

California High-Speed Rail Authority

Palmdale to Burbank Project Section

Draft Environmental Impact Report/
Environmental Impact Statement

Appendix 3.5-B Electromagnetic
Measurement Survey Catalog

August 2022



The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.

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APPENDIX 3.5-B: EMI/EMF MEASUREMENT CATALOG



Figure B3.5-1(a) Location 1: Palmdale Transportation Center, Palmdale
Suburban setting near the existing rail alignment, with significant RF emitters (Lat 34.591701°, Lon -118.119965°)



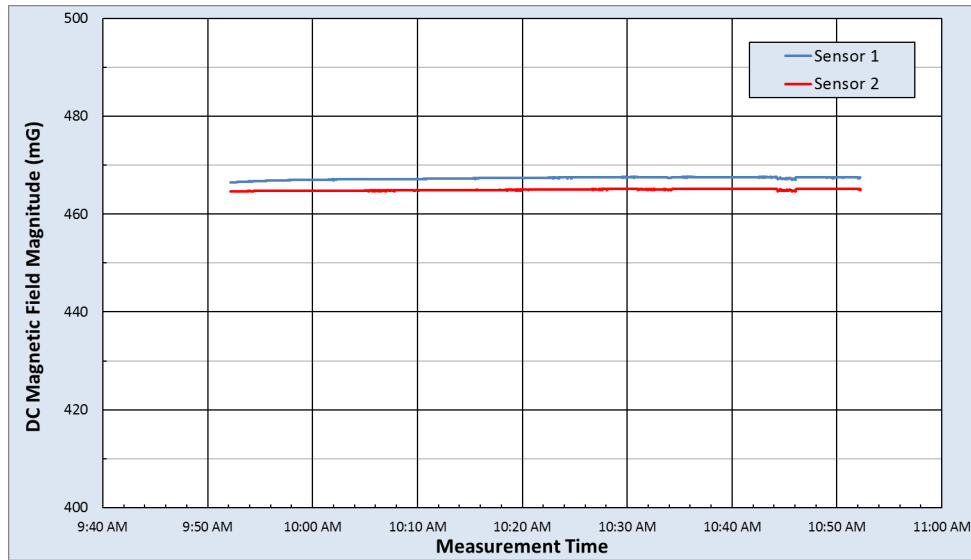
Figure B3.5-1(b) Location 1: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

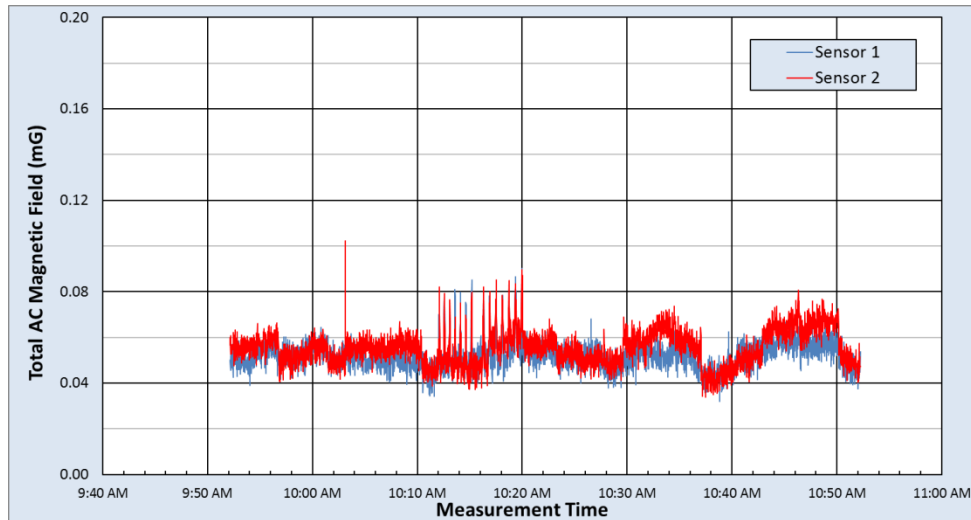


Figure B3.5-1(c) Location 1: Palmdale Transportation Center, Palmdale

Nearby emitters include microwave towers, railway communications, and distribution lines parallel to the alignment. *Photos depicting visible close-proximity emitters. Other emissions sources may exist that are not readily visible from the site.*

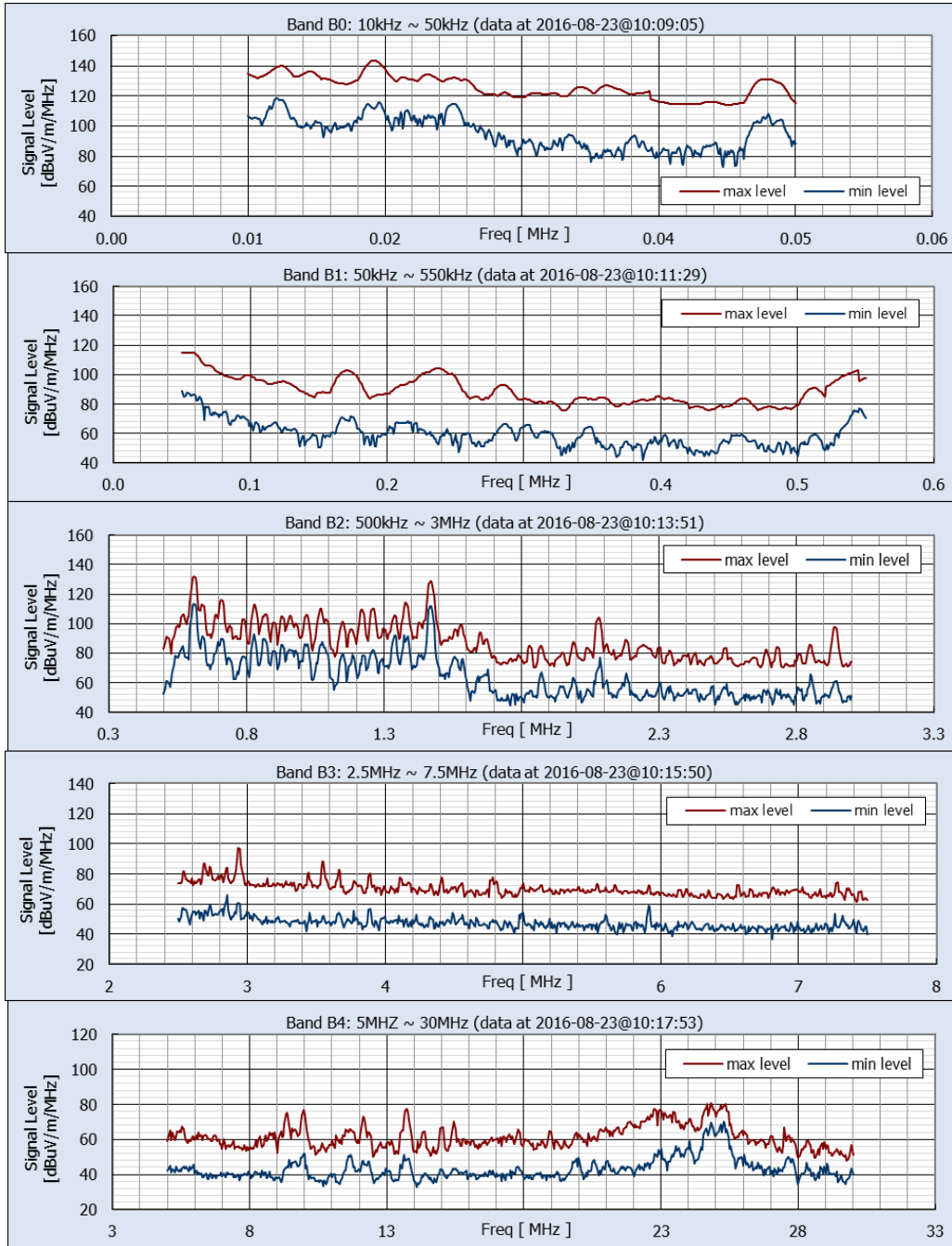


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	262.5	235.8	388.8	402.2	467.6	465.2
Median	260.5	234.2	387.8	401.6	467.4	465.0
Min	259.4	233.3	386.9	400.9	466.4	464.6
Range	3.1	2.5	1.9	1.3	1.2	0.5
Std Dev	0.8	0.7	0.5	0.3	0.3	0.2



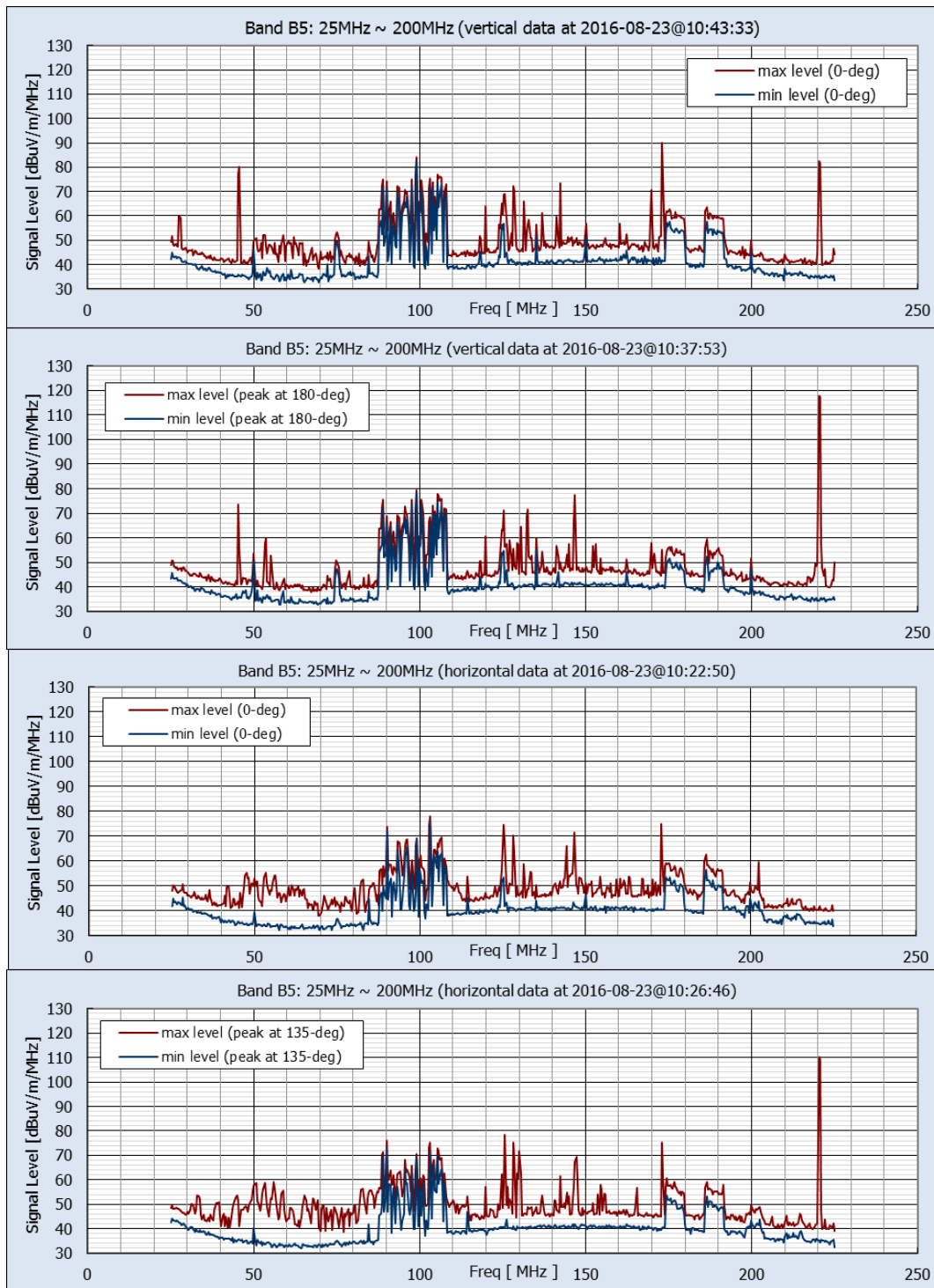
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.082	0.099	0.061	0.055	0.063	0.059	0.066	0.055	0.062	0.060	0.067	0.064	0.072	0.069	0.090	0.102
Median	0.043	0.048	0.010	0.009	0.013	0.015	0.010	0.009	0.010	0.010	0.010	0.010	0.011	0.010	0.052	0.055
Min	0.019	0.021	0.002	0.002	0.003	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.032	0.034
Range	0.063	0.077	0.059	0.054	0.060	0.055	0.064	0.052	0.059	0.058	0.064	0.062	0.070	0.067	0.058	0.068
Std Dev	0.006	0.008	0.004	0.003	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.006	0.008

Figure B3.5-1(d) Location 1: Measured DC and AC Magnetic Field Strengths



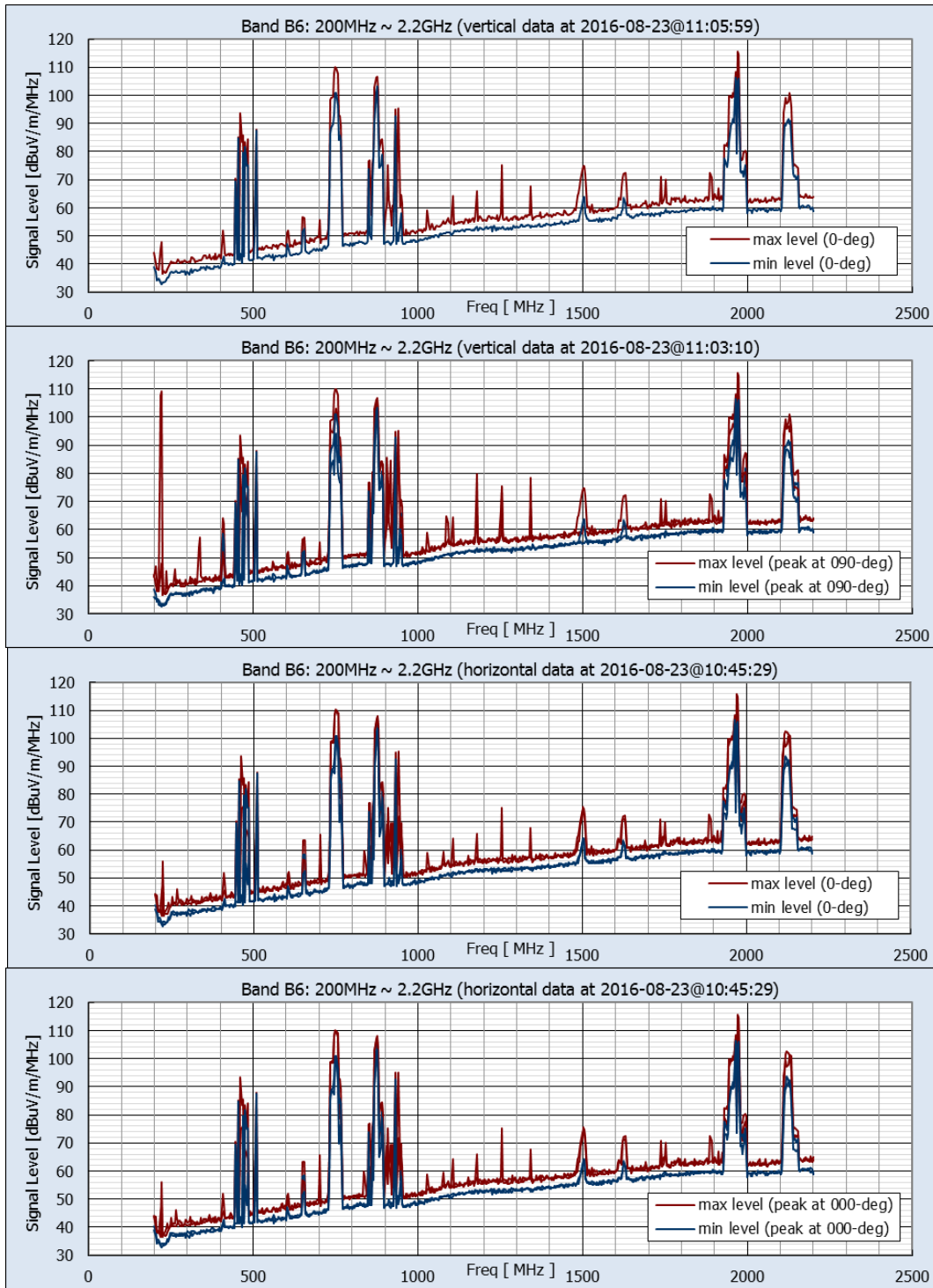
Maximum Levels					
Band number	Freq. Range	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
	(MHz)	dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	118.5	0.0121	143.4	0.0192
B1	0.05 ~ 0.55	88.9	0.0500	115.0	0.0564
B2	0.50 ~ 3.00	113.7	0.6091	132.2	0.6091
B3	2.5 ~ 7.5	65.8	2.8545	97.0	2.9364
B4	5 ~ 30	70.0	25.2727	80.5	24.8182

Figure B3.5-1(e) - Location 1 (Palmdale, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



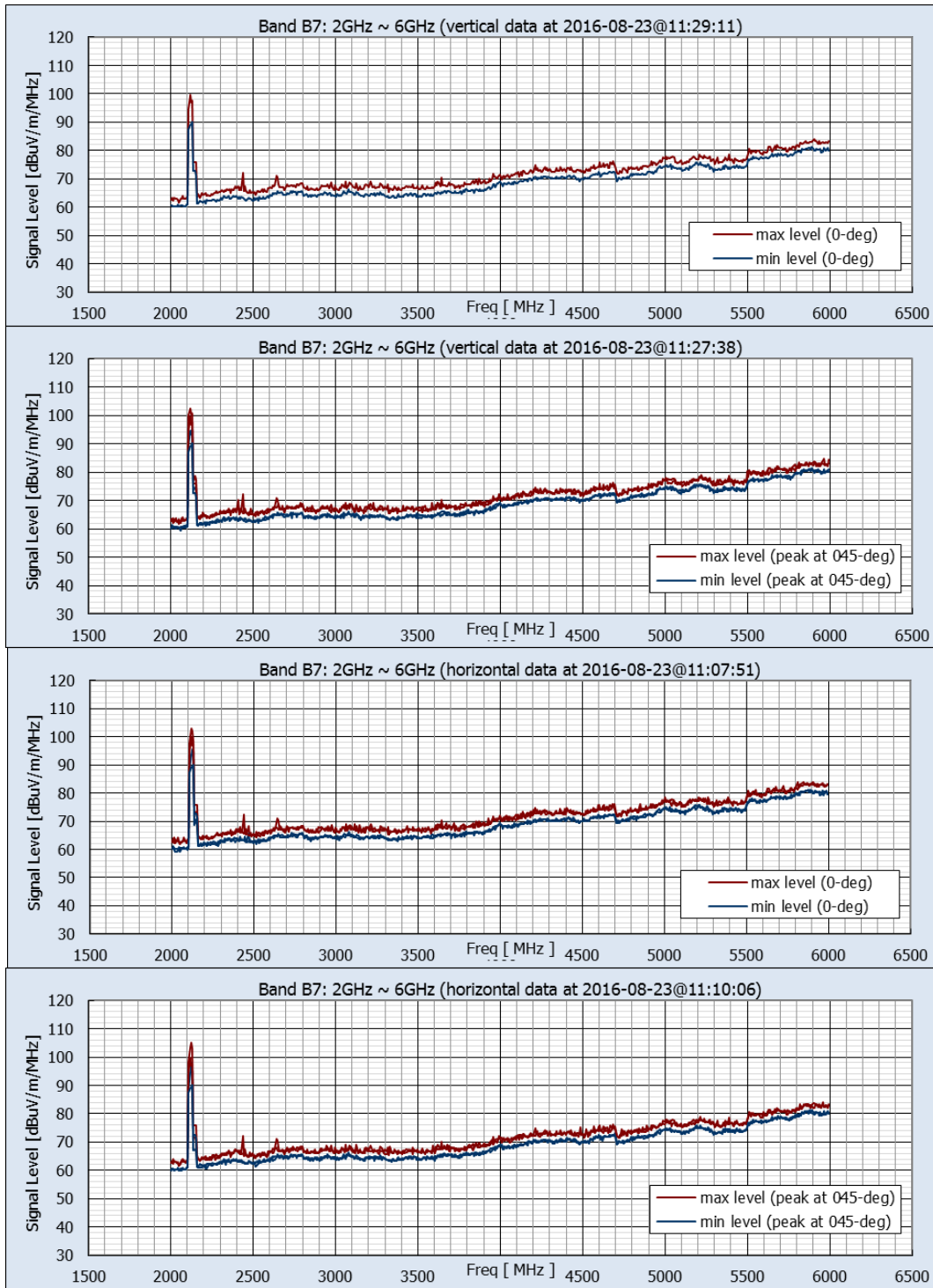
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	82.2	99.182	117.9	220.273	76.0	103.182	110.1	220.273

Figure B3.5-1(f) - Location 1 (Palmdale, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	106.4	1963.636	115.7	1970.909	105.7	876.364	113.1	1974.545

Figure B3.5-1(g) - Location 1 (Palmdale, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	95.2	2130.909	102.5	2116.364	98.0	2123.636	105.0	2123.636

Figure B3.5-1(h) - Location 1 (Palmdale, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

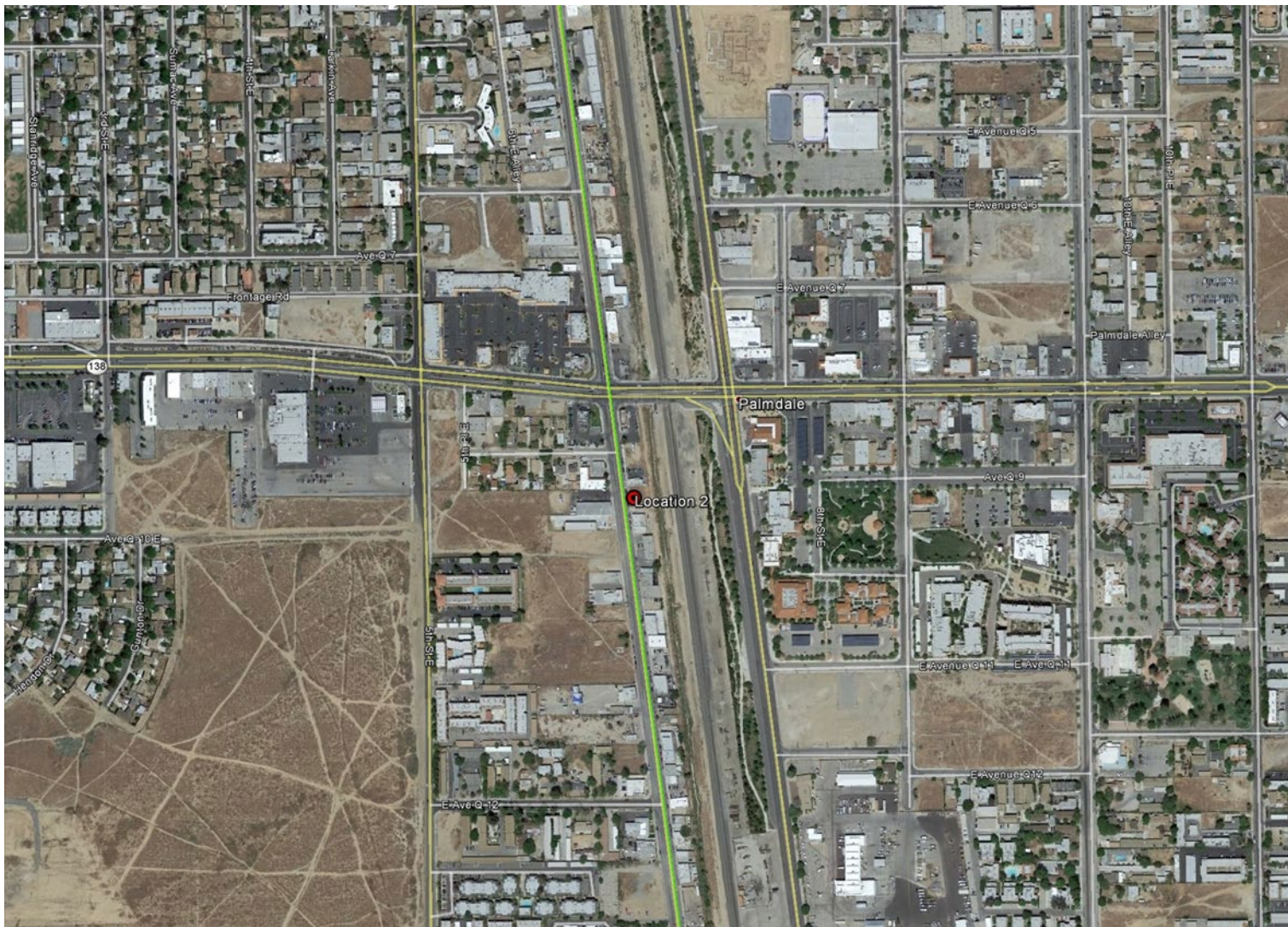


Figure B3.5-2(a) Location 2: 6th Street E, Palmdale
Adjacent to Palmdale Civic Center and near the existing rail, with significant RF emitters (Lat 34.578351°, Lon -118.117837°)

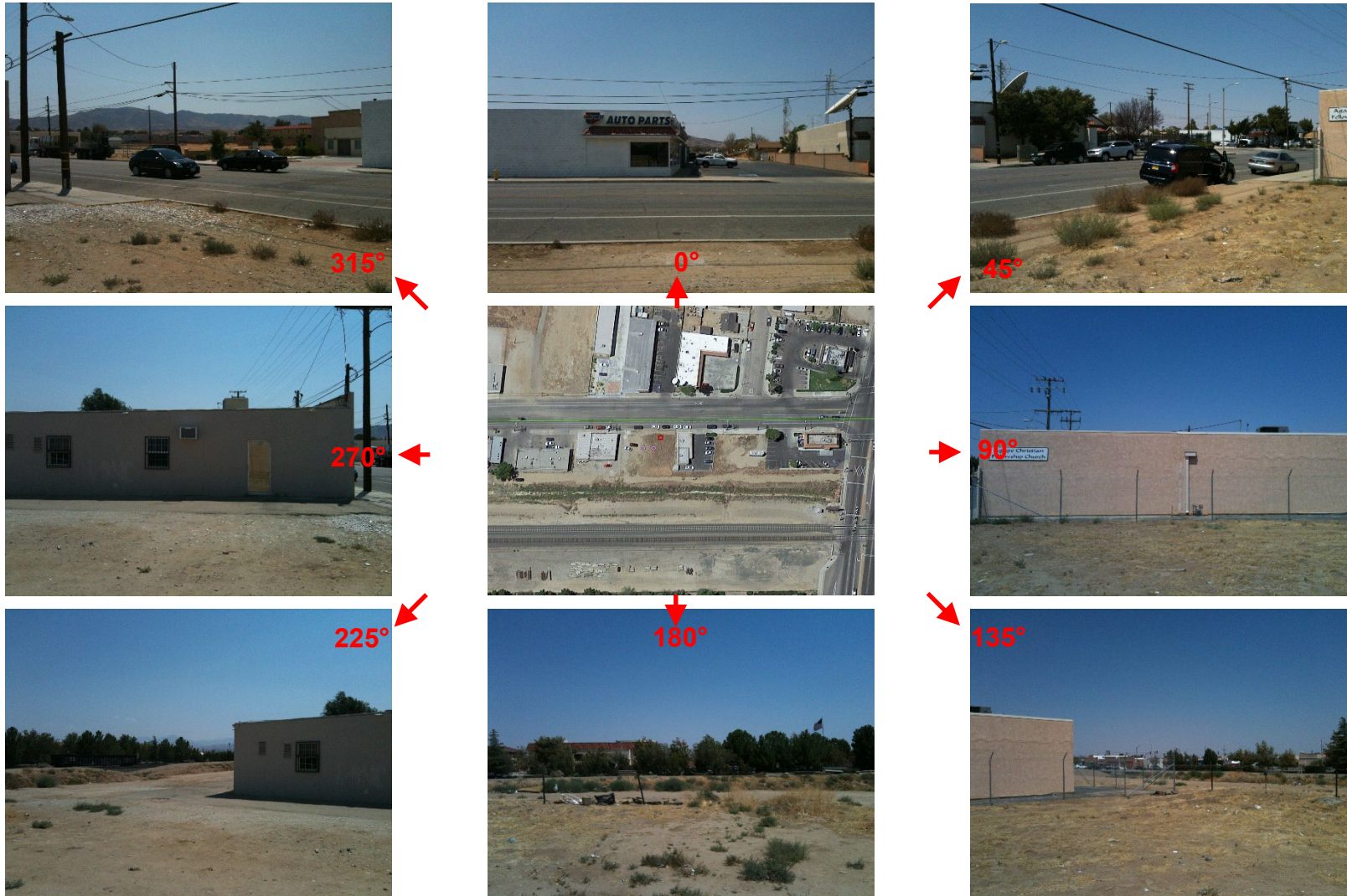


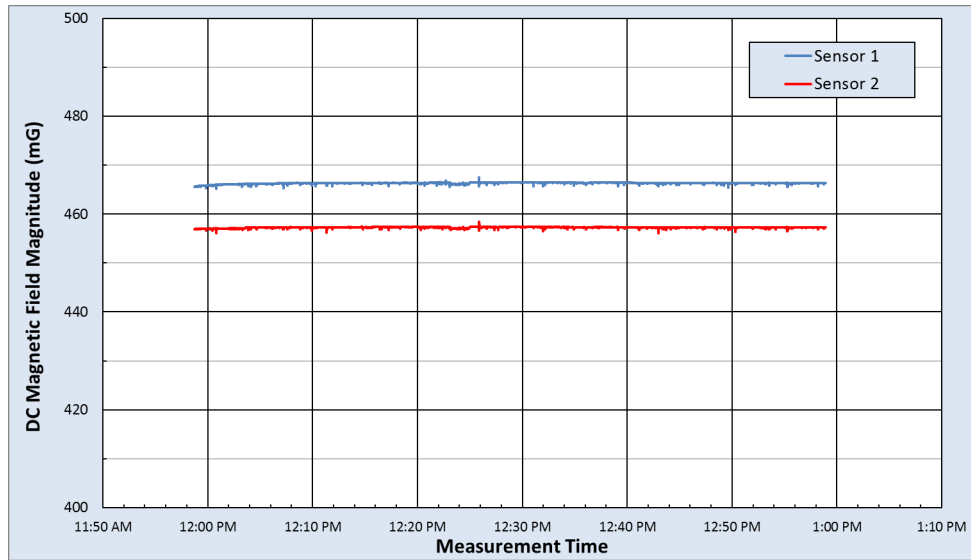
Figure B3.5-2(b) Location 2: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

