ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (R.B.)
EUT:	Antenna 1 on 500 mw C-radio	S/N #:		Limits	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance	3 meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EMCO 3115	EMCO 3115	CDI P-100	AEC 401	AEC 1885	GRC 181	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/Q/A	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D. C. F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4804	40.4	Peak	8	8	V	33.5	28.1	3.2	0.0	49.0	74.0	-25.0
4804	35.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	44.4	54.0	-9.6
7206	38.9	Peak	8	8	V	38.0	28.0	4.3	0.0	53.2	74.0	-20.8
7206	28.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	43.1	54.0	-10.9
12010	41.3	Peak	8	10	V	42.5	39.1	5.9	0.0	50.6	74.0	-23.5
12010	31.7	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.0	54.0	-13.1
19216	42.5*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.0	74.0	-17.0
19216	30.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.3	54.0	-8.7
21618	43.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.7	74.0	-16.3
21618	33.6*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.9	54.0	-6.1

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 1 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

Frequency MHz	Reading dBuV	Detector Peak/Ave.	Distance Meters	Antenna Height Meters	Polarization V/H	Antenna Factor dB/m	Cable Loss dB	Pre-amp Gain dB	Net dBuV/m	Limit dBuV/m	Margin dB
4880	37.2	Peak	8	8	V	33.5	28.1	3.2	0.0	45.8	74.0	-28.2
4880	32.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	40.9	54.0	-13.1
7320	40.8	Peak	8	8	V	38.0	28.0	4.3	0.0	55.2	74.0	-18.9
7320	35.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.8	54.0	-4.2
12200	42.0	Peak	8	10	V	42.5	39.1	5.9	0.0	51.3	74.0	-22.8
12200	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.9	54.0	-13.2
19520	41.4*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.9	74.0	-18.2
19520	31.5*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.0	54.0	-8.0
21960	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21960	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 1 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0
Model										

Frequency (MHz)	Reading (dBuV)	Detector Peak/Ave.	Distance (m)	Orientation (cm)	Polarity H/V	Antenna Factor (dB/m)	Pre-amp (dB)	Cable Loss (dB)	Net Gain (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4960	42.4	Peak	8	8	V	33.5	28.1	3.2	0.0	51.0	74.0	-23.0
4960	37.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	45.9	54.0	-8.1
7440	43.1	Peak	8	8	V	38.0	28.0	4.3	0.0	57.4	74.0	-16.6
7440	37.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	51.3	54.0	-2.7
12400	41.6	Peak	8	10	V	42.5	39.1	5.9	0.0	50.9	74.0	-23.2
12400	33.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.7	54.0	-11.3
19840	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19840	31.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.3	54.0	-7.7
22320	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.1	74.0	-14.9
22320	34.5*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.8	54.0	-5.2
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	[illegible]	
EUT:	Antenna 2 on 500 mw C-radio	S/N #:		[illegible]	11
Project #:	J99013298	Test Date:	May 13 1999	[illegible]	3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	[illegible]	0

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Number	8	7	17	8	12	10	12	0	0	0
Model	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MHz	dBuV	[illegible]	A	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4804	38.8	Peak	8	8	V	33.5	28.1	3.2	0.0	47.2	74.0	-26.9
4804	34.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	42.8	54.0	-11.2
7206	38.8	Peak	8	8	V	38.0	28.0	4.3	0.0	53.1	74.0	-20.9
7206	31.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.3	54.0	-8.7
12010	44.4	Peak	8	10	V	42.5	39.1	5.9	0.0	53.7	74.0	-20.3
12010	34.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.2	54.0	-10.8
19216	41.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.5	74.0	-18.5
19216	30.9*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.4	54.0	-8.6
21618	43.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.0	74.0	-16.0
21618	33.6*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.9	54.0	-6.1
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 2 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 13 1999		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

Number:	8	7	17	8	12	10	12	0	0	0

Frequency MHz	Reading dBuV	Detector Peak/Ave.	Antenna Height (cm)	Antenna Polarity	Antenna Factor	Pre-amp Gain	Cable Loss	Duty Relaxation	Net dBuV	Limit dBuV	Margin dB
4880	41.7	Peak	8	8	V	33.5	28.1	3.2	0.0	50.3	74.0	-23.7
4880	39.0	Ave.	8	8	V	33.5	28.1	3.2	0.0	47.6	54.0	-6.4
7320	40.7	Peak	8	8	V	38.0	28.0	4.3	0.0	55.0	74.0	-19.0
7320	34.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.4	54.0	-5.6
12200	45.3	Peak	8	10	V	42.5	39.1	5.9	0.0	54.5	74.0	-19.5
12200	38.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.3	54.0	-8.7
19520	41.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.3	74.0	-17.7
19520	31.4*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.9	54.0	-8.1
21960	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.9	74.0	-15.1
21960	34.0*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.3	54.0	-5.7

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 2 on C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.		0

Number	6	7	17	8	12	10	12	0	0	0
Model										

Frequency (MHz)	Reading (dBuV)	Detector	Antenna Height (m)	Antenna Angle (Deg)	Antenna Polarity	Antenna Factor (dB)	Pre-amp (dB)	Cable Loss (dB)	Duty Relaxation (dB)	Net (dBuV)	Limit (dBuV)	Margin (dB)
4960	42.4	Peak	8	8	V	33.5	28.1	3.2	0.0	51.0	74.0	-23.0
4960	39.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	48.2	54.0	-5.8
7440	40.0	Peak	8	8	V	38.0	28.0	4.3	0.0	54.3	74.0	-19.7
7440	32.2	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.5	54.0	-7.5
12400	43.2	Peak	8	10	V	42.5	39.1	5.9	0.0	52.5	74.0	-21.5
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.9	54.0	-13.1
19840	43.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	58.3	74.0	-15.7
19840	31.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.3	54.0	-7.7
22320	47.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	61.5	74.0	-12.6
22320	34.6*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.9	54.0	-5.2
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 3 on C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 13 1999		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

	8	7	17	8	12	10	12	0	0	0

4880	40.2	Peak	8	8	V	33.5	28.1	3.2	0.0	46.8	74.0	-25.3
4880	36.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	44.9	54.0	-9.2
7320	40.9	Peak	8	8	V	38.0	28.0	4.3	0.0	55.2	74.0	-18.8
7320	34.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.4	54.0	-5.7
12200	44.7	Peak	8	10	V	42.5	39.1	5.9	0.0	54.0	74.0	-20.0
12200	33.8	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.0	54.0	-11.0
19520	41.9*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.4	74.0	-17.6
19520	31.4*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.9	54.0	-8.1
21960	43.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.7	74.0	-16.3
21960	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 3 on C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 13 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S. 3 0

Number	8	7	17	8	12	10	12	0	0	0

MHz	Reading	Detector	Distance	Antenna	Polarity	Pre-amp	Insert. Loss	Transducer	Duty Relaxation	Net	Limit	Margin
4804	37.8	Peak	8	8	V	33.5	28.1	3.2	0.0	46.4	74.0	-27.6
4804	32.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	41.3	54.0	-12.7
7206	39.2	Peak	8	8	V	38.0	28.0	4.3	0.0	53.5	74.0	-20.5
7206	31.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.4	54.0	-8.6
12010	46.5	Peak	8	10	V	42.5	39.1	5.9	0.0	55.7	74.0	-18.3
12010	37.8	Ave.	8	10	V	42.5	39.1	5.9	0.0	47.0	54.0	-7.0
19216	41.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.7	74.0	-18.3
19216	31.0*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.5	54.0	-8.5
21618	44.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.4	74.0	-15.6
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-6.3
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C.

