

APPENDIX E

DATA SHEETS

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

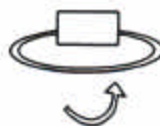
Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



NOTES: XYZ positions
all modes of operation

Pol. B

[illegible]

AGOURA (818) 597-0600

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S1 (low channel tx mode 30-1000MHz)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 08:57:32 AM
 Lab : A
 Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	32.123	41.20	1.42	13.98	35.97	20.63	40.00	-19.37
2V	128.084	40.80	2.94	11.50	35.49	19.75	43.50	-23.75
3H	32.123	39.70	1.42	13.98	35.97	19.13	40.00	-20.87
4H	128.084	37.80	2.94	11.50	35.49	16.75	43.50	-26.75
5H	288.088	36.80	4.25	17.69	34.89	23.86	46.00	-22.14
6V	336.089	40.50	4.37	16.12	34.92	26.07	46.00	-19.93
7V	448.189	34.70	5.10	16.07	34.70	21.17	46.00	-24.83
8V	469.789	33.70	5.14	16.33	34.95	20.22	46.00	-25.78
9H	336.012	35.80	4.37	16.13	34.92	21.39	46.00	-24.61
10H	448.201	35.50	5.10	16.07	34.70	21.97	46.00	-24.03
11H	469.801	33.30	5.14	16.33	34.95	19.82	46.00	-26.18

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S-1 (low channel tx mode above 10MHz)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 02:43:36 PM
 Lab : F
 Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	2698.930	29.00	4.64	30.98	32.86	31.76	54.00	-22.24
2V	4497.374	28.30	6.10	33.00	33.20	34.20	54.00	-19.80
3H	2698.904	28.60	4.64	30.98	32.86	31.36	54.00	-22.64
4H	4497.348	24.80	6.10	33.00	33.20	30.70	54.00	-23.30

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S1 (mid channel tx mode 30-1000MHz)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 09:49:05 AM
 Lab : A
 Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	32.111	40.70	1.42	13.98	35.97	20.13	40.00	-19.87
2V	128.924	39.70	2.95	11.50	35.48	18.67	43.50	-24.83
3H	128.096	37.30	2.94	11.50	35.49	16.25	43.50	-27.25
4H	288.091	36.90	4.25	17.69	34.89	23.96	46.00	-22.04
5V	336.106	39.50	4.37	16.12	34.92	25.07	46.00	-20.93
6V	352.095	38.60	4.43	16.01	34.99	24.05	46.00	-21.95
7V	448.187	36.90	5.10	16.07	34.70	23.37	46.00	-22.63
8H	336.092	40.20	4.37	16.12	34.92	25.77	46.00	-20.23
9H	352.099	36.00	4.43	16.01	34.99	21.45	46.00	-24.55
10H	448.191	33.00	5.10	16.07	34.70	19.47	46.00	-26.53

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S1 (mid ch tx mode above 1GHz.)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 03:34:34 PM
 Lab : F

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	1830.660	27.90	3.67	29.05	32.96	27.66	54.00	-26.34
2V	2745.568	30.40	4.69	31.06	32.85	33.31	54.00	-20.69
3H	1830.660	28.30	3.67	29.05	32.96	28.06	54.00	-25.94

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S1 (high channel tx mode 30-100MHz)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 10:49:23 AM
 Lab : F
 Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	32.117	40.40	1.42	13.98	35.97	19.83	40.00	-20.17
2V	128.078	41.00	2.94	11.50	35.49	19.95	43.50	-23.55
3H	32.123	39.50	1.42	13.98	35.97	18.93	40.00	-21.07
4H	128.090	38.60	2.94	11.50	35.49	17.55	43.50	-25.95
5V	336.100	37.90	4.37	16.12	34.92	23.47	46.00	-22.53
6V	448.200	38.10	5.10	16.07	34.70	24.57	46.00	-21.43
7V	469.800	33.40	5.14	16.33	34.95	19.92	46.00	-26.08
8H	336.068	41.00	4.37	16.12	34.92	26.58	46.00	-19.42
9H	448.121	35.00	5.10	16.07	34.70	21.47	46.00	-24.53
10H	469.811	34.00	5.14	16.33	34.95	20.52	46.00	-25.48