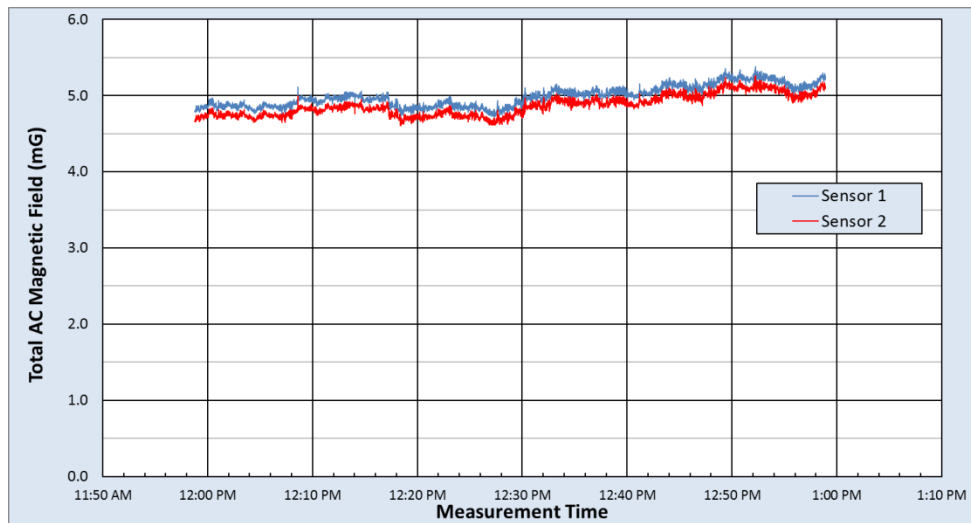


Figure B3.5-2(c) Location 2: 6th Street E, near Palmdale Boulevard, Palmdale

Nearby emitters include cell towers, railway communications, and distribution lines parallel to the alignment.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

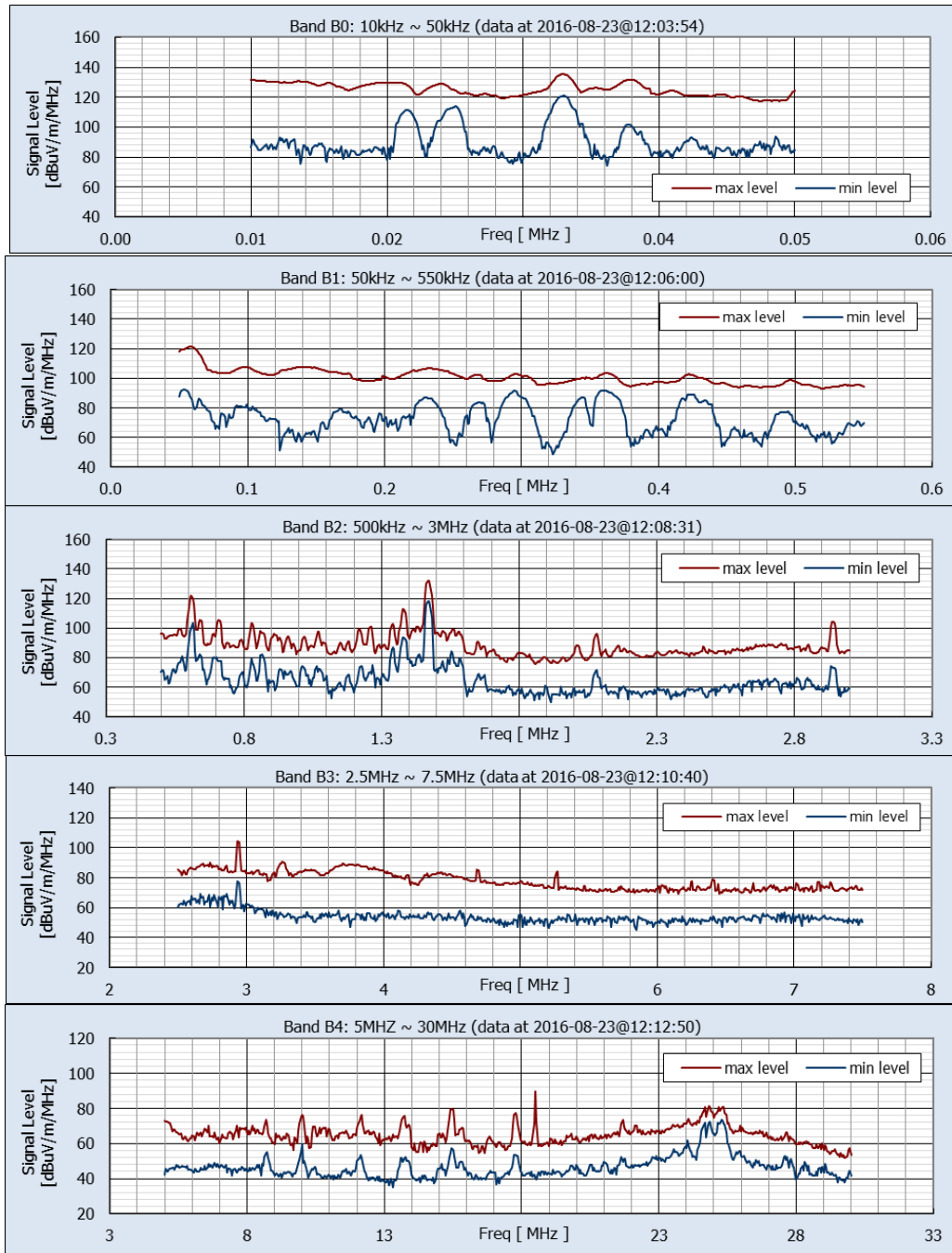


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	262.8	230.9	390.2	396.7	467.5	458.5
Median	256.1	227.9	389.6	396.4	466.4	457.3
Min	255.1	226.8	385.4	395.3	465.1	456.1
Range	7.8	4.2	4.8	1.4	2.4	2.4
Std Dev	1.2	0.2	0.7	0.2	0.2	0.1



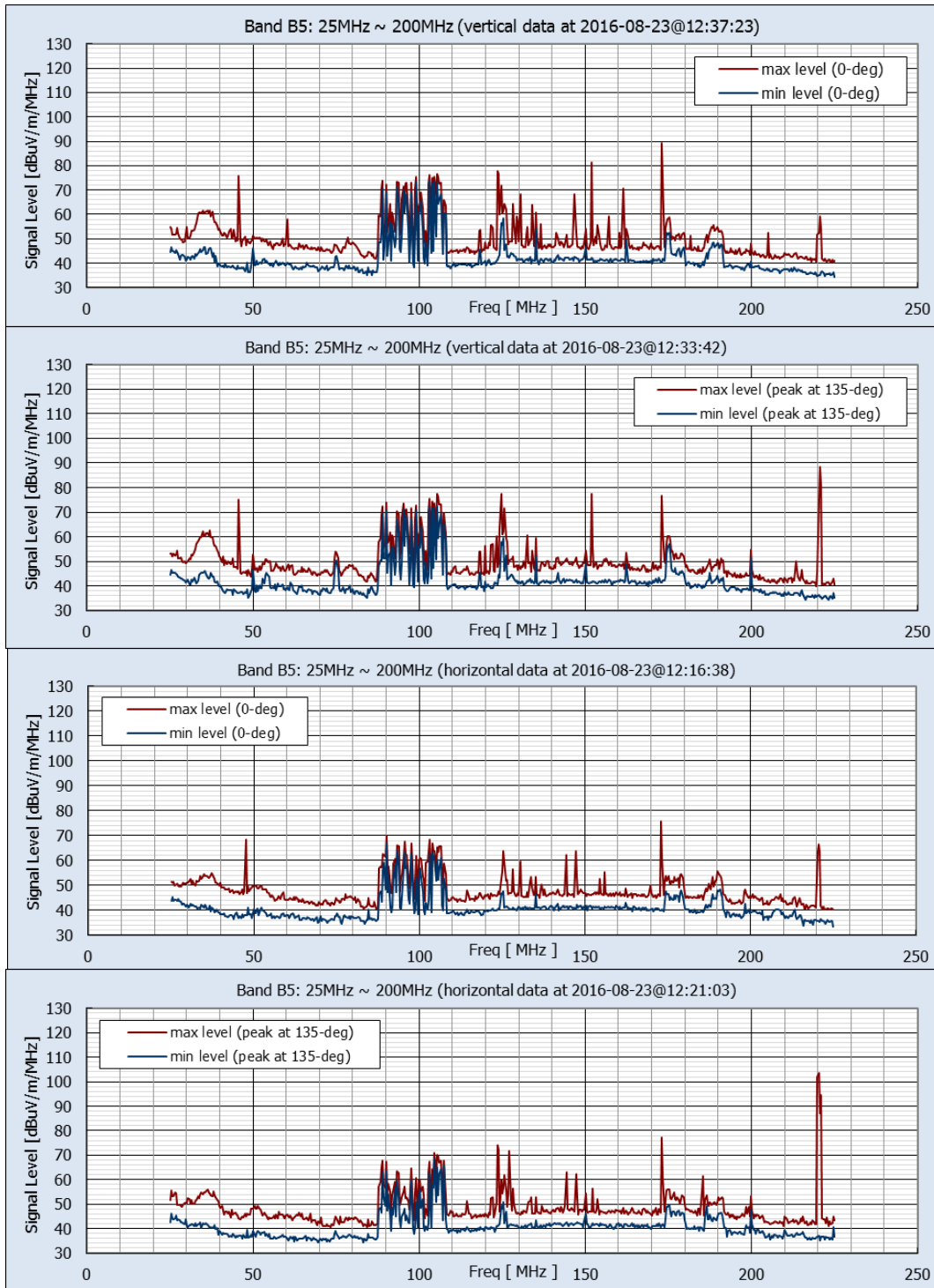
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	5.376	5.257	0.068	0.064	0.212	0.216	0.060	0.057	0.125	0.132	0.065	0.062	0.103	0.100	5.381	5.262
Median	4.971	4.849	0.013	0.014	0.187	0.187	0.011	0.010	0.092	0.090	0.011	0.010	0.075	0.074	4.976	4.854
Min	4.719	4.601	0.004	0.004	0.135	0.141	0.002	0.002	0.069	0.071	0.002	0.002	0.052	0.057	4.724	4.606
Range	0.657	0.656	0.065	0.061	0.078	0.075	0.058	0.055	0.055	0.061	0.064	0.060	0.051	0.043	0.657	0.656
Std Dev	0.138	0.138	0.004	0.004	0.008	0.008	0.004	0.003	0.007	0.007	0.004	0.004	0.006	0.005	0.138	0.138

Figure B3.5-2(d) Location 2: AC and DC Magnetic Field Measurement Results



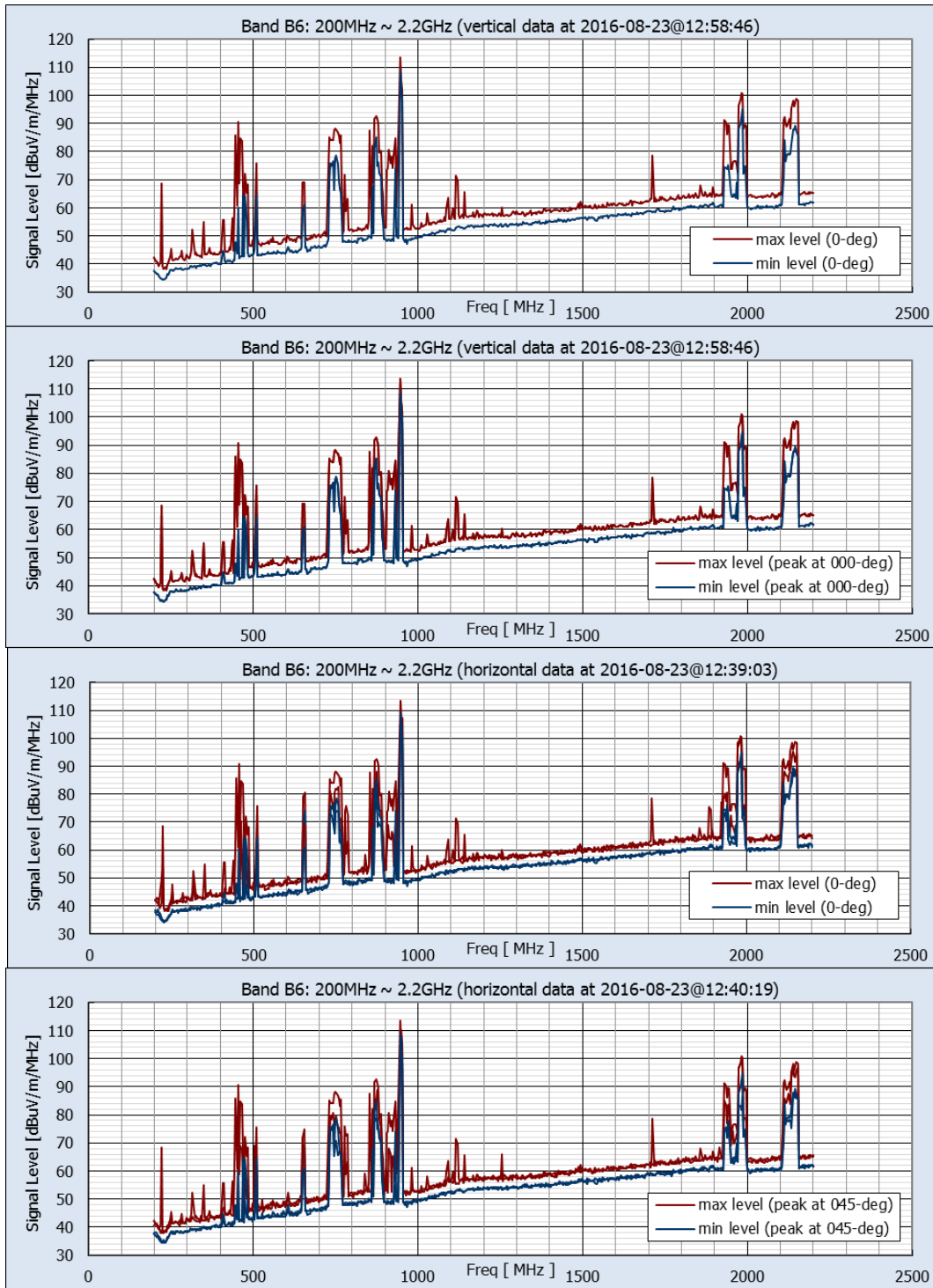
Maximum Levels					
Band number	Freq. Range (MHz)	Pk Min-Hold dB uV/m/MHz	@ Freq. (MHz)	Pk Max-Hold dB uV/m/MHz	@ Freq. (MHz)
B0	0.01 ~ 0.05	120.9	0.0330	135.3	0.0330
B1	0.05 ~ 0.55	92.5	0.0536	121.2	0.0582
B2	0.50 ~ 3.00	118.1	1.4682	132.1	1.4682
B3	2.5 ~ 7.5	77.6	2.9364	104.4	2.9364
B4	5 ~ 30	73.5	25.2727	89.7	18.5000

Figure B3.5-2(e) - Location 2 (Palmdale, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



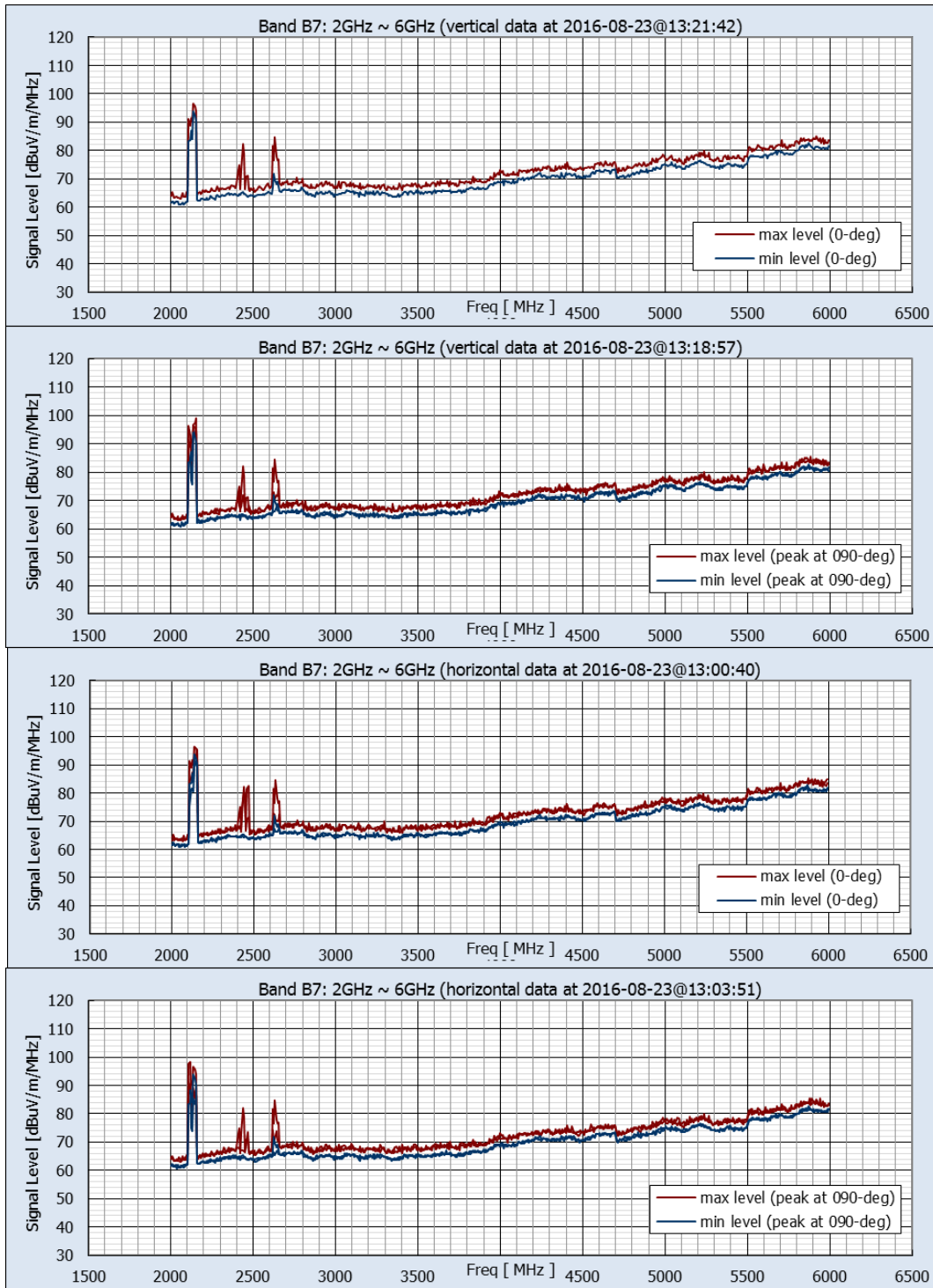
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	73.7	103.182	89.1	173.000	68.7	104.636	103.8	220.273

Figure B3.5-2(f) - Location 2 (Palmdale, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	108.9	945.455	113.6	945.455	108.3	949.091	110.1	949.091

Figure B3.5-2(g) - Location 2 (Palmdale, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	95.0	2138.182	98.9	2152.727	91.3	2145.455	98.4	2116.364

Figure B3.5-2(h) - Location 2 (Palmdale, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Figure B3.5-3(a) Location 3: Foreston Drive, Acton
Rural setting adjacent to SCE Vincent substation (Lat 34.487551°, Lon -118.122941°)



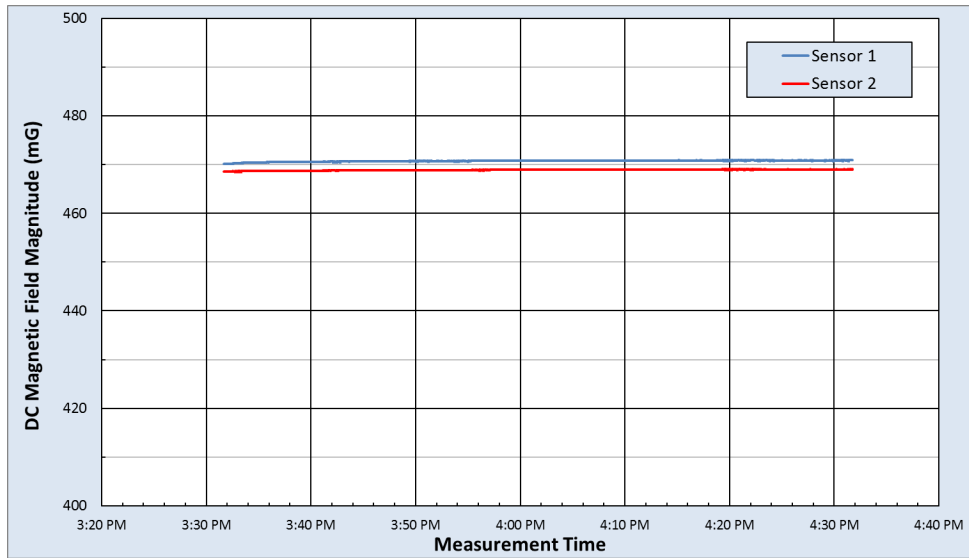
Figure B3.5-3(b) Location 3: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

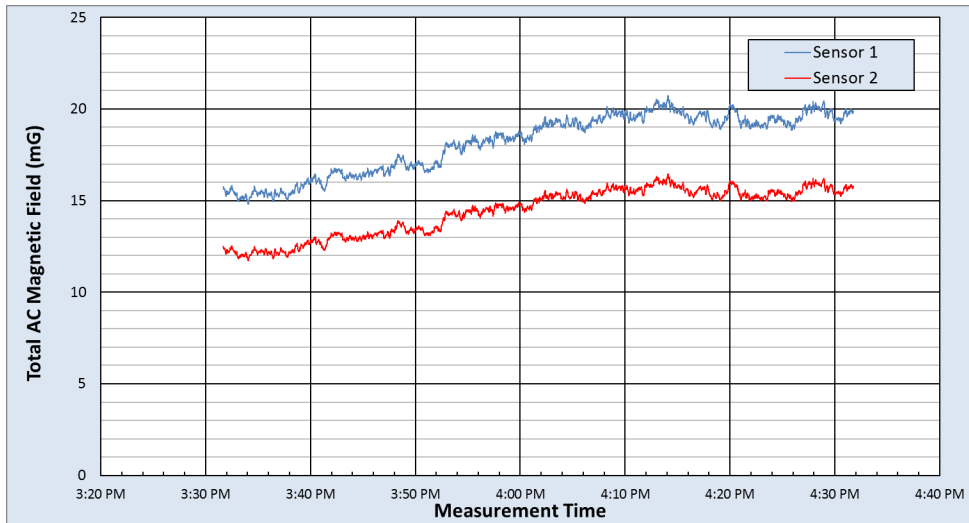


Figure B3.5-3(c) Location 3: Foreston Drive, near Angeles Forest Highway, Acton

Immediately adjacent to the Vincent Substation. Nearby emitters include HV transmission lines and substation equipment
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

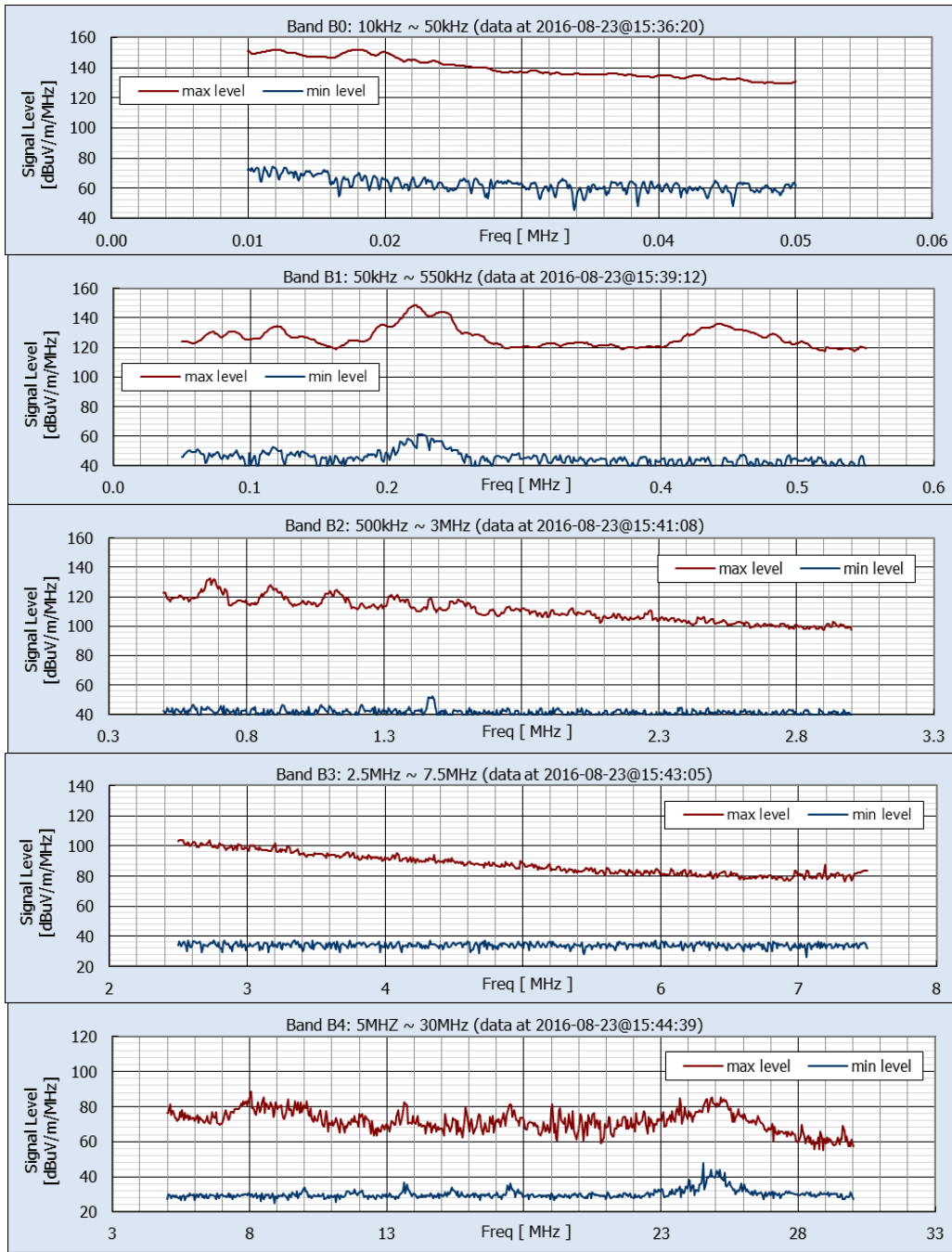


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	264.6	272.7	390.3	382.2	470.9	469.0
Median	263.7	272.3	390.0	381.7	470.8	468.9
Min	263.3	271.8	388.7	381.4	470.1	468.6
Range	1.3	0.9	1.6	0.8	0.8	0.5
Std Dev	0.2	0.1	0.3	0.1	0.2	0.1



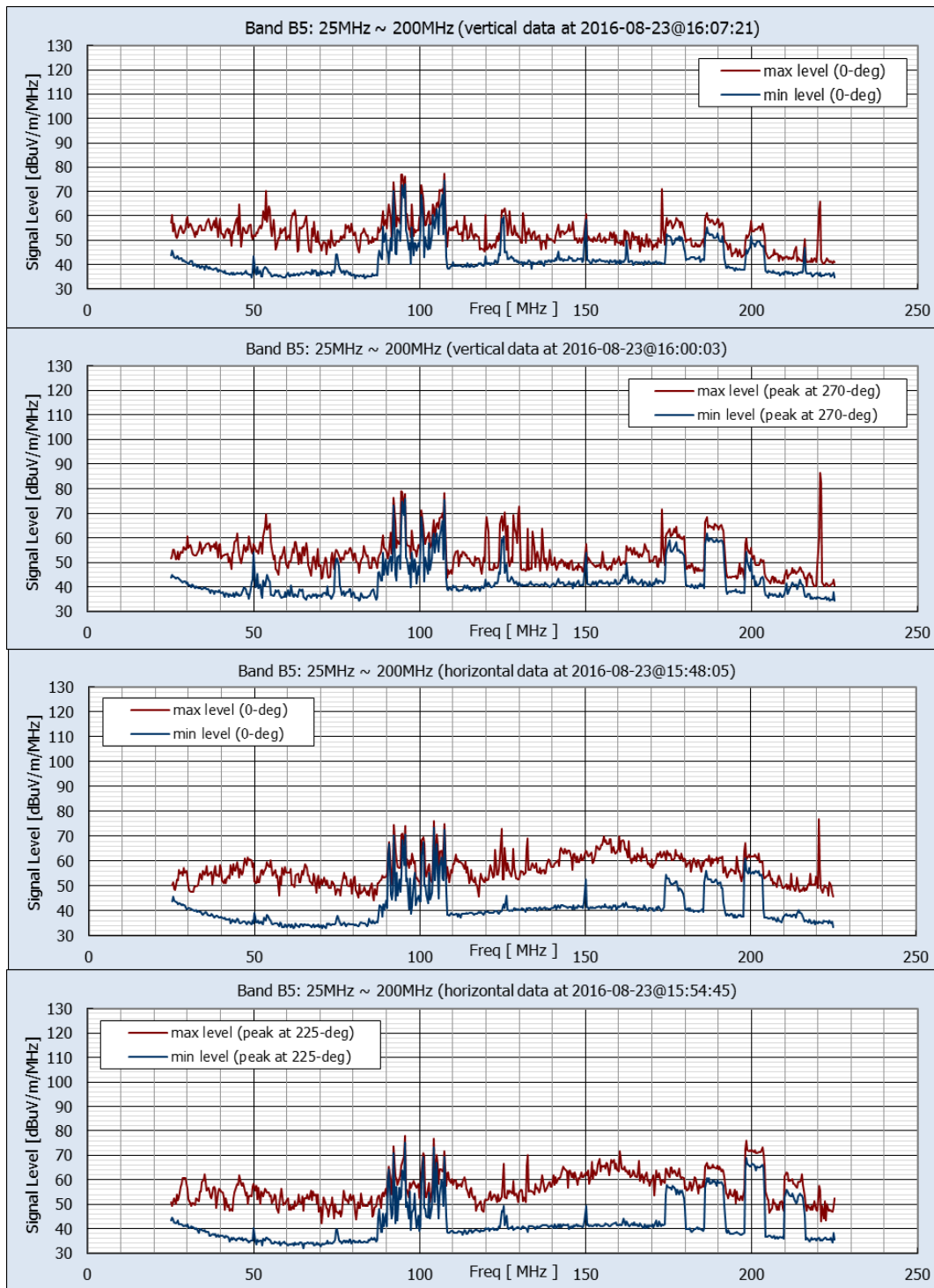
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	20.747	16.473	0.062	0.059	0.063	0.060	0.060	0.065	0.073	0.074	0.074	0.068	0.069	0.068	20.747	16.473
Median	18.879	14.981	0.013	0.014	0.020	0.017	0.013	0.014	0.037	0.032	0.015	0.017	0.017	0.014	18.879	14.981
Min	14.813	11.728	0.002	0.002	0.005	0.005	0.002	0.003	0.012	0.007	0.003	0.003	0.003	0.003	14.813	11.728
Range	5.934	4.745	0.059	0.056	0.057	0.055	0.058	0.062	0.061	0.067	0.071	0.065	0.067	0.065	5.934	4.745
Std Dev	1.621	1.298	0.005	0.004	0.005	0.004	0.004	0.004	0.008	0.008	0.005	0.005	0.006	0.005	1.621	1.298

