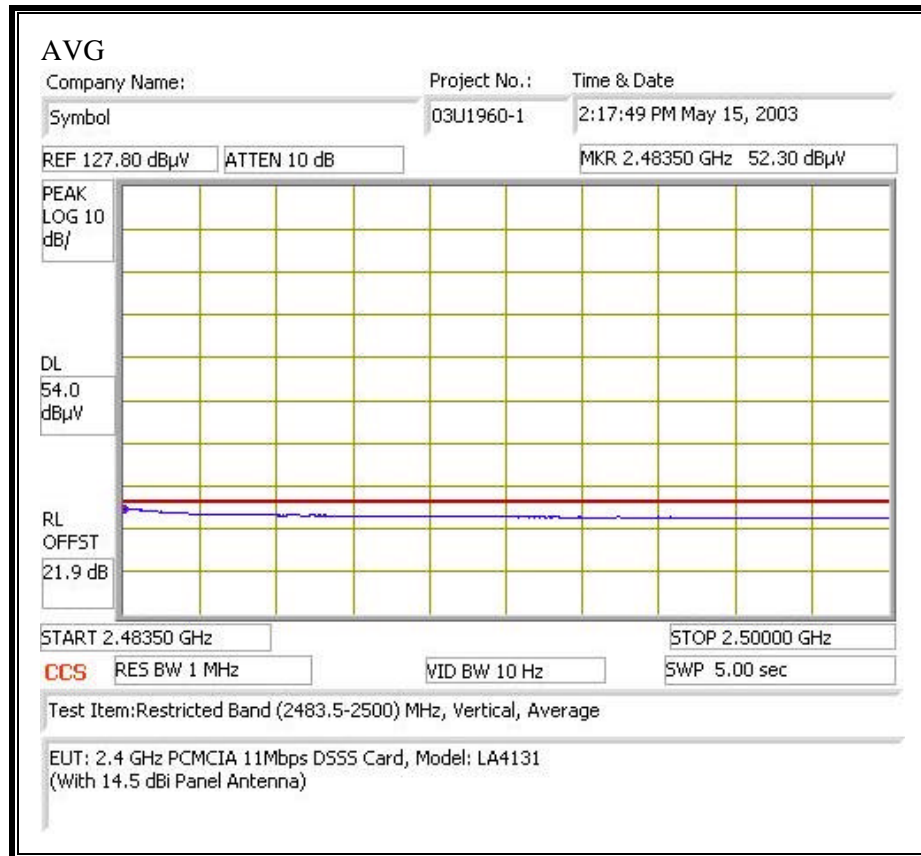
ADJACENT RESTRICTED BAND (HIGH CHANNEL, HORIZONTAL)





ADJACENT RESTRICTED BAND (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

06/04/03 **High Frequency Measurement**
Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
Project #: 03U1960-1
Company: Symbol Technologies, Inc.
EUT Descrip.: 2.4 GHz PCMCIA 11Mbps DSSS Card, (With 14.5 dBi gain Patch Antenna, model:S24014P)
EUT M/N: LA4131
Test Target: FCC 15.247
Mode Oper: TX ON at Low Channel (2412MHz)

Test Equipment:

EMCO Horn 1-18GHz T73; S/N: 6717 @3m	Pre-amplifier 1-26GHz T87 Miteq 924342	Spectrum Analyzer HP 8566B Analyzer	Horn > 18GHz T87; ARA 18-26GHz; S/N:1049
--	--	---	---

Hi Frequency Cables
☐ (2 ft) ☒ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☒ (12 ft)

Peak Measurements:
1 MHz Resolution Bandwidth
1MHz Video Bandwidth

Average Measurements:
1 MHz Resolution Bandwidth
10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
2.412	9.8	88.1	82.3	29.2	1.6	0.0	0.0	0.0	118.9	113.1					V
2.412	9.8	71.1	64.2	29.2	1.6	0.0	0.0	0.0	101.9	95.0					H

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

Note: no harmonics or spurious detected in the freq range of 1-25 GHz.

HARMONICS AND SPURIOUS EMISSIONS

06/04/03 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																
Test Engr:		Frank Ibrahim														
Project #:		03U1960-1														
Company:		Symbol Technologies, Inc.														
EUT Descrip.:		2.4 GHz PCMCIA 11Mbps DSSS Card, (With 14.5 dBi gain Patch Antenna, model:S24014P)														
EUT M/N:		LA4131														
Test Target:		FCC 15.247														
Mode Oper:		TX ON at Mid Channel (2437MHz)														
Test Equipment:																
EMCO Horn 1-18GHz				Pre-amplifier 1-26GHz				Spectrum Analyzer				Horn > 18GHz				
T73; S/N: 6717 @3m				T87 Miteq 924342				HP 8566B Analyzer				T87; ARA 18-26GHz; S/N:1049				
<div>Hi Frequency Cables <input type="checkbox"/> (2 ft) <input checked="" type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)</div> <div>Peak Measurements: Average Measurements: 1 MHz Resolution Bandwidth 1 MHz Resolution Bandwidth 1MHz Video Bandwidth 10Hz Video Bandwidth</div>																
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes	
2.437	9.8	89.5	82.1	29.3	1.6	0.0	0.0	0.0	120.4	113.0					V	
2.437	9.8	69.3	63.2	29.3	1.6	0.0	0.0	0.0	100.2	94.1					H	
f	Measurement Frequency					Amp	Preamp Gain					Avg Lim	Average Field Strength Limit			
Dist	Distance to Antenna					D Corr	Distance Correct to 3 meters					Pk Lim	Peak Field Strength Limit			
Read	Analyzer Reading					Avg	Average Field Strength @ 3 m					Avg Mar	Margin vs. Average Limit			
AF	Antenna Factor					Peak	Calculated Peak Field Strength					Pk Mar	Margin vs. Peak Limit			
CL	Cable Loss					HPF	High Pass Filter									

Note: no harmonics or spurious detected in the freq range of 1-25 GHz.

HARMONIC AND SPURIOUS EMISSIONS

06/04/03 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																
Test Engr:		Frank Ibrahim														
Project #:		03U1960-1														
Company:		Symbol Technologies, Inc.														
EUT Descrip.:		2.4 GHz PCMCIA 11Mbps DSSS Card, (With 14.5 dBi gain Patch Antenna, model:S24014P)														
EUT M/N:		LA4131														
Test Target:		FCC 15.247														
Mode Oper:		TX ON at High Channel (2462MHz)														
Test Equipment:																
EMCO Horn 1-18GHz				Pre-amplifier 1-26GHz				Spectrum Analyzer				Horn > 18GHz				
T73; S/N: 6717 @3m				T87 Miteq 924342				HP 8566B Analyzer				T87; ARA 18-26GHz; S/N:1049				
<div> Hi Frequency Cables: <input type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft) </div> <div> Peak Measurements: 1 MHz Resolution Bandwidth 1MHz Video Bandwidth </div> <div> Average Measurements: 1 MHz Resolution Bandwidth 10Hz Video Bandwidth </div>																
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes	
2.462	9.8	88.6	81.1	29.3	1.6	0.0	0.0	0.0	119.5	112.0					V	
2.462	9.8	67.4	61.5	29.3	1.6	0.0	0.0	0.0	98.3	92.4					H	
f	Measurement Frequency					Amp	Preamp Gain					Avg Lim	Average Field Strength Limit			
Dist	Distance to Antenna					D Corr	Distance Correct to 3 meters					Pk Lim	Peak Field Strength Limit			
Read	Analyzer Reading					Avg	Average Field Strength @ 3 m					Avg Mar	Margin vs. Average Limit			
AF	Antenna Factor					Peak	Calculated Peak Field Strength					Pk Mar	Margin vs. Peak Limit			
CL	Cable Loss					HPF	High Pass Filter									

Note: no harmonics or spurious detected in the freq range of 1-25 GHz.