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name : Sensor
 Model : S1 (high ch. tx mode above 1 GHz)
 Serial # : 1
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 70%
 Clocks: 16 & 915MHz.
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 06/03/2004
 Time : 03:42:34 PM
 Lab : F
 Test Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1H	1855.728	30.80	3.64	29.22	33.01	30.65	54.00	-23.35
2H	2783.488	27.20	4.67	31.13	32.84	30.16	54.00	-23.84
3V	1855.726	28.70	3.64	29.22	33.01	28.55	54.00	-25.45
4V	2783.486	29.00	4.67	31.13	32.84	31.96	54.00	-22.04

**COMPATIBLE
ELECTRONICS**

6/03/2004 16:51:31

FCC Conducted Emissions

OmniSense

Sensor

S1

110V

Lab F Line Due 10-16-04

TEST ENGINEER : R. Ramirez

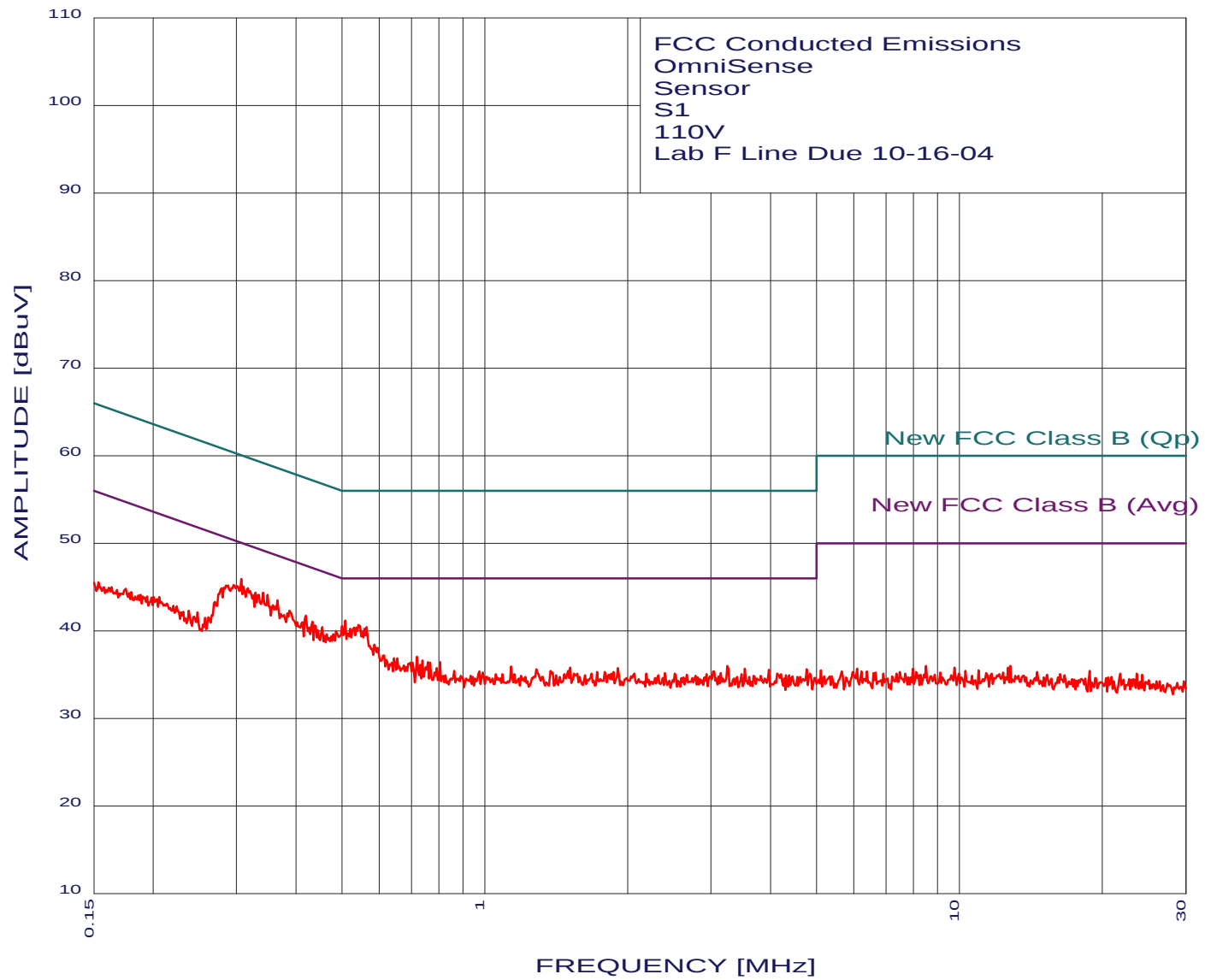
7 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 0.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	limit(dB)	Delta(dB)
1	0.307	45.91	50.05	-4.14
2	0.508	41.14	46.00	-4.86
3	0.341	44.32	49.18	-4.86
4	0.348	44.11	49.00	-4.89
5	0.310	45.05	49.97	-4.92
6	0.317	44.84	49.79	-4.95
7	0.150	45.49	56.00	-10.51