Figure B3.5-3(d) Location 3: AC and DC Magnetic Field Measurement Results



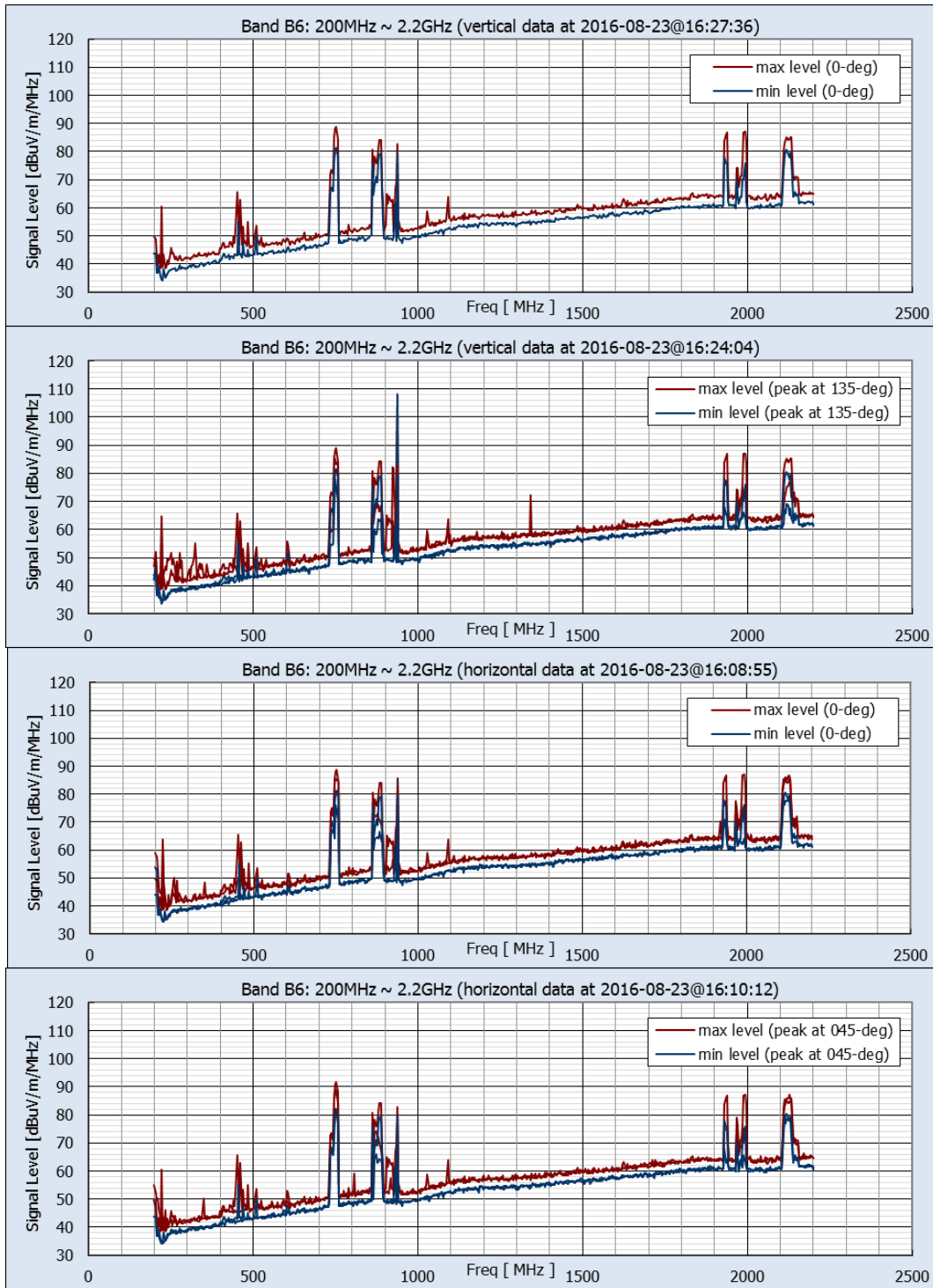
Maximum Levels					
Band number	Freq. Range	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
	(MHz)	dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	74.0	0.0112	152.0	0.0120
B1	0.05 ~ 0.55	61.4	0.2236	148.6	0.2209
B2	0.50 ~ 3.00	52.2	1.4773	132.4	0.6682
B3	2.5 ~ 7.5	37.4	2.5727	104.0	2.5273
B4	5 ~ 30	48.1	24.5455	88.7	8.0455

Figure B3.5-3(e) - Location 3 (Acton, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



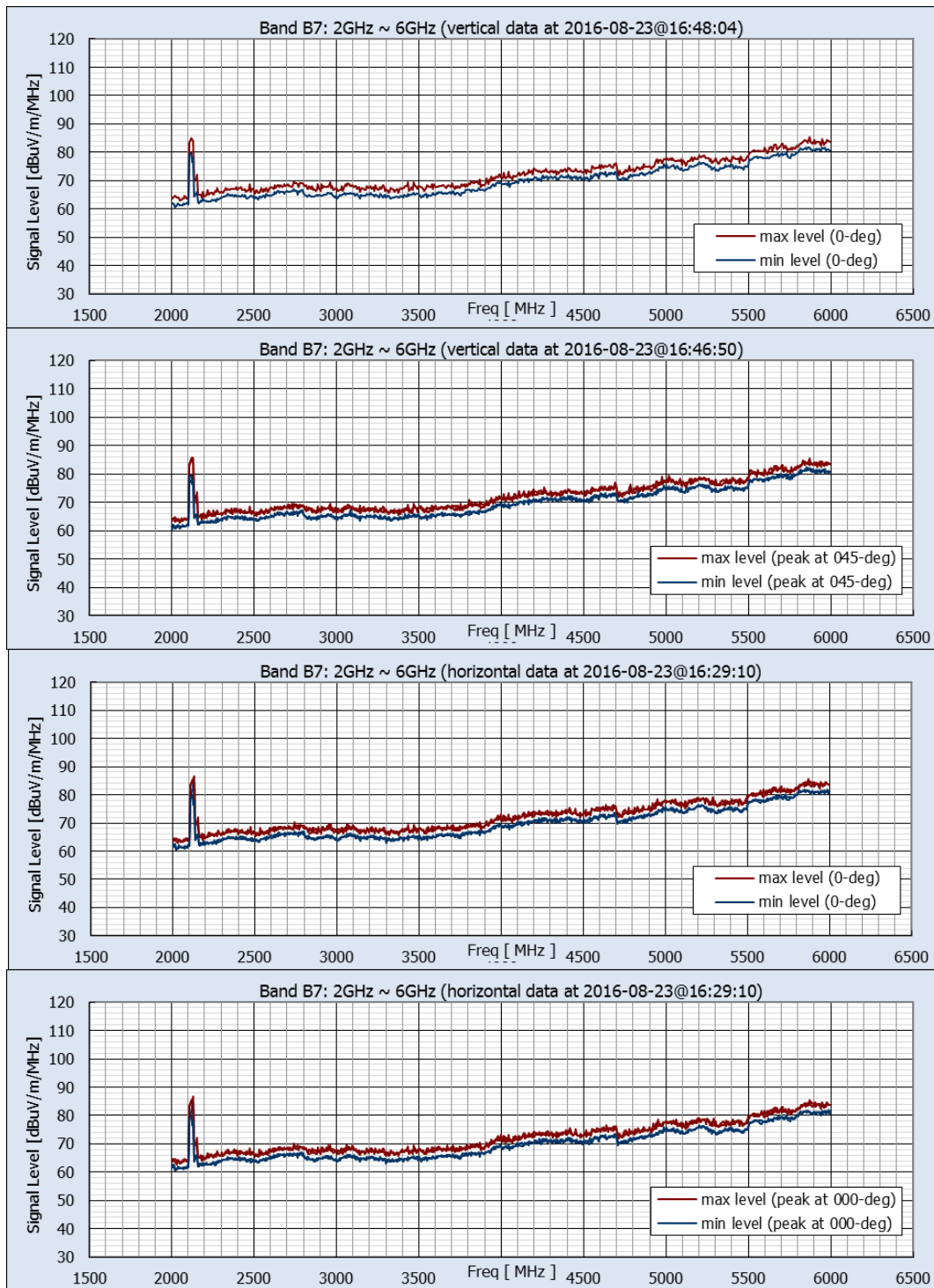
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	76.0	95.545	86.3	220.636	75.4	95.545	77.9	95.545

Figure B3.5-3(f) - Location 3 (Acton, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	107.8	938.182	108.3	938.182	84.4	938.182	91.6	752.727

Figure B3.5-3(g)- Location 3 (Acton, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	79.9	2116.364	85.9	2123.636	84.7	2130.909	86.7	2130.909

Figure B3.5-3(h) - Location 3 (Acton, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

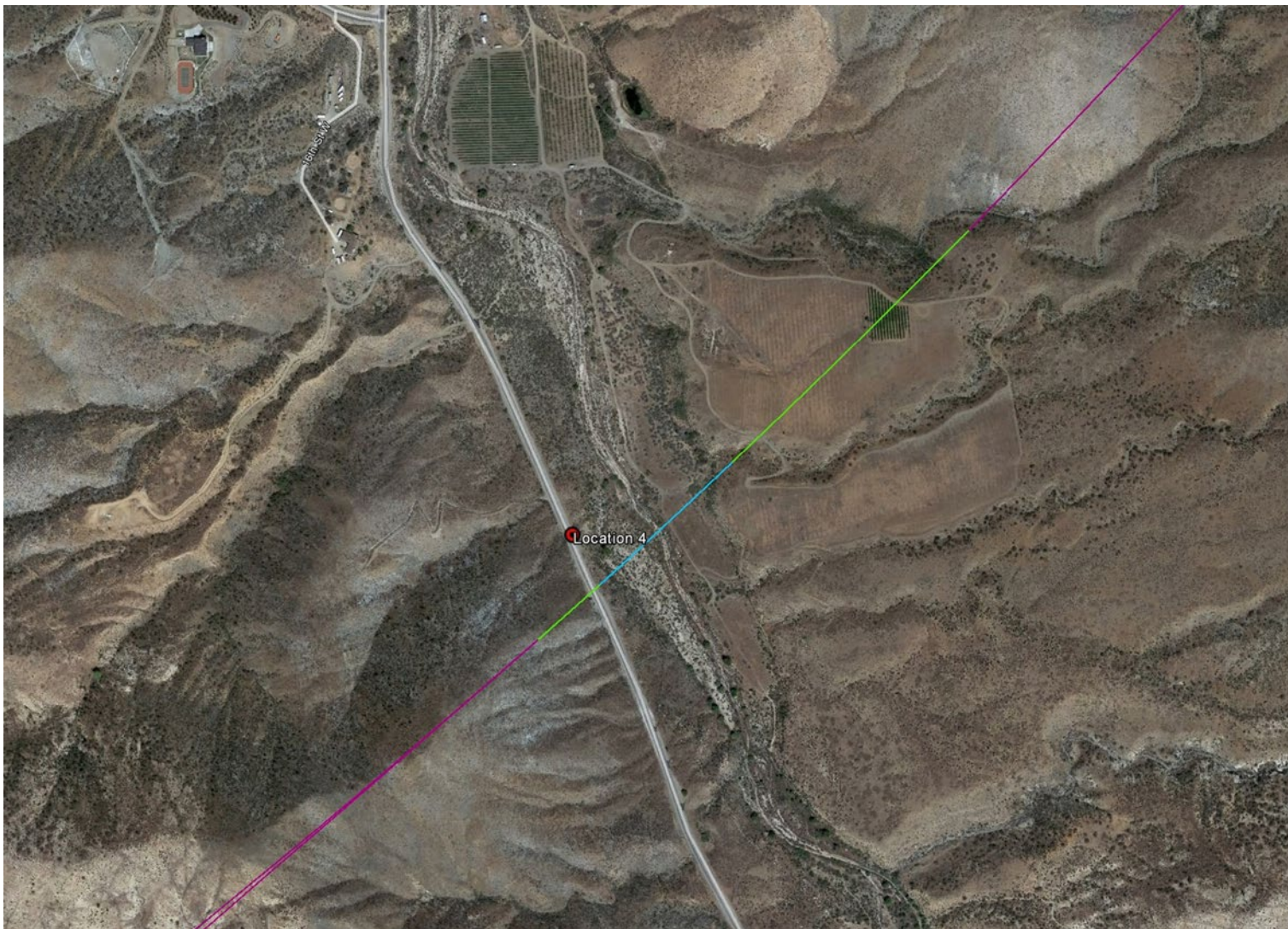


Figure B3.5-4(a) Location 4: Aliso Canyon Road, Acton
Rural setting with few local EMF sources, (Lat 34.453408°, Lon -118.155239°)



Figure B3.5-4(b)
Location 4: Measurement Location and Site Views

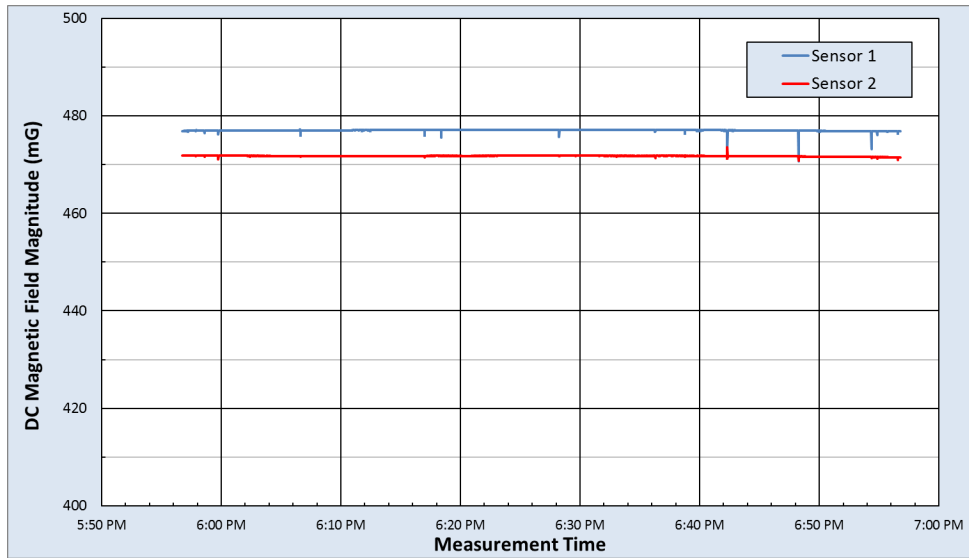
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.



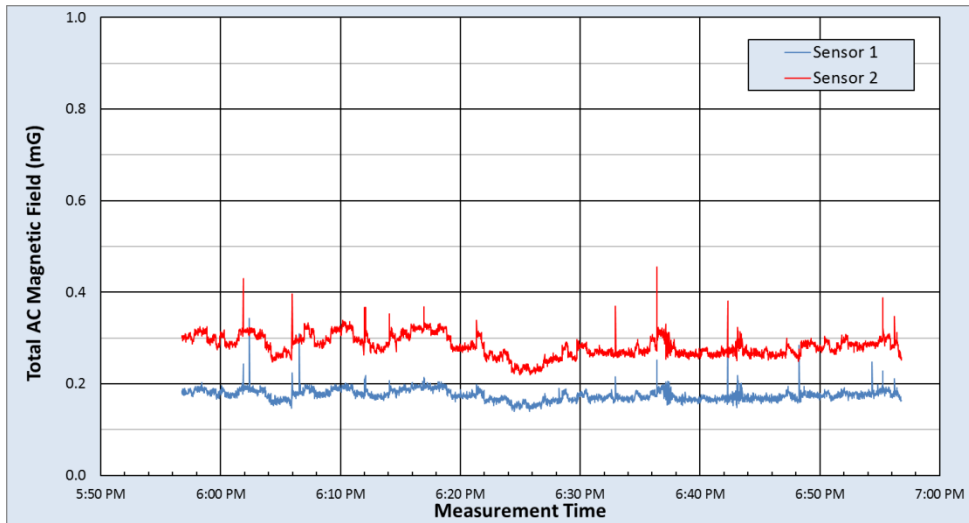
Figure B3.5-4(c) Location 4: Aliso Canyon Road, Acton

Nearby emitters included a single local distribution line.

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

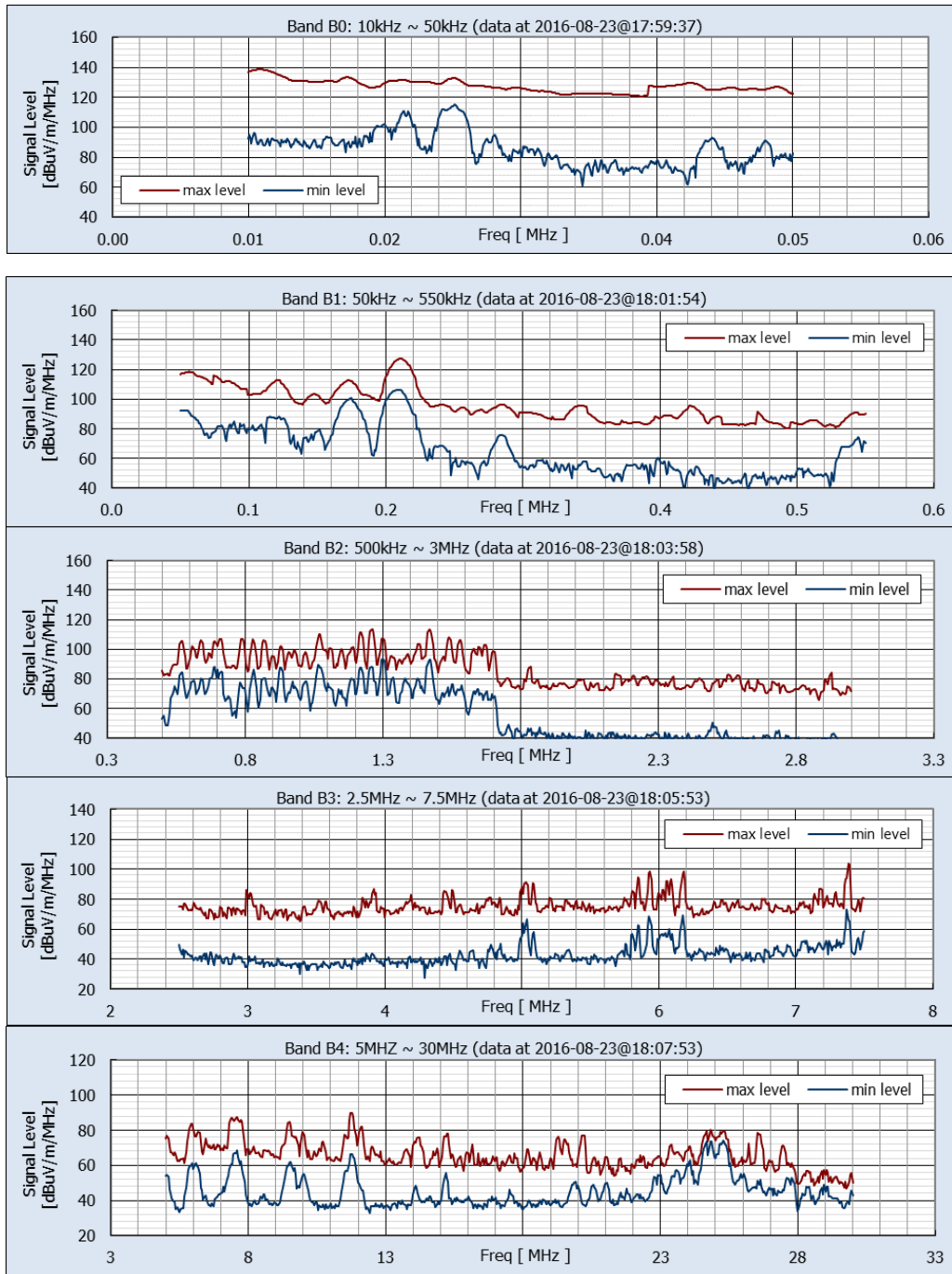


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	261.1	271.4	402.9	390.2	477.2	473.6
Median	255.7	265.4	402.7	390.1	477.0	471.8
Min	251.5	264.4	397.9	388.1	470.7	470.8
Range	9.6	7.0	5.1	2.1	6.6	2.8
Std Dev	0.2	0.2	0.2	0.0	0.2	0.1



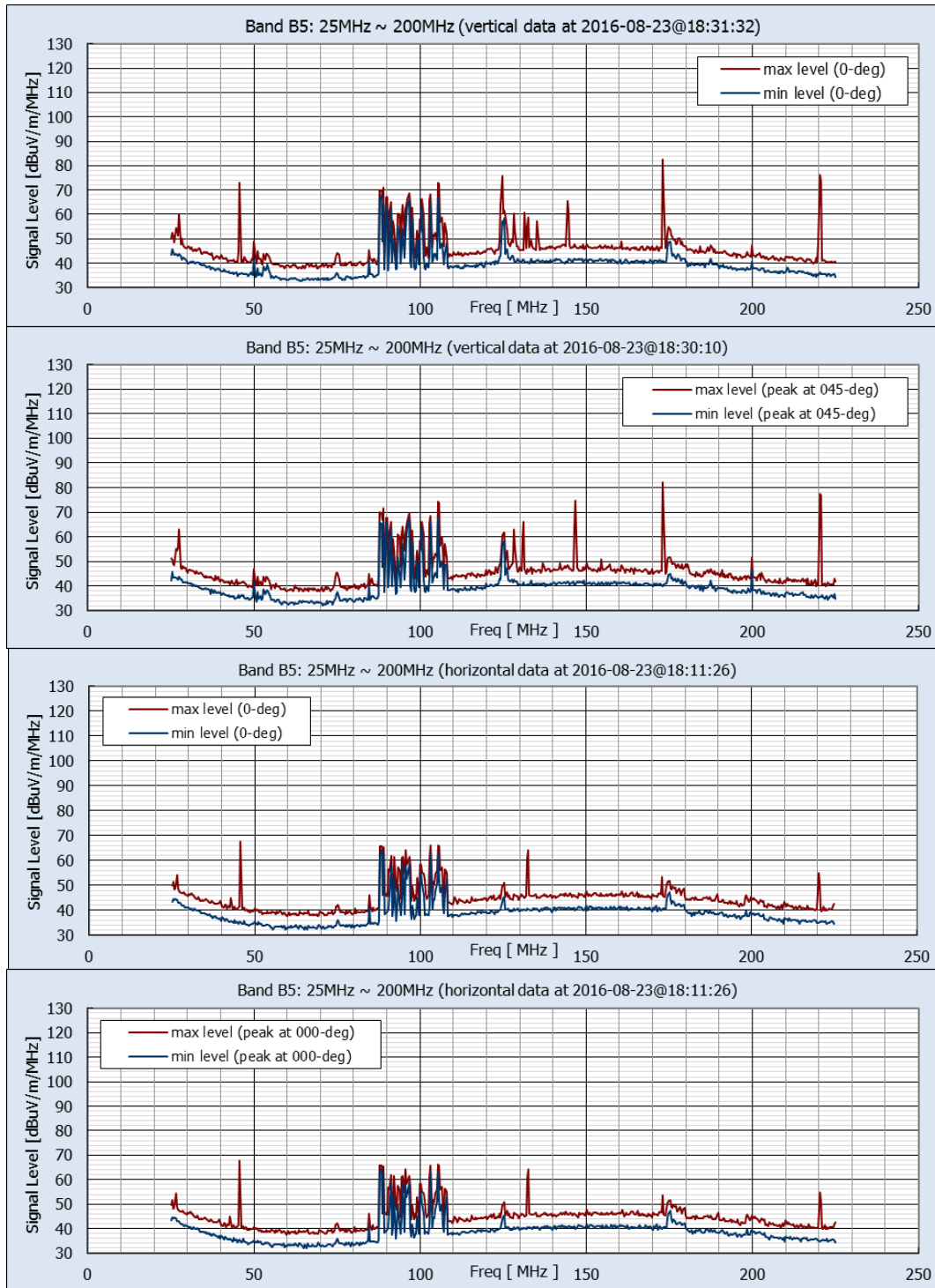
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.306	0.454	0.146	0.080	0.096	0.069	0.079	0.065	0.067	0.065	0.067	0.072	0.070	0.072	0.375	0.455
Median	0.172	0.278	0.009	0.009	0.014	0.021	0.009	0.009	0.010	0.010	0.009	0.009	0.011	0.013	0.175	0.280
Min	0.137	0.217	0.002	0.002	0.003	0.008	0.002	0.001	0.003	0.002	0.002	0.002	0.002	0.002	0.140	0.219
Range	0.169	0.237	0.144	0.078	0.093	0.061	0.077	0.064	0.065	0.063	0.065	0.070	0.068	0.070	0.235	0.236
Std Dev	0.012	0.024	0.008	0.007	0.005	0.005	0.005	0.004	0.005	0.004	0.005	0.005	0.005	0.005	0.013	0.024

Figure B3.5-4(d) Location 4: AC and DC Magnetic Field Measurement Results



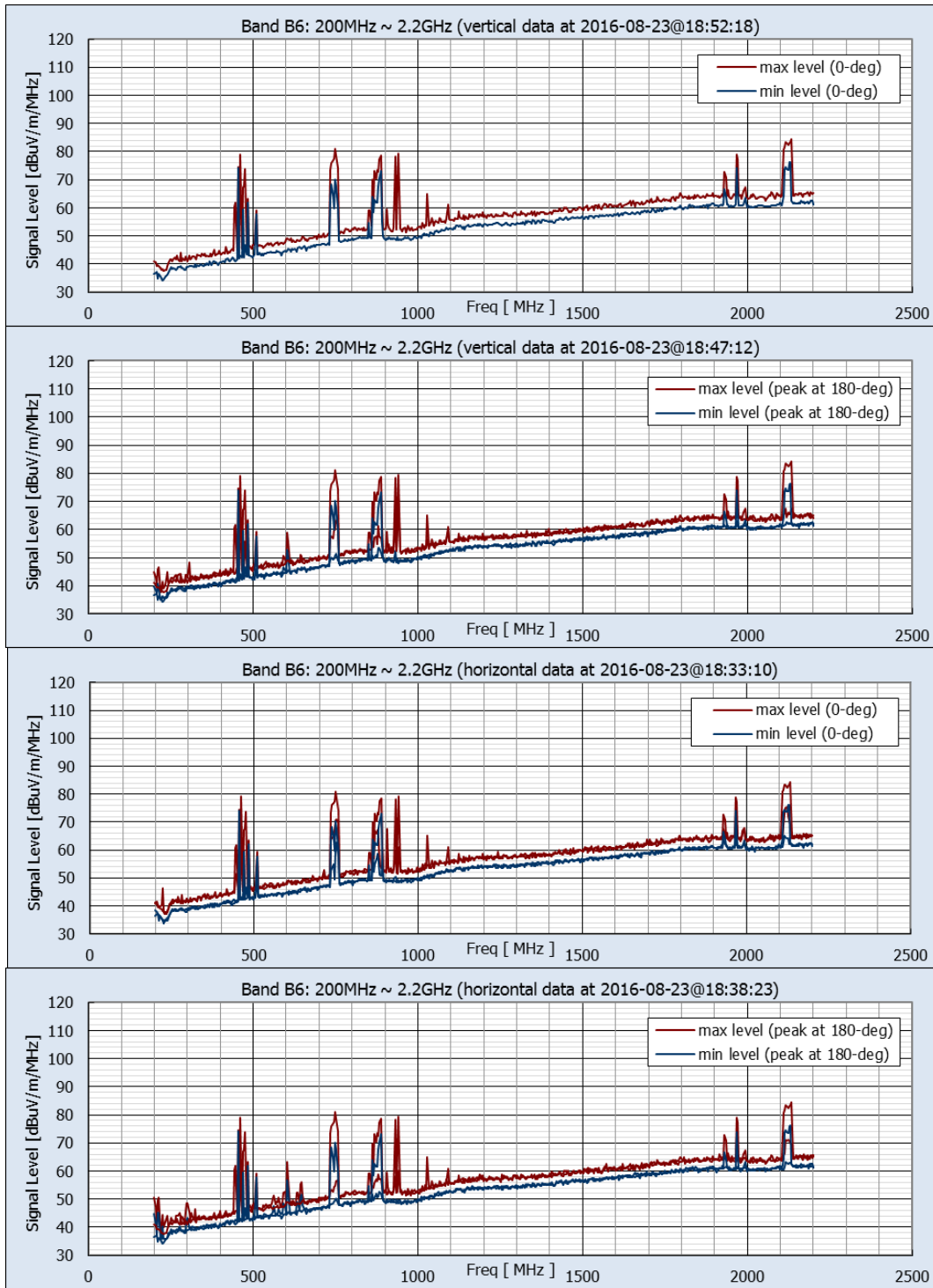
Maximum Levels					
Band number	Freq. Range (MHz)	Pk Min-Hold dB uV/m/MHz	@ Freq. (MHz)	Pk Max-Hold dB uV/m/MHz	@ Freq. (MHz)
B0	0.01 ~ 0.05	115.1	0.0251	138.6	0.0109
B1	0.05 ~ 0.55	106.3	0.2100	127.2	0.2109
B2	0.50 ~ 3.00	93.4	1.3000	113.5	1.2591
B3	2.5 ~ 7.5	73.2	7.3727	103.6	7.3818
B4	5 ~ 30	74.1	25.2727	90.0	11.7727

Figure B3.5-4(e) - Location 4 (Acton, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