6.5. PATCH ANTENNA RESULTS

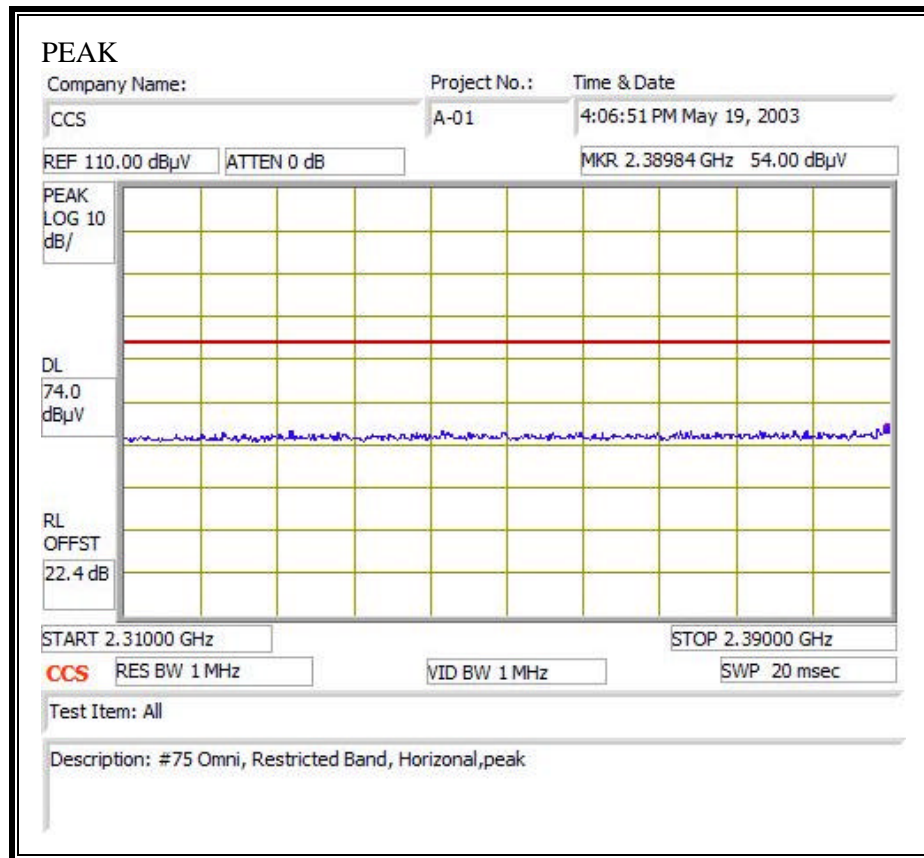
SETUP PHOTOS

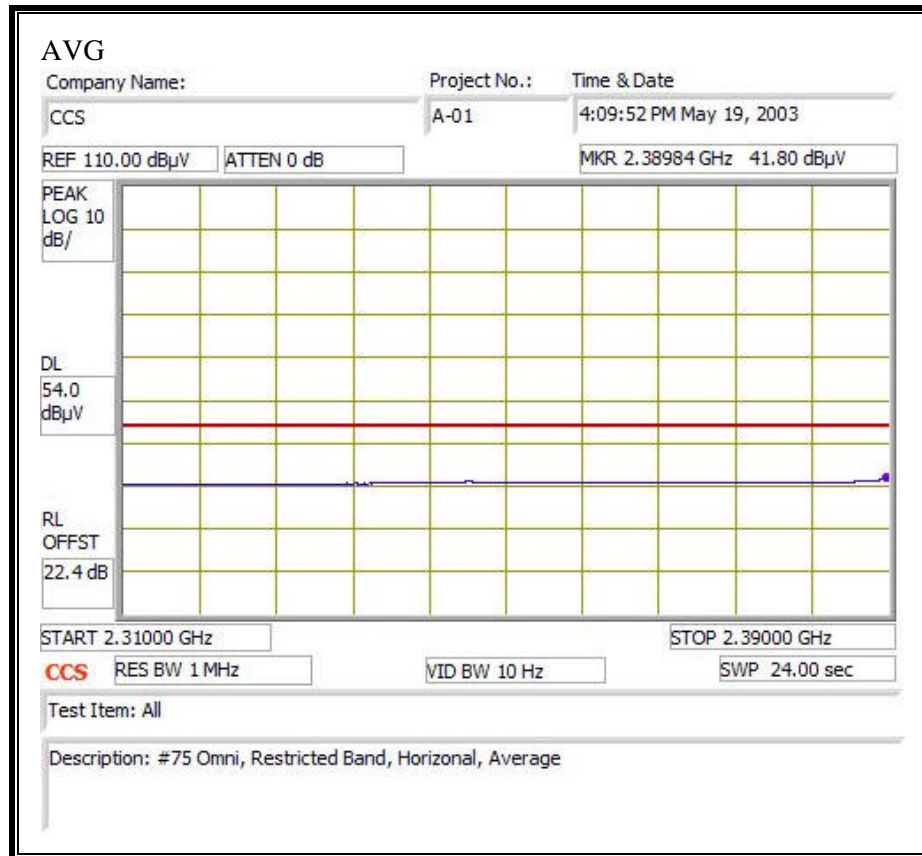


RADIATED BACK PHOTO

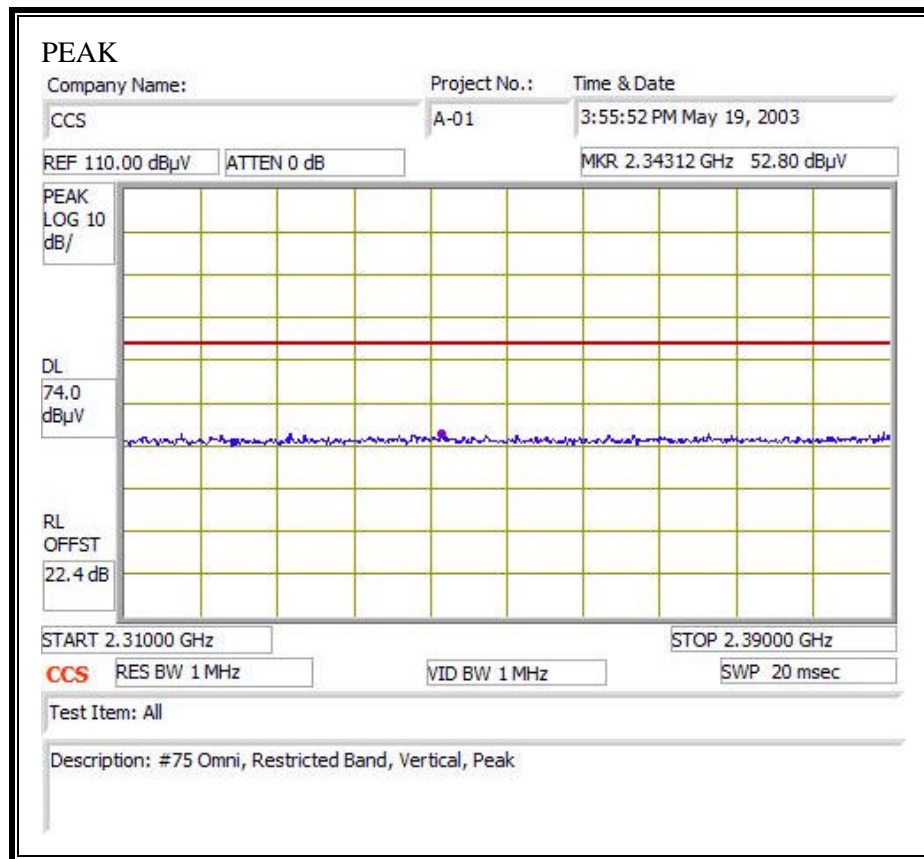


