

# 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

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA-25	EMCO 8100	CDL P100 0	ALO 400	AFT18895	Gm_MPL	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F	Net	Limit @3m	Margin
MHz	dB(μV)	P/A/G	#	#	H/V	dB(1/m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Standard	FCM 1 B-20 (R.B.)
EUT: Antenna 1 on 500 mw C-radio	S/N #:	Limit	11
Project #: J99013298	Test Date: May 24 1999	Ant. Distance	3
Test Mode: xmit 2440 500mw	Engineer: Barry S.	Duty Relaxation	0

Number	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model	EMCO 315	EMCO 25	EMCO 3160	OD 3100	130	1PT18603	Gen 34-L	None	None	None

Frequency MHz	Reading dB(μV)	Detector Pk/Avg	Ant. 8	Ant. 7	Ant. 17	Ant. Factor dB(μV/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(μV/m)	Limit dB(μV/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.

### Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Standard: CISPR 24
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

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	ODE P100 0	ATO 400	AFT18855	Omni	None	None	None

Frequency MHz	Reading dB(µV)	Detector Pk/Ave	Ant. Amp. #	Ant. Pb. #	Ant. Pb. V/V	Ant. Factor dB(m)	Pre-Amp dB	Cable Loss dB	D.C.F. dB	Net dB(µV/m)	Limit dB(µV/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	44.8*	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.

**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 2402 500mw	Engineer: Barry S.	0

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	Model:	EMCO 3115	EMCPA-25	EMGG 3160	CDL P100 U	AL3 400	AF115665	Gen. Int.	None	None

Frequency	Reading	Detector	Ant. Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(µV)	P/AVG	F	F	dB	dB	dB	dB	dB(µV/m)	dB(µV/m)	dB	
4804	38.6	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.

**Radiated Emissions  
Test Data**

<b>Company:</b> Symbol	<b>Model #:</b> LA-3021-500-US	<b>Standard:</b>
<b>EUT:</b> Antenna 2 on 500 mw C-radio	<b>S/N #:</b>	<b>EN 55022 (CISPR 22)</b>
<b>Project #:</b> J99013298	<b>Test Date:</b> May 13 1999	<b>Class:</b> 11
<b>Test Mode:</b> xmit 2440 500mw	<b>Engineer:</b> Barry S.	<b>Sub-Category:</b> 3
		<b>Duty Relaxation:</b> 0

Number	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 3115	EM LPA 25	EMCO 3160	ODL P100 2	ALC 450	AFT180K5	Cable A	None	None	None

Frequency	Reading	Detector	Ant. Amp.		Ant. Pol.	Ant. Factor	Pre-Amp	Cable	Cable	Net	Limit	Margin
			A	B								
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	36.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.3	54.0	-8.7
19520	41.8*	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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Standards	11, 12, 13, 14, 15, 16, 17
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	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO S15	EMCO 6	EMCO S15	CDL P100	AVS 33	CDL P100	CDL P100	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/C	Ant #	Ant. Gain	Ant. Pol	Ant. Factor dB(m)	Pre-Amp	Insert Loss	D.C.F.	Net dB(µV/m)	Limit dB(µV/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	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Frequency (MHz)	138.400
EUT: Antenna 3 on C-radio	S/N #:	Bandwidth (MHz)	11
Project #: J99013298	Test Date: May 13 1999	Reference Level (dB)	3
Test Mode: xmit 2440 500mw	Engineer: Barry S.	Reference Distance (m)	0

Number	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3100	ODI P100 P	ATC 60	ATI 1905	Gen. Int.	None	None	None

Frequency (MHz)	Reading (dB <sub>μV</sub> )	Detector (P/AV)	Ant. Gain (dB)		Ant. Pol (H/V)	Pre-Amp (dB <sub>μV</sub> )	Pre-Amp (dB)	Insert. Loss (dB)	D.C.F. (dB)	Net (dB <sub>μV/m</sub> )	Limit (dB <sub>μV/m</sub> )	Margin (dB)
			f	l								
4880	40.2	Peak	8	8	V	33.5	28.1	3.2	0.0	48.8	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												

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.