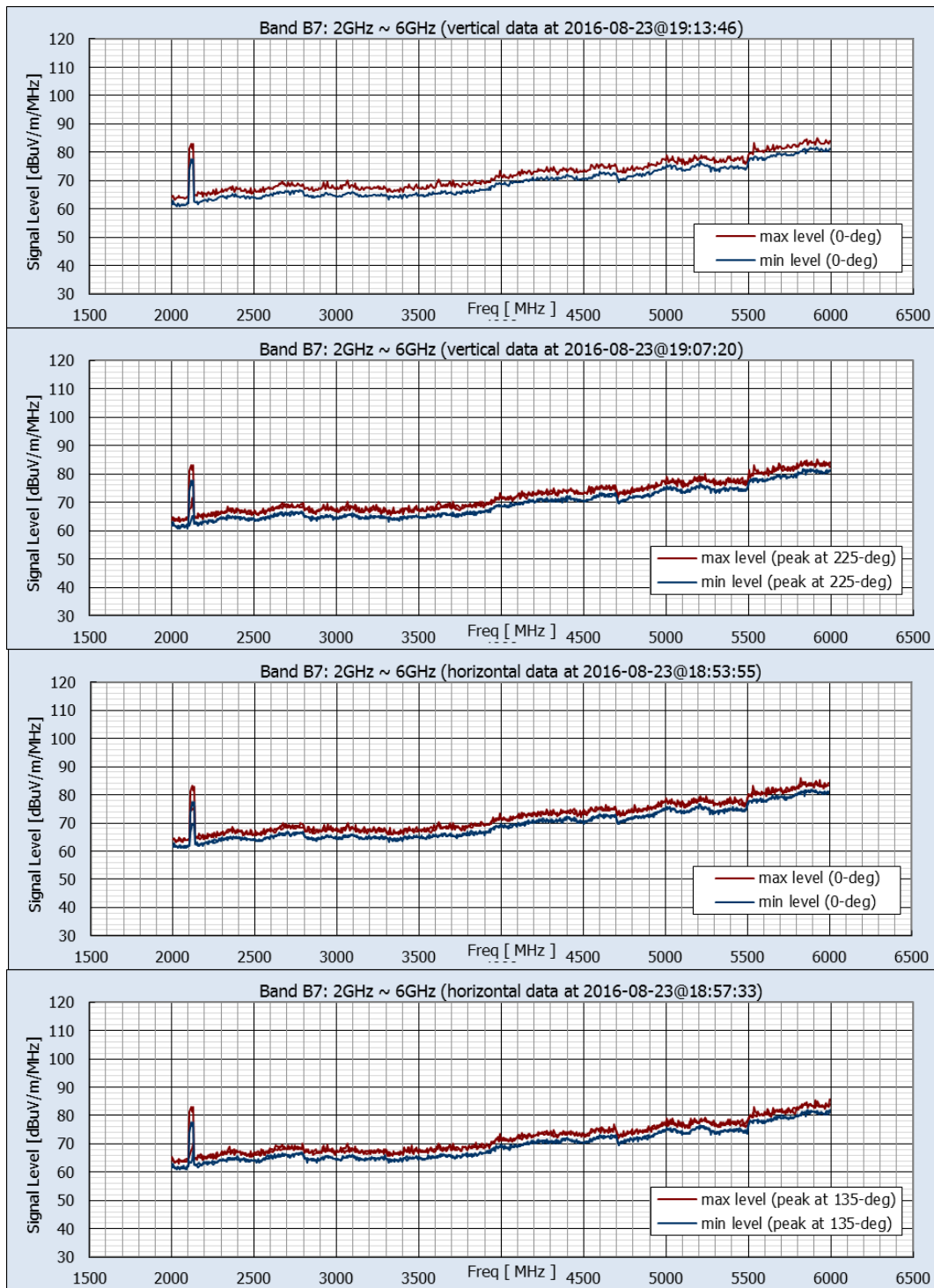
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	68.2	105.364	82.4	173.000	64.3	88.273	67.8	45.727

Figure B.5-4(f) - Location 4 (Acton, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	76.2	2130.909	84.4	2134.545	65.2	1967.273	75.3	2123.636

Figure B3.5-4(g) - Location 4 (Acton, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	77.6	2130.909	83.2	2116.364	70.2	2130.909	76.0	2130.909

Figure B3.5-4(h) - Location 4 (Acton, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Figure B3.5-5(a) Location 5: Red Rover Mine Road, Acton
Suburban setting in Acton, but with numerous local RF emitters (Lat 34.498499°, Lon -118.218713°)



Figure B3.5-5(b) Location 5: Measurement Location and Site Views

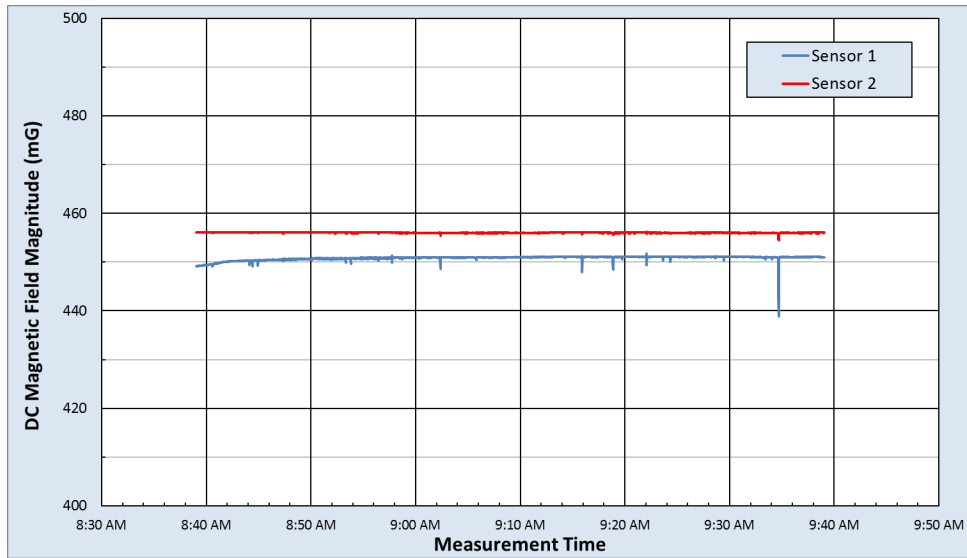
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.



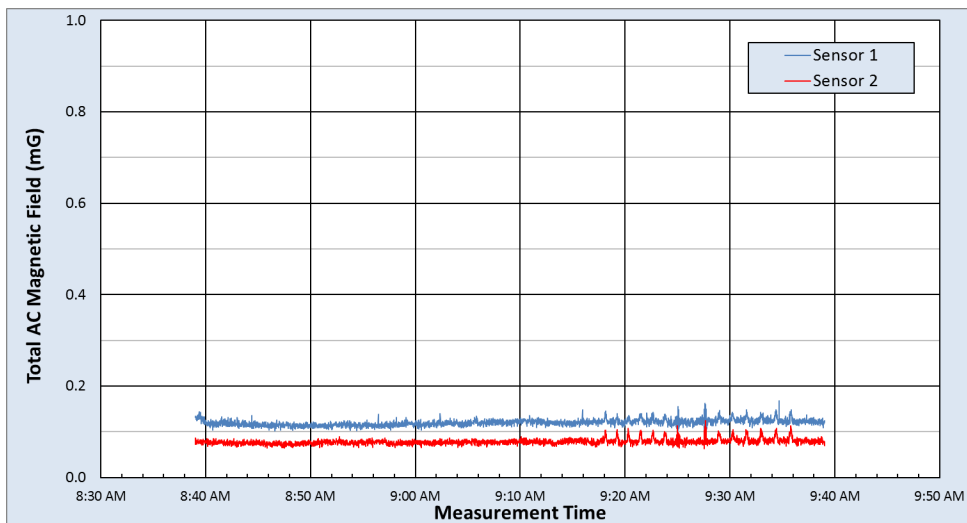
Figure B3.5-5(c) Location 5: Red Rover Mine Road, near Sierra Highway, Acton

Nearby emitters include cell towers, and distribution lines parallel and perpendicular to the alignment.

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

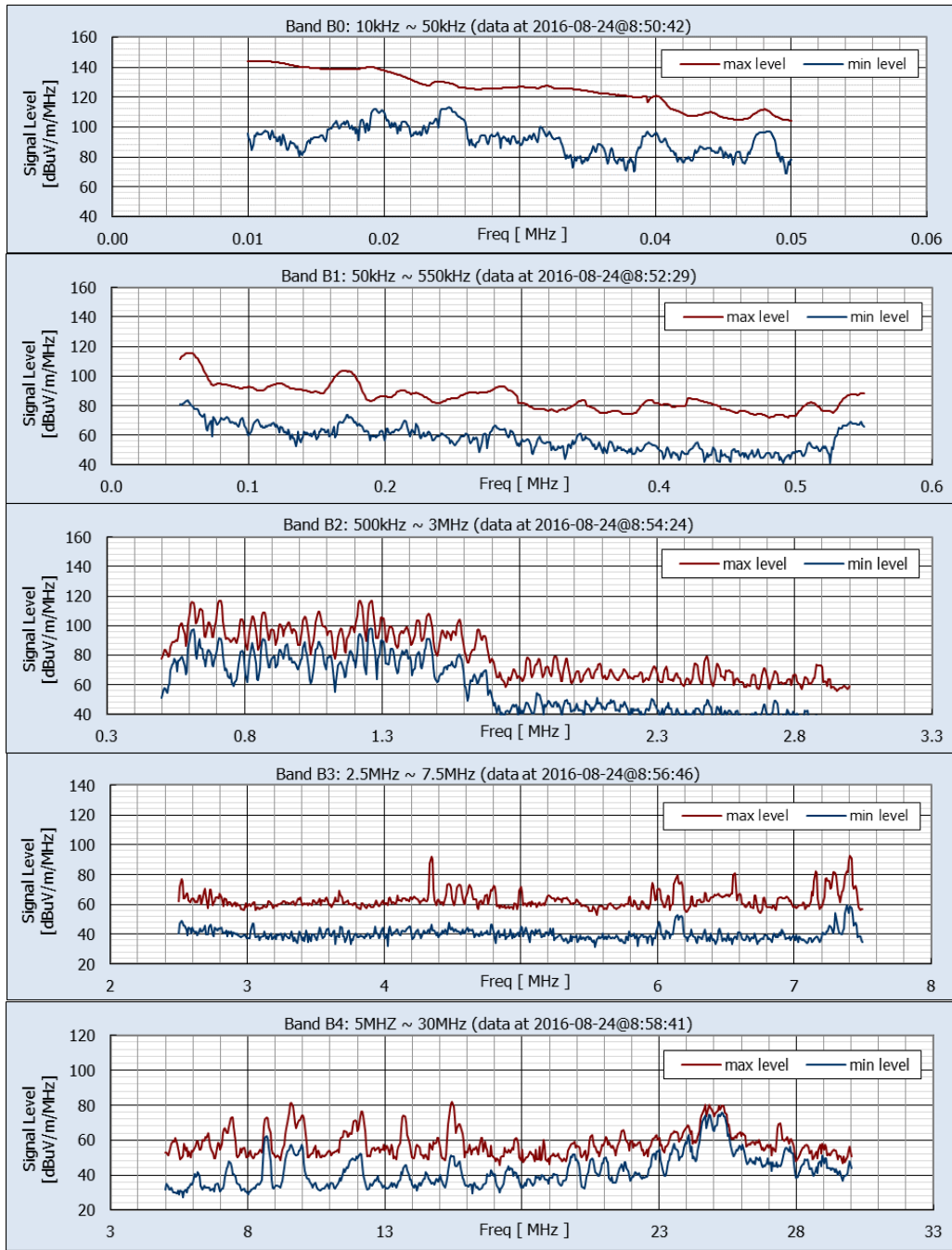


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	209.7	207.6	401.3	407.2	451.8	456.2
Median	206.7	206.3	400.7	406.7	451.0	456.0
Min	202.4	204.8	388.4	405.2	438.9	454.5
Range	7.2	2.8	12.9	1.9	12.9	1.7
Std Dev	0.8	0.5	0.6	0.3	0.5	0.0



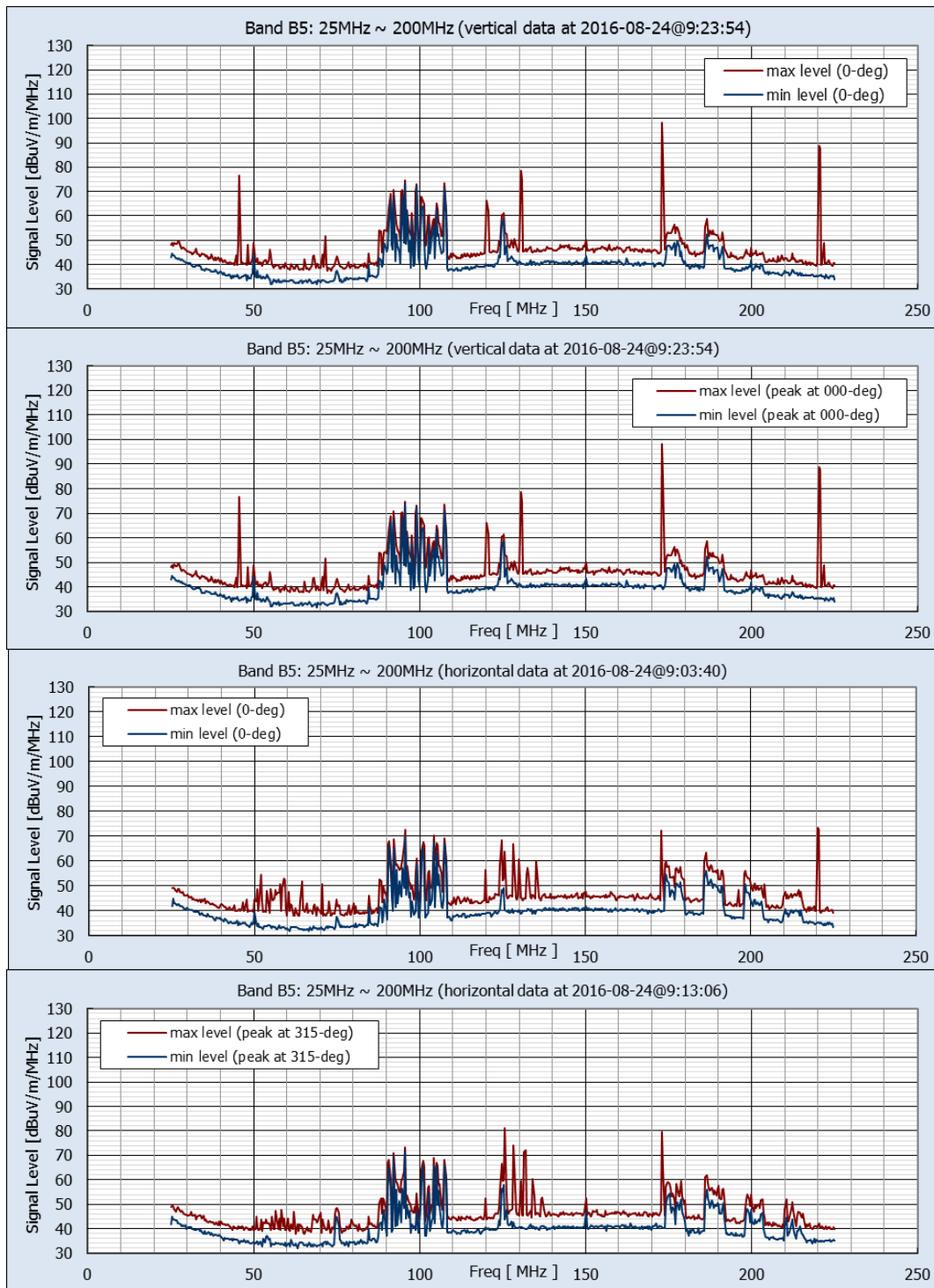
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.159	0.122	0.066	0.062	0.069	0.065	0.079	0.064	0.072	0.069	0.079	0.069	0.076	0.076	0.168	0.125
Median	0.116	0.074	0.010	0.009	0.010	0.009	0.010	0.009	0.012	0.010	0.010	0.009	0.012	0.010	0.119	0.078
Min	0.092	0.057	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.003	0.002	0.003	0.002	0.096	0.063
Range	0.067	0.065	0.064	0.060	0.068	0.063	0.077	0.062	0.069	0.066	0.076	0.067	0.074	0.075	0.072	0.061
Std Dev	0.006	0.004	0.006	0.005	0.005	0.005	0.008	0.005	0.005	0.005	0.006	0.005	0.006	0.005	0.007	0.006

Figure B3.5-5(d) Location 5: AC and DC Magnetic Field Measurement Results



Maximum Levels					
Band number	Freq. Range	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
	(MHz)	dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	113.3	0.0248	143.8	0.0106
B1	0.05 ~ 0.55	83.4	0.0555	115.6	0.0573
B2	0.50 ~ 3.00	98.1	1.2591	116.8	0.7091
B3	2.5 ~ 7.5	59.2	7.3818	93.0	7.4091
B4	5 ~ 30	76.0	25.2727	82.0	15.4545

Figure B3.5-5(e) - Location 5 (Acton, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	73.3	95.545	98.3	173.000	71.7	95.545	81.3	125.727

Figure B3.5-5(f)- Location 5 (Acton, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

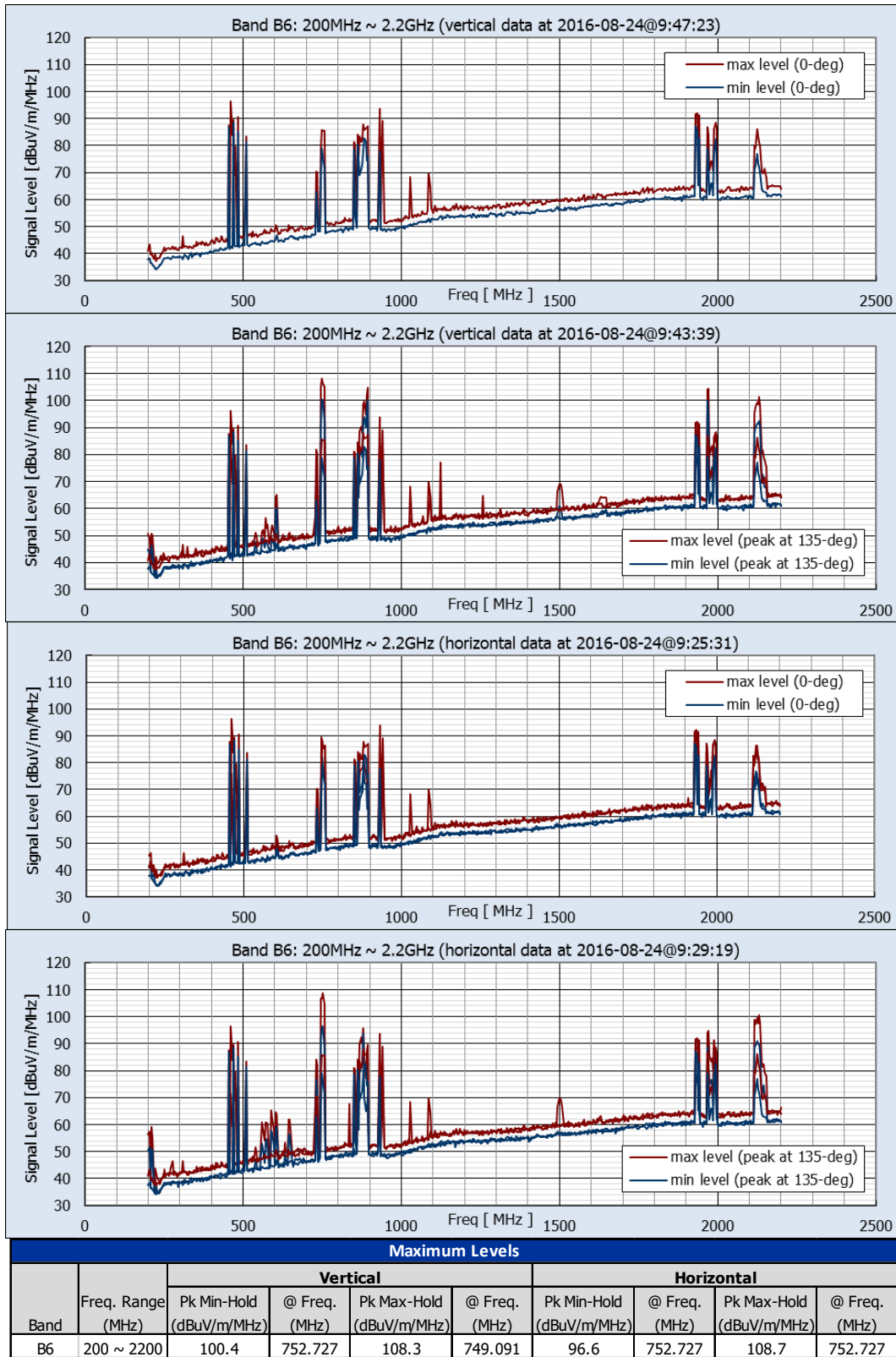
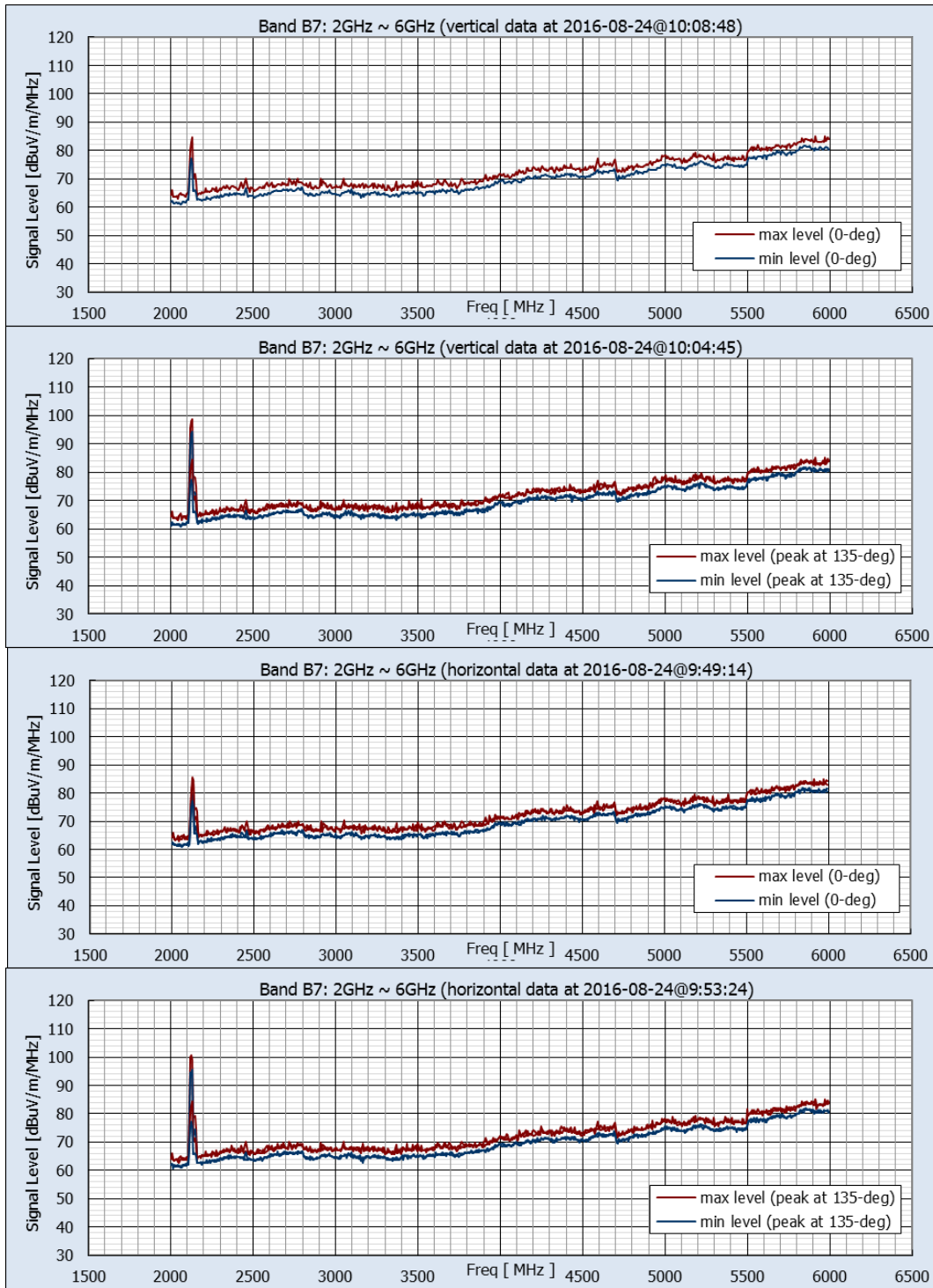


Figure B3.5-5(g)- Location 5 (Acton, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	94.2	2130.909	98.6	2130.909	95.5	2130.909	100.6	2123.636

Figure B3.5-5(h) - Location 5 (Acton, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

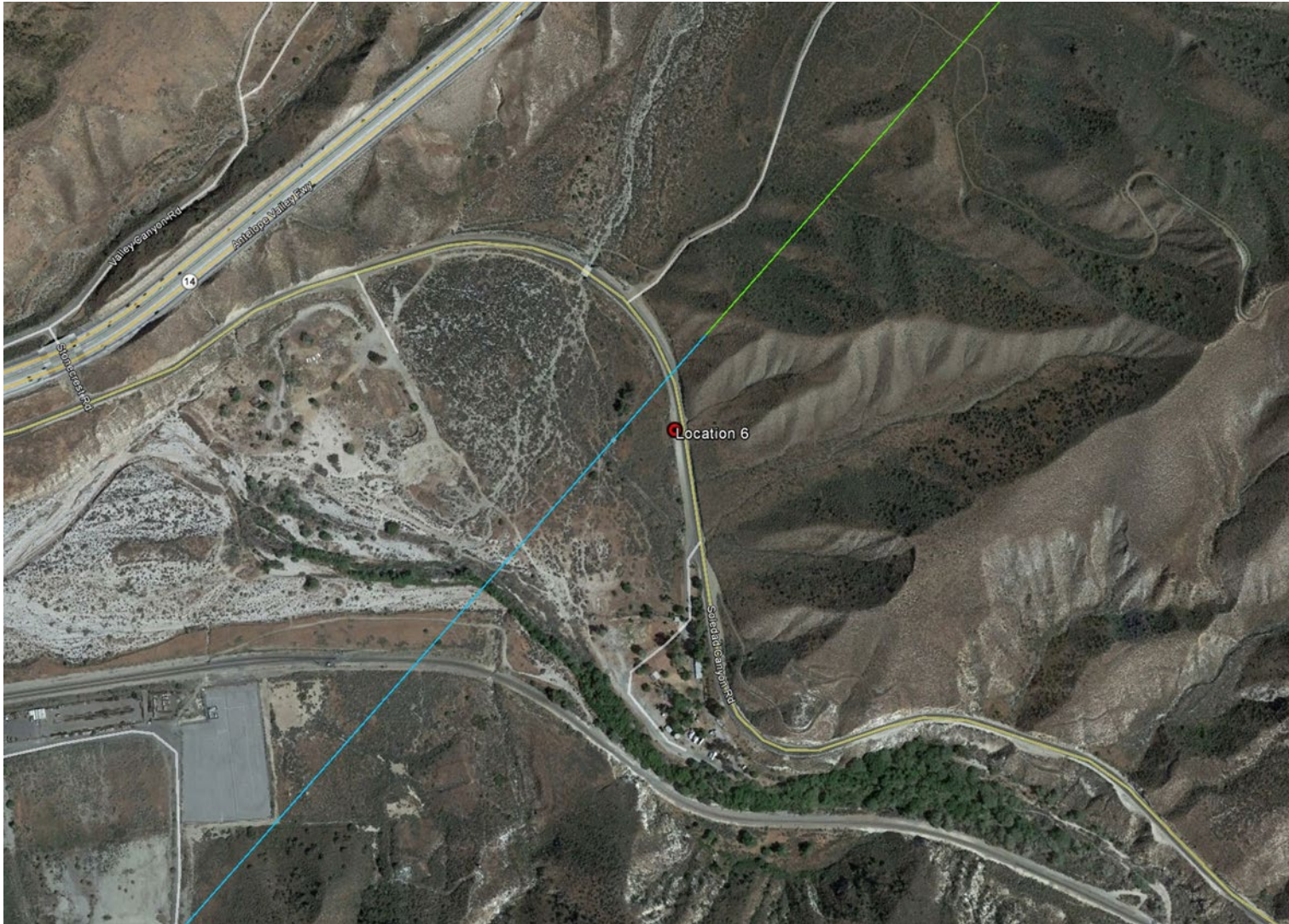


Figure B3.5-6(a) Location 6: Soledad canyon Road, Aqua Dulce
Rural setting between CA, with few RF emitters (Lat 34.436542°, Lon -118.364010°)

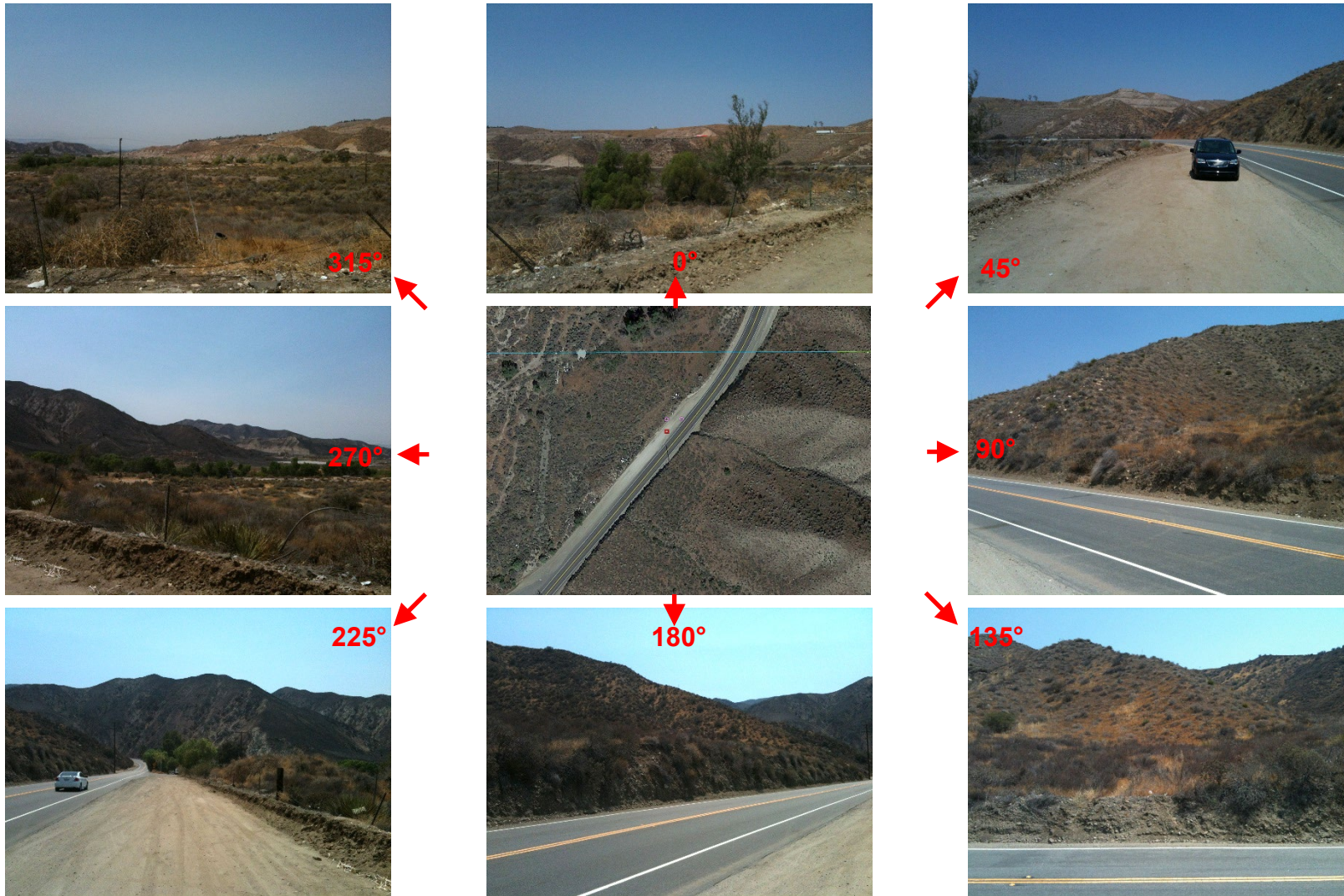


Figure B3.5-6(b)
Location 6: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