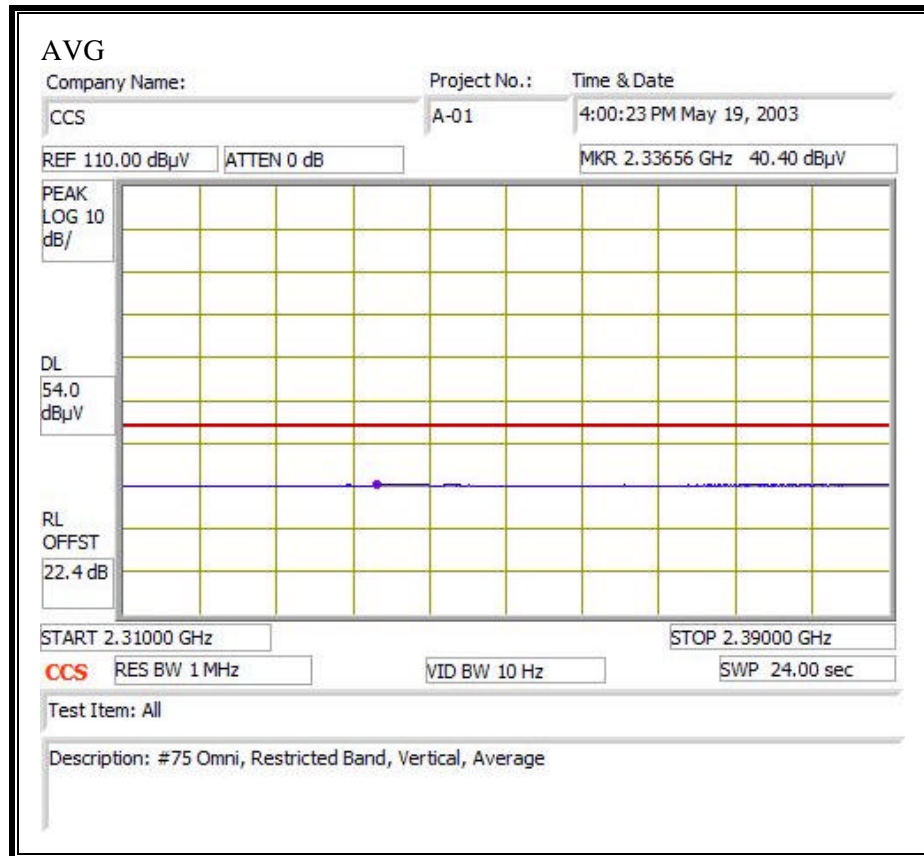
ADJACENT RESTRICTED BAND (LOW CHANNEL, HORIZONTAL)



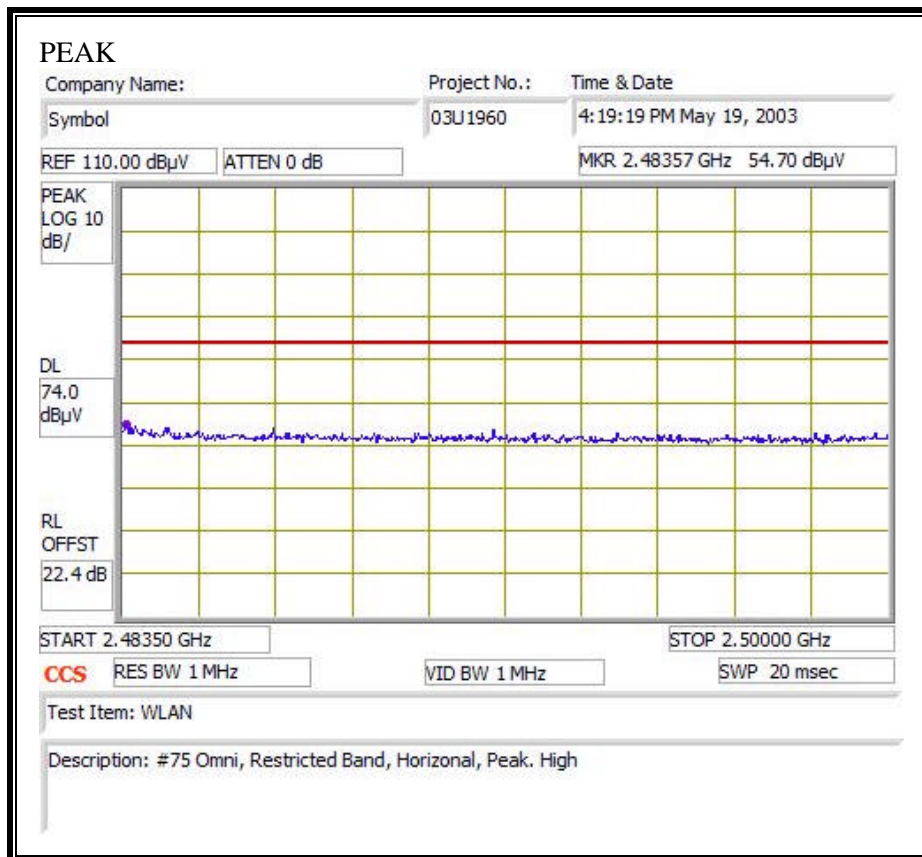


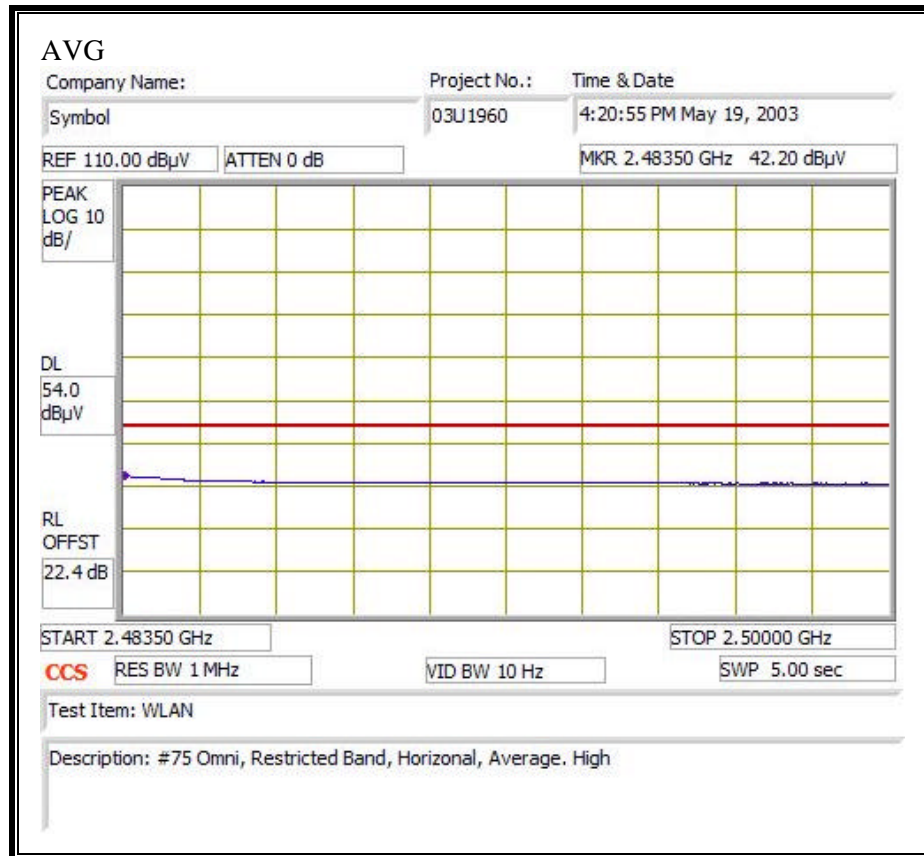
ADJACENT RESTRICTED BAND (LOW CHANNEL, VERTICAL)