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 3 on C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 13 1999		3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Det.	Pre-amp (dB)	Insert. Loss (dB)	Pol.	Antenna Factor (dB/m)	Net (dB)	Duty Relaxation (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4960	43.1	Peak	8	8	V	33.5	28.1	3.2	0.0	51.7	74.0	-22.3
4960	40.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	49.4	54.0	-4.7
7440	39.6	Peak	8	8	V	38.0	28.0	4.3	0.0	53.9	74.0	-20.1
7440	32.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.4	54.0	-7.6
12400	42.2	Peak	8	10	V	42.5	39.1	5.9	0.0	51.4	74.0	-22.6
12400	31.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.5	54.0	-13.5
19840	42.9*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.4	74.0	-16.6
19840	31.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.2	54.0	-7.8
22320	44.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.1	74.0	-14.9
22320	34.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.7	54.0	-5.3
	* Noise Floor with RBW 300KHz											

NOTES:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:#: LA-3021-500-US	
EUT:	Antenna 4 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date: May 24 1999	3
Test Mode:	xmit 2440 500mw	Engineer: Barry S.	0

Limits	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Peak/Ave.	Distance (Meters)	Duty Cycle (dB)	Polarity (H/V)	Antenna Factor (dB/m)	Pre-amp (dB)	Cable Loss (dB)	Transducer Loss (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4880	35.9	Peak	8	8	V	33.5	28.1	3.2	0.0	44.5	74.0	-29.5
4880	29.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	38.3	54.0	-15.7
7320	41.7	Peak	8	8	V	38.0	28.0	4.3	0.0	56.0	74.0	-18.0
7320	35.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	50.1	54.0	-3.9
12200	44.0	Peak	8	10	V	42.5	39.1	5.9	0.0	53.3	74.0	-20.7
12200	34.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.7	54.0	-10.3
19520	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19520	31.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.8	54.0	-8.3
21960	44.3*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.6	74.0	-15.4
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 4 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.

Antenna Factor	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Type	Antenna Factor (dB)	Pre-amp Factor (dB)	Antenna Polarity	Cable A (dB)	Cable B (dB)	Cable C (dB)	Duty Cycle (dB)	Net (dBuV)	Limit (dBuV)	Margin (dB)
4804	39.8	Peak	8	8	V	33.5	28.1	3.2	0.0	48.4	74.0	-25.6
4804	32.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	40.9	54.0	-13.1
7206	41.0	Peak	8	8	V	38.0	28.0	4.3	0.0	55.3	74.0	-18.7
7206	33.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.1	54.0	-5.9
12010	45.1	Peak	8	10	V	42.5	39.1	5.9	0.0	54.3	74.0	-19.7
12010	37.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.7	54.0	-7.3
19216	41.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.5	74.0	-18.5
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	44.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.2	74.0	-14.8
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	**Model #:#:** LA-3021-500-US	
EUT:	Antenna 4 on 500 mw C-radio	**S/N #:**	11
Project #:	J99013298	**Test Date:** May 25 1999	3
Test Mode:	xmit 2480 500mw	**Engineer:** Barry S.	0

Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector	Antenna Height (cm)	Antenna Position (Degrees)	Polarity	Antenna Factor (dB)	Pre-amp (dB)	Cable Loss (dB)	Duty Relaxation (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4960	35.2	Peak	8	8	V	33.5	28.1	3.2	0.0	43.8	74.0	-30.2
4960	27.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	36.3	54.0	-17.8
7440	41.8	Peak	8	8	V	38.0	28.0	4.3	0.0	56.2	74.0	-17.8
7440	35.9	Ave.	8	8	V	38.0	28.0	4.3	0.0	50.3	54.0	-3.7
12400	42.3	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.1	74.0	-14.9
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 5 on C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0	
Type											

Frequency (MHz)	Reading (dBuV)	Detector Type	D.C.F. (dB)	Cable Loss (dB)	Antenna Polarity	Antenna Factor (dB)	Pre-amp (dB)	Insert. Loss (dB)	Duty Relaxation (dB)	Net (dBuV)	Limit (dBuV)	Margin (dB)
4804	37.3	Peak	8	8	V	33.5	28.1	3.2	0.0	45.9	74.0	-28.1
4804	32.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	41.4	54.0	-12.6
7206	41.5	Peak	8	8	V	38.0	28.0	4.3	0.0	55.8	74.0	-18.2
7206	36.2	Ave.	8	8	V	38.0	28.0	4.3	0.0	50.5	54.0	-3.5
12010	42.3	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12010	31.7	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.9	54.0	-13.1
19216	40.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.3	74.0	-18.7
19216	30.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.1	54.0	-8.9
21618	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.9	74.0	-15.1
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-6.3
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 5 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

Number:	8	7	17	8	12	10	12	0	0	0
Model:										

Frequency MHz	Reading dBuV	Detector Peak/Ave.	Pre-amp Gain dB	Insert. Loss dB	Antenna Pol. H/V	Antenna Factor dB/m	Cable Loss dB	Transducer Loss dB	Duty Relaxation dB	Net dBuV/m	Limit dBuV/m	Margin dB
4880	41.8	Peak	8	8	V	33.5	28.1	3.2	0.0	50.4	74.0	-23.7
4880	38.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	47.1	54.0	-6.9
7320	38.9	Peak	8	8	V	38.0	28.0	4.3	0.0	53.2	74.0	-20.8
7320	27.6	Ave.	8	8	V	38.0	28.0	4.3	0.0	41.9	54.0	-12.1
12200	42.3	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12200	31.9	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.1	54.0	-12.9
19520	41.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.3	74.0	-17.7
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	43.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.2	74.0	-15.9
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 5 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.		0

Antenna Factor	8	7	17	8	12	10	12	0	0	0

Freq. MHz	Reading dBuV	Det.	Antenna Factor	Cable Loss	Pol.	Pre-amp Gain	Net dBuV	Duty Relaxation	Net dBuV/m	Limit dBuV/m	Margin dB
4960	40.0	Peak	8	8	V	33.5	28.1	3.2	0.0	48.6	74.0	-25.4
4960	36.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	44.9	54.0	-9.1
7440	38.5	Peak	8	8	V	38.0	28.0	4.3	0.0	52.8	74.0	-21.2
7440	30.2	Ave.	8	8	V	38.0	28.0	4.3	0.0	44.8	54.0	-9.5
12400	42.3	Peak	8	10	V	42.5	39.1	5.9	0.0	51.6	74.0	-22.4
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.1	74.0	-16.9
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.0	74.0	-15.1
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 6 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0	

4804	32.8	Peak	8	8	V	33.5	28.1	3.2	0.0	41.4	74.0	-32.6
4804	24.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	32.8	54.0	-21.3
7206	42.0	Peak	8	8	V	38.0	28.0	4.3	0.0	56.4	74.0	-17.7
7206	35.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	50.1	54.0	-3.9
12010	42.8	Peak	8	10	V	42.5	39.1	5.9	0.0	52.0	74.0	-22.0
12010	33.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.5	54.0	-11.5
19216	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19216	30.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.1	54.0	-8.9
21618	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna B on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

4880	37.5	Peak	8	8	V	33.5	28.1	3.2	0.0	46.1	74.0	-27.9
4880	31.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	39.9	54.0	-14.1
7320	40.0	Peak	8	8	V	38.0	28.0	4.3	0.0	54.3	74.0	-19.7
7320	30.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	44.6	54.0	-9.4
12200	44.2	Peak	8	10	V	42.5	39.1	5.9	0.0	53.4	74.0	-20.6
12200	32.9	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.1	54.0	-11.9
19520	42.4*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.9	74.0	-17.1
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	43.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.1	74.0	-15.9
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 6 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.
			3
			0