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

6/03/2004 16:51:31



**COMPATIBLE
ELECTRONICS**

6/03/2004 16:56:37

FCC Conducted Emissions

OmniSense

Sensor

S1

110V

Lab F Neut. Due 10-16-04

TEST ENGINEER : R. Ramirez

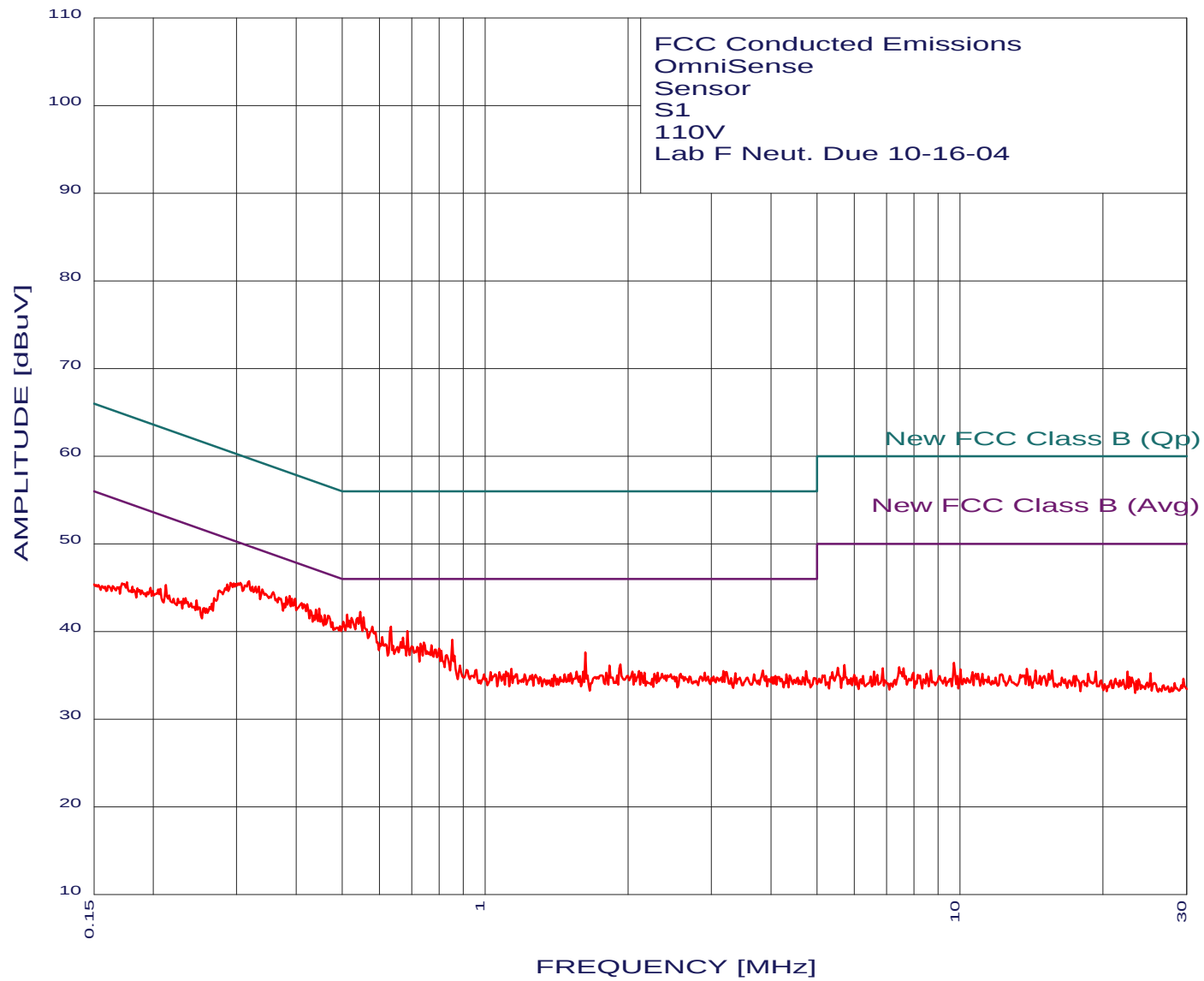
6 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	limit(dB)	Delta(dB)
1	0.318	45.70	49.75	-4.05
2	0.634	40.51	46.00	-5.49
3	0.853	39.01	46.00	-6.99
4	1.629	37.60	46.00	-8.40
5	0.150	45.32	56.00	-10.68
6	9.711	36.40	50.00	-13.60