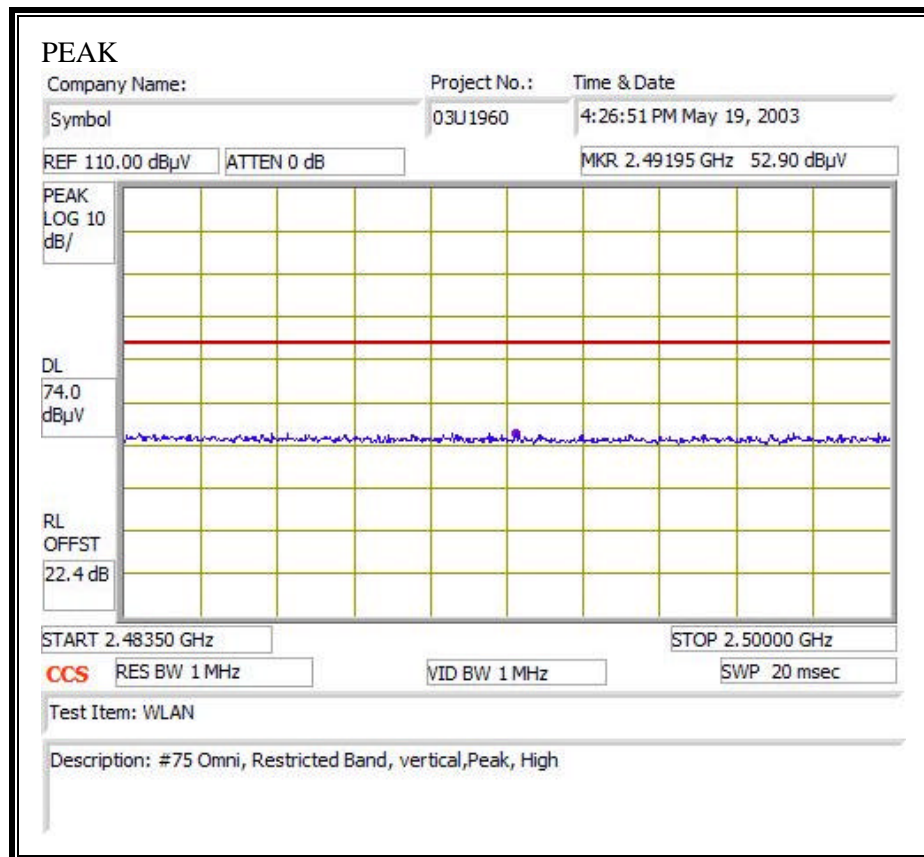


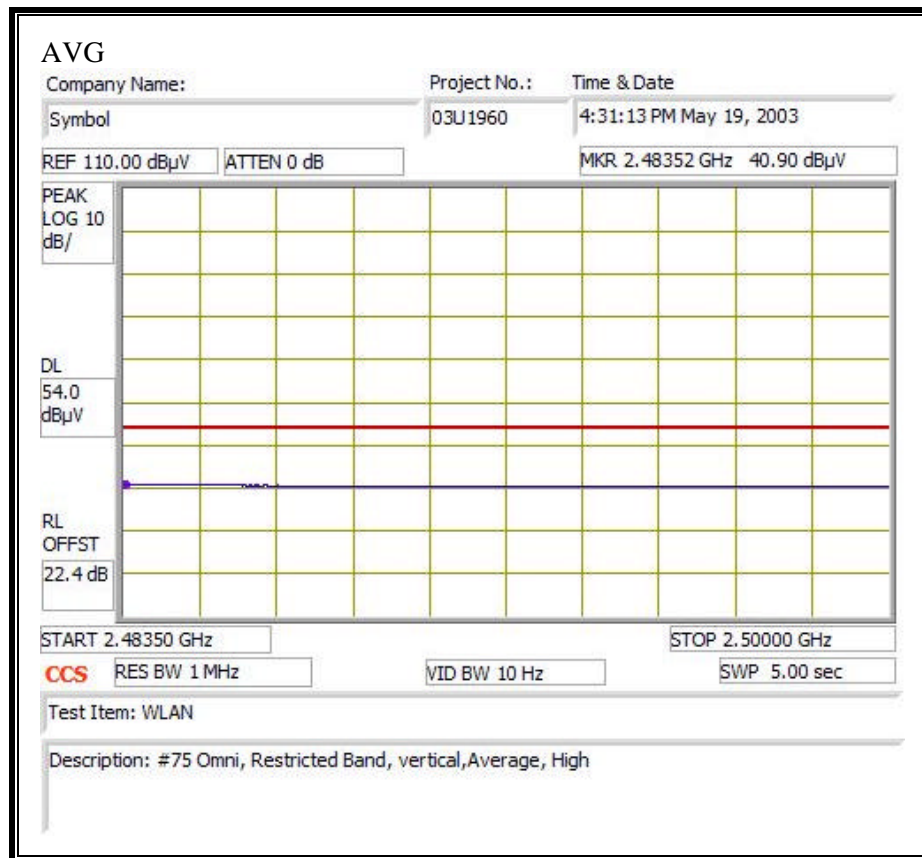
ADJACENT RESTRICTED BAND (HIGH CHANNEL, HORIZONTAL)





ADJACENT RESTRICTED BAND (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

06/04/03 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site																
Test Engr: William Zhuang Project #: 03U1960-1 Company: Symbol Technologies Emea EUT Descr.: 2.4 GHz PCMCIA Card 11MBPS DSSS EUT M/N: LA4131 with Antenna #75, Patch ML-2499-SD3-01 Test Target: FCC Part 15.247 Class II Permissive Change Mode Oper: Tx On																
Test Equipment:																
EMCO Horn 1-18GHz T73; S/N: 6717 @1m		Pre-amplifier 1-26GHz T87 Miteq 924342		Spectrum Analyzer HP 8566B Analyzer		Horn > 18GHz										
Hi Frequency Cables <input type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input checked="" type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)								Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth				Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth				
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes	
4.824	9.9	48.3	37.1	33.9	5.0	-44.7	0.1	1.0	43.6	32.4	74.0	54.0	-30.4	-21.6	Low,V Noise	
4.824	9.9	49.7	37.1	33.9	5.0	-44.7	0.1	1.0	45.0	32.4	74.0	54.0	-29.0	-21.6	Low,H Noise	
4.874	9.9	48.3	36.9	33.9	5.0	-44.7	0.1	1.0	43.6	32.2	74.0	54.0	-30.4	-21.8	Mid,H Noise	
4.874	9.9	48.3	36.7	33.9	5.0	-44.7	0.1	1.0	43.6	32.0	74.0	54.0	-30.4	-22.0	Mid,V Noise	
4.924	9.9	48.5	36.6	34.0	5.1	-44.8	0.1	1.0	43.8	31.9	74.0	54.0	-30.2	-22.1	High,V Noise	
4.924	9.9	49.3	36.9	34.0	5.1	-44.8	0.1	1.0	44.6	32.2	74.0	54.0	-29.4	-21.8	High,H Noise	
f	Measurement Frequency					Amp	Preamp Gain					Avg Lim	Average Field Strength Limit			
Dist	Distance to Antenna					D Corr	Distance Correct to 3 meters					Pk Lim	Peak Field Strength Limit			
Read	Analyzer Reading					Avg	Average Field Strength @ 3 m					Avg Mar	Margin vs. Average Limit			
AF	Antenna Factor					Peak	Calculated Peak Field Strength					Pk Mar	Margin vs. Peak Limit			
CL	Cable Loss					HPF	High Pass Filter									