Number of Hops	8	7	17	8	12	10	12	0	0	0

Frequency MHz	Reading dBuV	Detector	D.C.F.	Duty Cycle	Polarity	Antenna Factor	Pre-amp	Insert. Loss	Duty Relaxation	Net dBuV/m	Limit dBuV/m	Margin dB
4960	35.8	Peak	8	8	V	33.5	28.1	3.2	0.0	44.4	74.0	-29.6
4960	29.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	38.2	54.0	-15.8
7440	38.8	Peak	8	8	V	38.0	28.0	4.3	0.0	53.2	74.0	-20.9
7440	30.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	44.8	54.0	-9.2
12400	42.2	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.7	54.0	-13.3
19840	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.9	74.0	-15.1
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	**Model #:**	LA-3021-500-US		
EUT:	Antenna 7 on C-radio	**S/N #:**			11
Project #:	J99013298	**Test Date:**	May 24 1999		3
Test Mode:	xmit 2402 500mw	**Engineer:**	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0

4804	38.8	Peak	8	8	V	33.5	28.1	3.2	0.0	47.4	74.0	-26.7
4804	34.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	43.2	54.0	-10.8
7206	44.7	Peak	8	8	V	38.0	28.0	4.3	0.0	59.0	74.0	-15.0
7206	40.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	54.7	54.0	0.6
12010	41.5	Peak	8	10	V	42.5	39.1	5.9	0.0	50.7	74.0	-23.3
12010	32.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.2	54.0	-12.8
19216	41.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.7	74.0	-18.3
19216	34.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	49.3	54.0	-4.8
21618	44.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.0	74.0	-15.1
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-8.3
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 7 on C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

Antenna Type	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Type	Antenna Type	Cable A	Cable B	Cable C	Antenna Factor	Pre-amp	Insert. Loss	Duty Relaxation	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4880	36.5	Peak	8	8	V	33.5	28.1	3.2	0.0	45.1	74.0	-28.9
4880	31.4	Ave.	8	8	V	33.5	28.1	3.2	0.0	40.0	54.0	-14.0
7320	39.4	Peak	8	8	V	38.0	28.0	4.3	0.0	53.7	74.0	-20.3
7320	31.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.8	54.0	-8.2
12200	43.1	Peak	8	10	V	42.5	39.1	5.9	0.0	52.3	74.0	-21.7
12200	32.2	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.4	54.0	-12.6
19520	41.7*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.2	74.0	-17.8
19520	31.4*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.9	54.0	-8.1
21960	44.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.7	74.0	-15.3
21960	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 7 on C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

											11
											3
											0
Antenna Factor	8	7	17	8	12	10	12	0	0	0	

Frequency MHz	Reading dBuV	Peak/Ave.	Antenna Factor	Cable Loss	Polarity	Pre-amp Gain	Net dBuV	Duty Relaxation	Transducer Loss	Net dBuV	Limit dBuV	Margin dB
4960	38.2	Peak	8	8	V	33.5	28.1	3.2	0.0	46.8	74.0	-27.3
4960	32.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	41.4	54.0	-12.6
7440	40.3	Peak	8	8	V	38.0	28.0	4.3	0.0	54.6	74.0	-19.4
7440	31.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.1	54.0	-7.9
12400	42.2	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12400	31.7	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.9	54.0	-13.1
19840	42.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.1	74.0	-16.9
19840	31.9*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.4	54.0	-7.6
22320	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.9	74.0	-15.1
22320	34.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.7	54.0	-5.3

* Noise Floor with RBW 300KHz

NOTES:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	
EUT:	Antenna 8 on 500 mw C-radio	S/N #:		11
Project #:	J99013298	Test Date:	May 24 1999	3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	0

Number	8	7	17	8	12	10	12	0	0	0

4804	34.5	Peak	8	8	V	33.5	28.1	3.2	0.0	43.1	74.0	-30.9
4804	26.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	35.4	54.0	-18.6
7206	33.8	Peak	8	8	V	38.0	28.0	4.3	0.0	48.1	74.0	-25.9
7206	26.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	40.4	54.0	-13.6
12010	46.6	Peak	8	10	V	42.5	39.1	5.9	0.0	55.9	74.0	-18.2
12010	38.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.6	54.0	-8.4
19216	41.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.7	74.0	-18.3
19216	30.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.3	54.0	-8.7
21618	44.0*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.3	74.0	-15.7
21618	33.3	Ave.	17	12	V	40.3	24.0	7.5	-9.5	52.6	54.0	-8.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 8 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

											11
											3
											0
	8	7	17	8	12	10	12	0	0	0	

4880	34.2	Peak	8	8	V	33.5	28.1	3.2	0.0	42.8	74.0	-31.2
4880	25.0	Ave.	8	8	V	33.5	28.1	3.2	0.0	33.6	54.0	-20.5
7320	41.2	Peak	8	8	V	38.0	28.0	4.3	0.0	55.5	74.0	-18.5
7320	35.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.4	54.0	-4.6
12200	47.7	Peak	8	10	V	42.5	39.1	5.9	0.0	57.0	74.0	-17.0
12200	36.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.8	54.0	-8.2
19520	41.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.3	74.0	-17.7
19520	31.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.8	54.0	-8.3
21960	45.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	60.0	74.0	-14.0
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna B On 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

Antenna Factor	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector	Antenna Factor	Cable Loss	Antenna Polarity	Pre-amp Gain	Duty Relaxation	Transducer Loss	Insert. Loss	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4960	37.0	Peak	8	8	V	33.5	28.1	3.2	0.0	45.6	74.0	-28.4
4960	32.1	Ave.	8	8	V	33.5	28.1	3.2	0.0	40.7	54.0	-13.3
7440	41.2	Peak	8	8	V	38.0	28.0	4.3	0.0	55.5	74.0	-18.5
7440	34.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.0	54.0	-5.0
12400	46.7	Peak	8	10	V	42.5	39.1	5.9	0.0	56.0	74.0	-18.1
12400	38.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.7	54.0	-8.3
19840	41.9*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.4	74.0	-17.6
19840	31.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.2	54.0	-7.8
22320	45.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.4	74.0	-14.6
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 9 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.

Antenna	8	7	17	8	12	10	12	0	0	0

4804	44.4	Peak	8	8	V	33.5	28.1	3.2	0.0	53.0	74.0	-21.0
4804	41.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	50.1	54.0	-3.9
7206	40.0	Peak	8	8	V	38.0	28.0	4.3	0.0	54.3	74.0	-19.7
7206	33.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.4	54.0	-6.6
12010	43.4	Peak	8	10	V	42.5	39.1	5.9	0.0	52.7	74.0	-21.3
12010	34.2	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.4	54.0	-10.6
19216	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19216	30.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.1	54.0	-8.9
21618	43.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.2	74.0	-15.8
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 9 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

4880	39.3	Peak	8	8	V	33.5	28.1	3.2	0.0	47.9	74.0	-26.1
4880	35.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	44.2	54.0	-9.8
7320	42.8	Peak	8	8	V	38.0	28.0	4.3	0.0	57.1	74.0	-16.9
7320	38.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	51.1	54.0	-2.9
12200	43.5	Peak	8	10	V	42.5	39.1	5.9	0.0	52.8	74.0	-21.2
12200	33.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.7	54.0	-11.3
19520	41.9*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.4	74.0	-17.6
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 9 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