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

6/03/2004 16:56:37



COMPATIBLE ELECTRONICS

Test Location	: Compatible Electronics	Page	: 1/1
Customer	: Chris Hoogenboom	Date	: 06/04/2004
Manufacturer	: OmniSense	Time	: 03:28:50 PM
Eut name	: Gateway	Lab	: F
Model	: B-1	Test Distance	: 3.00 Meters
Serial #	: 1		
Specification	: FCC Pt. 15- Class B		
Distance correction factor (20 * log(test/spec))			: 0.00
Test Mode	: Qualification		
	temp: 80F humid: 40%		
	Clocks: 25, 48MHz.		
	Sr. Test Engineer: R. Ramirez		

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	150.086	52.60	3.20	12.01	35.40	32.41	43.50	-11.09
2V	225.056	51.10	3.60	15.10	35.10	34.71	46.00	-11.29
3V	250.065	54.50	4.00	16.80	34.90	40.40	46.00	-5.60
4V	275.059	54.00	4.20	16.65	35.10	39.76	46.00	-6.24
5V	144.046	50.80	3.13	11.71	35.42	30.22	43.50	-13.28
6V	192.046	42.30	3.51	15.05	35.47	25.39	43.50	-18.11
7V	288.040	44.30	4.25	17.69	34.89	31.35	46.00	-14.65
8H	150.067	51.70	3.20	12.01	35.40	31.51	43.50	-11.99
9H	225.070	55.30	3.60	15.11	35.10	38.91	46.00	-7.09
10H	250.077	56.20	4.00	16.80	34.90	42.10	46.00	-3.90
11H	275.067	55.30	4.20	16.66	35.10	41.06	46.00	-4.94
12H	192.078	47.30	3.51	15.05	35.47	30.39	43.50	-13.11
13H	288.067	43.20	4.25	17.69	34.89	30.26	46.00	-15.74
14H	200.064	57.00	3.60	15.40	35.50	40.50	43.50	-3.00
15V	200.071	54.60	3.60	15.40	35.50	38.10	43.50	-5.40
16V	300.068	57.10	4.30	13.51	34.70	40.21	46.00	-5.79
17V	325.054	52.90	4.35	16.53	34.86	38.93	46.00	-7.07
18V	336.044	47.30	4.37	16.13	34.92	32.88	46.00	-13.12
19V	425.062	49.00	5.05	17.00	34.70	36.35	46.00	-9.65
20V	525.058	43.80	5.25	17.88	35.61	31.32	46.00	-14.68
21V	625.058	44.80	5.75	19.56	37.13	32.98	46.00	-13.02
22V	384.044	46.50	4.82	15.70	34.79	32.23	46.00	-13.77
23V	672.041	44.00	5.84	20.64	38.94	31.54	46.00	-14.46
24V	720.041	44.50	6.02	21.14	39.40	32.27	46.00	-13.73
25H	300.062	55.80	4.30	13.51	34.70	38.91	46.00	-7.09
26H	325.052	53.70	4.35	16.53	34.86	39.73	46.00	-6.27
27H	425.054	49.90	5.05	17.00	34.70	37.25	46.00	-8.75
28H	525.073	47.20	5.25	17.88	35.61	34.72	46.00	-11.28
29H	720.029	49.30	6.02	21.14	39.40	37.07	46.00	-8.93