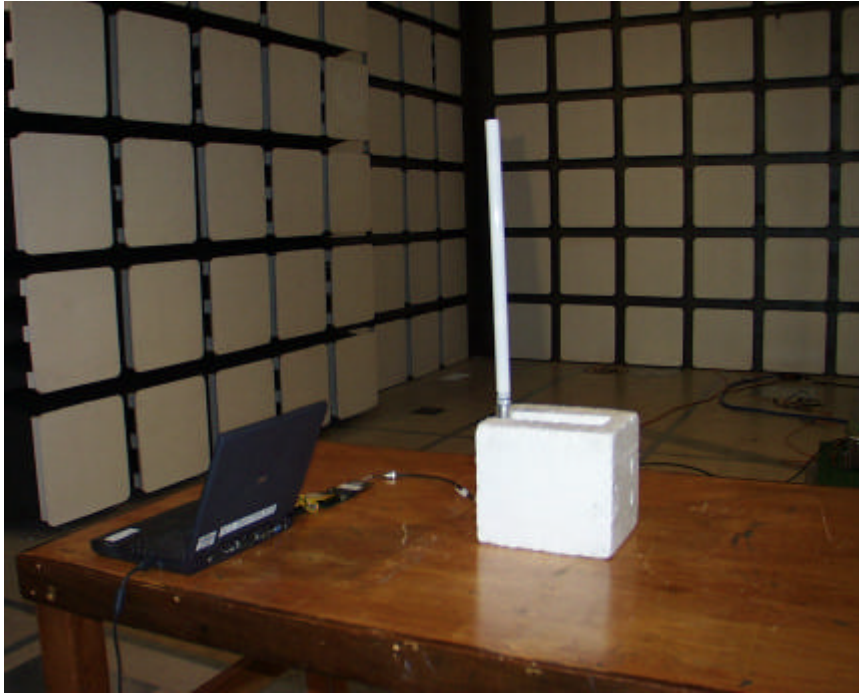
Note: no harmonics or spurious detected above the system noise floor.