**Radiated Emissions  
Test Data**

<b>Company:</b> Symbol	<b>Model #:</b> LA-3021-500-US	<b>Standard:</b> CISPR 47 <b>Class:</b> B2 <b>Subclass:</b> 11 <b>Table:</b> 3 <b>Notes:</b> 0
<b>EUT:</b> Antenna 3 on C-radio	<b>S/N #:</b>	
<b>Project #:</b> J99013298	<b>Test Date:</b> May 13 1999	
<b>Test Mode:</b> xmit 2402 500mw	<b>Engineer:</b> Barry S.	

	<b>Antenna Used</b>			<b>Pre-Amp Used</b>			<b>Cable Used</b>			<b>Net/Band Used</b>
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMC0315	EM1075	EM0315	OD100	A10	A110005	Cable A	None	None	None

Frequency MHz	Reading dB(μV)	Detector PAV	Ant. Area #	Ant. Area #	Ant. Pol. HV	Ant. Factor dB(1m)	Pre-amp dB	Insert. Loss dB	Duty Cycle %	Net dB(μV/m)	Limit dB(μV/m)	Margin dB
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.



## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Part No: 15-247	Rev: 02/98
EUT: Antenna 3 on C-radio	S/N #:	Lot No: 11	
Project #: J99013298	Test Date: May 13 1999	Page No: 3	
Test Mode: xmit 2480 500mw	Engineer: Barry S.	Page Total: 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 25 EMCO 3160 CDL P101 7 ALO 490 APT1895A Gen MKI None None None			

Frequency	Reading	Detector	Ant. Amp.	Ant. C.F.	Ant. Factor	Pre-amp	Insert. Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(μV)	P/A/C	A	F	dB	dB	dB	dB	dB(μV/m)	dB(μV/m)	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

<b>Notes:</b>	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.

## 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

Antenna Used	Pre-amp Used	Cable Used	Pre-amp Used	Pre-amp Used	Cable Used	Cable Used	Pre-amp Used	Pre-amp Used	Pre-amp Used
8	7	17	8	12	10	12	0	0	0
Model: EUCS 3115	PH1145	SNCO 316	GO 1100	ALC 300	AP15265	Cm 101	None	None	None

Frequency	Reading	Detector	A	B	ABF	Ant Factor	Pre-Amp	Trans Loss	D.C.F.	Net	Limit	Margin
MHz	dB(μV)	PAQ	1	2	HV	dB(1m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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	58.0	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.

## Radiated Emissions Test Data

Company: Symbol	Model #:# LA-3021-500-US	Cable A Loss (dB)		Cable B Loss (dB)		Cable C Loss (dB)	
EUT: Antenna 4 on 500 mw C-radio	S/N #:	11		3		0	
Project #: J99013298	Test Date: May 24 1999						
Test Mode: xmit 2402 500mw	Engineer: Barry S.						

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	
Model:	EM05 315	EM1PA 25	EM35 310	501P100 0	AS5 402	APT180K	Om. MP.	None	None	None

Frequency	Reading	Detector	Ant. Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(uV)	PK/A	#	#	dB/m	dB	dB	dB	dB(uV/m)	dB(uV/m)	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.

## 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
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.

Number	Antenna Used			Pre Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 3115	EMCO 28	EMCO 3115	CD 8100	800	AFT 125K	200	None	None	None

Frequency	Reading	Detector	Ant. Amp.	Ant. Co.	Ant. Factor	Pre Amp	Insert. Loss	Net	Transducer	Limit	Margin	
Mhz	dBµV	PAO	#	#	dB/m	dB	dB	dBµV	dBµV	dBµV	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.

## Radiated Emissions Test Data

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

Number	Antenna Used			Pre-amp Used			Cable Used			Adapter Used		
	8	7	17	8	12	10	12	0	0	0	0	0
Model:	EMCO 315	EMCO 25	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315	EMCO 315

Frequency MHz	Reading dB(µV)	Detector	Ant. Amp.		Ant. Pol.	Ant. Loss (dB)	Pre-amp (dB)	Insert. Loss (dB)	D.C.F.	Net (dB)	Limit (dB(A/m))	Margin (dB)
			#	T								
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												

<b>Notes:</b>	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC 15.247 (3S)
EUT:	Antenna 5 on 500 mw C-radio	S/N #:		Pass:	11
Project #:	J99013298	Test Date:	May 24 1999	Fail:	3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Not Reported:	0

Number:	Antenna Used			Pre-Amp Used			Cable Used			Reference Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM-LFA 35	EMCO 2190	ODL 2190	ALC 65	APT1000	Gen. Serv.	None	None	None

Frequency (MHz)	Reading (dB(µV))	Detector (Peak/Ave)	Ant. Pos. #	Pre-amp #	Ant. Pos. (V)	Ant. Fact. (dB(m))	Pre-amp (dB)	Insert. Loss (dB)	D.C.F. (dB)	Net (dB(µV/m))	Limit (dB(µV/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.