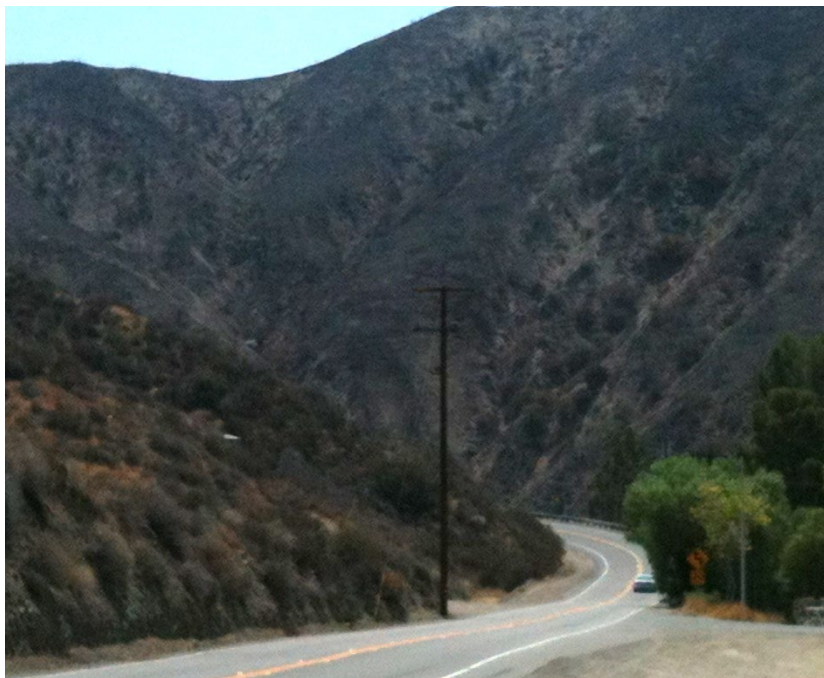
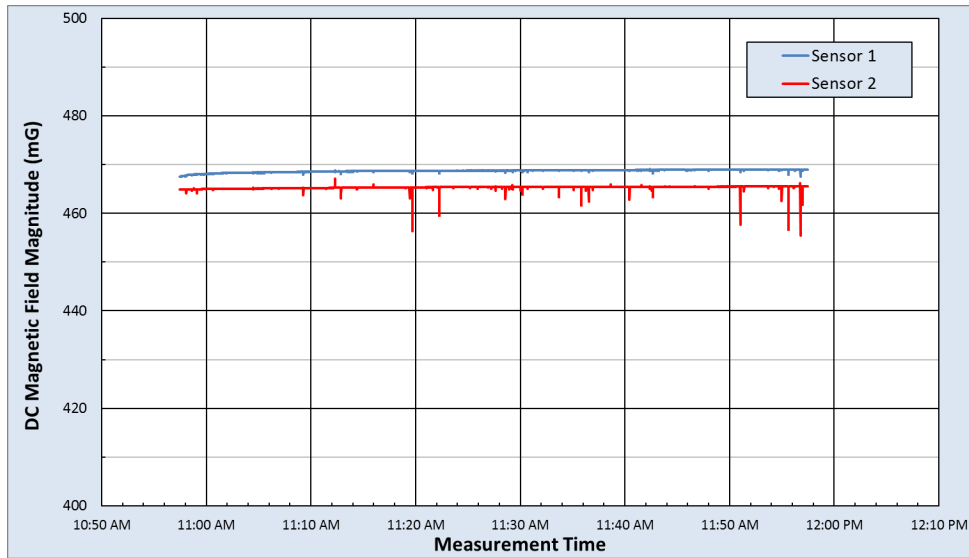


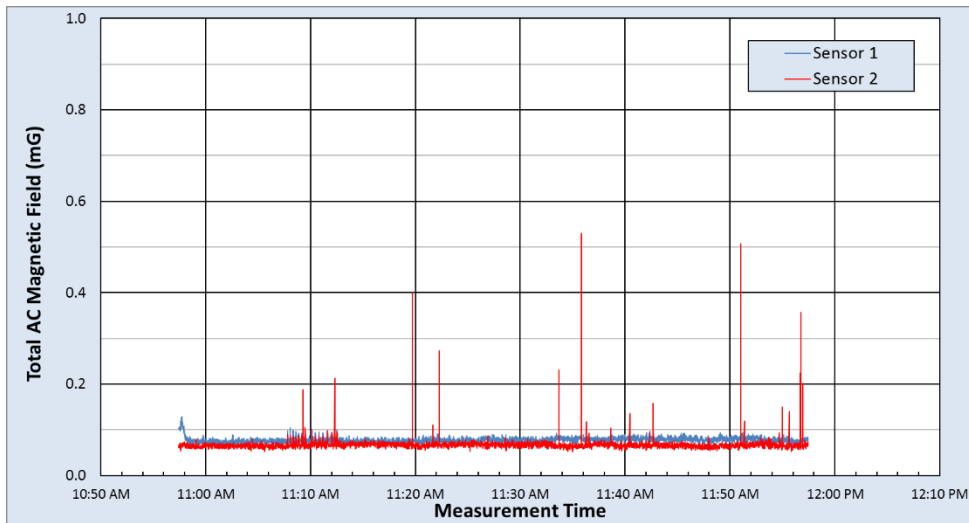
Figure B3.5-6(c)

Location 6: Soledad Canyon Road, Aqua Dulce

Nearby emitters include distribution lines perpendicular to the alignment and relatively distant cellular communications. *Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.*

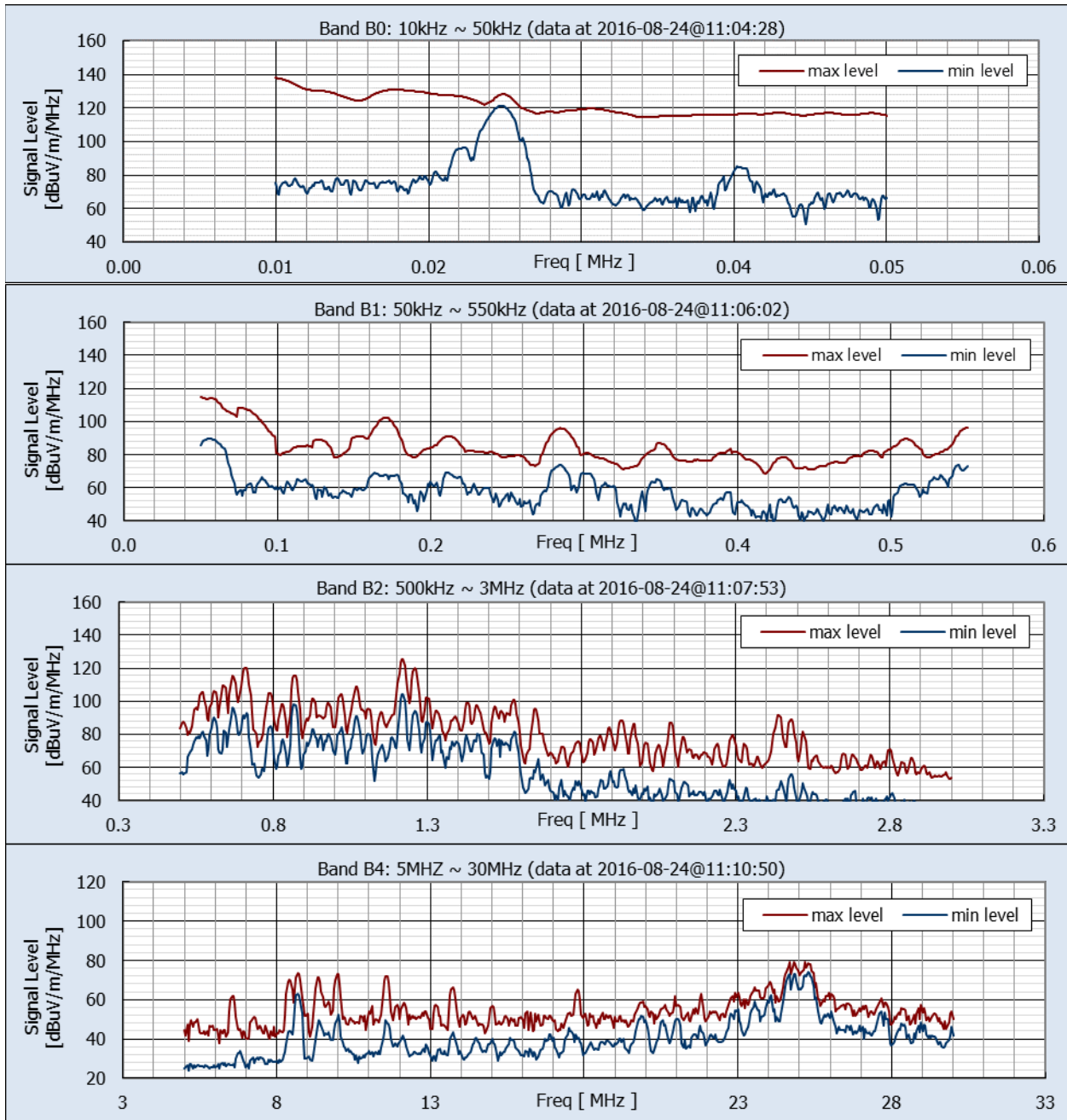


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	264.9	263.9	388.0	387.6	469.0	467.1
Median	263.8	258.4	387.4	387.0	468.8	465.4
Min	263.1	249.4	385.5	374.4	467.5	455.4
Range	1.7	14.5	2.5	13.2	1.5	11.7
Std Dev	0.2	0.5	0.3	0.4	0.3	0.4



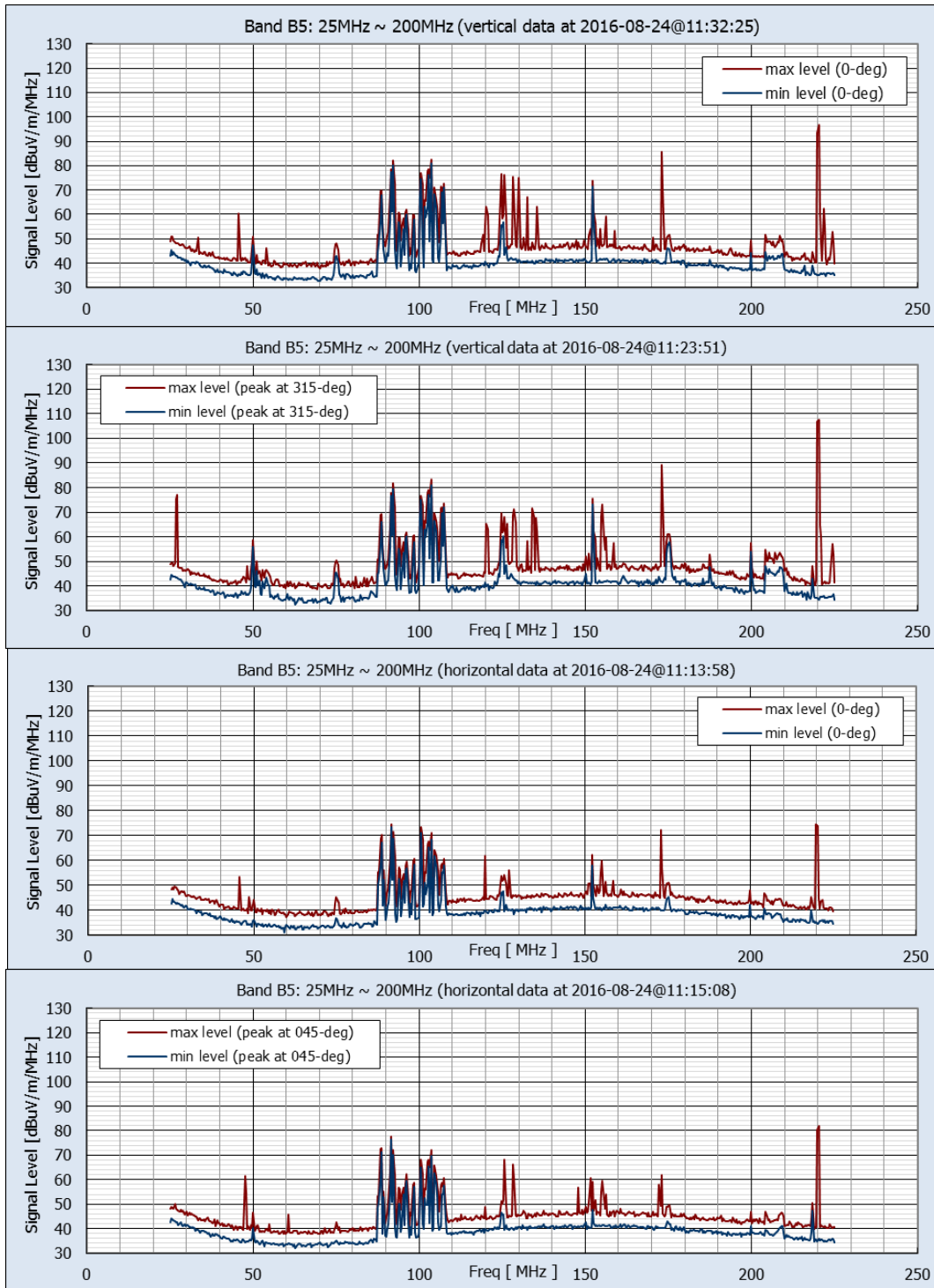
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.097	0.423	0.059	0.216	0.060	0.144	0.099	0.115	0.060	0.092	0.060	0.084	0.066	0.073	0.129	0.529
Median	0.072	0.061	0.010	0.009	0.012	0.011	0.010	0.009	0.010	0.010	0.010	0.010	0.011	0.010	0.077	0.066
Min	0.053	0.046	0.002	0.002	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.059	0.052
Range	0.044	0.377	0.057	0.214	0.057	0.141	0.097	0.113	0.058	0.090	0.058	0.082	0.064	0.071	0.070	0.477
Std Dev	0.005	0.012	0.004	0.008	0.004	0.006	0.007	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.006	0.016

Figure B3.5-6(d) Location 6: AC and DC Magnetic Field Measurement Results



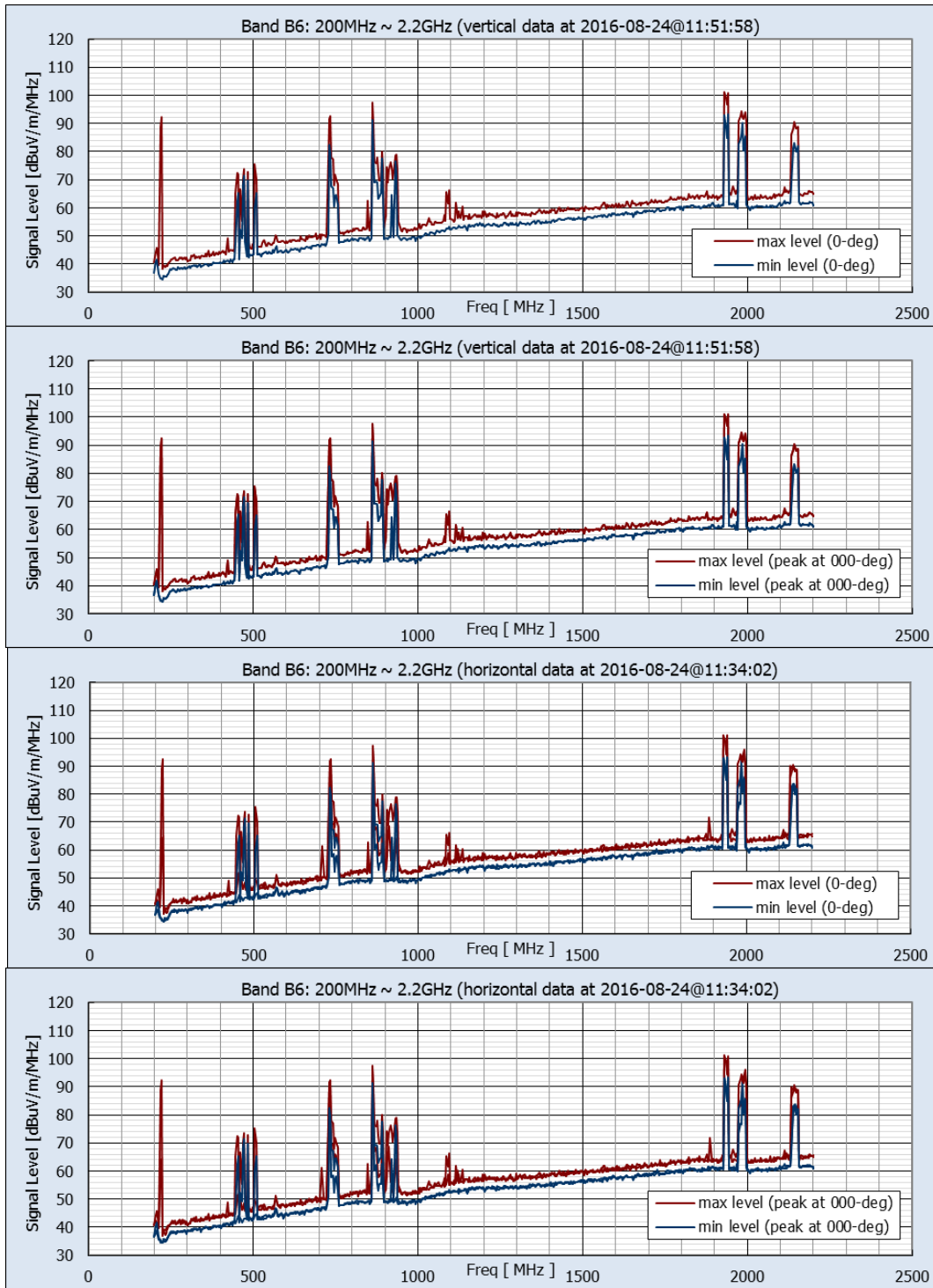
Maximum Levels					
Band number	Freq. Range	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
	(MHz)	dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	121.2	0.0248	137.9	0.0100
B1	0.05 ~ 0.55	89.7	0.0555	114.8	0.0500
B2	0.50 ~ 3.00	104.1	1.2182	125.4	1.2182
B3	2.5 ~ 7.5	51.3	2.5182	82.3	6.5636
B4	5 ~ 30	74.2	25.2727	79.0	24.8182

Figure B3.5-6(e) - Location 6 (Agua Dulce, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



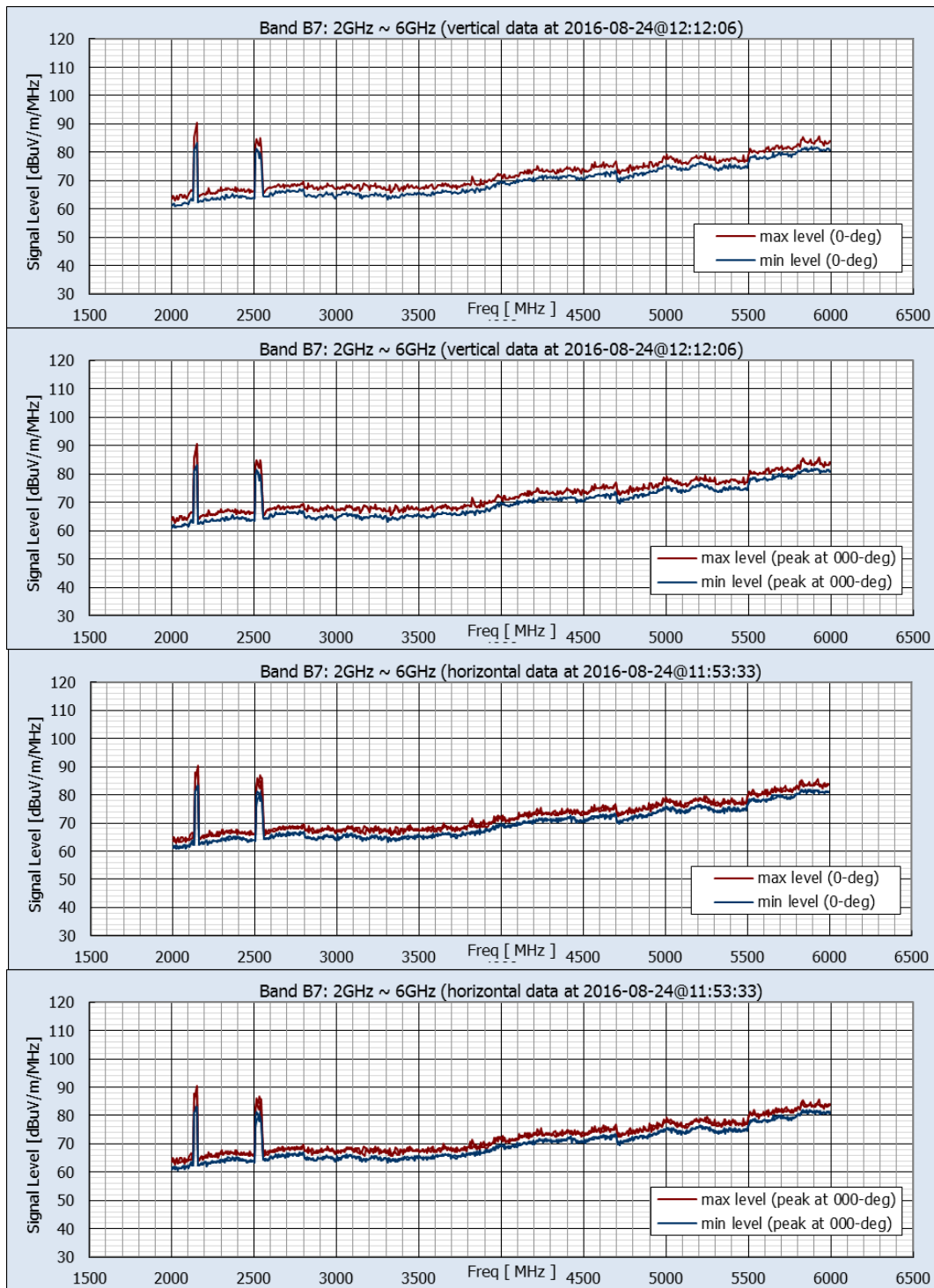
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	80.8	103.545	107.6	220.273	76.4	91.545	82.1	220.273

Figure B3.5-6(f)- Location 6 (Agua Dulce, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	93.3	1941.818	101.2	1930.909	94.0	1930.909	100.5	1930.909

Figure B3.5-6(g)- Location 6 (Agua Dulce, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	83.2	2152.727	90.4	2152.727	84.2	2152.727	90.1	2152.727

Figure B3.5-6(h) - Location 6 (Agua Dulce, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

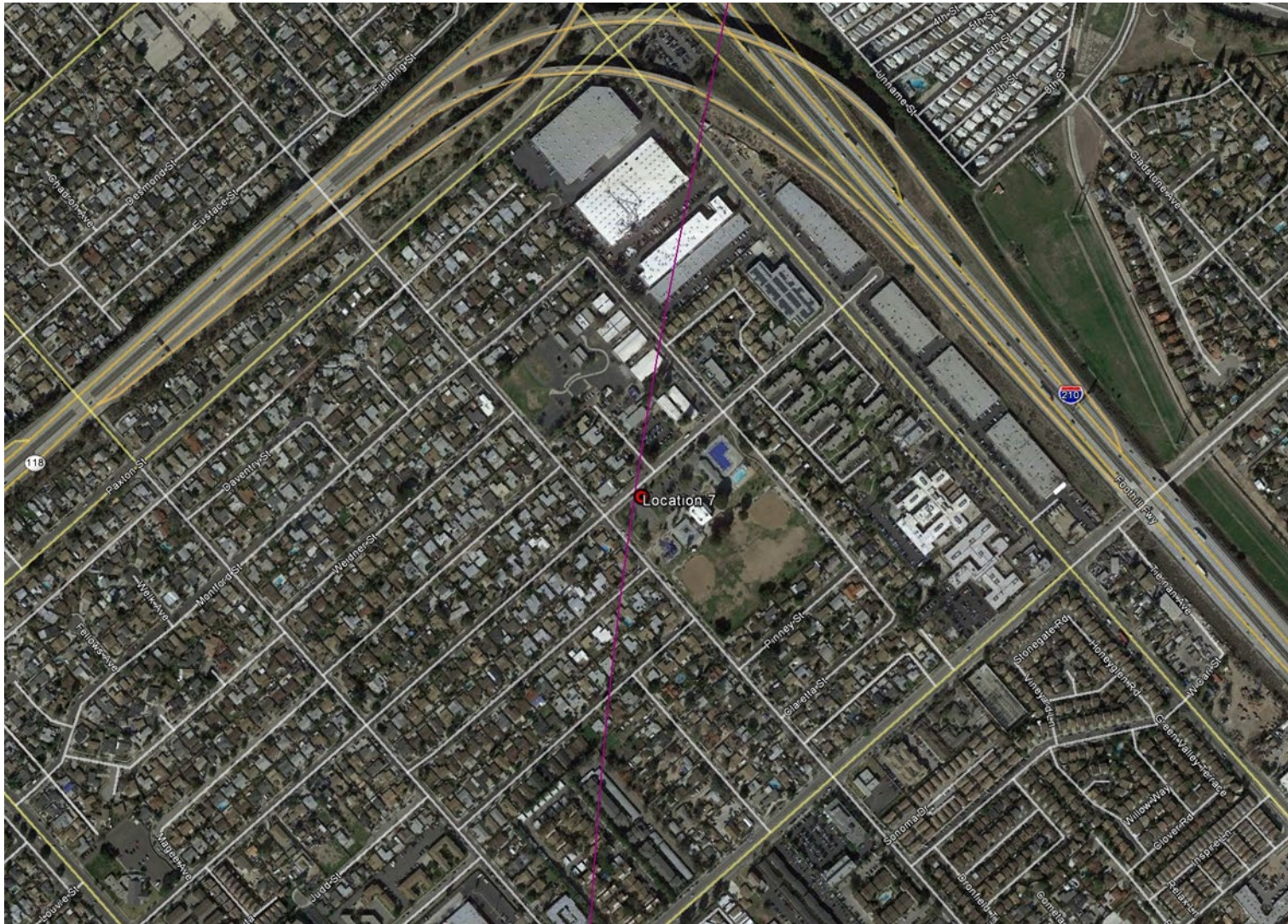


Figure B3.5-7(a) Location 7: Filmore Street, Pacoima
Urban setting near elementary school and community park (Lat 34.265969°, Lon -118.359479°)



Figure B3.5-7(b) Location 7: Measurement Location and Site Views

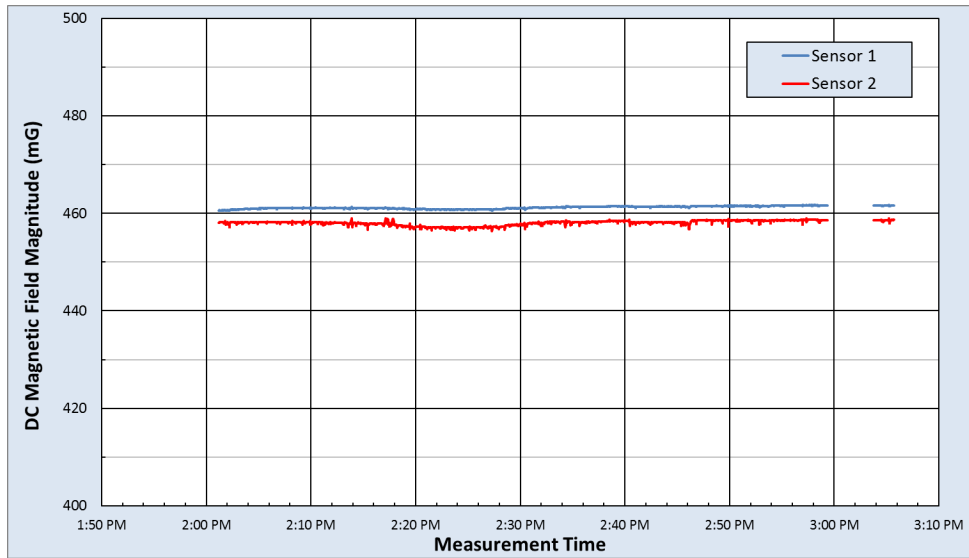
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.



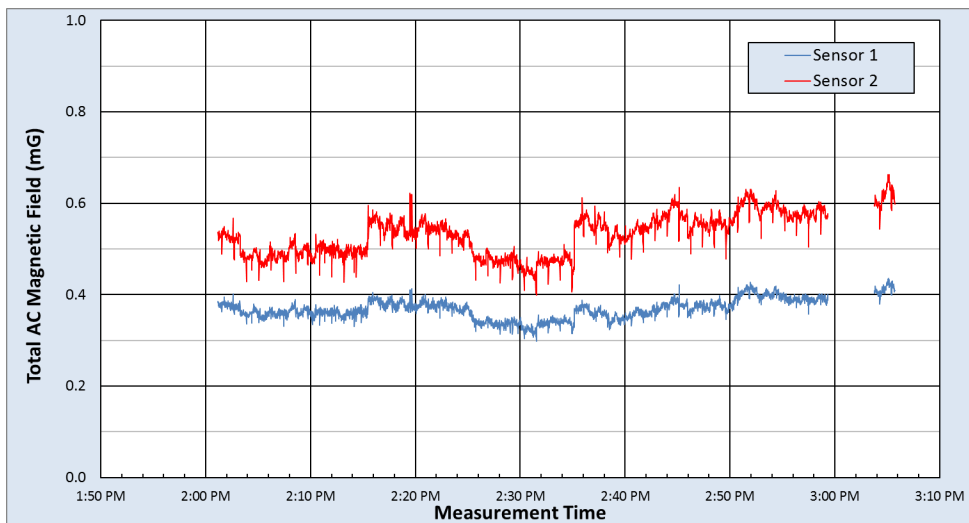
Figure B3.5-7(c) Location 7: Filmore Street, near Cornelia Avenue, Pacoima

Nearby emitters include local distribution lines.