6.6. DIPOLE ANTENNA RESULTS

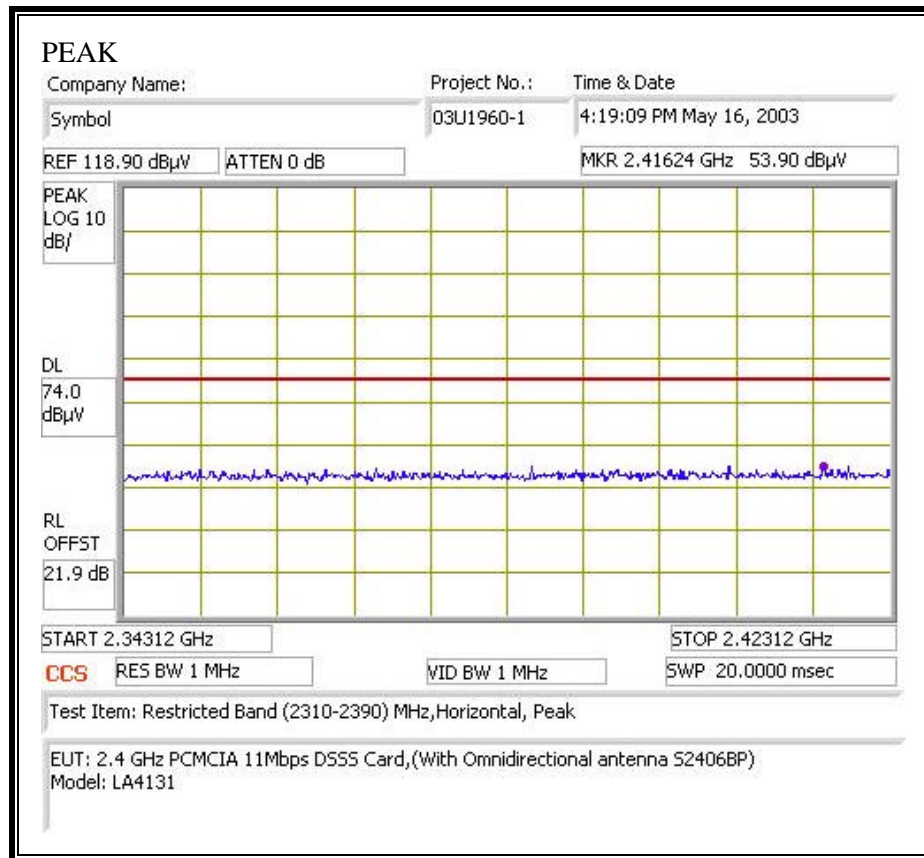
SETUP PHOTOS

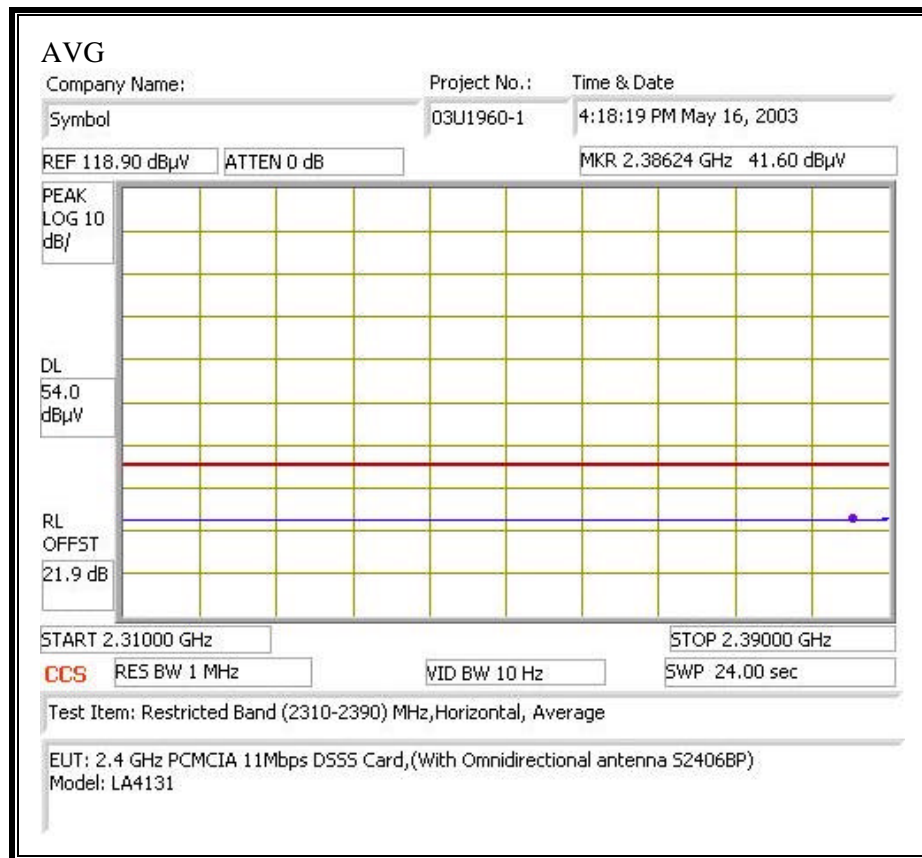


RADIATED BACK PHOTO

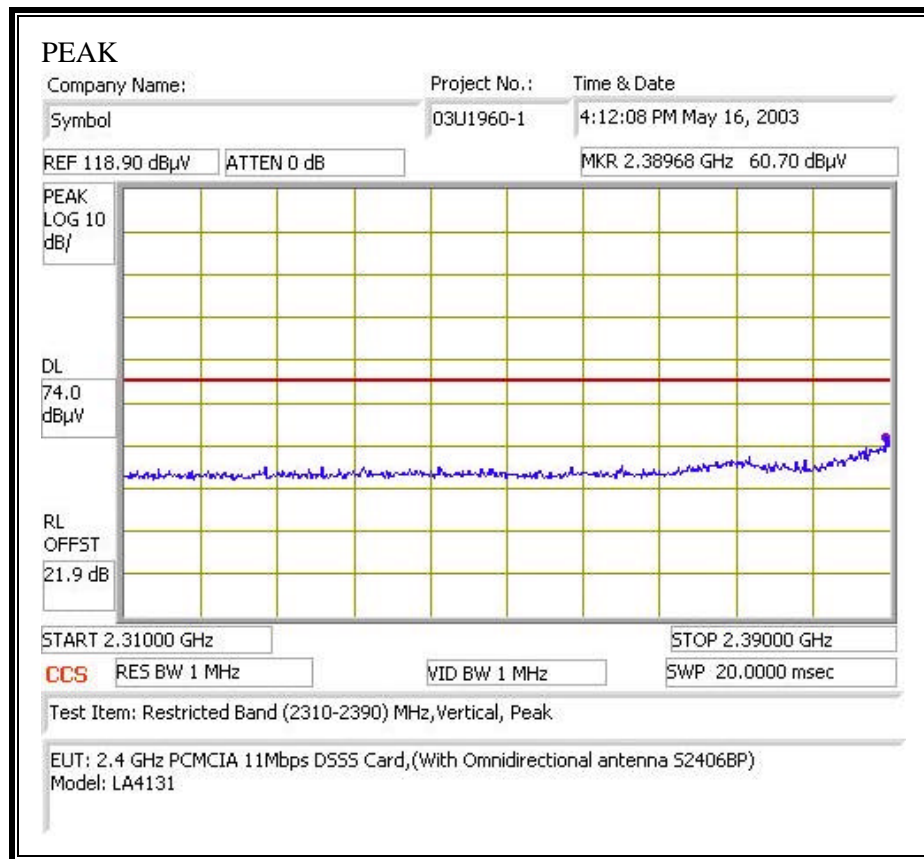


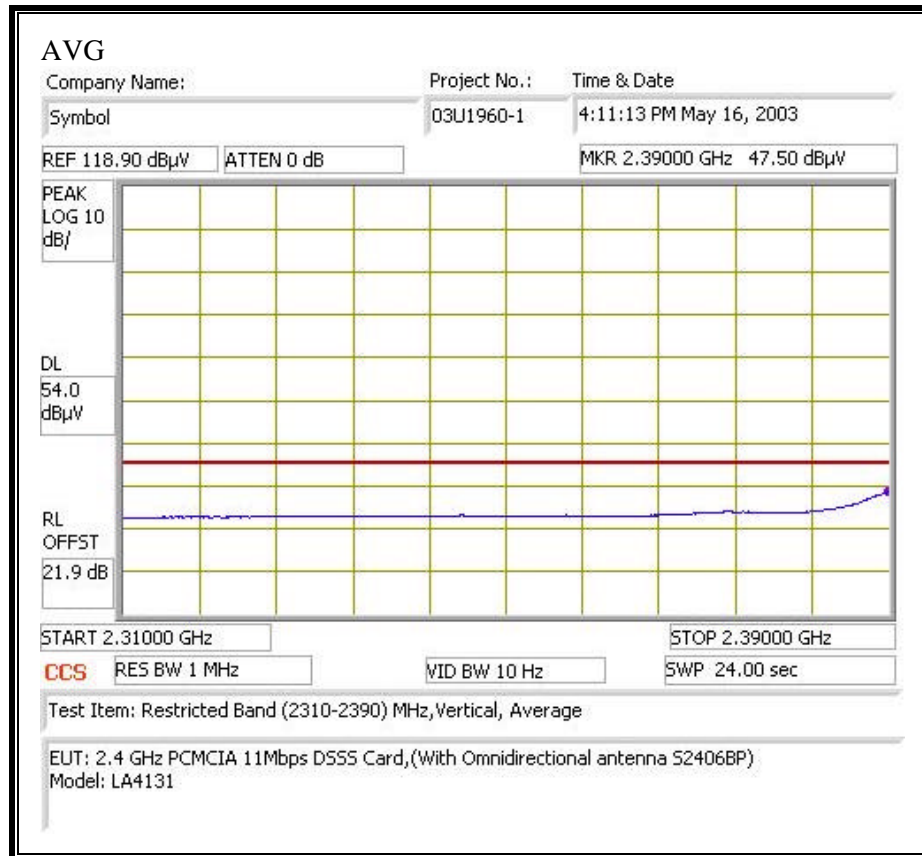
ADJACENT RESTRICTED BAND (LOW CHANNEL, HORIZONTAL)