**COMPATIBLE
ELECTRONICS**

7/09/2004 8:32:26

FCC Conducted Emissions

OmniSense

Gateway

B-1 s/n: #1

110V

Lab F Line Due 10-16-04

TEST ENGINEER : R. Ramirez

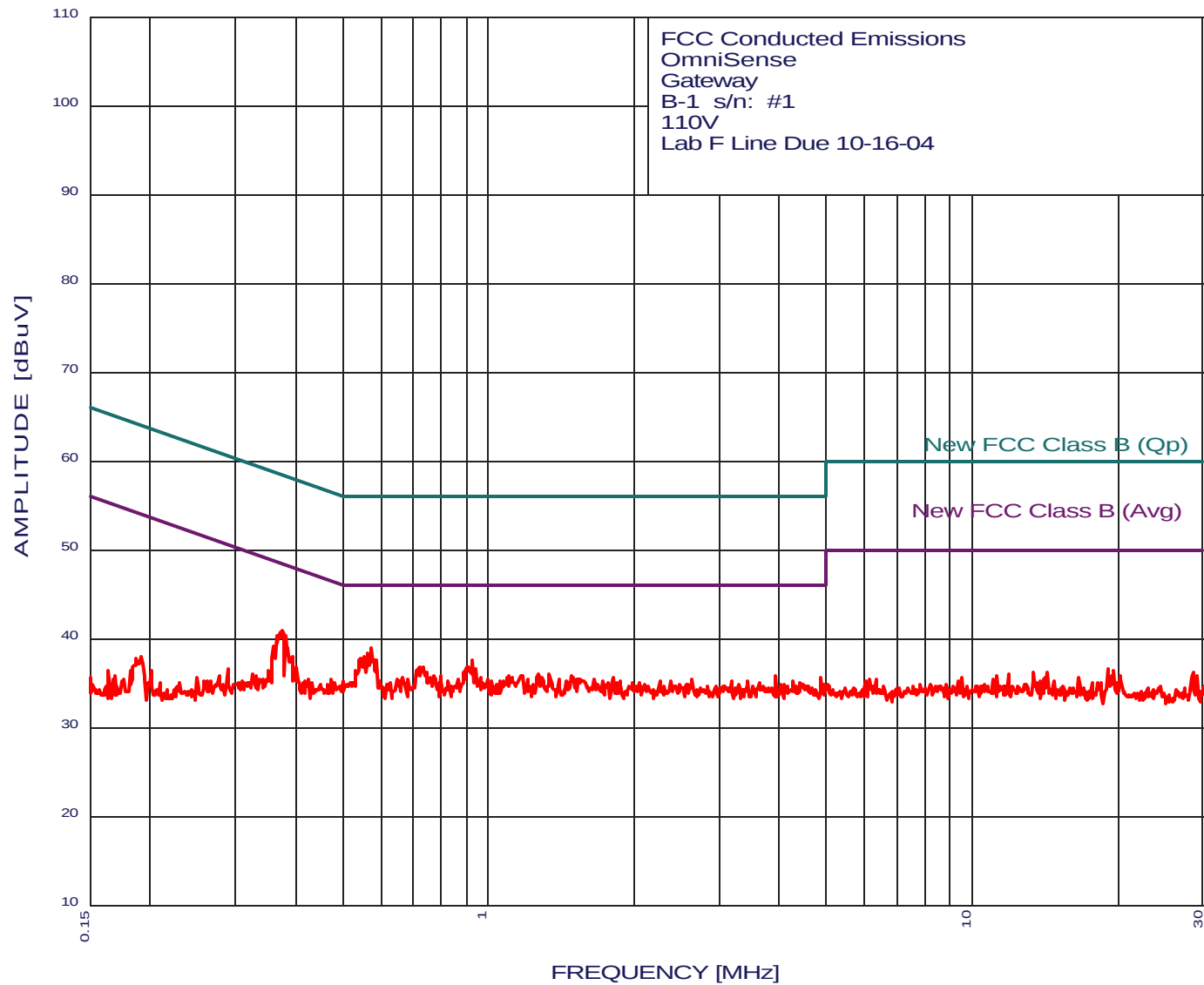
7 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.573	38.84	46.00	-7.16
2	0.375	40.98	48.38	-7.40
3	0.381	40.27	48.25	-7.98
4	0.929	37.52	46.00	-8.48
5	0.720	36.72	46.00	-9.28
6	19.031	36.52	50.00	-13.48
7	0.150	35.59	56.00	-20.41