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

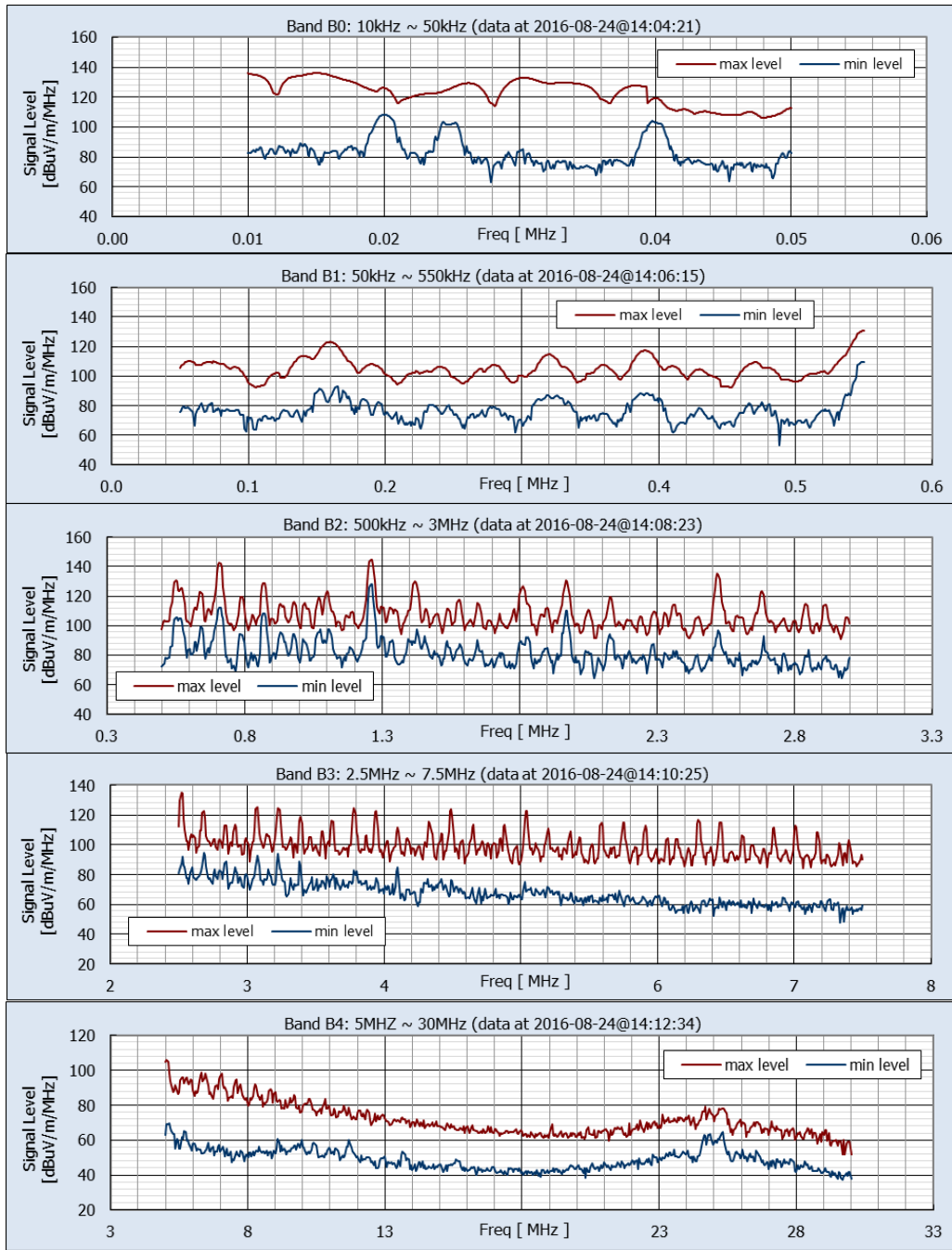


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	245.7	222.9	392.2	403.0	461.7	459.0
Median	244.0	220.2	391.3	401.5	461.1	458.2
Min	243.1	218.2	389.9	399.7	460.5	456.3
Range	2.6	4.7	2.3	3.2	1.2	2.7
Std Dev	0.4	0.7	0.5	0.8	0.3	0.5



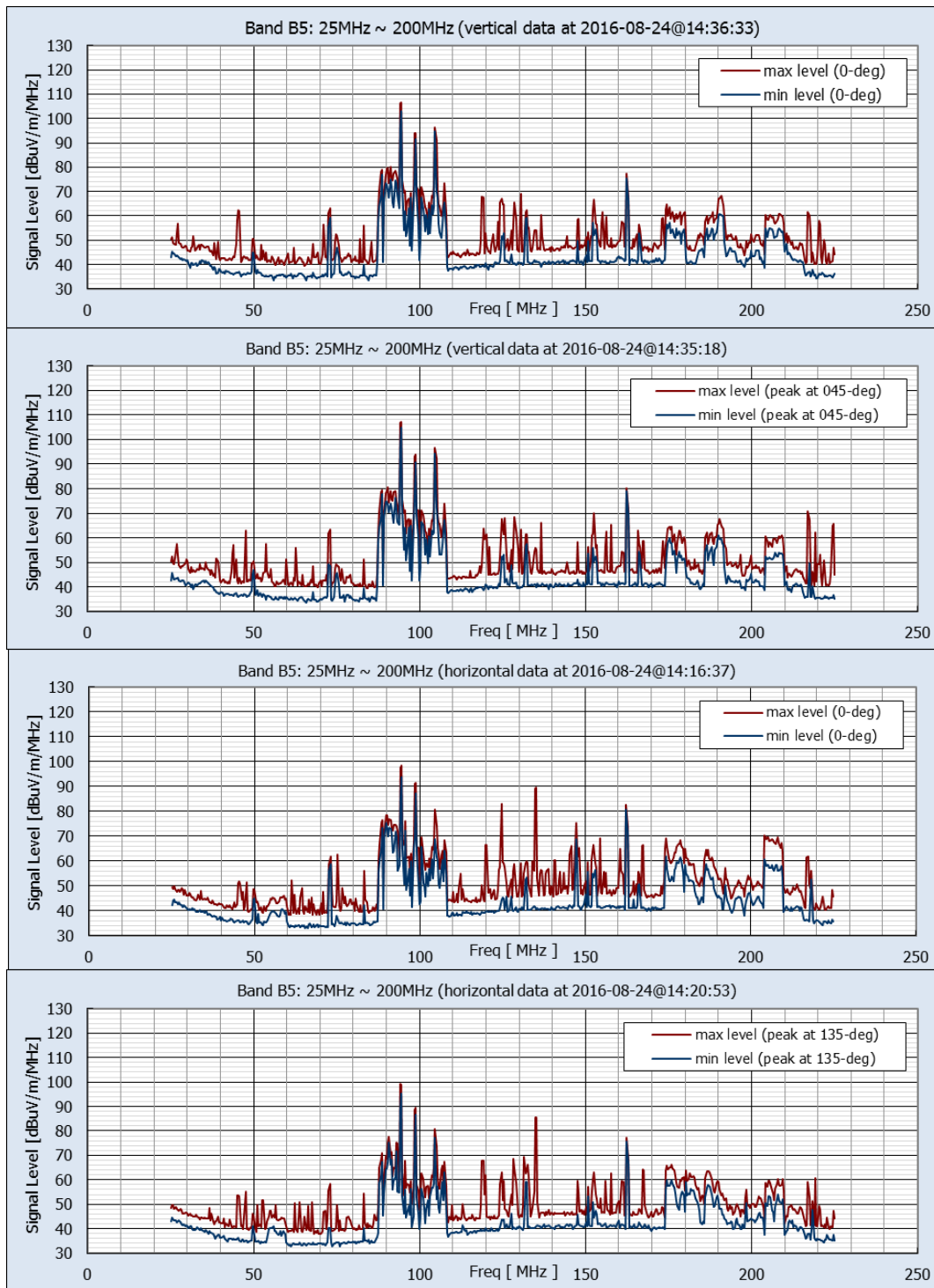
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.426	0.638	0.060	0.061	0.102	0.189	0.064	0.058	0.072	0.060	0.065	0.062	0.068	0.061	0.436	0.662
Median	0.362	0.515	0.010	0.012	0.060	0.122	0.010	0.009	0.014	0.018	0.010	0.010	0.012	0.012	0.368	0.535
Min	0.292	0.380	0.002	0.002	0.037	0.096	0.001	0.002	0.002	0.005	0.003	0.002	0.002	0.003	0.298	0.399
Range	0.134	0.258	0.058	0.059	0.065	0.093	0.063	0.056	0.069	0.055	0.062	0.060	0.066	0.058	0.138	0.263
Std Dev	0.022	0.043	0.004	0.004	0.010	0.027	0.004	0.003	0.005	0.010	0.004	0.004	0.004	0.004	0.022	0.046

Figure B3.5-7(d) Location 7: AC and DC Magnetic Field Measurement Results



Maximum Levels					
Band number	Freq. Range (MHz)	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
		dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	108.1	0.0200	135.9	0.0149
B1	0.05 ~ 0.55	109.5	0.5500	130.4	0.5500
B2	0.50 ~ 3.00	128.1	1.2591	144.9	1.2591
B3	2.5 ~ 7.5	94.4	2.6818	135.2	2.5182
B4	5 ~ 30	69.9	5.1364	106.0	5.0455

Figure B3.5-7(e) - Location 7 (Pacoima, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	104.7	94.455	107.2	94.455	95.3	94.455	99.4	94.091

Figure B3.5-7(f) - Location 7 (Pacoima, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

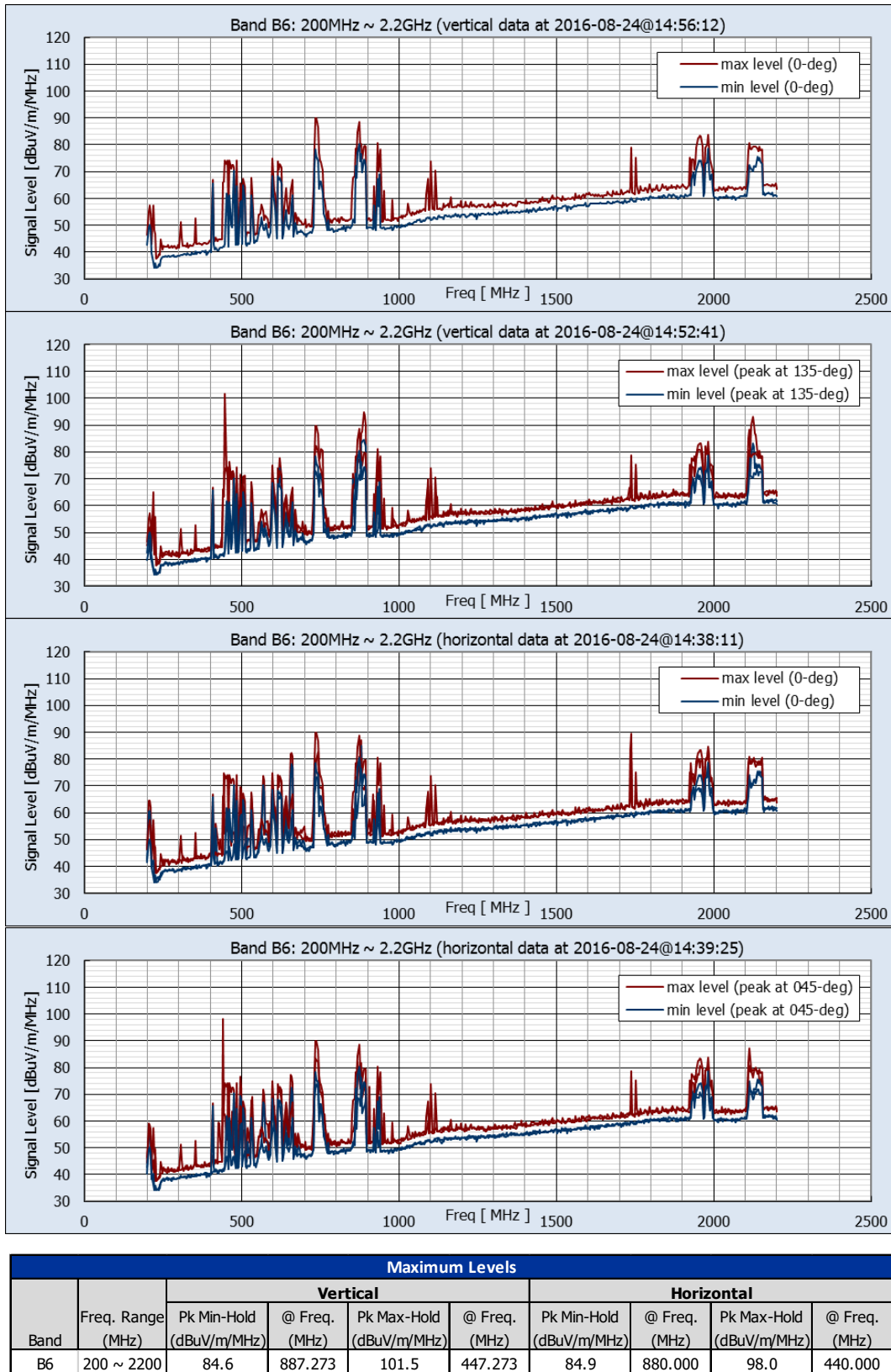
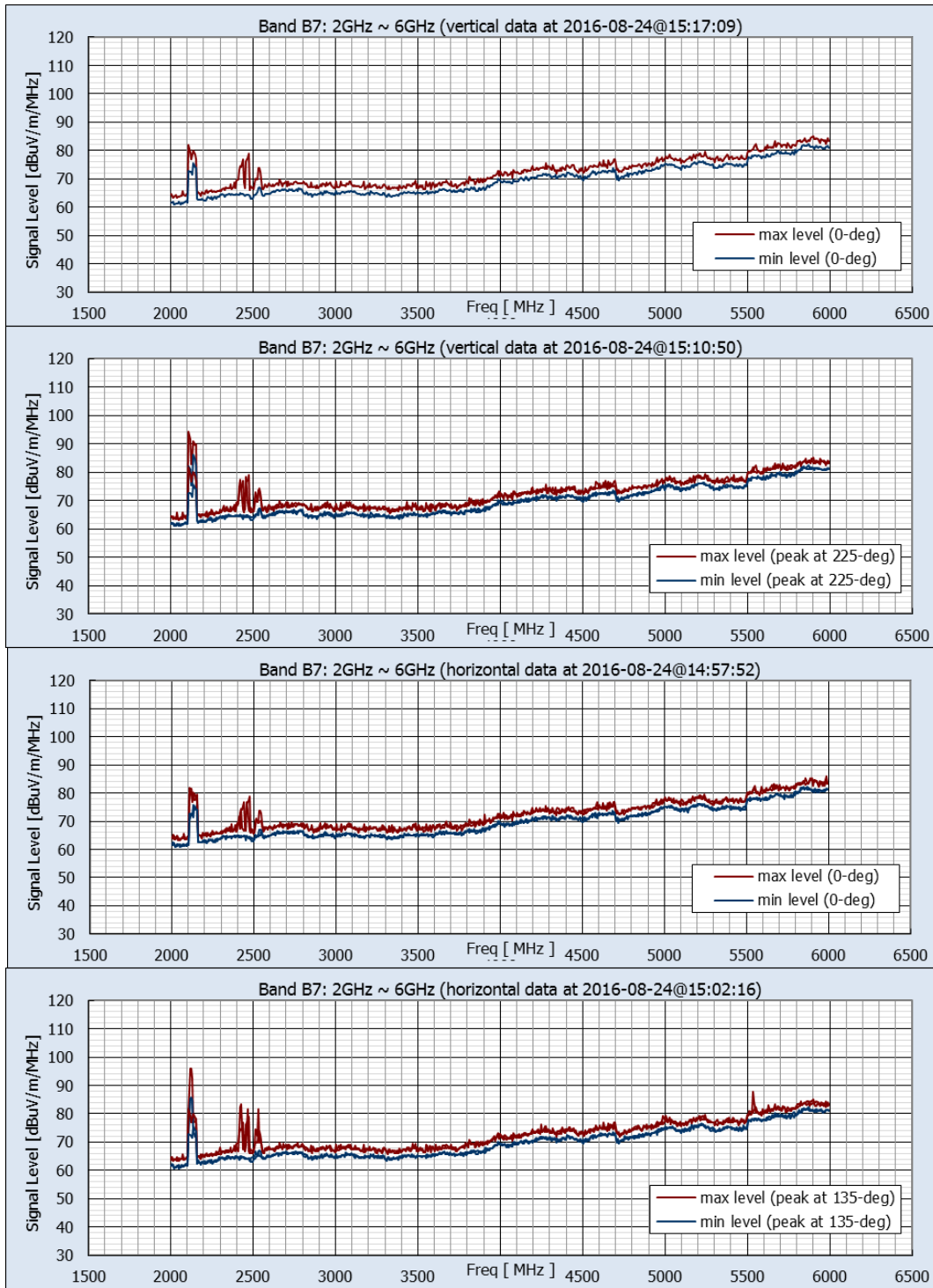


Figure B3.5-7(g) - Location 7 (Pacoima, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	86.3	2138.182	94.5	2109.091	85.8	2123.636	95.9	2116.364

Figure B3.5-7(h) - Location 7 (Pacoima, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Figure B3.5-8(a) Location 8: San Fernando Boulevard, Sun Valley
Urban setting adjacent to medical center and near the existing rail alignment (Lat 34.241189°, Lon -118.394963°)



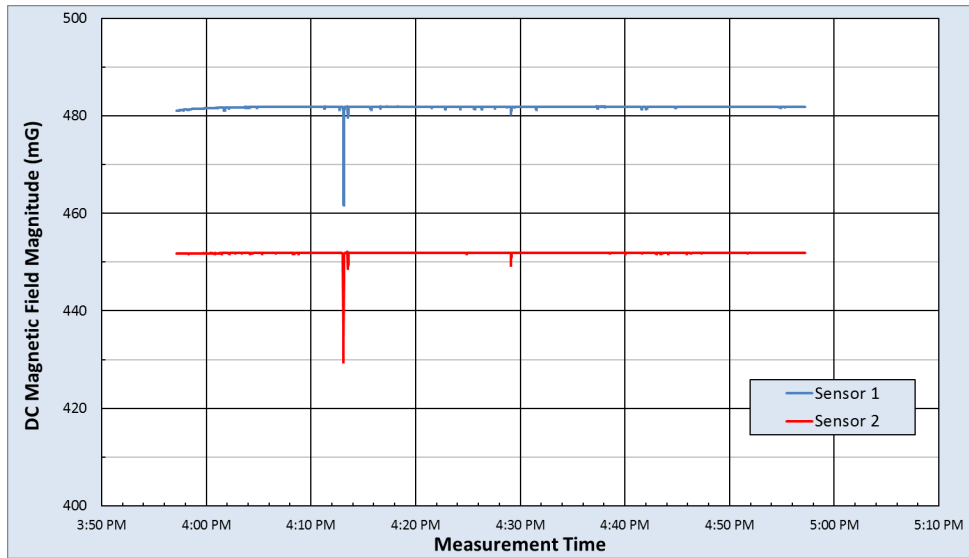
Figure B3.5-8(b) Location 8: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

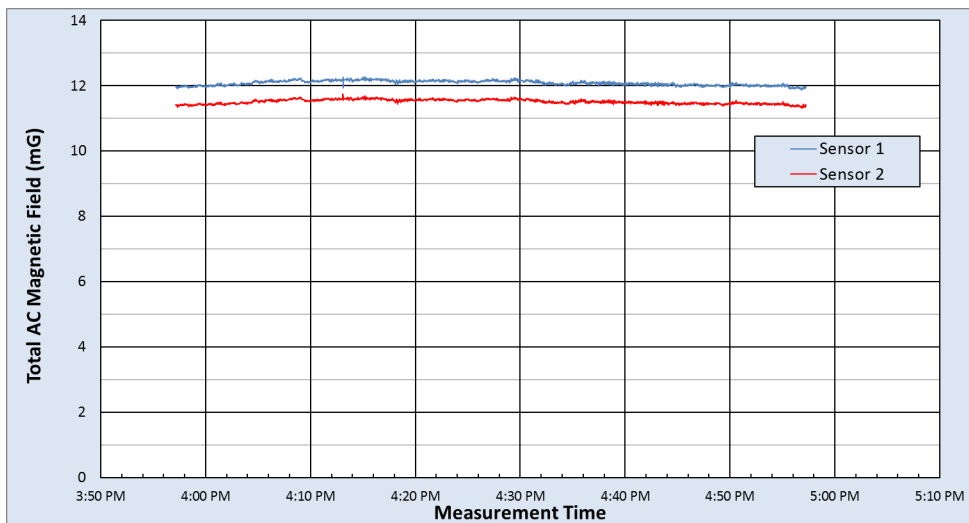


Figure B3.5-8(c) Location 8: San Fernando Boulevard, near Sheldon Street, Sun Valley
Nearby emitters include HV transmission lines, distribution lines, and cell towers

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

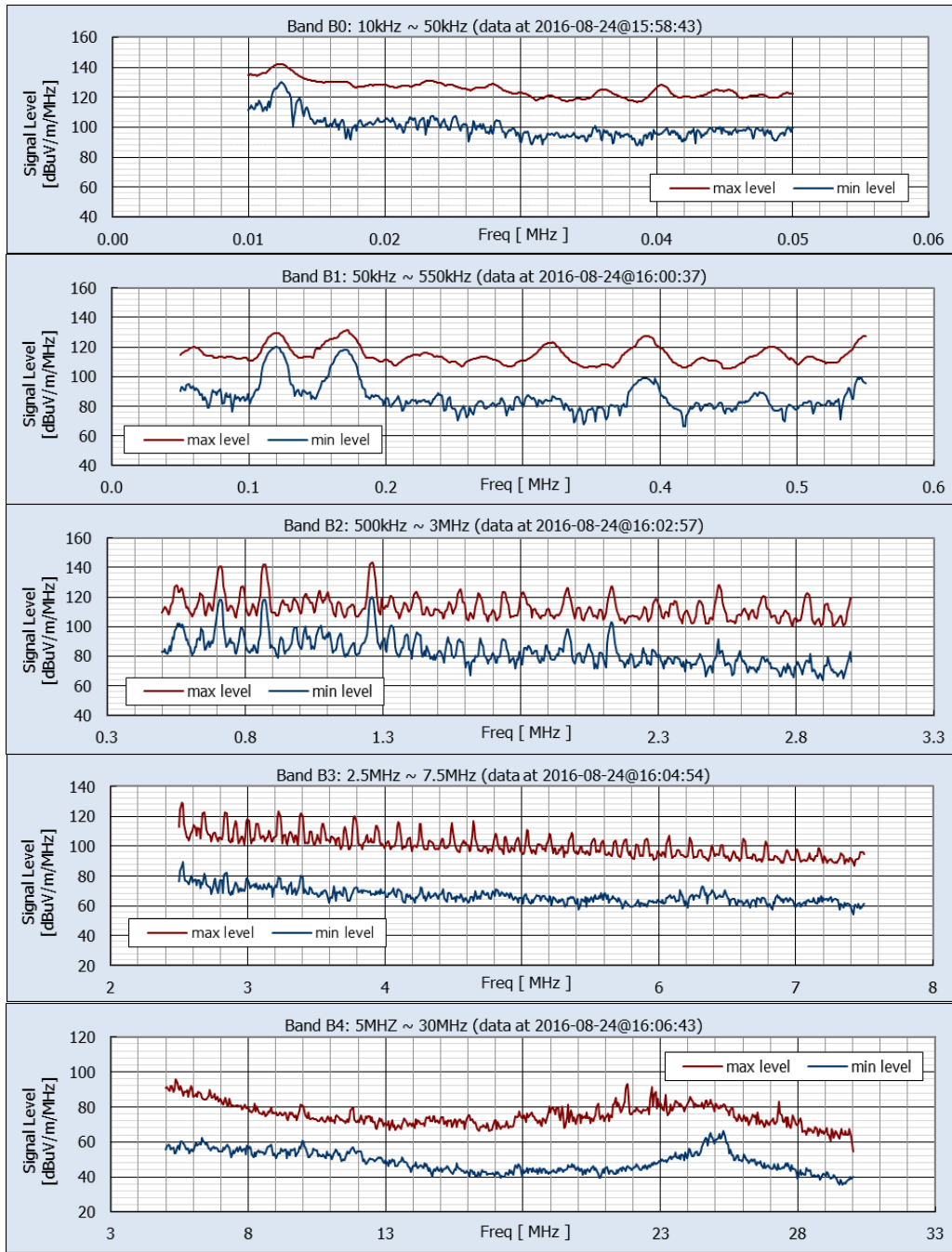


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	247.6	227.4	415.4	392.2	482.0	452.2
Median	244.6	225.2	415.2	391.7	481.8	451.9
Min	230.2	208.5	399.9	375.6	461.6	429.5
Range	17.4	19.0	15.5	16.7	20.3	22.6
Std Dev	0.5	0.6	0.5	0.5	0.5	0.6



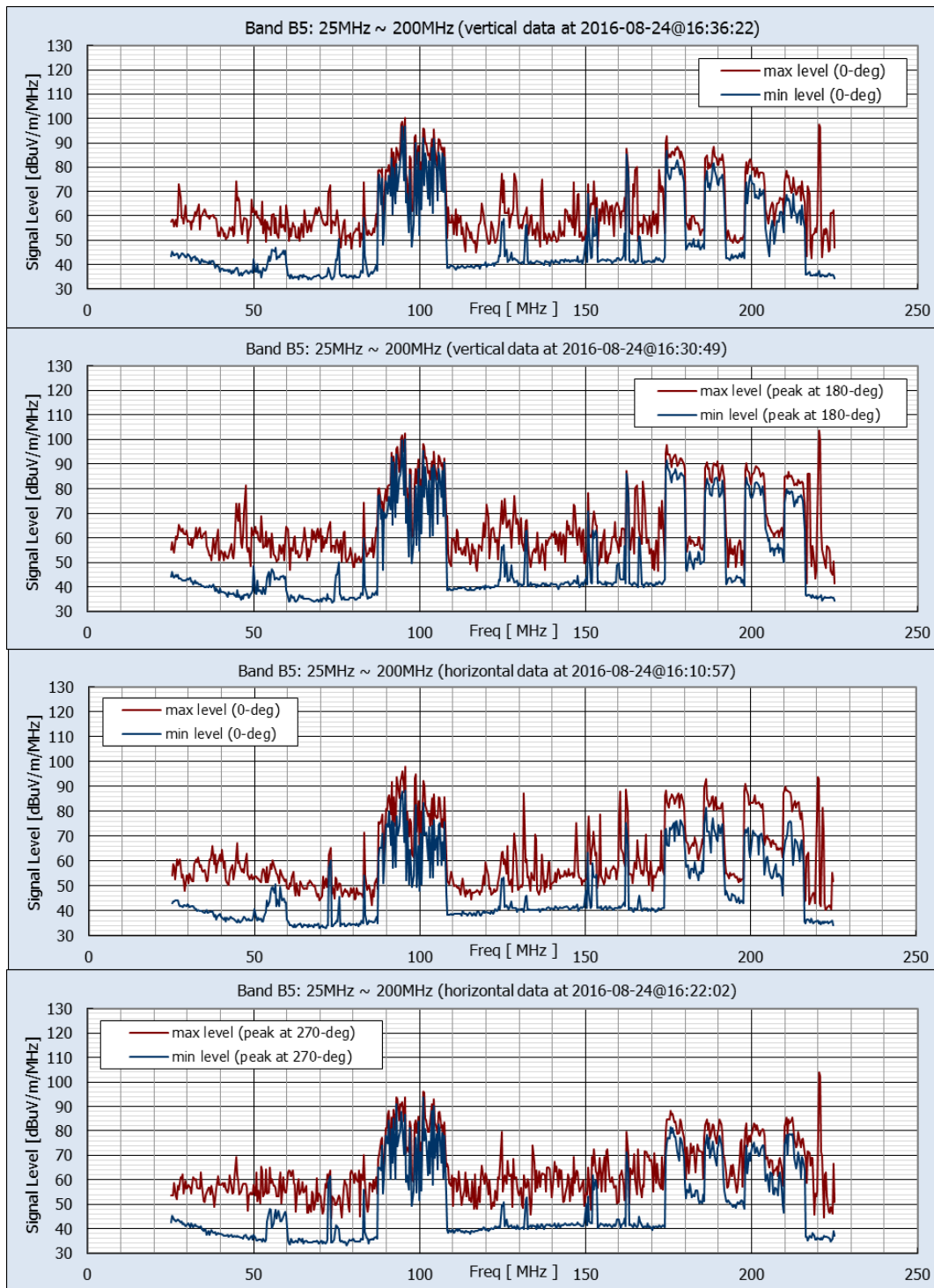
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	12.272	11.749	0.087	0.063	0.120	0.128	0.056	0.058	0.131	0.120	0.064	0.064	0.073	0.076	12.273	11.750
Median	12.084	11.511	0.025	0.018	0.086	0.088	0.016	0.015	0.109	0.103	0.013	0.017	0.035	0.039	12.085	11.512
Min	11.874	11.317	0.011	0.004	0.056	0.059	0.003	0.003	0.092	0.084	0.003	0.004	0.019	0.020	11.874	11.318
Range	0.399	0.432	0.076	0.059	0.064	0.069	0.053	0.055	0.040	0.037	0.061	0.060	0.054	0.056	0.399	0.432
Std Dev	0.074	0.067	0.005	0.005	0.009	0.009	0.005	0.004	0.005	0.005	0.004	0.004	0.005	0.004	0.074	0.067