4960	38.4	Peak	8	8	V	33.5	28.1	3.2	0.0	47.0	74.0	-27.0
4960	34.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	42.8	54.0	-11.2
7440	40.8	Peak	8	8	V	38.0	28.0	4.3	0.0	55.1	74.0	-18.9
7440	32.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.0	54.0	-7.0
12400	41.8	Peak	8	10	V	42.5	39.1	5.9	0.0	51.0	74.0	-23.0
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	41.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.3	74.0	-17.7
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.4	74.0	-15.6
22320	34.2*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.5	54.0	-5.5
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #: LA-3021-500-US	
EUT:	Antenna 10 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date: May 24 1999	3
Test Mode:	xmit 2402 500mw	Engineer: Barry S.	0

Number	8	7	17	8	12	10	12	0	0	0

4804	36.7	Peak	8	8	V	33.5	28.1	3.2	0.0	45.3	74.0	-28.7
4804	30.4	Ave.	8	8	V	33.5	28.1	3.2	0.0	39.0	54.0	-15.0
7206	40.6	Peak	8	8	V	38.0	28.0	4.3	0.0	54.9	74.0	-19.1
7206	34.2	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.5	54.0	-5.5
12010	48.1	Peak	8	10	V	42.5	39.1	5.9	0.0	57.4	74.0	-16.6
12010	36.8	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.0	54.0	-8.0
19216	42.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	58.7	74.0	-17.3
19216	30.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.3	54.0	-8.7
21618	44.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.6	74.0	-15.2
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:
a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:# LA-3021-500-US	
EUT:	Antenna 10 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date: May 24 1999	3
Test Mode:	xmit 2440 500mw	Engineer: Barry S.	0

Number	8	7	17	8	12	10	12	0	0	0	
Model											

Frequency MHz	Reading dBuV	Detector	Cable A	Cable B	Ant. Pol.	Ant. Factor	Pre-amp	Cable C	D.C.F.	Net dBuV/m	Limit dBuV/m	Margin
4880	40.6	Peak	8	8	V	33.5	28.1	3.2	0.0	49.2	74.0	-24.8
4880	36.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	45.1	54.0	-9.0
7320	41.6	Peak	8	8	V	38.0	28.0	4.3	0.0	55.9	74.0	-18.1
7320	34.9	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.2	54.0	-4.8
12200	47.5	Peak	8	10	V	42.5	39.1	5.9	0.0	56.7	74.0	-17.3
12200	37.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.3	54.0	-7.7
19520	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19520	31.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.8	54.0	-8.3
21960	44.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.2	74.0	-14.8
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	**Model #:#:** LA-3021-500-US	
EUT:	Antenna 10 on 500 mw C-radio	**S/N #:**	11
Project #:	J99013298	**Test Date:** May 24 1999	3
Test Mode:	xmit 2480 500mw	**Engineer:** Barry S.	0

Number	8	7	17	8	12	10	12	0	0	0

4960	39.2	Peak	8	8	V	33.5	28.1	3.2	0.0	47.8	74.0	-26.2
4960	36.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	44.8	54.0	-9.2
7440	41.9	Peak	8	8	V	38.0	28.0	4.3	0.0	56.2	74.0	-17.8
7440	35.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.8	54.0	-4.2
12400	48.9	Peak	8	10	V	42.5	39.1	5.9	0.0	56.1	74.0	-17.9
12400	36.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.5	54.0	-8.5
19840	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19840	31.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.2	54.0	-7.8
22320	44.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.4	74.0	-15.6
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:
a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 11 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0	

4804	32.8	Peak	8	8	V	33.5	28.1	3.2	0.0	41.4	74.0	-32.6
4804	22.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	30.8	54.0	-23.3
7206	38.9	Peak	8	8	V	36.0	28.0	4.3	0.0	53.2	74.0	-20.8
7206	29.6	Ave.	8	8	V	36.0	28.0	4.3	0.0	43.9	54.0	-10.1
12010	46.5	Peak	8	10	V	42.5	39.1	5.9	0.0	55.8	74.0	-18.3
12010	36.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.9	54.0	-8.1
19216	41.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.1	74.0	-17.9
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	43.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.0	74.0	-16.0
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-6.3
	* Noise Floor with RBW 300KHz											

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 11 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

4880	36.5	Peak	8	8	V	33.5	28.1	3.2	0.0	45.1	74.0	-28.9
4880	30.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	38.9	54.0	-15.1
7320	38.5	Peak	8	8	V	38.0	28.0	4.3	0.0	52.8	74.0	-21.2
7320	28.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	43.1	54.0	-10.9
12200	48.1	Peak	8	10	V	42.5	39.1	5.9	0.0	57.3	74.0	-16.7
12200	36.8	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.1	54.0	-7.9
19520	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19520	31.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.8	54.0	-8.3
21960	43.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.9	74.0	-16.1
21960	33.8*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.1	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (I-B)
EUT:	Antenna 11 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance:	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Cycle Relaxation:	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3146	CPI CBL0100	AMP 8447D	AMP 8447D	Gen_Max	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/Q/A	Ant. Amp #	Ant. Amp #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4960	36.2	Peak	8	8	V	33.5	28.1	3.2	0.0	44.8	74.0	-29.2
4960	30.9	Ave.	8	8	V	33.5	28.1	3.2	0.0	39.5	54.0	-14.5
7440	40.1	Peak	8	8	V	38.0	28.0	4.3	0.0	54.4	74.0	-19.6
7440	30.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	44.4	54.0	-9.6
12400	47.4	Peak	8	10	V	42.5	39.1	5.9	0.0	56.6	74.0	-17.4
12400	36.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.7	54.0	-8.3
19840	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19840	31.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.2	54.0	-7.8
22320	45.0*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.3	74.0	-14.7
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:#: LA-3021-500-US	Standard	FCC § 15.247 (RSS)	
EUT:	Antenna 12 on 500 mw C-radio	S/N #:	Limits:	11	
Project #:	J99013298	Test Date: May 25 1999	Test Distance:	3	meters
Test Mode:	xmit 2402 500mw	Engineer: Barry S.	Duty Relaxation:	0	dB