EMISSION LEVEL [dBuV] PEAK
Graph for **Peak**

7/09/2004 8:32:26



COMPATIBLE
ELECTRONICS

**COMPATIBLE
ELECTRONICS**

7/09/2004 8:28:55

FCC Conducted Emissions

OmniSense

Gateway

B-1 s/n: #1

110V

Lab F Neut. Due 10-16-04

TEST ENGINEER : R. Ramirez

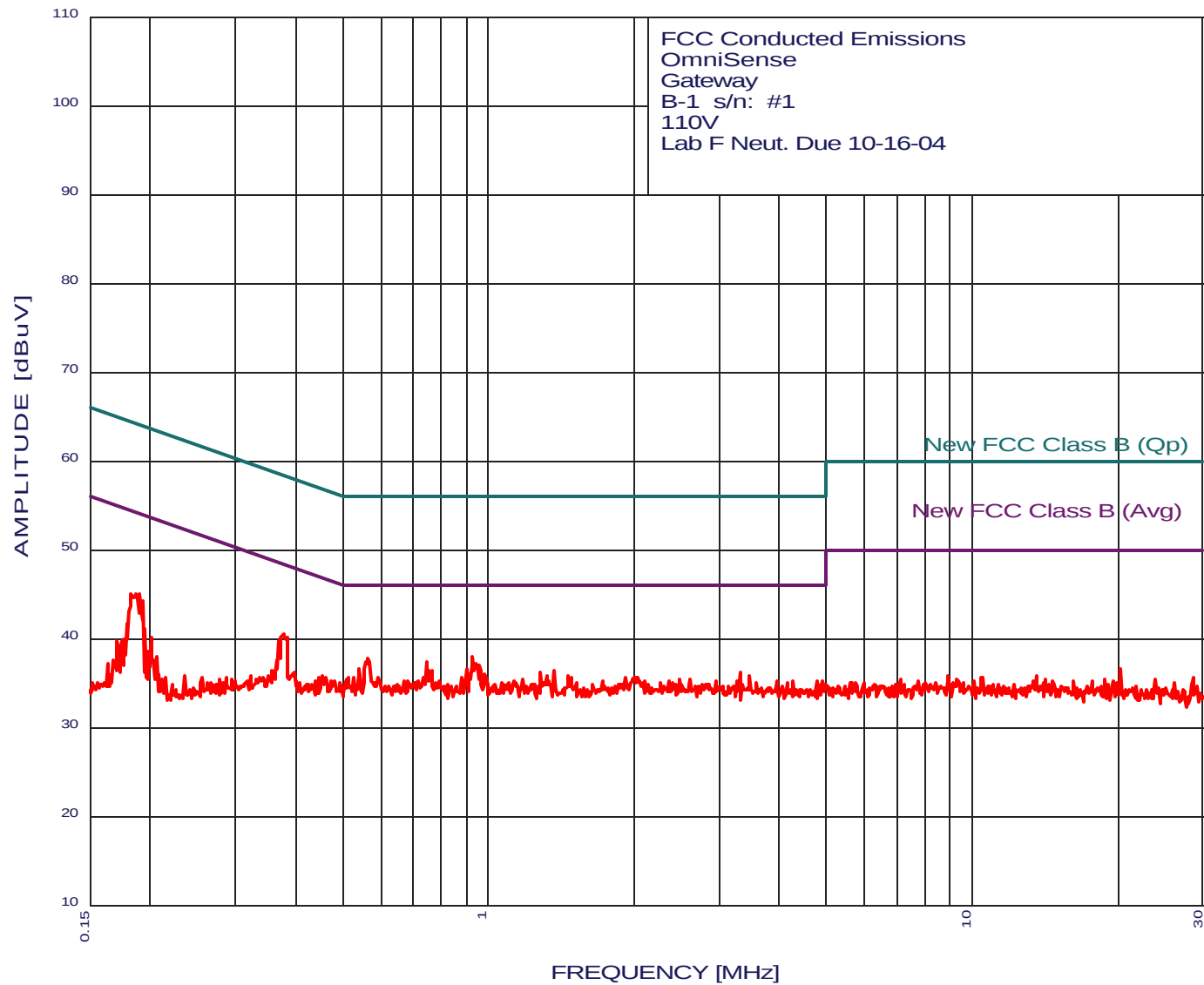
7 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.377	40.44	48.34	-7.90
2	0.929	38.02	46.00	-7.98
3	0.564	37.71	46.00	-8.29
4	0.743	37.31	46.00	-8.69
5	0.190	44.99	54.01	-9.03
6	1.367	36.41	46.00	-9.59
7	0.150	34.22	56.00	-21.78