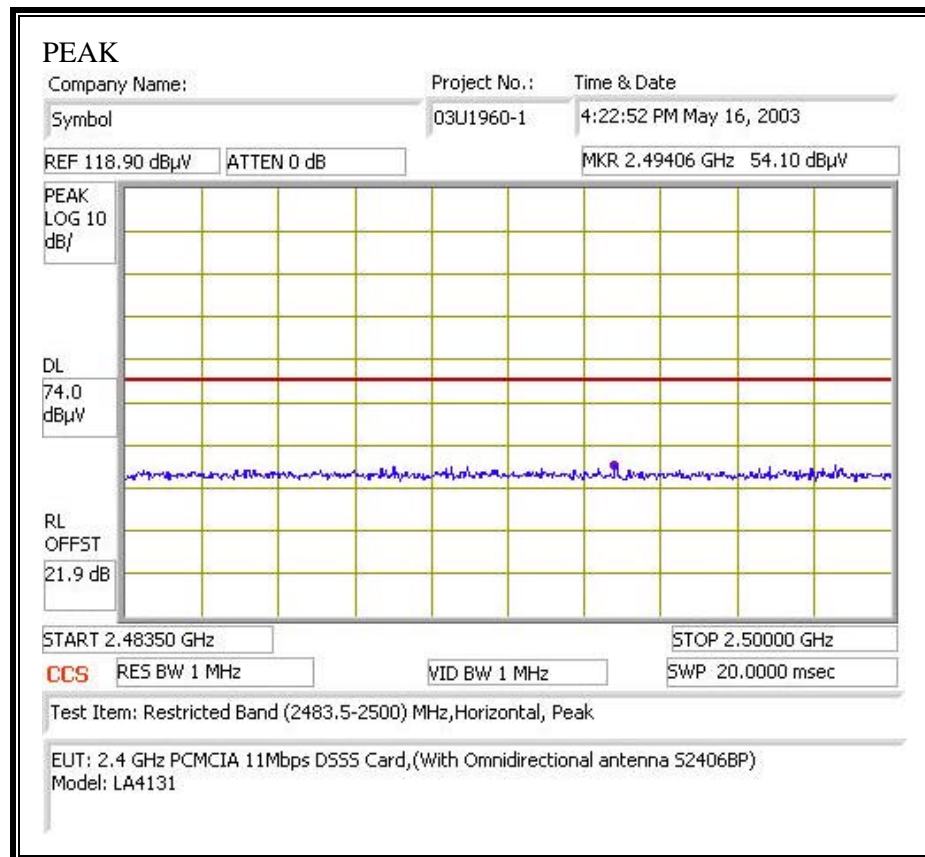


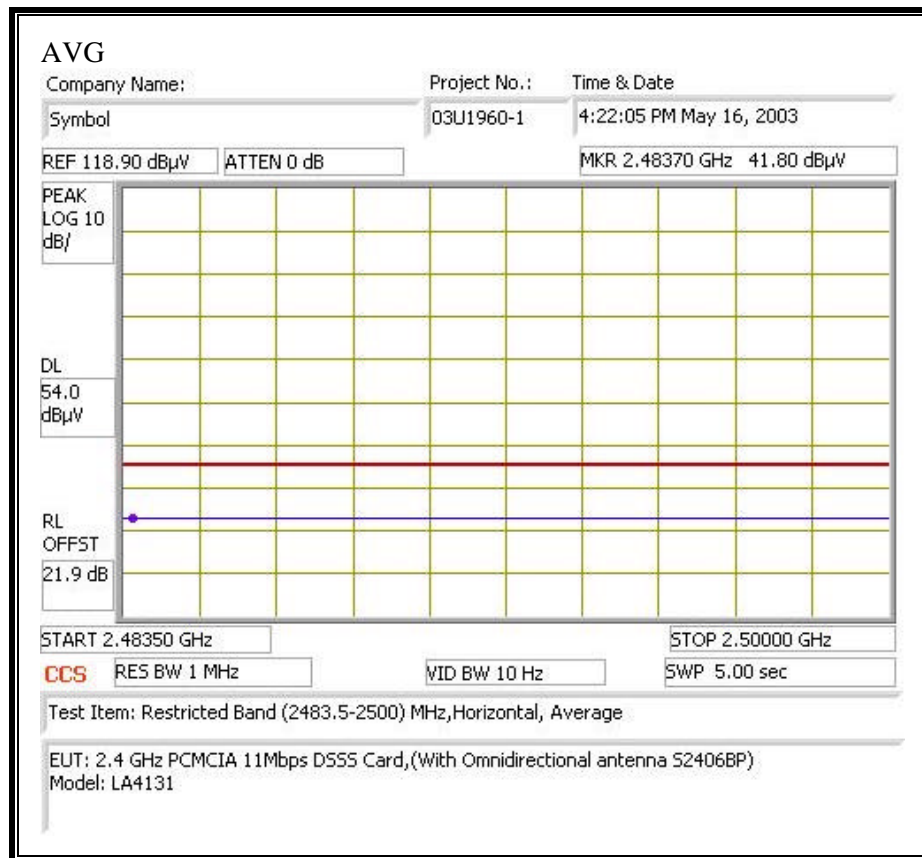
ADJACENT RESTRICTED BAND (LOW CHANNEL, VERTICAL)



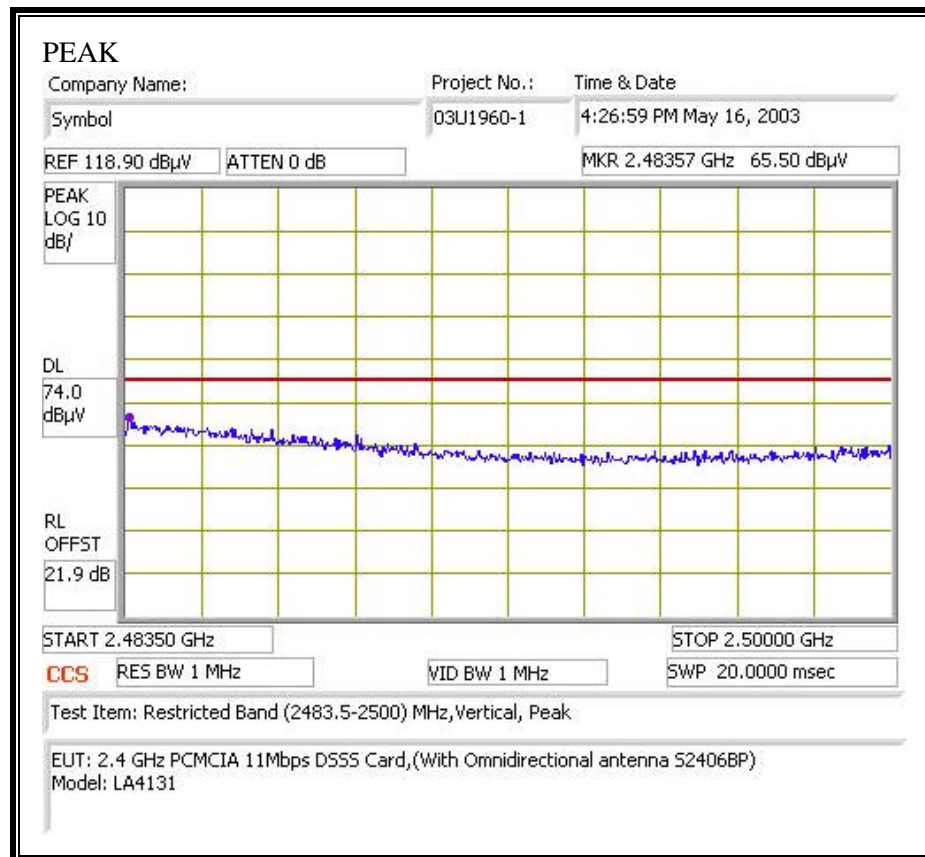


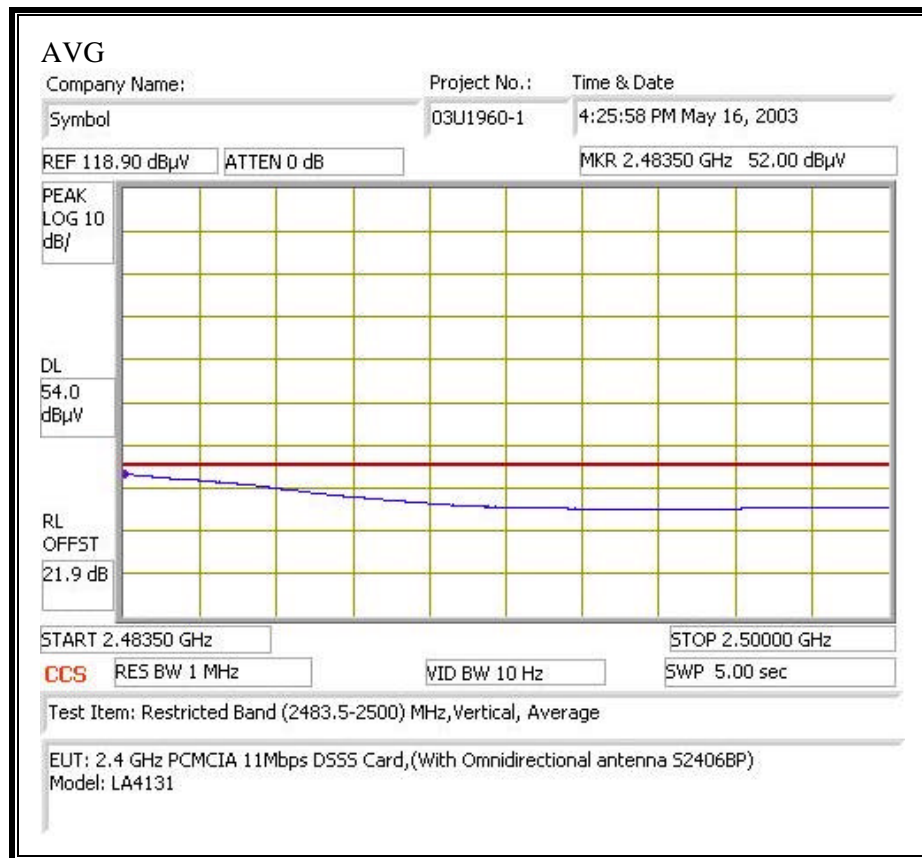
ADJACENT RESTRICTED BAND (HIGH CHANNEL, HORIZONTAL)