	Antenna Used			Pre Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3116	HP PA 25	EMCO 3180	CDI_P100 0	ALO 400	ALT18255	Gen Mrt	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4804	35.5	Peak	8	8	V	33.5	28.1	3.2	0.0	44.1	74.0	-29.9
4804	28.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	37.2	54.0	-16.8
7206	40.2	Peak	8	8	V	38.0	28.0	4.3	0.0	54.5	74.0	-19.5
7206	32.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.4	54.0	-7.6
12010	44.1	Peak	8	10	V	42.5	39.1	5.9	0.0	53.3	74.0	-20.7
12010	34.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.2	54.0	-10.8
19216	41.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.5	74.0	-18.5
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	44.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.4	74.0	-15.6
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #: LA-3021-500-US	Standard	FCC 15.247 (RB)	
EUT:	Antenna 12 on 500 mw C-radio	S/N #:	Limits	11	
Project #:	J99013298	Test Date: May 25 1999	Test Distance	3	meters
Test Mode:	xmit 2440 500mw	Engineer: Barry S.	Duty Relaxation	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA 25	EMCO 3160	CD LP 100	ALC 400	AR 15S1	Gen Rad	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4880	34.9	Peak	8	8	V	33.5	28.1	3.2	0.0	43.5	74.0	-30.5
4880	27.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	36.4	54.0	-17.6
7320	41.2	Peak	8	8	V	38.0	28.0	4.3	0.0	55.6	74.0	-18.5
7320	35.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.3	54.0	-4.7
12200	43.9	Peak	8	10	V	42.5	39.1	5.9	0.0	53.2	74.0	-20.8
12200	33.7	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.9	54.0	-11.1
19520	45.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	59.7	74.0	-14.3
19520	33.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	47.8	54.0	-6.2
21960	43.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.8	74.0	-16.2
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:	
	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC §15.247 (B-B)	
EUT:	Antenna 12 on 500 mw C-radio	S/N #:		Limits:	11	
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3	meters
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Cycle Relaxation:	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM EPA 28	EMCO 6100	CD PA100 0	ALC 400	AFT 180-5	GH MEC	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant #	Amp #	Ant. Pol H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss* dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4960	34.6	Peak	8	8	V	33.5	28.1	3.2	0.0	43.2	74.0	-30.8
4960	27.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	35.9	54.0	-18.1
7440	40.4	Peak	8	8	V	38.0	28.0	4.3	0.0	54.7	74.0	-19.3
7440	32.9	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.3	54.0	-6.7
12400	42.5	Peak	8	10	V	42.5	39.1	5.9	0.0	51.8	74.0	-22.3
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.3	74.0	-16.7
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	39.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	54.2	74.0	-19.8
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (F.S.)
EUT:	Antenna 13 on 500 mw C-radio	S/N #:		Limits	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3160	CDEC 100	AIL 400	AFT 6656	Foam N-N	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant #	Amp #	Ant Pol H/V	Ant Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4804	45.6	Peak	8	8	V	33.5	28.1	3.2	0.0	54.2	74.0	-19.8
4804	43.0	Ave.	8	8	V	33.5	28.1	3.2	0.0	51.6	54.0	-2.4
7206	40.8	Peak	8	8	V	38.0	28.0	4.3	0.0	55.1	74.0	-18.9
7206	33.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.6	54.0	-6.4
12010	43.0	Peak	8	10	V	42.5	39.1	5.9	0.0	52.3	74.0	-21.7
12010	31.7	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.9	54.0	-13.1
19216	41.3*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.8	74.0	-18.2
19216	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21618	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-6.3
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (R.B.)
EUT:	Antenna 13 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3 meters
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3160	CDI 1-1000	AFT 400	AFT 1855	Gr-Nash	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/Q/A	Ant #	Amp #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4880	47.2	Peak	8	8	V	33.5	28.1	3.2	0.0	55.8	74.0	-18.2
4880	45.1	Ave.	8	8	V	33.5	28.1	3.2	0.0	53.7	54.0	-0.3
7320	41.5	Peak	8	8	V	38.0	28.0	4.3	0.0	55.8	74.0	-18.2
7320	36.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	50.3	54.0	-3.7
12200	43.6	Peak	8	10	V	42.5	39.1	5.9	0.0	52.9	74.0	-21.1
12200	34.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.6	54.0	-10.4
19520	41.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.3	74.0	-17.7
19520	31.1*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.6	54.0	-8.4
21960	43.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.7	74.0	-16.3
21960	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	**Model #:**	LA-3021-500-US	Standard	FCC § 15.247 (R.E.)
EUT:	Antenna 13 on 500 mw C-radio	**S/N #:**		Limits	11
Project #:	J99013298	**Test Date:**	May 25 1999	Test Distance	3
Test Mode:	xmit 2480 500mw	**Engineer:**	Barry S.	Duty Relaxation	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EMCO 3142	EMCO 3106	CD (P-10)	HP (8449B 400)	ART (6656	CABLE	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp. dB	Insert. Loss dB	D. C. F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4960	45.7	Peak	8	8	V	33.5	28.1	3.2	0.0	54.3	74.0	-19.7
4960	43.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	52.3	54.0	-1.7
7440	40.2	Peak	8	8	V	38.0	28.0	4.3	0.0	54.5	74.0	-19.5
7440	32.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.6	54.0	-7.4
12400	42.9	Peak	8	10	V	42.5	39.1	5.9	0.0	52.1	74.0	-21.9
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.7*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.2	74.0	-16.8
19840	31.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.2	54.0	-7.8
22320	44.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.0	74.0	-15.0
22320	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (R.B.)	
EUT:	Antenna 14 on 500 mw C-radio	S/N #:		Limits Start	11	MHz
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3	Meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	TEKCOM EMT-25 3115	TEKCOM EMT-25	TEKCOM CDC-R100 3160	CDC-R100	ALGI 400	ANTENNA	GRUMAN	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant. #	Ant. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(uV/m)	Margin dB
4804	37.6	Peak	8	8	V	33.5	28.1	3.2	0.0	46.2	74.0	-27.8
4804	32.4	Ave.	8	8	V	33.5	28.1	3.2	0.0	41.0	54.0	-13.0
7206	40.3	Peak	8	8	V	38.0	28.0	4.3	0.0	54.6	74.0	-19.4
7206	33.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.1	54.0	-6.0
12010	43.6	Peak	8	10	V	42.5	39.1	5.9	0.0	52.9	74.0	-21.2
12010	32.2	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.4	54.0	-12.6
19216	41.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.5	74.0	-18.5
19216	30.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.1	54.0	-8.9
21618	43.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.2	74.0	-15.8
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC 15.247 (R.B.)
EUT:	Antenna 14 on 500 mw C-radio	S/N #:		Limit Class	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3 meters
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EM LPA 25	EMCO 1000	CDI P100 0	AFO 400	AFT 18855	GR 3461	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant #	Amp #	Ant Pol H/V	Ant Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4880	38.3	Peak	8	8	V	33.5	28.1	3.2	0.0	46.9	74.0	-27.1
4880	33.4	Ave.	8	8	V	33.5	28.1	3.2	0.0	42.0	54.0	-12.0
7320	40.3	Peak	8	8	V	38.0	28.0	4.3	0.0	54.7	74.0	-19.3
7320	33.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.5	54.0	-6.6
12200	43.6	Peak	8	10	V	42.5	39.1	5.9	0.0	52.9	74.0	-21.1
12200	33.1	Ave.	8	10	V	42.5	39.1	5.3	0.0	42.4	54.0	-11.7
19520	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	44.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.8	74.0	-15.2
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (R.S.)	
EUT:	Antenna 14 on 500 mw C-radio	S/N #:		Limits	11	
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3	meters
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Relaxation	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EM LPA 25	EMCO 3160	CPI CPI-100	AEC 400	AFT 18852	SRC MSE	None	None	None

Frequency MHz	Reading dBµV	Detector P/A/Q	Ant. Amp #	Ant. Pol. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D. C. F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4960	40.7	Peak	8	8	V	33.5	28.1	3.2	0.0	49.3	74.0	-24.7
4960	37.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	45.8	54.0	-8.2
7440	41.5	Peak	8	8	V	36.0	28.0	4.3	0.0	55.8	74.0	-18.2
7440	34.1	Ave.	8	8	V	36.0	28.0	4.3	0.0	48.4	54.0	-5.6
12400	42.7	Peak	8	10	V	42.5	39.1	5.9	0.0	52.0	74.0	-22.0
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	41.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.6	74.0	-18.4
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.0*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.3	74.0	-15.7
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (R.B.)
EUT:	Antenna 15 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3 Meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM 10A 25	EMCO 3160	CD-P100	AEG 400	ATT 6955	GH 3K-1	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D. C. F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4804	41.8	Peak	8	8	V	33.5	28.1	3.2	0.0	50.4	74.0	-23.6
4804	39.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	47.9	54.0	-6.1
7206	39.4	Peak	8	8	V	38.0	28.0	4.3	0.0	53.8	74.0	-20.2
7206	31.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.7	54.0	-8.4
12010	43.1	Peak	8	10	V	42.5	39.1	5.9	0.0	52.4	74.0	-21.6
12010	32.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	41.7	54.0	-12.3
19216	41.5*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.0	74.0	-18.0
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	43.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.1	74.0	-15.9
21618	33.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.7	54.0	-6.3
	* Noise Floor with RBW 300KHz											