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

7/09/2004 8:28:55



COMPATIBLE
ELECTRONICS



RADIATED EMISSIONS

COMPANY NAME: Omni Sense

DATE: 7/9/04

EUT:

EUT S/N:

EUT MODEL: Installer

LOCATION: ☐ BREA ☐ SILVERADO ☒ AGOURA

SPECIFICATION: *Full*

CLASS: DS

TEST DISTANCE:

LAB: F

ANTENNA: ☒ LOOP ☐ BICONICAL ☐ LOG ☐ HORN

POLARIZATION: ☐ VERT ☐ HORIZ

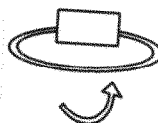
☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT

ENGINEER: K. Damvitz

NOTES:

Pol. A

Pol. B



10 kHz - 30 MHz

[illegible]

* DELTA = METER READING - CORRECTED LIMIT

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name :
 Model : Installer
 Serial # : #5
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 55%
 Hopping mode
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 07/09/2004
 Time : 10:01:52 AM
 Lab : F
 Test Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	192.094	38.70	3.61	15.06	35.47	21.89	43.50	-21.61
2V	240.105	41.10	3.95	16.15	34.98	26.22	46.00	-19.78
3H	192.091	39.20	3.61	15.06	35.47	22.39	43.50	-21.11
4H	240.079	38.70	3.95	16.15	34.98	23.82	46.00	-22.18
5V	384.084	35.70	4.95	15.71	34.79	21.57	46.00	-24.43
6V	528.122	40.80	5.43	18.01	35.64	28.59	46.00	-17.41
7H	384.085	36.70	4.95	15.71	34.79	22.57	46.00	-23.43
8H	528.129	39.90	5.43	18.01	35.64	27.69	46.00	-18.31

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
 Customer : Chris Hoogenboom
 Manufacturer : OmniSense
 Eut name :
 Model : Installer
 Serial # : #5
 Specification : FCC Pt. 15- Class B
 Distance correction factor (20 * log(test/spec)) : 0.00
 Test Mode : Qualification
 temp: 60F humid: 55%
 Hopping mode
 Sr. Test Engineer: R. Ramirez

Page : 1/1
 Date : 07/09/2004
 Time : 10:45:27 AM
 Lab : F
 Test Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	1804.470	39.20	3.70	26.60	32.91	36.59	54.00	-17.41
2V	2706.482	36.00	5.12	26.60	32.86	34.86	54.00	-19.14
3V	1830.746	37.70	3.67	26.60	32.96	35.01	54.00	-18.99
4V	2745.735	38.60	5.16	26.60	32.85	37.51	54.00	-16.49
5H	1804.459	28.90	3.70	26.60	32.91	26.29	54.00	-27.71
6H	2706.471	30.40	5.12	26.60	32.86	29.26	54.00	-24.74
7H	1830.735	31.10	3.67	26.60	32.96	28.41	54.00	-25.59