## Radiated Emissions Test Data

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

Number	Antenna Used			Pre-Amp Used			Cables Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model	H920 315	EMT PA 25	H920 332	CD 7100 9	AE5 60	AL 1986 1	CD 101 1	None	None	None

Frequency MHz	Reading dBm	Detector Pr/Avg	Antenna F	Antenna Q	Antenna Polar	Pre-Amp dB (Typ)	Pre-Amp dB	Cable Loss dB	Cable Loss dB	Net dB (Typ)	Limit dB (Typ)	Margin dB
4960	40.0	Peak	8	8	V	33.5	28.1	3.2	0.0	48.6	74.0	-25.4
4960	38.3	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	44.6	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												

<b>Notes:</b>	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Antenna Used	Pre-Amp Used	Cable Used	Transducer Used
EUT: Antenna 6 on 500 mw C-radio	S/N #:	8	8	0	0
Project #: J99013298	Test Date: May 25 1999	7	12	0	0
Test Mode: xmit 2402 500mw	Engineer: Barry S.	17	10	0	0

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Model:	8	7	17	8	12	10	12	0	0	0

Frequency MHz	Reading dB(μV)	Category	Ant. A	Ant. B	Ant. Pol.	Ant. Gain dB(1m)	Pre-Amp dB	Cable Loss dB	D.C.F. dB	Net dB(μV/m)	Limit dB(μV/m)	Margin dB
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	47.8	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.



## 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		3
Test Mode: xmit 2440 500mw	Engineer: Barry S.		0

Number:	Antenna Data			Preamp Data			Cable Data			Margin
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 315	EMCO 25	EMCO 3150	EMCO 25	EMCO 3150	EMCO 25	EMCO 3150	EMCO 25	EMCO 3150	EMCO 25

Frequency	Reading	Detector	Antenna	Antenna	Antenna	Antenna	Pre-Amp	Pre-Amp	Pre-Amp	D.C.F.	Net	Limit	Margin
MHz	dB(μV)	Peak/Ave	f	f	dB	Factor	dB	dB	dB	dB	dB(μV)	dB(μV)	dB
4880	37.5	Peak	8	8	V	33.5	28.1	3.2	0.0	48.1	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													

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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	<table border="1"> <tr><td>11</td></tr> <tr><td>3</td></tr> <tr><td>0</td></tr> </table>	11	3	0
11					
3					
0					
EUT: Antenna 6 on 500 mw C-radio	S/N #:				
Project #: J99013298	Test Date: May 25 1999				
Test Mode: xmit 2480 500mw	Engineer: Barry S.				

	Antenna Used			Pre-Amp Used			Cable Used			Stand-off Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3315	EMCO 35	EMCO 3100	CD-1100	ALO 600	AFY1600	GM-100	None	None	None

Frequency MHz	Reading dB(μV)	Detector	Ant. Amp. #	Ant. Pol. HV	Ant. Factor dB(1m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net dB	Limit dB(μV/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.

**Radiated Emissions Test Data**

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

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used		
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0		
<b>Model:</b>	EMCO 3115	EMCO 25	EMCO 3115	EMCO 25	ALC 499	ALC 499	GEM 500	EMCO 25	EMCO 25	EMCO 25		

Frequency	Reading	Detector	Antenna	Pre-Amp	Ant. Pol.	Ant. Gain	Pre-Amp	Loss	Loss	Loss	Transducer	Margin
MHz	dB(μV)	Peak/Ave	#	#	Hz	dB(dBi)	dB	dB	dB	dB(dBm)	dB(dBm)	dB
4804	38.8	Peak	8	8	V	33.5	28.1	3.2	0.0	47.4	74.0	-26.7
4804	34.6	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	-6.3

\* Noise Floor with RBW 300KHz

<b>Notes:</b>	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.