ADJACENT RESTRICTED BAND (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

06/04/03 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: William Zhuang Project #: 03U1960-1 Company: Symbol Technologies EMEA EUT Descr.: 2.4 GHz PCMCIA Card 11MBPS DSSS EUT M/N: LA4131 with Antenna # 74, Dipole ML-2499-BMMA1-01 Test Target: FCC Part 15.247 Class II Permissive Change Mode Oper: Tx On															
Test Equipment:															
EMCO Horn 1-18GHz T73; S/N: 6717 @ 1m				Pre-amplifier 1-26GHz T87 Miteq 924342				Spectrum Analyzer HP 8566B Analyzer				Horn > 18GHz			
<div>Hi Frequency Cables <input type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input checked="" type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)</div> <div>Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth</div> <div>Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth</div>															
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
4.824	9.9	47.5	36.2	33.9	5.0	-44.7	0.1	1.0	42.8	31.5	74.0	54.0	-31.2	-22.5	Low,V Noise
4.824	9.9	47.8	36.1	33.9	5.0	-44.7	0.1	1.0	43.1	31.4	74.0	54.0	-30.9	-22.6	Low,H Noise
4.874	9.9	47.3	36.3	33.9	5.0	-44.7	0.1	1.0	42.6	31.6	74.0	54.0	-31.4	-22.4	Mid,H Noise
4.874	9.9	47.2	36.2	33.9	5.0	-44.7	0.1	1.0	42.5	31.5	74.0	54.0	-31.5	-22.5	Mid,V Noise
4.924	9.9	48.5	36.6	34.0	5.1	-44.8	0.1	1.0	43.8	31.9	74.0	54.0	-30.2	-22.1	High,V Noise
4.924	9.9	47.7	35.6	34.0	5.1	-44.8	0.1	1.0	43.0	30.9	74.0	54.0	-31.0	-23.1	High,H Noise
f	Measurement Frequency			Amp	Preamp Gain			Avg Lim	Average Field Strength Limit						
Dist	Distance to Antenna			D Corr	Distance Correct to 3 meters			Pk Lim	Peak Field Strength Limit						
Read	Analyzer Reading			Avg	Average Field Strength @ 3 m			Avg Mar	Margin vs. Average Limit						
AF	Antenna Factor			Peak	Calculated Peak Field Strength			Pk Mar	Margin vs. Peak Limit						
CL	Cable Loss			HPF	High Pass Filter										

Note: no harmonics or spurious detected above 1 GHz.

6.7. WORST-CASE EMISSIONS 30 TO 1000 MHZ

RESULTS



561F Monterey Road
Morgan Hill, CA 95037, U.S.A.
Tel: (408) 463-0885
Fax: (408) 463-0888

Data#: 38 File#: unit test 1.EMI
Audix ATC

Date: 05-21-2003 Time: 17:46:12

Condition: FCC CLASS B 3m CHAMBER 030306 1185 VERTICAL
Company : Symbol
EUT Description : LA4131 card with 24dBi dish Antenna
Model Number : LA4131
Test Configuration: EUT
Test Target : FCC Class B
Mode of Operation: TX
Project No : 03U1960

Page: 1

	Freq	Read	Probe	Cable		Preamp		Limit	Over	Remark
		Level	Factor	Loss	Factor	Level	Line	Line	Limit	
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB		
1	60.430	21.01	11.02	0.72	0.00	32.76	40.00	-7.24	Peak	
2	119.930	24.10	10.56	1.03	0.00	35.69	43.50	-7.81	Peak	
3	120.780	25.14	10.48	1.03	0.00	36.65	43.50	-6.85	Peak	
4	198.640	26.41	9.03	1.38	0.00	36.82	43.50	-6.68	Peak	
5	199.490	26.49	9.00	1.38	0.00	36.87	43.50	-6.63	Peak	



561F Monterey Road
Morgan Hill, CA 95037, U.S.A.
Tel: (408) 463-0885
Fax: (408) 463-0888

Data#: 41 File#: unit test 1.EMI
Audix ATC

Date: 05-21-2003 Time: 17:51:35

Condition: FCC CLASS B 3m CHAMBER 030306 1185 VERTICAL
Company : Symbol
EUT Description : LA4131 card with 24dBi dish Antenna
Model Number : La4131
Test Configuration: EUT
Test Target : FCC Class B
Mode of Operation: TX
Project No. : 03U1960

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	265.600	25.77	11.86	1.61	0.00	39.24	46.00	-6.76	Peak
2	353.600	24.47	13.43	1.87	0.00	39.77	46.00	-6.23	Peak
3	401.600	23.09	14.48	2.01	0.00	39.58	46.00	-6.42	Peak
4	469.600	21.29	15.95	2.22	0.00	39.46	46.00	-6.54	Peak
5	485.600	23.14	16.28	2.29	0.00	41.71	46.00	-4.29	Peak
6	503.200	22.75	16.59	2.31	0.00	41.65	46.00	-4.35	Peak
7	573.600	23.29	17.40	2.51	0.00	43.20	46.00	-2.80	Peak
8	881.600	15.93	20.45	3.20	0.00	39.58	46.00	-6.42	Peak



561F Monterey Road
Morgan Hill, CA 95037, U.S.A.
Tel: (408) 463-0885
Fax: (408) 463-0888

Data#: 44 File#: unit test 1.EMI
Audit: ATC

Date: 05-21-2003 Time: 17:57:19

Condition: FCC CLASS B 3m CHAMBER D30306 1185 HORIZONTAL
Company : Symbol
EUT Description : LA4131 card with 24dBi dish Antenna
Model Number : La4131
Test Configuration: EUT
Test Target : FCC Class B
Mode of Operation: TX
Project No : 03U1960

Page: 1

	Freq	Read	Probe	Cable	Preamp	Limit	Over	
		Level	Factor	Loss	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB
1	39.690	9.72	16.49	0.61	0.00	26.03	40.00	-13.17 Peak
2	57.880	13.98	11.89	0.76	0.00	26.63	40.00	-13.37 Peak
3	60.430	15.49	11.02	0.72	0.00	27.23	40.00	-12.77 Peak
4	61.280	18.87	10.79	0.73	0.00	30.39	40.00	-9.61 Peak
5	63.490	16.98	9.93	0.76	0.00	27.67	40.00	-12.33 Peak
6	65.190	16.71	9.34	0.77	0.00	26.82	40.00	-13.18 Peak
7	80.140	28.78	7.75	0.80	0.00	37.41	43.50	-6.09 Peak
8	132.340	19.09	9.45	1.10	0.00	30.44	43.50	-13.06 Peak
9	176.540	32.60	8.00	1.30	0.00	42.78	43.50	-0.72 Peak



561F Monterey Road
Morgan Hill, CA 95037, U.S.A.
Tel: (408) 463-0885
Fax: (408) 463-0888

Data#: 46 File#: unit test 1.EMI
Audix ATC

Date: 05-21-2003 Time: 17:59:53

Condition: FCC CLASS B 3m CHAMBER 030306 1185 HORIZONTAL
Company : Symbol
EUT Description : LA4131 card with 24dBi dish Antenna
Model Number : La4131
Test Configuration: EUT
Test Target : FCC Class B
Mode of Operation: TX
Project No : 03U1960

Page: 1

Freq	Read		Probe		Cable Preamp		Limit		Over	Remark
	Level	Factor	Loss	Factor	Level	Line	Limit	Limit		
MHz	dBuV		dB	dB	dB	dBuV/m	dBuV/m	dB		
1	200.000	31.66	0.99	1.38	0.00	42.03	43.50	-1.47	Peak	
2	263.200	26.67	11.84	1.60	0.00	40.11	46.00	-5.89	Peak	
3	333.600	23.83	12.93	1.86	0.00	38.62	46.00	-7.38	Peak	
4	395.200	26.44	14.35	2.01	0.00	42.79	46.00	-3.21	Peak	
5	401.600	21.03	14.48	2.01	0.00	37.52	46.00	-8.48	Peak	
6	483.200	21.82	16.23	2.31	0.00	40.36	46.00	-5.64	Peak	
7	573.600	20.87	17.40	2.51	0.00	40.78	46.00	-5.22	Peak	
8	659.200	16.39	18.22	2.66	0.00	37.27	46.00	-8.73	Peak	

END OF REPORT