Notes:	
	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (B.B.)	
EUT:	Antenna 15 on 500 mw C-radio	S/N #:		Limit:	11	
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3	meters
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation:	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMI PA-25	EMCO 3160	CDC 8-100	AEG 400	AEI 6625	GHZ Nat.	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4880	43.0	Peak	8	8	V	33.5	28.1	3.2	0.0	51.6	74.0	-22.4
4880	40.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	49.3	54.0	-4.7
7320	39.8	Peak	8	8	V	38.0	28.0	4.3	0.0	54.1	74.0	-19.9
7320	31.4	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.7	54.0	-8.3
12200	43.1	Peak	8	10	V	42.5	39.1	5.9	0.0	52.4	74.0	-21.6
12200	34.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.6	54.0	-10.4
19520	42.2*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.7	74.0	-17.3
19520	31.4*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.9	54.0	-8.1
21960	43.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.0	74.0	-16.0
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (F.S.)
EUT:	Antenna 15 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Relaxation:	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM (B) 25	EMCO 3160	CSI P101 0-4k	AEL 400	AEL 1618	Gen Wire	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. Azm. °	Ant. Ht. ft	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4960	45.1	Peak	8	8	V	33.5	28.1	3.2	0.0	53.7	74.0	-20.3
4960	42.7	Ave.	8	8	V	33.5	28.1	3.2	0.0	51.3	54.0	-2.7
7440	39.7	Peak	8	8	V	38.0	28.0	4.3	0.0	54.1	74.0	-20.0
7440	32.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.0	54.0	-7.0
12400	42.3	Peak	8	10	V	42.5	39.1	5.9	0.0	51.5	74.0	-22.5
12400	31.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.3*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.8	74.0	-17.2
19840	31.5*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.0	54.0	-8.0
22320	45.1*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.4	74.0	-14.6
22320	34.1*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.4	54.0	-5.6
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (RSS)
EUT:	Antenna 16 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation:	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3106	HP 8449	AFT 400	AFT 400	Gen. Mfg.	None	None	None

Frequency MHz	Reading dB(µV)	Detector PK/AV	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4804	33.1	Peak	8	8	V	33.5	28.1	3.2	0.0	41.7	74.0	-32.3
4804	23.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	32.1	54.0	-21.9
7206	40.1	Peak	8	8	V	38.0	28.0	4.3	0.0	54.4	74.0	-19.6
7206	31.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.9	54.0	-8.2
12010	43.8	Peak	8	10	V	42.5	39.1	5.9	0.0	53.1	74.0	-20.9
12010	32.9	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.2	54.0	-11.8
19216	40.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.3	74.0	-18.7
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	44.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.2	74.0	-14.8
21618	32.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.2	54.0	-6.8
	* Noise Floor with RBW 300KHz											

Notes:	
	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC & IC 247 (R.B.)
EUT:	Antenna 16 on 500 mw C-radio	S/N #:		Limits	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM PA 25	EMCO 3160	CDI-2100 0	ALC 400	AET 16025	Gore 3ft	None	None	None

Frequency MHz	Reading dB(uV)	Detector PK/QP	Ant Amp ft	Ant Pol ft	Ant Pol H/V	Ant Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4880	33.9	Peak	8	8	V	33.5	28.1	3.2	0.0	42.5	74.0	-31.5
4880	25.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	34.4	54.0	-19.6
7320	40.6	Peak	8	8	V	38.0	28.0	4.3	0.0	54.9	74.0	-19.1
7320	31.8	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.1	54.0	-7.9
12200	45.0	Peak	8	10	V	42.5	39.1	5.9	0.0	54.2	74.0	-19.8
12200	35.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	44.6	54.0	-9.5
19520	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19520	31.5*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.0	54.0	-8.0
21960	44.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.8	74.0	-15.2
21960	33.5*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.8	54.0	-6.2
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC 15.247 (RB)	
EUT:	Antenna 16 on 500 mw C-radio	S/N #:		Limits	11	
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3	meters
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Relaxation	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EMCO 3115	EMCO 3160	CDI LP-100	HP 8449	HP 8449	Gen Rad	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. #	Amp. #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4960	35.5	Peak	8	8	V	33.5	28.1	3.2	0.0	44.1	74.0	-29.9
4960	29.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	37.8	54.0	-16.2
7440	40.3	Peak	8	8	V	38.0	28.0	4.3	0.0	54.6	74.0	-19.4
7440	32.6	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.9	54.0	-7.1
12400	42.7	Peak	8	10	V	42.5	39.1	5.9	0.0	51.9	74.0	-22.1
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.7	54.0	-13.3
19840	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19840	31.5*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.0	54.0	-8.0
22320	44.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.1	74.0	-14.9
22320	34.1*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.4	54.0	-5.6
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC 15.247 (RB)	
EUT:	Antenna 17 on 500 mw C-radio	S/N #:		Limits Section	11	
Project #:	J99013298	Test Date:	May 24 1999	Test Distance	3	meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EMCO 3104	EMCO 3160	CD 18-40	KO 400	AET 1865	GH 0840	None	None	None

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. Amp. ft	Ant. Amp. in	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4804	39.0	Peak	8	8	V	33.5	28.1	3.2	0.0	47.6	74.0	-26.4
4804	35.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	43.8	54.0	-10.2
7206	40.0	Peak	8	8	V	38.0	28.0	4.3	0.0	54.4	74.0	-19.7
7206	31.6	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.0	54.0	-8.1
12010	47.6	Peak	8	10	V	42.5	39.1	5.9	0.0	56.8	74.0	-17.2
12010	37.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.6	54.0	-7.4
19216	40.7*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.2	74.0	-18.8
19216	30.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.1	54.0	-8.9
21618	44.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.7	74.0	-15.3
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC 15.247 (R.B.)
EUT:	Antenna 17 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance:	3 meters
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3142B	EMCO 6509	CPI 500	AMCO 1B	AFT 5000	Cable 1	None	None	None

Frequency MHz	Reading dB(mV)	Detector PK/QP/AV	Ant. #	Amp #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4880	42.1	Peak	8	8	V	33.5	28.1	3.2	0.0	50.7	74.0	-23.3
4880	39.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	47.9	54.0	-6.1
7320	39.4	Peak	8	8	V	38.0	28.0	4.3	0.0	53.7	74.0	-20.3
7320	30.3	Ave.	8	8	V	38.0	28.0	4.3	0.0	44.6	54.0	-9.4
12200	47.5	Peak	8	10	V	42.5	39.1	5.9	0.0	56.7	74.0	-17.3
12200	37.2	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.5	54.0	-7.6
19520	41.4*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.9	74.0	-18.2
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC §15.247 (RB)
EUT:	Antenna 17 on 500 mw C-radio	S/N #:		Limits	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Duty Relaxation	0

	Antenna Used			Pre Amp Used			Cable Used		Transducer Used		
number	8	7	17	8	12	10	12	0	0	0	
Model	EMCO 3115	EM LPA	EMCO 3160	CDL P100	ATC 400	AFT 16060	SF NRL	None	None	None	