Figure B3.5-8(d) Location 8: AC and DC Magnetic Field Measurement Results



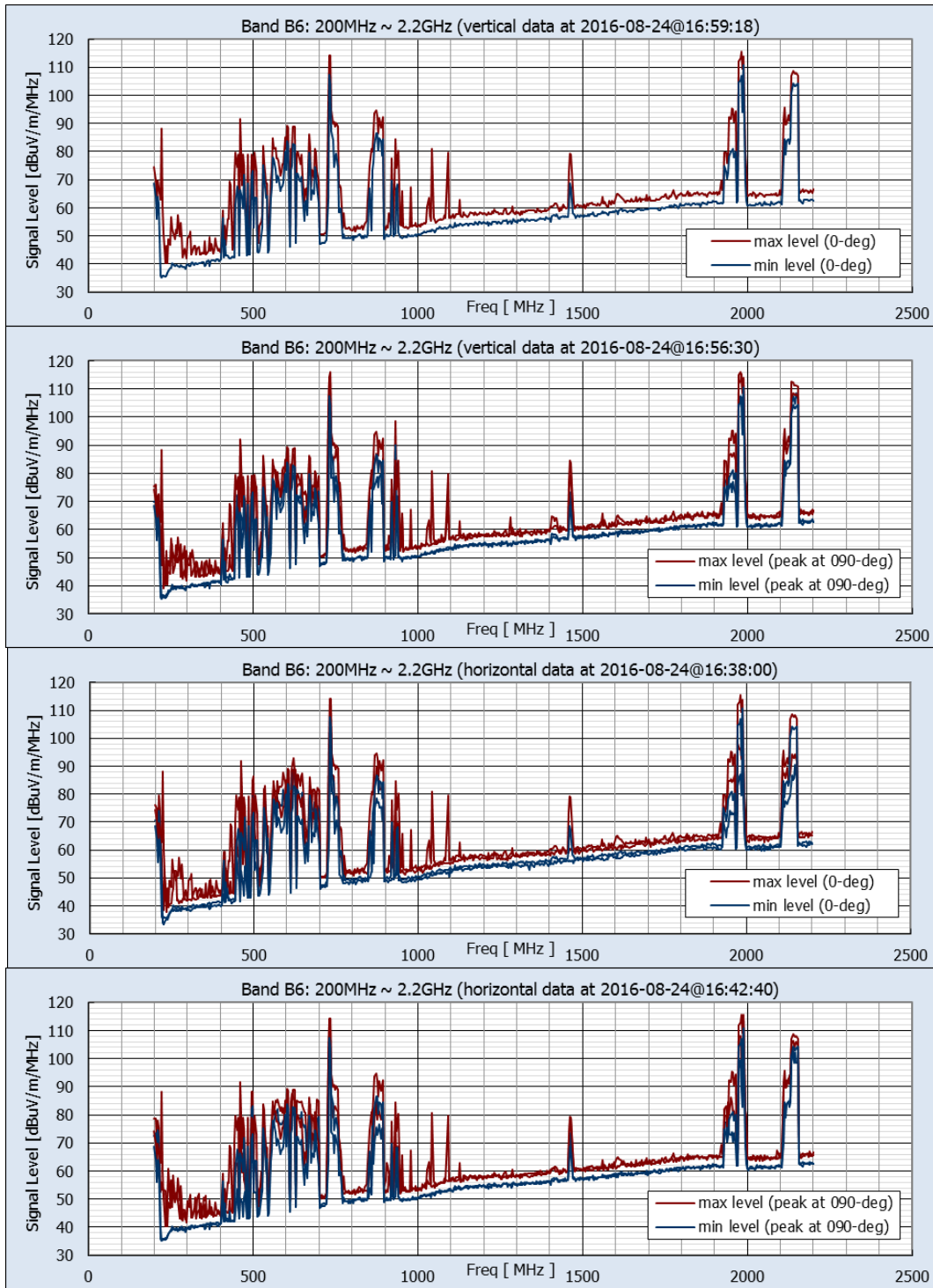
Maximum Levels					
Band number	Freq. Range (MHz)	Pk Min-Hold dB uV/m/MHz	@ Freq. (MHz)	Pk Max-Hold dB uV/m/MHz	@ Freq. (MHz)
	B0	0.01 ~ 0.05	130.1	0.0124	142.3
B1	0.05 ~ 0.55	119.8	0.1200	131.1	0.1718
B2	0.50 ~ 3.00	119.9	1.2591	143.4	1.2591
B3	2.5 ~ 7.5	89.1	2.5273	129.0	2.5182
B4	5 ~ 30	66.4	25.2727	95.8	5.3636

Figure B3.5-8(e) - Location 8 (Sun Valley, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	100.1	95.545	103.7	220.273	93.8	101.000	104.1	220.273

Figure B3.5-8(f) - Location 8 (Sun Valley, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	110.7	1989.091	116.1	734.545	113.5	1989.091	115.7	1989.091

Figure B3.5-8(g) - Location 8 (Sun Valley, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

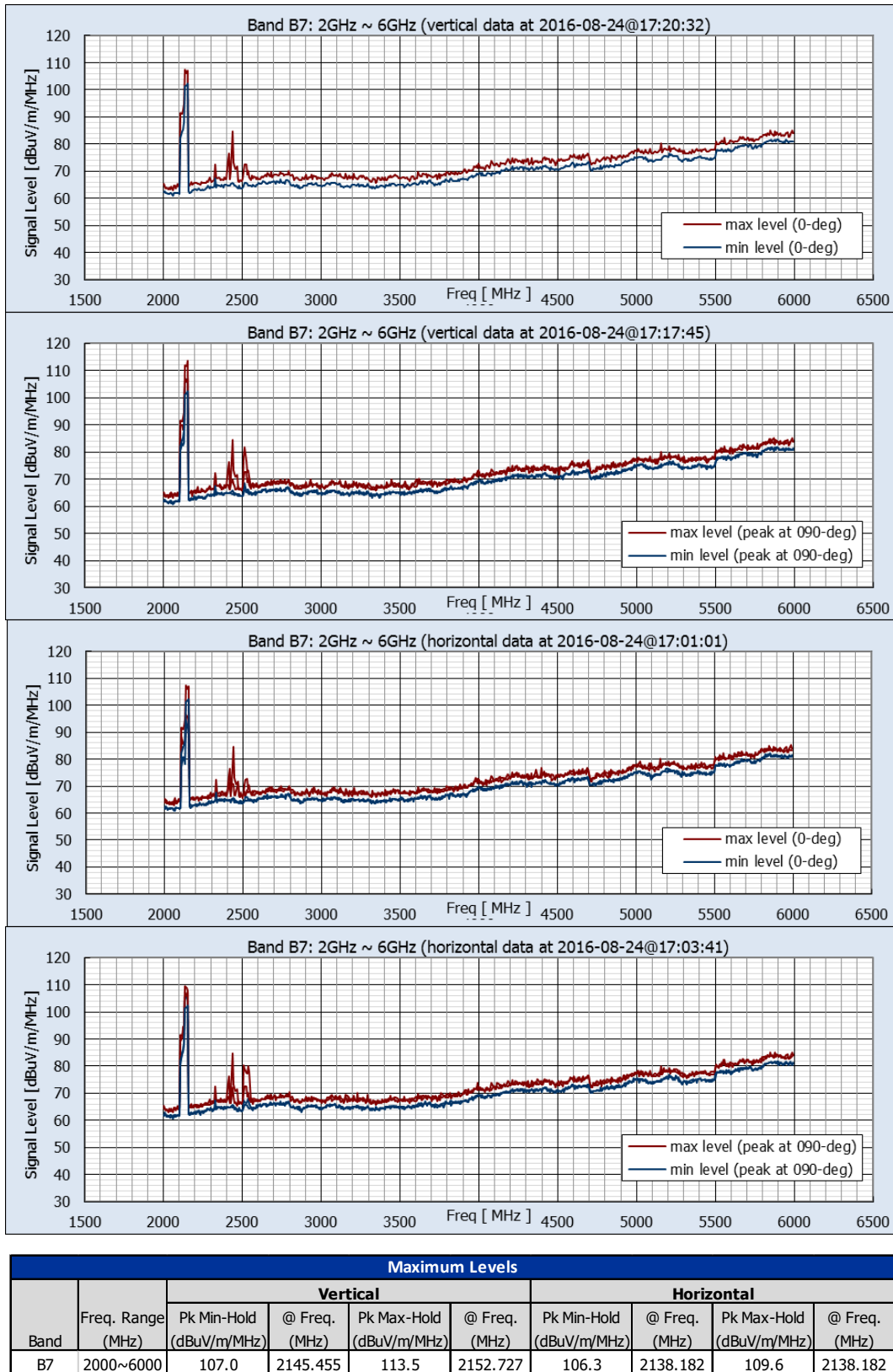


Figure B3.5-8(h) - Location 8 (Sun Valley, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

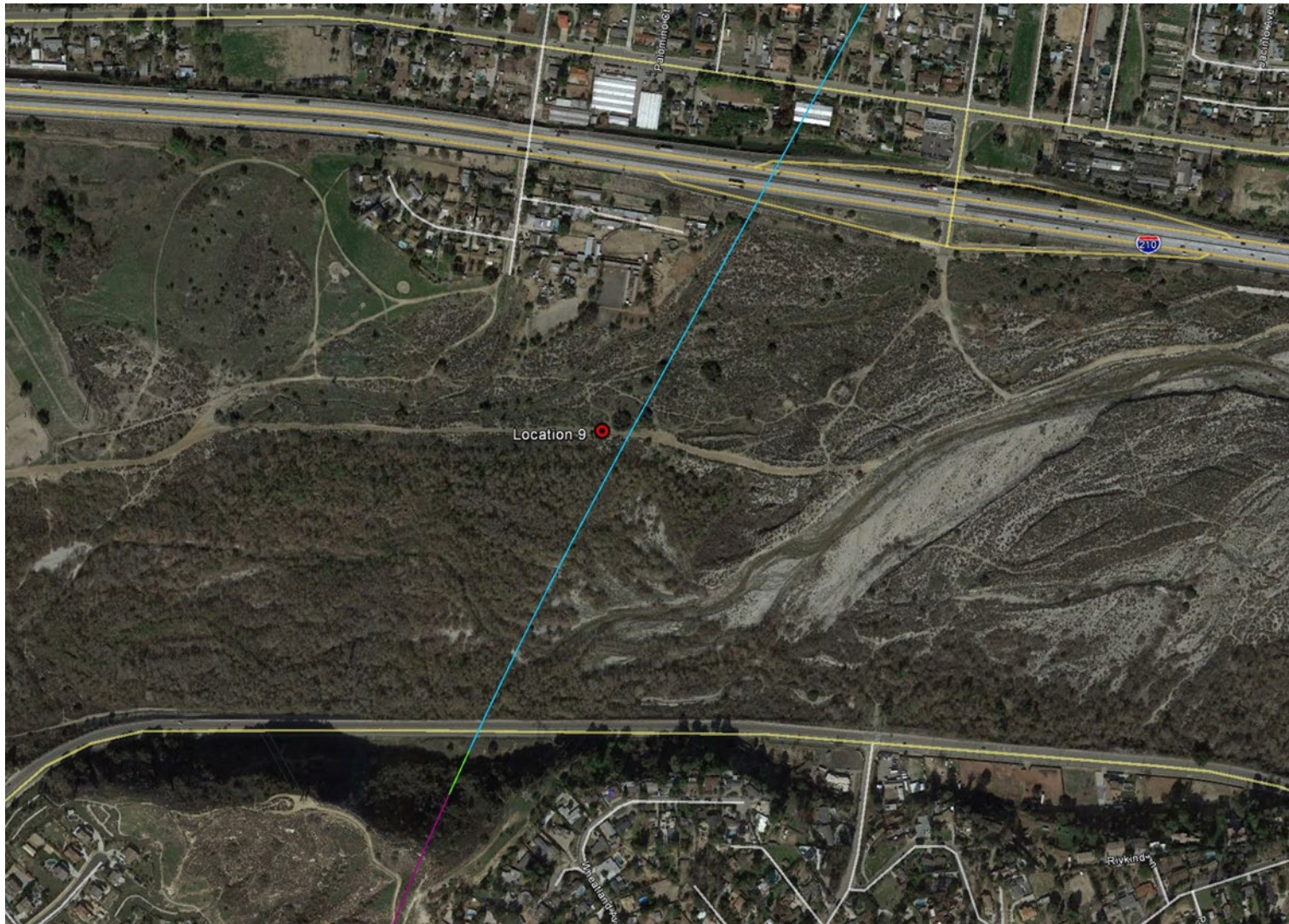


Figure B3.5-9(a) Location 9: Wentworth Street, Shadow Hills
Suburban setting near existing transmission lines (Lat 34.269624°, Lon -118.357998°)



Figure B3.5-9(b) Location 9: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

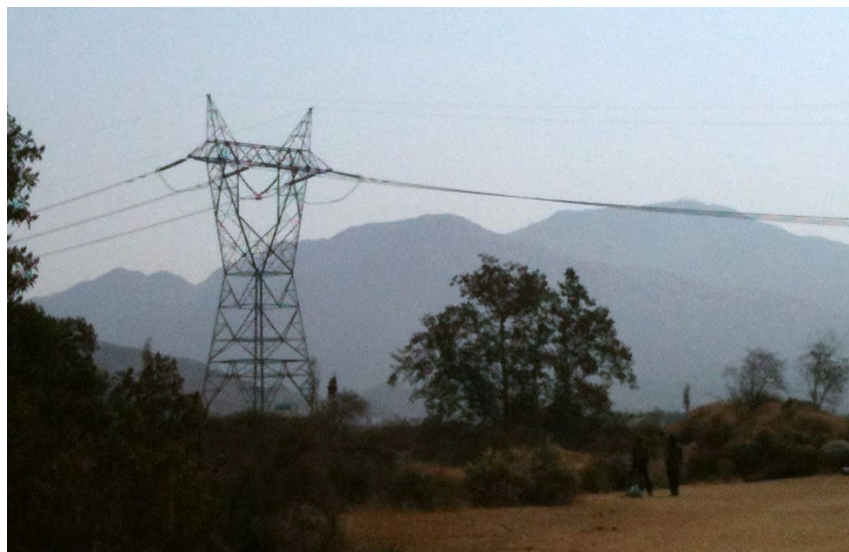
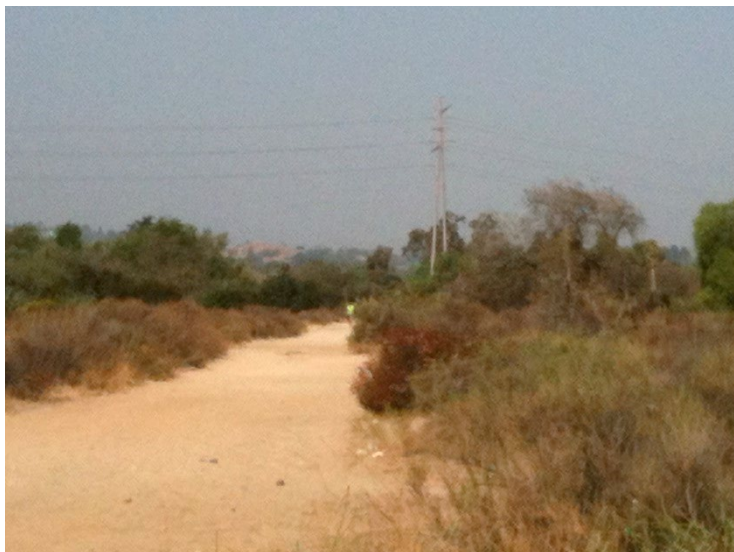
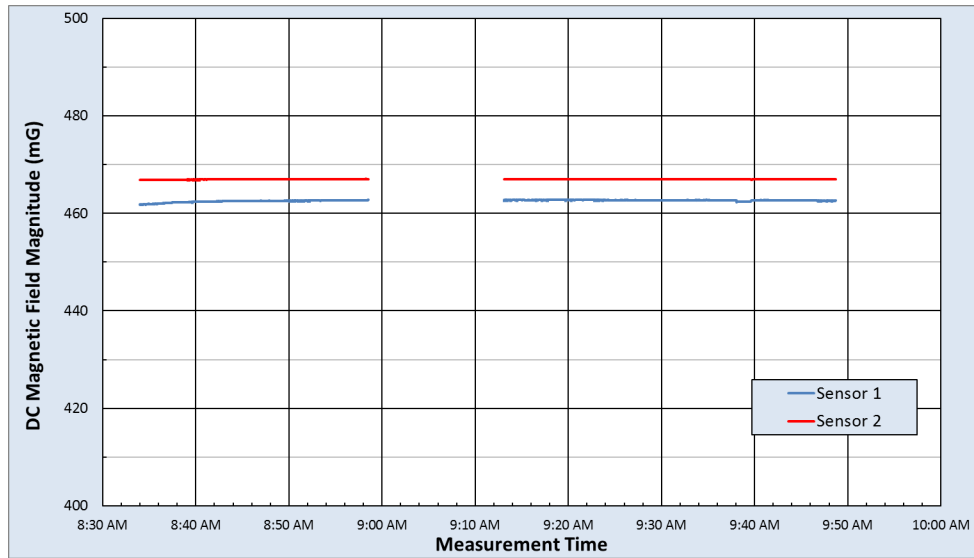


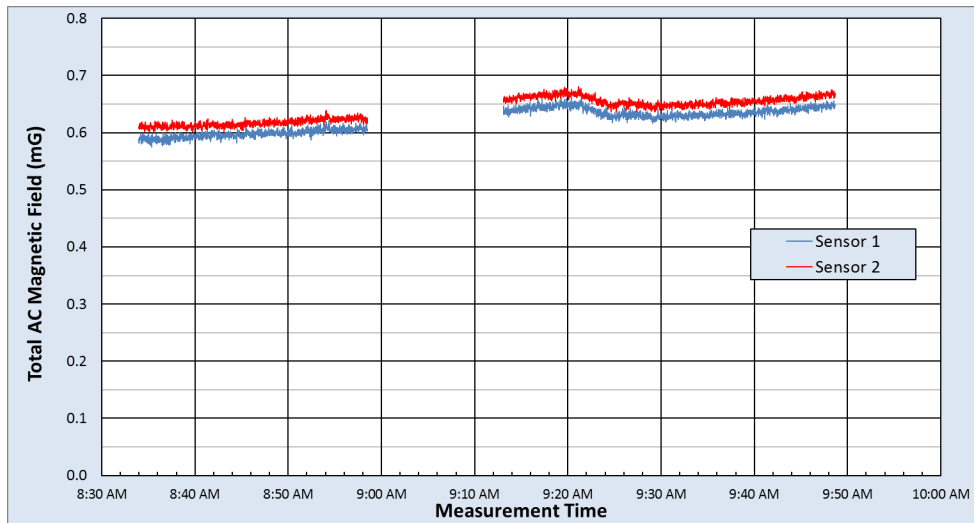
Figure B3.5-9(c) Location 9: Hiking trails near Orcas Park, Shadow Hills

Nearby emitters include high voltage transmission lines parallel to the alignment.

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

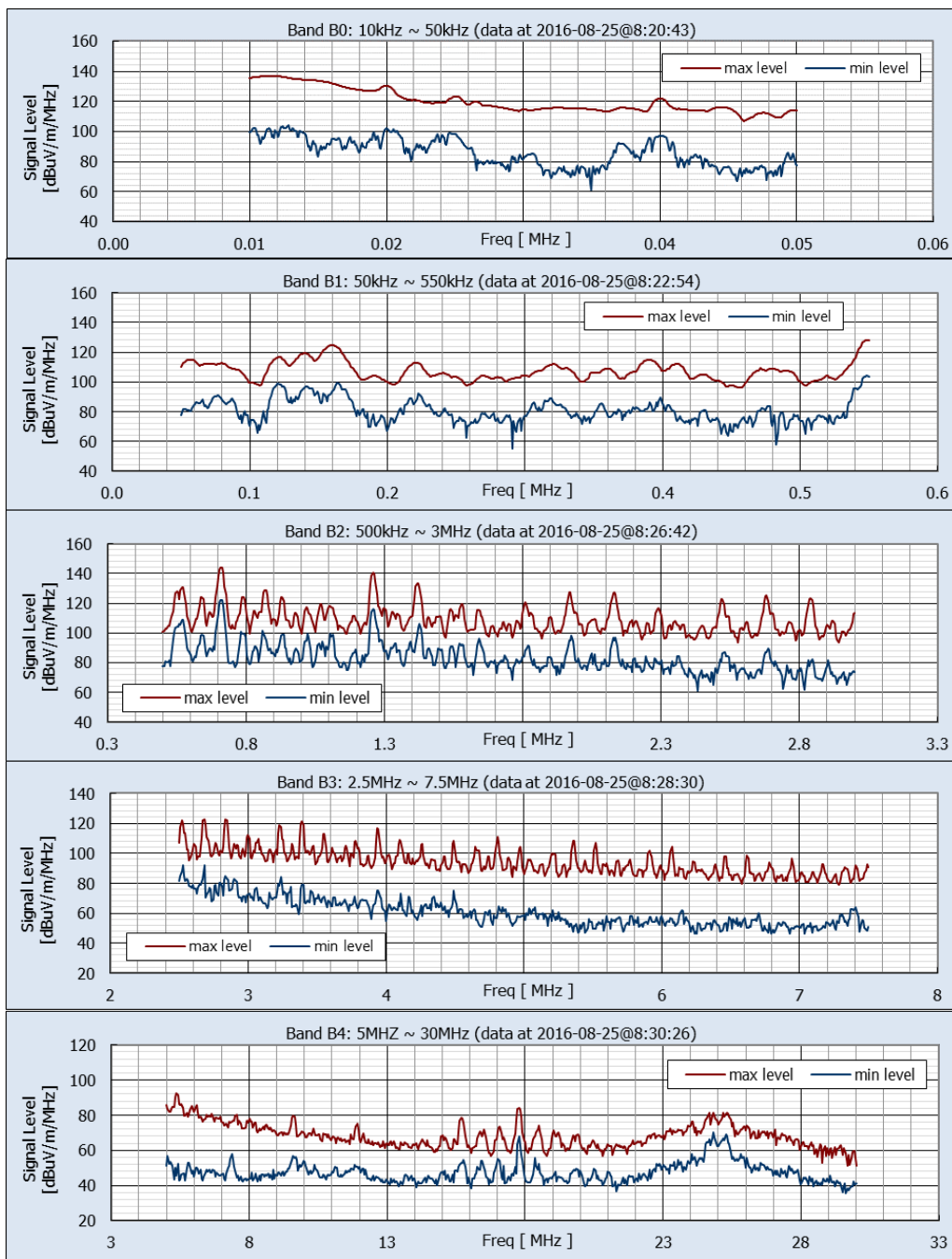


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	217.4	238.6	409.1	401.8	462.8	467.1
Median	216.8	238.4	408.8	401.5	462.6	467.0
Min	216.0	237.9	407.7	401.3	461.8	466.8
Range	1.4	0.7	1.4	0.5	1.0	0.2
Std Dev	0.3	0.1	0.3	0.1	0.2	0.0



rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.661	0.679	0.056	0.017	0.047	0.036	0.060	0.023	0.036	0.032	0.027	0.022	0.031	0.021	0.662	0.680
Median	0.627	0.647	0.010	0.008	0.025	0.023	0.011	0.011	0.018	0.018	0.010	0.010	0.010	0.009	0.628	0.648
Min	0.573	0.601	0.002	0.002	0.013	0.012	0.002	0.002	0.006	0.005	0.002	0.001	0.002	0.002	0.575	0.602
Range	0.088	0.078	0.053	0.016	0.035	0.025	0.058	0.021	0.030	0.027	0.025	0.021	0.029	0.019	0.088	0.078
Std Dev	0.021	0.021	0.005	0.002	0.004	0.003	0.006	0.003	0.004	0.004	0.003	0.003	0.003	0.003	0.021	0.021

Figure B3.5-9(d) Location 9: AC and DC Magnetic Field Measurement Results



Maximum Levels					
Band number	Freq. Range (MHz)	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
		dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	103.8	0.0128	136.6	0.0110
B1	0.05 ~ 0.55	103.9	0.5482	128.2	0.5500
B2	0.50 ~ 3.00	122.2	0.7091	144.3	0.7091
B3	2.5 ~ 7.5	92.0	2.6818	122.8	2.6818
B4	5 ~ 30	70.1	24.8182	92.4	5.3636

Figure B3.5-9(e) - Location 9 (Shadow Hills, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4

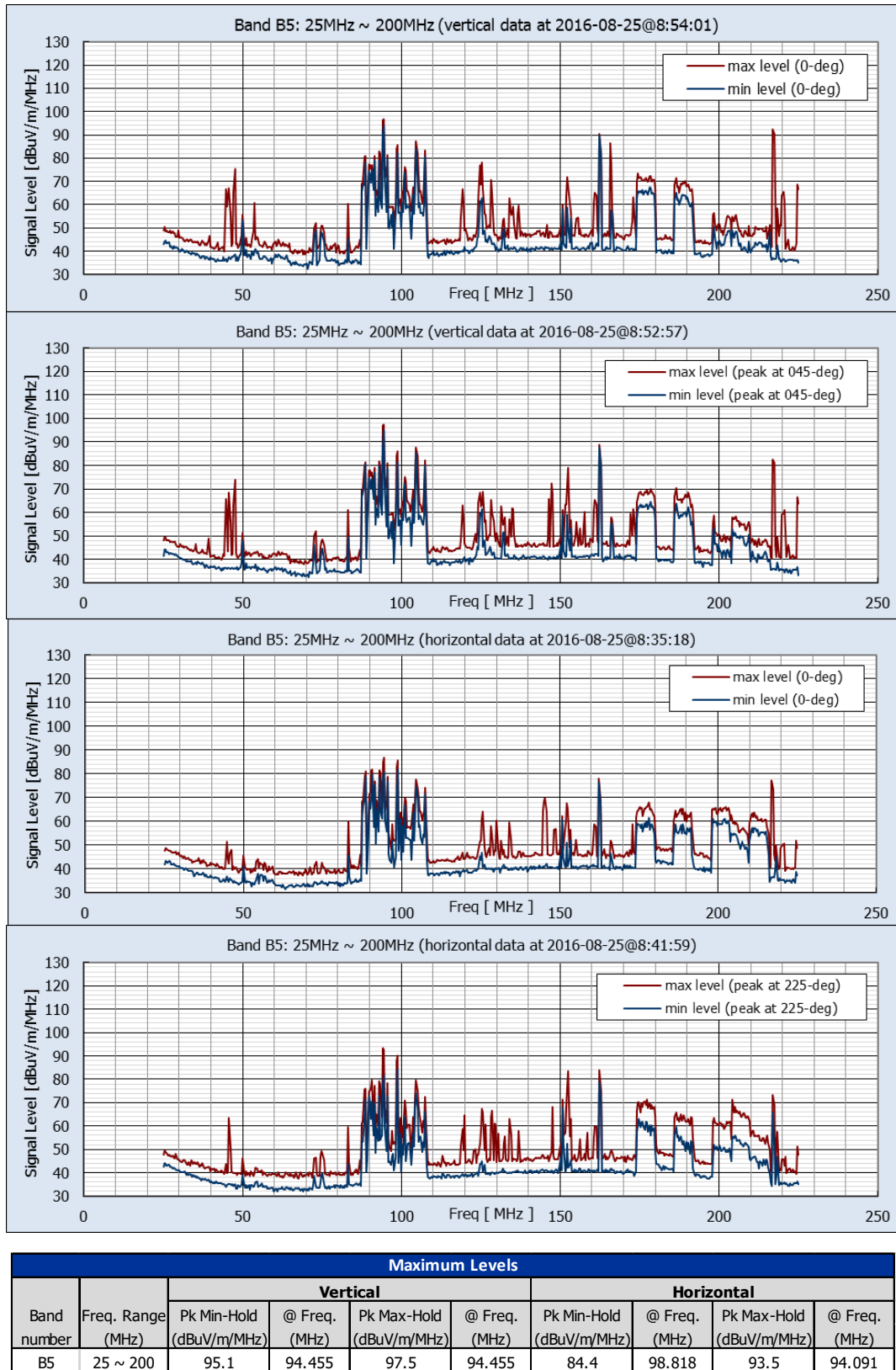


Figure B3.5-9(f) - Location 9 (Shadow Hills, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

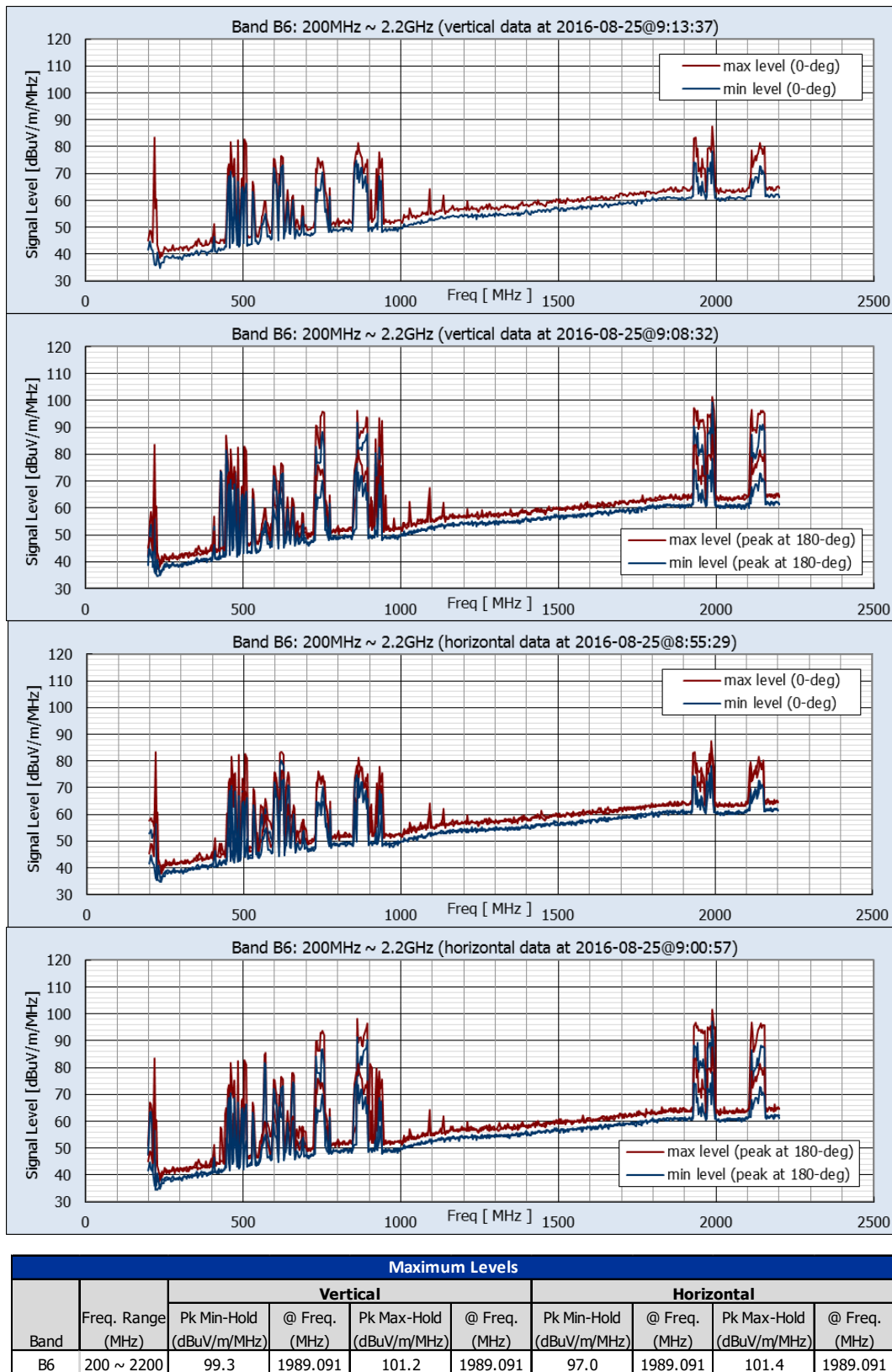


Figure B3.5-9(g) - Location 9 (Shadow Hills, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation

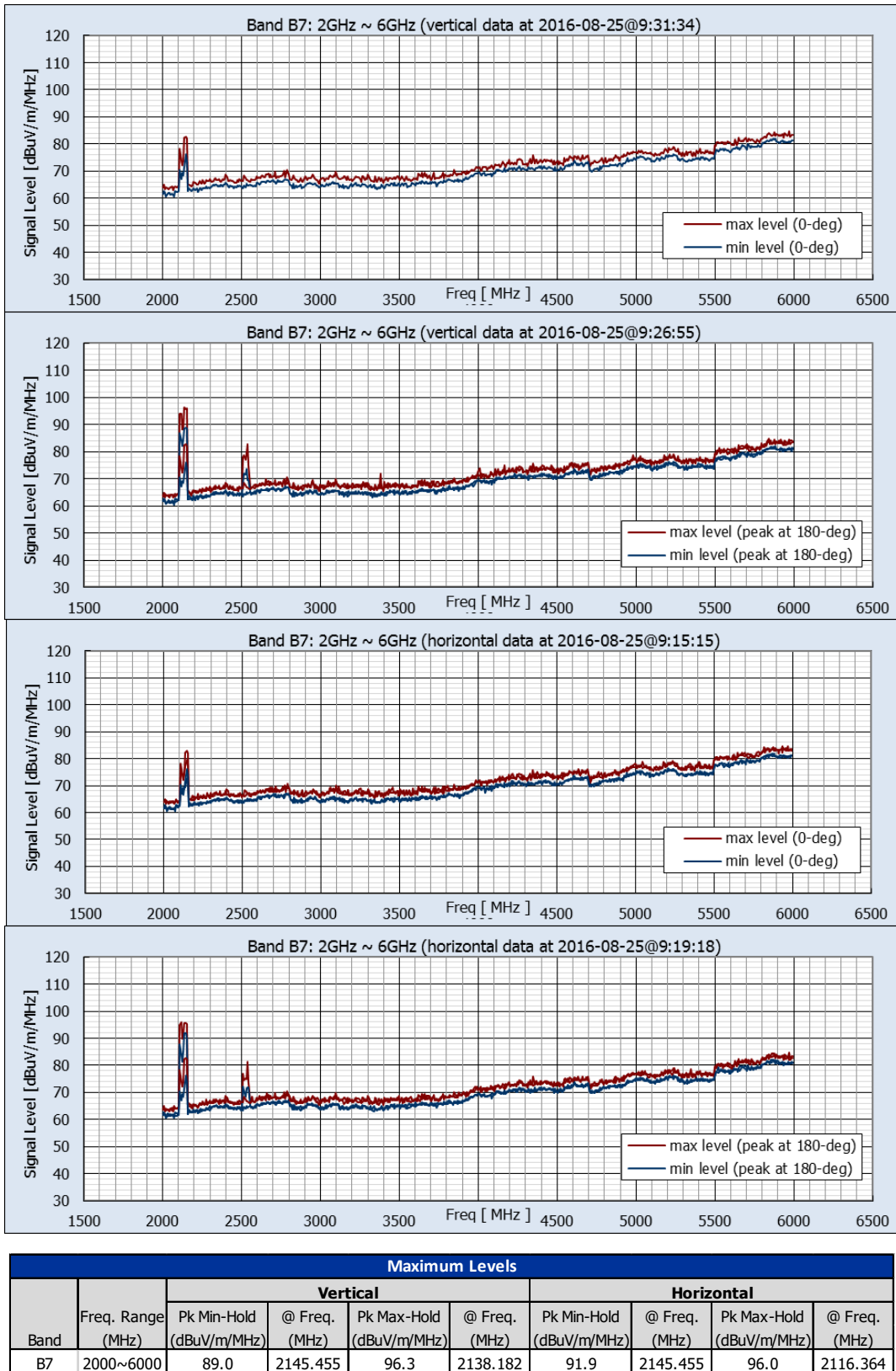


Figure B3.5-9(h) - Location 9 (Shadow Hills, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Figure B3.5-10(a) Location 10: San Fernando Boulevard, Burbank

Urban setting near Hollywood-Burbank Airport, with significant RF emitters (Lat 34.208268°, Lon -118.353383°)



Figure B3.5-10(b) Location 10: Measurement Location and Site Views

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, indicating the alignment (green line) and measurement points (red = RF, magenta = magnetometers). The satellite view is rotated so that the image at 0° faces the alignment.

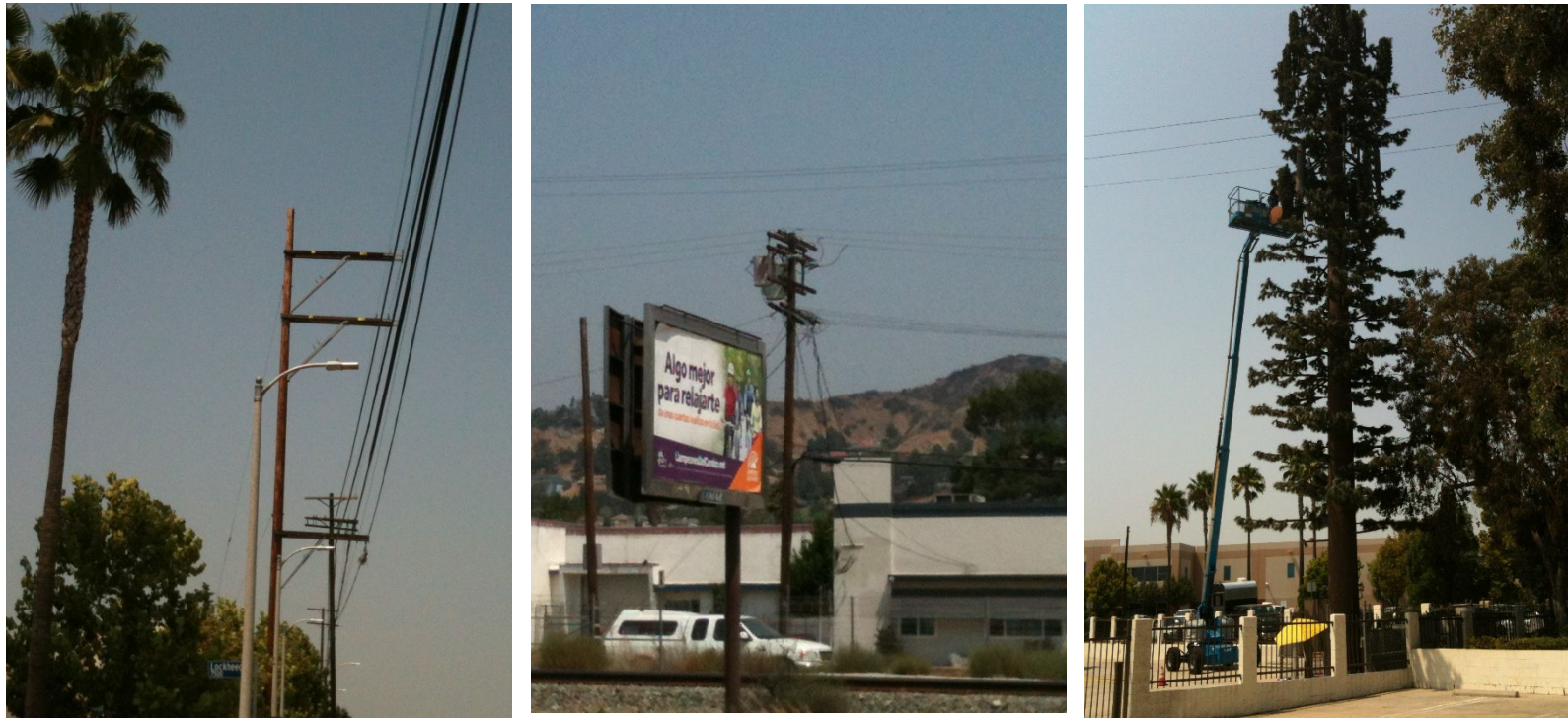
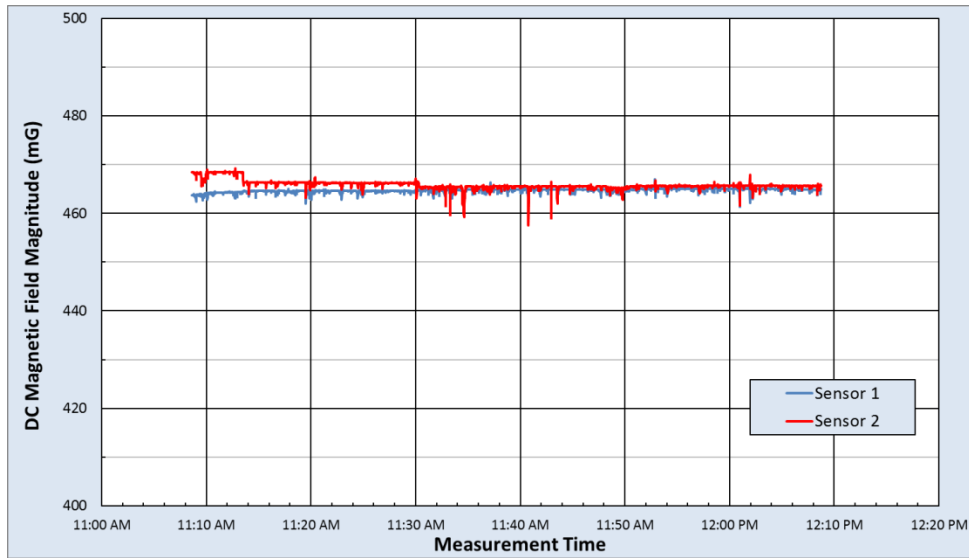


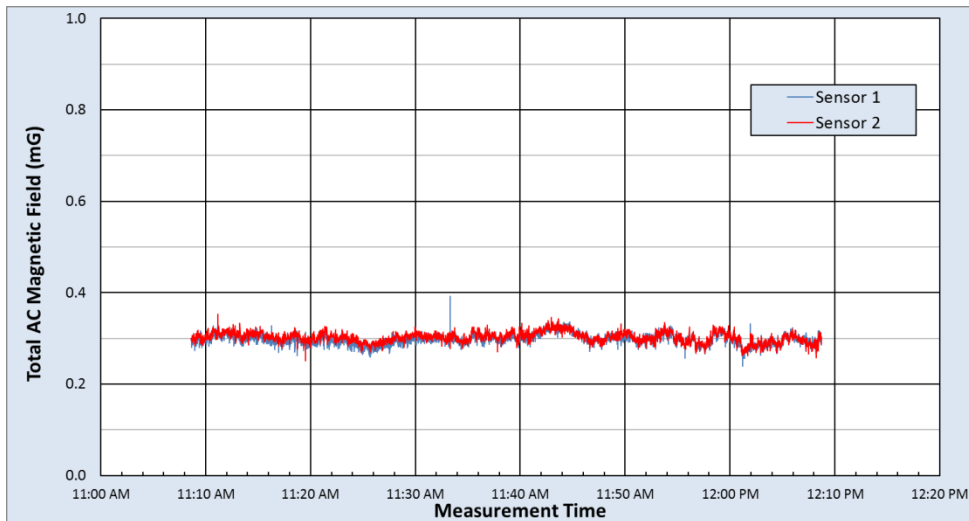
Figure B3.5-10(c) Location 10: San Fernando Boulevard and Lockheed Drive, Burbank

Nearby emitters include cell towers, and distribution lines parallel to the alignment.

Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

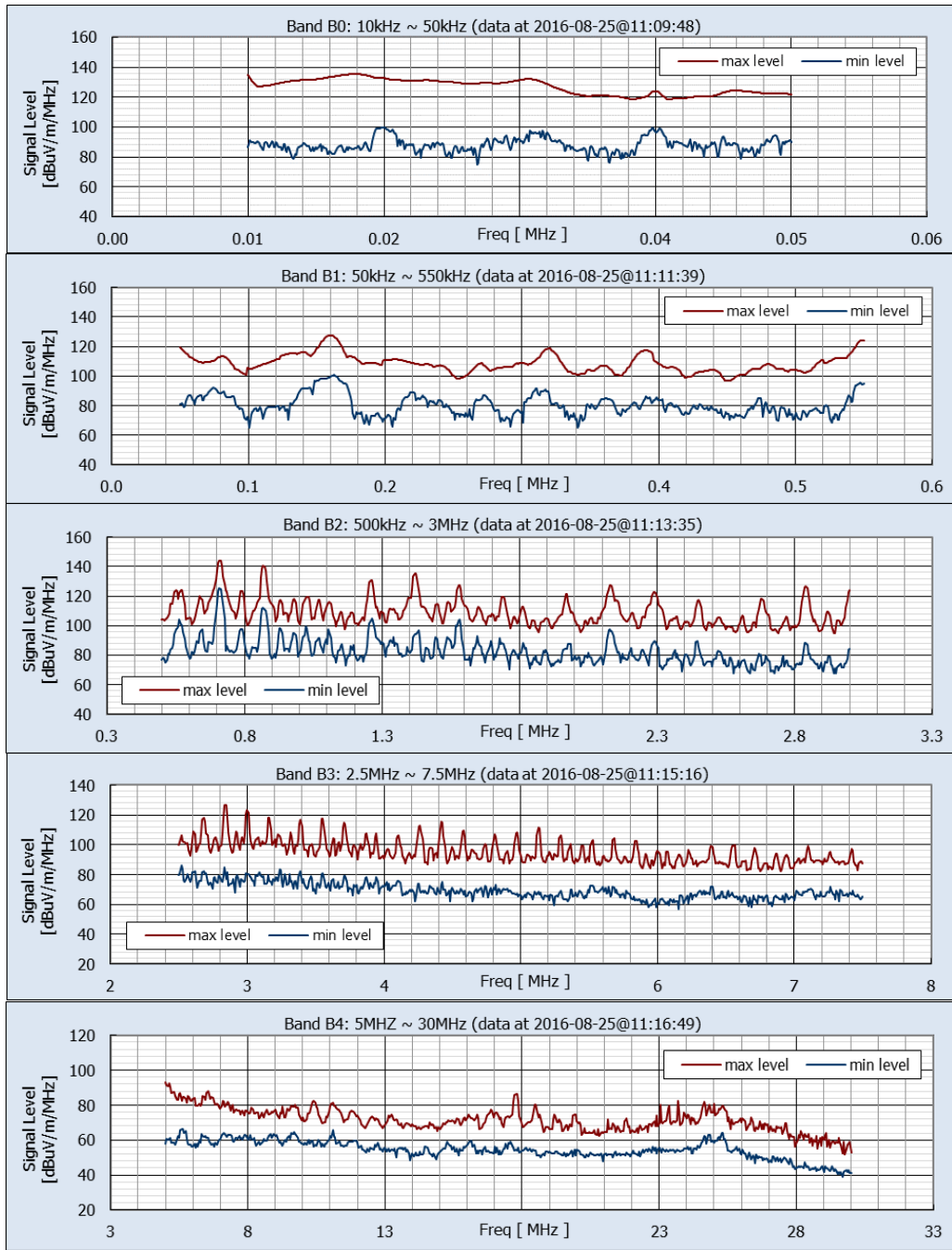


DC Magnetic Field Measurement Statistics						
	B Horizontal (mG)		B Vertical (mG)		B Total (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	252.7	278.3	395.3	378.9	467.0	469.2
Median	246.6	273.7	394.1	376.7	464.7	465.6
Min	241.7	266.3	388.5	369.3	461.1	457.5
Range	11.0	12.0	6.8	9.6	5.9	11.7
Std Dev	1.0	0.8	0.5	0.9	0.4	0.9



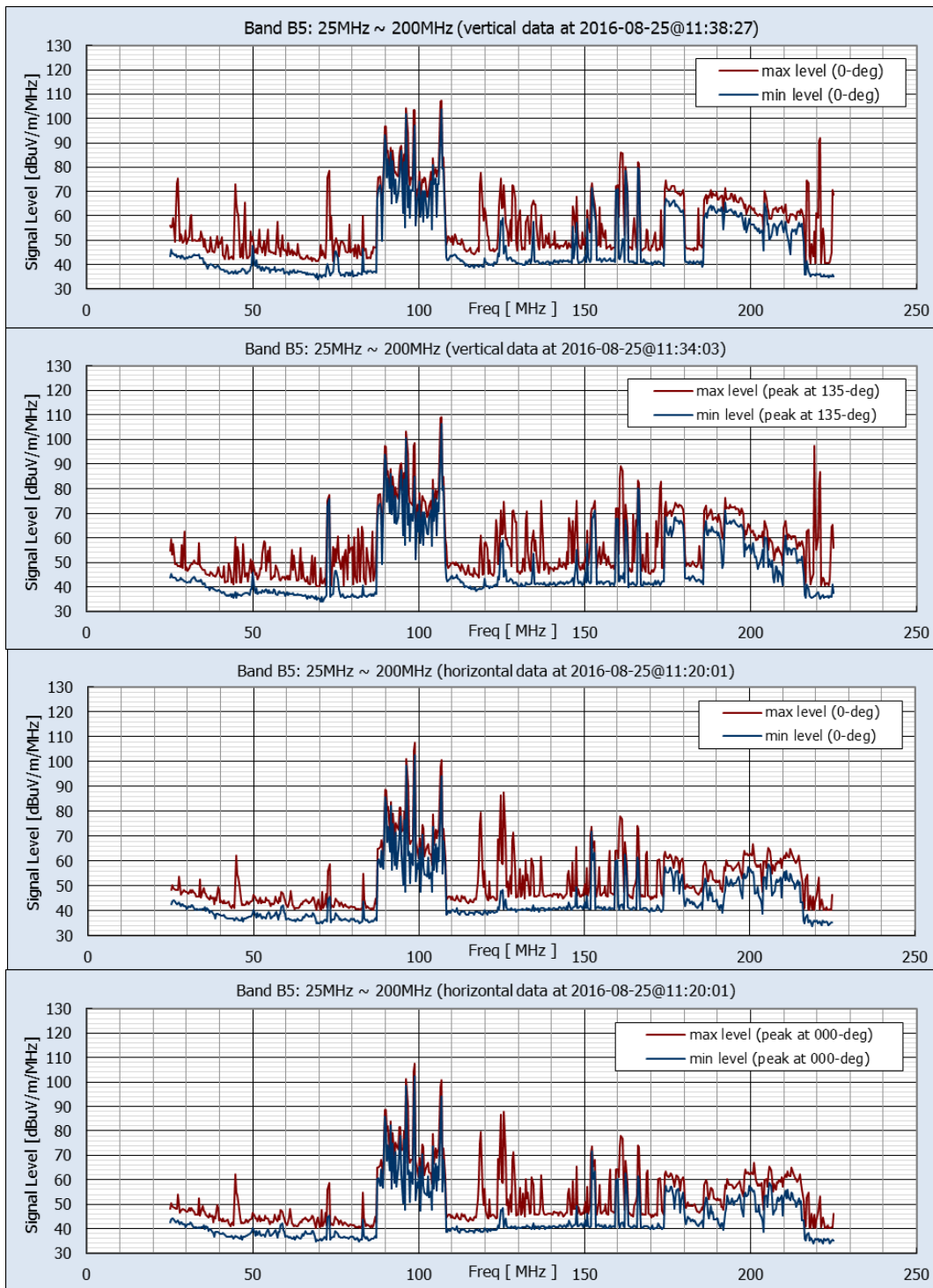
rms AC Magnetic Field Measurement Statistics																
	Fund 60Hz (mG)		2nd (mG)		3rd (mG)		4th (mG)		5th (mG)		6th (mG)		7th (mG)		Total AC (mG)	
	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2	Sensor 1	Sensor 2
Max	0.352	0.330	0.069	0.047	0.155	0.146	0.061	0.029	0.037	0.030	0.072	0.062	0.070	0.065	0.391	0.352
Median	0.265	0.272	0.012	0.010	0.131	0.129	0.010	0.009	0.017	0.017	0.010	0.010	0.013	0.013	0.297	0.302
Min	0.199	0.213	0.003	0.002	0.115	0.110	0.002	0.002	0.004	0.006	0.002	0.002	0.003	0.002	0.239	0.252
Range	0.153	0.117	0.066	0.045	0.040	0.035	0.059	0.027	0.033	0.024	0.070	0.060	0.068	0.063	0.152	0.100
Std Dev	0.014	0.013	0.004	0.003	0.005	0.005	0.005	0.003	0.004	0.004	0.009	0.008	0.005	0.005	0.012	0.012

Figure B3.5-10(d) Location 10: AC and DC Magnetic Field Measurement Results



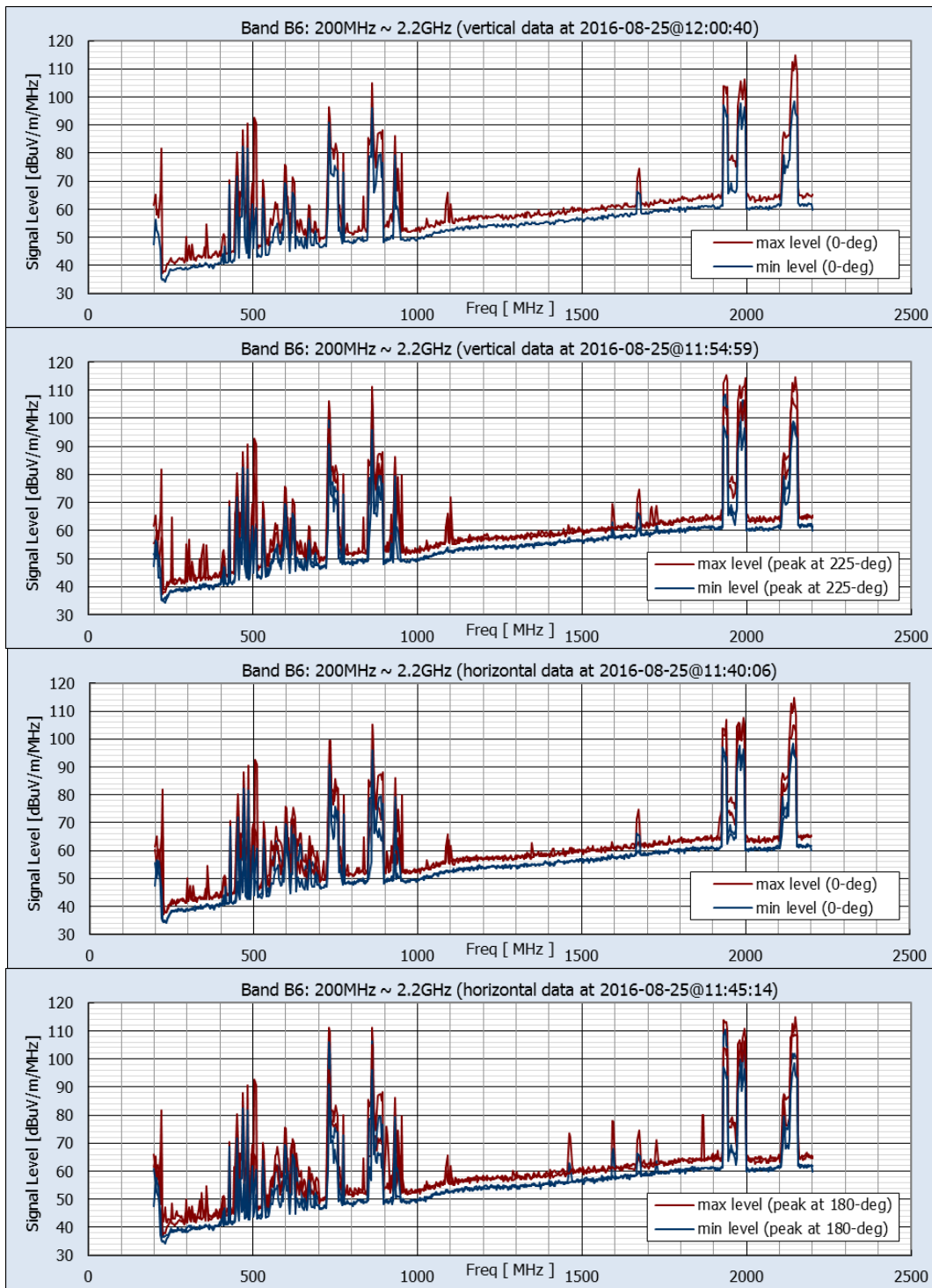
Maximum Levels					
Band number	Freq. Range	Pk Min-Hold	@ Freq.	Pk Max-Hold	@ Freq.
	(MHz)	dB uV/m/MHz	(MHz)	dB uV/m/MHz	(MHz)
B0	0.01 ~ 0.05	99.6	0.0200	135.4	0.0178
B1	0.05 ~ 0.55	100.5	0.1627	127.6	0.1600
B2	0.50 ~ 3.00	125.1	0.7091	144.3	0.7091
B3	2.5 ~ 7.5	86.2	2.5182	126.6	2.8364
B4	5 ~ 30	66.4	5.6364	92.9	5.0000

Figure B3.5-10(e) - Location 10 (Burbank, CA): Measured Environmental RF Levels Non-Directional Data from Vertically-Oriented Monopole Antenna, Bands 0-4



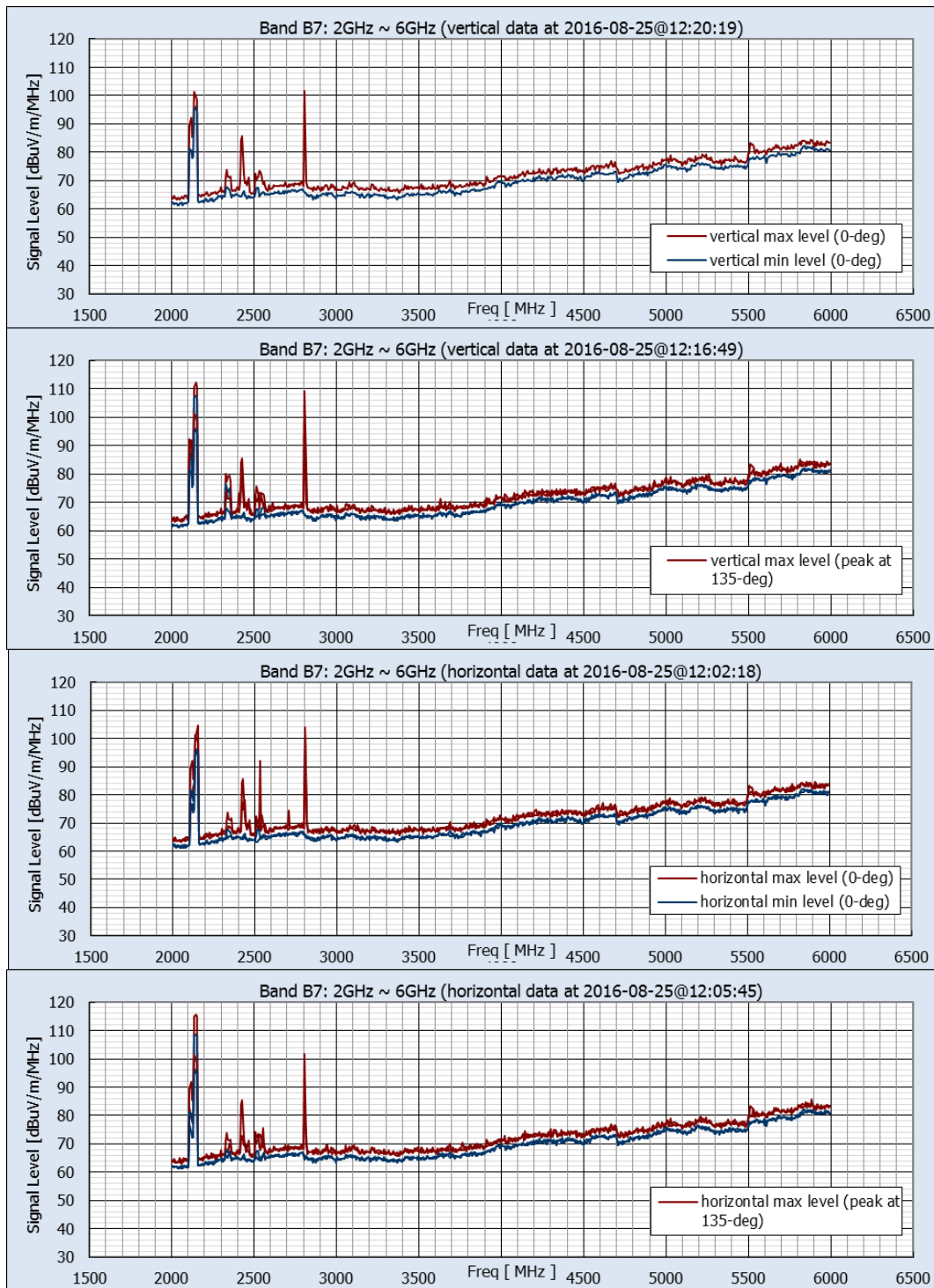
Maximum Levels									
Band number	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	106.4	106.818	109.1	106.818	102.6	98.818	107.6	98.818

Figure B3.5-10(f) - Location 10 (Burbank, CA): Measured Environmental RF Levels Band 5 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	108.7	1934.545	115.3	1938.182	110.3	1934.545	113.8	1930.909

Figure B3.5-10(g) - Location 10 (Burbank, CA): Measured Environmental RF Levels Band 6 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation



Maximum Levels									
Band	Freq. Range (MHz)	Vertical				Horizontal			
		Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2000~6000	107.7	2145.455	112.2	2145.455	108.6	2138.182	115.7	2145.455

Figure B3.5-10(h) - Location 10 (Burbank, CA): Measured Environmental RF Levels Band 7 Vertical and Horizontal Components, Facing Alignment (0-deg) and at Peak Orientation