Frequency MHz	Reading dB(uV)	Detector P/A/Q	Ant. #	Amp #	Ant. Pol H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(uV/m)	Limit @3m dB(uV/m)	Margin dB
4960	43.1	Peak	8	8	V	33.5	28.1	3.2	0.0	51.7	74.0	-22.3
4960	40.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	49.1	54.0	-4.9
7440	39.2	Peak	8	8	V	38.0	28.0	4.3	0.0	53.5	74.0	-20.5
7440	35.4	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.7	54.0	-4.3
12400	47.2	Peak	8	10	V	42.5	39.1	5.9	0.0	56.5	74.0	-17.5
12400	37.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	46.3	54.0	-7.8
19840	42.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.1	74.0	-16.9
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.7	74.0	-15.4
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4
	* Noise Floor with RBW 300KHz											

Notes:	a) D.C.F.:Distance Correction Factor
	b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
	c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
	d) Negative signs (-) in Margin column signify levels below the limits.
	e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (R.B.)
EUT:	Antenna 18 on 500 mw C-radio	S/N #:		Limits	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance	3 meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3142	EMCO 3104	EMCO 3160	CDC R103	AEL H-2000	AEL H-1688S	GR-AKL	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant. #	S/Ch #	Ant. Pol. H/V	Ant. Factor dB(1/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB(µV/m)	Limit @3m dB(µV/m)	Margin dB
4804	36.2	Peak	8	8	V	33.5	28.1	3.2	0.0	44.8	74.0	-29.2
4804	30.2	Ave.	8	8	V	33.5	28.1	3.2	0.0	38.8	54.0	-15.3
7206	40.3	Peak	8	8	V	38.0	28.0	4.3	0.0	54.6	74.0	-19.4
7206	33.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.4	54.0	-6.6
12010	44.5	Peak	8	10	V	42.5	39.1	5.9	0.0	53.7	74.0	-20.3
12010	34.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.8	54.0	-10.2
19216	42.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.1	74.0	-16.9
19216	30.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.3	54.0	-8.7
21618	43.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.8	74.0	-16.2
21618	33.6*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.9	54.0	-6.1
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 18 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

										11
										3
										0
Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Peak/Ave.	Distance (Meters)	Antenna Height (Meters)	Polarization (V/H)	Antenna Factor (dB/m)	Pre-Amp Gain (dB)	Cable Loss (dB)	Insert. Loss (dB)	Net (dBuV)	Limit (dBuV/m)	Margin (dB)
4880	37.0	Peak	8	8	V	33.5	28.1	3.2	0.0	45.6	74.0	-28.4
4880	31.1	Ave.	8	8	V	33.5	28.1	3.2	0.0	39.7	54.0	-14.3
7320	40.6	Peak	8	8	V	38.0	28.0	4.3	0.0	55.0	74.0	-19.1
7320	34.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.4	54.0	-5.6
12200	44.5	Peak	8	10	V	42.5	39.1	5.9	0.0	53.7	74.0	-20.3
12200	34.1	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.3	54.0	-10.7
19520	41.4*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.9	74.0	-18.2
19520	31.5*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.0	54.0	-8.0
21960	44.2*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.5	74.0	-15.5
21960	33.9*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.2	54.0	-5.8
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 18 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

											11
											3
											0
Number:	8	7	17	8	12	10	12	0	0	0	

Frequency MHz	Reading dBuV	Detector Type	D.C.F. dB	Pre-amp dB	Antenna Polarity	Antenna Factor dB/m	Cable Loss dB	Net dBuV/m	Limit dBuV/m	Margin dB
4960	41.7	Peak	8	8	V	33.5	28.1	3.2	0.0	50.3	74.0	-23.7
4960	38.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	47.2	54.0	-6.8
7440	39.7	Peak	8	8	V	38.0	28.0	4.3	0.0	54.0	74.0	-20.0
7440	32.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.3	54.0	-7.7
12400	41.7	Peak	8	10	V	42.5	39.1	5.9	0.0	51.0	74.0	-23.0
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.7	54.0	-13.3
19840	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19840	31.8*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.3	54.0	-7.7
22320	44.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	59.1	74.0	-14.9
22320	34.4*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.7	54.0	-5.3
	* Noise Floor with RBW 300KHz										

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 19 on 500 mw C-radio	S/N #:			11
Project #:	J99013299	Test Date:	May 25 1999		3
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Type	D.C.F.	Insert Loss (dB)	Antenna Polarity	Antenna Factor (dB/m)	Pre-amp (dB)	Cable Loss (dB)	Duty Relaxation (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4804	34.7	Peak	8	8	V	33.5	28.1	3.2	0.0	43.3	74.0	-30.7
4804	27.6	Ave.	8	8	V	33.5	28.1	3.2	0.0	36.2	54.0	-17.8
7206	40.1	Peak	8	8	V	38.0	28.0	4.3	0.0	54.4	74.0	-19.6
7206	32.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	46.8	54.0	-7.2
12010	43.2	Peak	8	10	V	42.5	39.1	5.9	0.0	52.5	74.0	-21.5
12010	33.1	Ave.	8	10	V	42.5	39.1	5.9	0.0	42.4	54.0	-11.6
19216	41.8*	Peak	17	12	V	40.2	23.3	7.1	-9.5	58.3	74.0	-17.7
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	43.5*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.8	74.0	-16.2
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 19 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

Number	8	7	17	8	12	10	12	0	0	0
Model										

Frequency (MHz)	Reading (dBuV)	Detector Peak/Ave.	Cable A	Cable B	Ant. Pol. (H/V)	Ant. Factor (dB/m)	Pre-amp (dB)	Insert. Loss (dB)	D.C.F. (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4880	34.6	Peak	8	8	V	33.5	28.1	3.2	0.0	43.2	74.0	-30.8
4880	27.0	Ave.	8	8	V	33.5	28.1	3.2	0.0	35.6	54.0	-18.4
7320	41.0	Peak	8	8	V	38.0	28.0	4.3	0.0	55.3	74.0	-18.7
7320	33.9	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.2	54.0	-5.8
12200	43.7	Peak	8	10	V	42.5	39.1	5.9	0.0	52.9	74.0	-21.1
12200	34.4	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.6	54.0	-10.4
19520	41.3*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.8	74.0	-18.2
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	44.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.7	74.0	-15.3
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions
Test Data

Company:	Symbol	**Model #:**	LA-3021-500-US
EUT:	Antenna 19 on 500 mw C-radio	**S/N #:**	
Project #:	J99013298	**Test Date:**	May 25 1999
Test Mode:	xmit 2480 500mw	**Engineer:**	Barry S.

											11
											3
											0
Number:	8	7	17	8	12	10	12	0	0	0	
Model:											

Freq. MHz	Reading dBuV	Detector Peak/Ave.	D.C.F. dB	Pre-amp dB	Polarity H/V	Antenna Factor dB/m	Cable Loss dB	Insert. Loss dB	Duty Relaxation dB	Net dBuV/m	Limit dBuV/m	Margin dB
4960	40.2	Peak	8	8	V	33.5	28.1	3.2	0.0	48.8	74.0	-25.2
4960	38.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	45.4	54.0	-8.6
7440	41.8	Peak	8	8	V	38.0	28.0	4.3	0.0	56.2	74.0	-17.8
7440	35.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.4	54.0	-4.6
12400	42.0	Peak	8	10	V	42.5	39.1	5.9	0.0	51.3	74.0	-22.7
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.8	54.0	-13.2
19840	42.6*	Peak	17	12	V	40.2	23.3	7.1	-9.5	57.1	74.0	-16.9
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.3*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.6	74.0	-15.4
22320	34.2*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.5	54.0	-5.5
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 20 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.

Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector Type	Antenna Height (m)	Table Position (Degrees)	Polarization (V/H)	Antenna Factor (dB)	Pre-amp (dB)	Cable Loss (dB)	Duty Cycle (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4804	31.7	Peak	8	8	V	33.5	28.1	3.2	0.0	40.3	74.0	-33.7
4804	22.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	31.1	54.0	-22.9
7206	41.3	Peak	8	8	V	38.0	28.0	4.3	0.0	55.6	74.0	-18.4
7206	34.5	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.8	54.0	-5.2
12010	46.2	Peak	8	10	V	42.5	39.1	5.9	0.0	55.5	74.0	-18.6
12010	38.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.6	54.0	-8.4
19216	40.5*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.0	74.0	-19.0
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	43.7*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.0	74.0	-16.0
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.8	54.0	-6.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 20 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 24 1999		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

Limits:	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Peak/Ave.	D.C.F. (dB)	Insert. Loss (dB)	H/V	Ant. Factor (dB/m)	Pre-amp (dB)	Net (dB)	Duty Relaxation (dB)	Net (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4880	33.7	Peak	8	8	V	33.5	28.1	3.2	0.0	42.3	74.0	-31.7
4880	25.5	Ave.	8	8	V	33.5	28.1	3.2	0.0	34.1	54.0	-19.9
7320	41.2	Peak	8	8	V	38.0	28.0	4.3	0.0	55.6	74.0	-18.4
7320	34.7	Ave.	8	8	V	38.0	28.0	4.3	0.0	49.0	54.0	-5.0
12200	47.1	Peak	8	10	V	42.5	39.1	5.9	0.0	56.4	74.0	-17.6
12200	36.6	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.8	54.0	-8.2
19520	42.0*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.5	74.0	-17.5
19520	31.3*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.8	54.0	-8.3
21960	43.9*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.2	74.0	-15.8
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0
	* Noise Floor with RBW 300KHz											

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 20 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

	8	7	17	8	12	10	12	0	0	0

Frequency MHz	Reading dBuV	Detector Peak/Ave	A	B	C	Antenna Factor dB/m	Pre-amp dB	Insert Loss dB	Duty Relaxation dB	Net dBuV	Limit dBuV/m	Margin dB
4960	34.7	Peak	8	8	V	33.5	28.1	3.2	0.0	43.3	74.0	-30.8
4960	26.8	Ave.	8	8	V	33.5	28.1	3.2	0.0	35.4	54.0	-18.6
7440	41.3	Peak	8	8	V	38.0	28.0	4.3	0.0	55.7	74.0	-18.3
7440	31.6	Ave.	8	8	V	38.0	28.0	4.3	0.0	45.9	54.0	-8.1
12400	47.1	Peak	8	10	V	42.5	39.1	5.9	0.0	56.4	74.0	-17.6
12400	36.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.6	54.0	-8.4
19840	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.7	74.0	-15.3
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	**Model #:** LA-3021-500-US	
EUT:	Antenna 21 on 500 mw C-radio	**S/N #:**	11
Project #:	J99013298	**Test Date:** May 25 1999	3
Test Mode:	xmit 2402 500mw	**Engineer:** Barry S.	0

Antenna Port	8	7	17	8	12	10	12	0	0	0
Mode										

Frequency MHz	Reading dBuV	Detector Peak/Ave	Antenna Port	Cable	Polar.	Antenna Factor dB/m	Pre-amp dB	Insert. Loss dB	Duty Relaxation dB	Net dBuV/m	Limit dBuV/m	Margin dB
4804	34.7	Peak	8	8	V	33.5	28.1	3.2	0.0	43.3	74.0	-30.7
4804	27.9	Ave.	8	8	V	33.5	28.1	3.2	0.0	36.5	54.0	-17.5
7206	39.9	Peak	8	8	V	38.0	28.0	4.3	0.0	54.2	74.0	-19.8
7206	33.1	Ave.	8	8	V	38.0	28.0	4.3	0.0	47.4	54.0	-6.6
12010	43.8	Peak	8	10	V	42.5	39.1	5.9	0.0	53.1	74.0	-21.0
12010	33.8	Ave.	8	10	V	42.5	39.1	5.9	0.0	43.0	54.0	-11.0
19216	41.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	55.6	74.0	-18.4
19216	30.7*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.2	54.0	-8.8
21618	43.8*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.1	74.0	-15.9
21618	33.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	47.6	54.0	-6.4
	* Noise Floor with RBW 300KHz											

Notes:
a) D.C.F.:Distance Correction Factor
b) Insert. Loss (dB) = Cable A + Cable B + Cable C .
c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).
d) Negative signs (-) in Margin column signify levels below the limits.
e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US		
EUT:	Antenna 21 on 500 mw C-radio	S/N #:			11
Project #:	J99013298	Test Date:	May 25 1999		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

Number	8	7	17	8	12	10	12	0	0	0

Frequency (MHz)	Reading (dBuV)	Detector P/Q/A	Antenna Height (m)	Antenna Angle	Polarity H/V	Corr. Factor (dB/m)	Pre-amp (dB)	Insert. Loss (dB)	Duty Relaxation (dB)	Net (dBuV)	Limit (dBuV)	Margin (dB)
4880	35.8	Peak	8	8	V	33.5	28.1	3.2	0.0	44.4	74.0	-29.7
4880	28.4	Ave.	8	8	V	33.5	28.1	3.2	0.0	37.0	54.0	-17.0
7320	40.9	Peak	8	8	V	38.0	28.0	4.3	0.0	55.2	74.0	-18.8
7320	34.0	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.4	54.0	-5.6
12200	44.8	Peak	8	10	V	42.5	39.1	5.9	0.0	54.1	74.0	-19.9
12200	35.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	44.3	54.0	-9.8
19520	42.1*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.6	74.0	-17.4
19520	31.2*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	45.7	54.0	-8.3
21960	43.4*	Peak	17	12	V	40.3	24.0	7.5	-9.5	57.7	74.0	-16.3
21960	33.7*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.0	54.0	-6.0

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.

ITS Intertek Testing Services

Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US
EUT:	Antenna 21 on 500 mw C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 25 1999
Test Mode:	xmit 2460 500mw	Engineer:	Barry S.

Turntable	8	7	17	8	12	10	12	0	0	0		
Mode												

Frequency	Reading											
MHz	dBuV											
4960	36.8	Peak	8	8	V	33.5	28.1	3.2	0.0	45.4	74.0	-28.6
4960	32.3	Ave.	8	8	V	33.5	28.1	3.2	0.0	40.9	54.0	-13.1
7440	40.7	Peak	8	8	V	38.0	28.0	4.3	0.0	55.0	74.0	-19.0
7440	33.9	Ave.	8	8	V	38.0	28.0	4.3	0.0	48.2	54.0	-5.8
12400	41.7	Peak	8	10	V	42.5	39.1	5.9	0.0	50.9	74.0	-23.1
12400	31.5	Ave.	8	10	V	42.5	39.1	5.9	0.0	40.7	54.0	-13.3
19840	41.5*	Peak	17	12	V	40.2	23.3	7.1	-9.5	56.0	74.0	-18.0
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	46.1	54.0	-7.9
22320	44.6*	Peak	17	12	V	40.3	24.0	7.5	-9.5	58.9	74.0	-15.1
22320	34.3*	Ave.	17	12	V	40.3	24.0	7.5	-9.5	48.6	54.0	-5.4

* Noise Floor with RBW 300KHz

Notes:

a) D.C.F.:Distance Correction Factor

b) Insert. Loss (dB) = Cable A + Cable B + Cable C .

c) Net (dB) = Reading + Antenna Factor - Pre-amp + Insert. Loss. - Transducer Loss - Duty Relaxation (transmitter only).

d) Negative signs (-) in Margin column signify levels below the limits.

e) All other emissions not reported are below the equipment noise floor which is at least 20 dB below the limits.