## 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 2440 500mw	Engineer: Barry S.	0

Number	Antenna Used			Pre-amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 315	EMCO 25	EMCO 2150	CDL 200	ATC 200	ATC 200	ATC 200	ATC 200	ATC 200	ATC 200

Frequency MHz	Reading dBµV	Detector	Antenna		Pre-amp	Cable			Transducer	Duty	Relaxation	Margin dB
			F	T		A	B	C				
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.

## 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	

Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMC0	EM10	EM00	EM2	EM3	EM4	EM5	EM6	EM7	EM8

Frequency (MHz)	Reading (dB(uV))	Detector (Peak/Ave)	Antenna Factor (dB)	Pre-amp (dB)	Insert Loss (dB)	Transducer Loss (dB)	Duty Relaxation (dB)	Net (dB)	Limit (dB)	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.

## 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

	Antenna Used			Pre-Amp Used			Cables Used			Transducer Used		
Number:	8	7	17	8	12	10	12	0	0	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 169	EMCO 2	ALC 400	ALC 400	3M 3150	3M 3150	3M 3150	3M 3150	3M 3150	3M 3150

Frequency MHz	Reading dBm	Category	Channels		Polar	Antenna			Preamp			Net dB
			f	f		Gain	Loss	Loss	Gain	Loss		
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	-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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Frequency (MHz)	11
EUT: Antenna 8 on 500 mw C-radio	S/N #:	Power (dBm)	3
Project #: J99013298	Test Date: May 24 1999	Distance (m)	0
Test Mode: xmit 2440 500mw	Engineer: Barry S.		

Number	Antenna Used			Pre-Amp Used			Cable		Transducer	
	8	7	17	8	12	10	12	0	0	0
Model:	8130 3115	8130 25	8130 110	223 100	430 60	431 100	401 100	None	None	None

Frequency (MHz)	Reading (dB(μV))	Detention (Peak/Ave)	Ant. Gain (dB)	Pre-Amp (dB)	Insert. Loss (dB)	Ant. Factor (dB(dip))	Pre-Amp (dB)	Insert. Loss (dB)	Net (dB)	Limit (dB(μV))	Margin (dB)	
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.

**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 2480 500mw	Engineer:	Barry S.		0

Number	Standard Used			Pre-amp Used			Cable			Transducer Used		
	8	7	17	8	12	10	12	0	0	0	0	0
Model	318	318	318	318	318	318	318	318	318	318	318	318

Frequency MHz	Reading dB(μV)	Type	Antenna Factor			Pre-amp	Cable			Transducer	Net	Margin
			dB	dB	V		dB	dB	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	36.4	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.



## 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.

Number:	Antenna 0500			PreAmp 0500			Cable 0500			
	8	7	17	8	12	10	12	0	0	0
Model:	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
	312	2	259	33	69					

Frequency MHz	Reading dBm	Detector Type	Ant. Amp.		Ant. Pol.	Ant. Gain dB(m)	Pre-Amp dB	Cable Loss dB	Duty %	Net	Limit	Margin
			f	r								
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.

## 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		3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.		0

Number	Antenna Used			Pre-Amp Used			D.C.F. Used			Total
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 311	EMCO 25	EMCO 302	OD 100	40	AT 100	OD 100	None	None	None

Frequency (MHz)	Reading (dBV)	Detector	Ant. Amp. #	Ant. Amp. #	Ant. Pol.	Ant. Factor (dBm)	Pre-Amp. (dB)	D.C.F. (dB)	Net (dB)	Limit (dB)	Margin (dB)	
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	36.7	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												

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.

## 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	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	0

Number:	Antenna Used			Pre-amp Used						
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO JES	EMTEA ES	EMCO JES	EMCO JES	EMCO JES	EMCO JES	EMCO JES	EMCO JES	EMCO JES	EMCO JES

Frequency (MHz)	Reading (dBµV)	Detector	Ant. Gain (dB)	Pre-amp (dB)	Net (dB)	Margin (dB)	Limit (dB)	Limit (dB)	Limit (dB)	Limit (dB)	Limit (dB)	Limit (dB)
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	58.3	74.0	-17.7
19840	31.6*	Ave.	17	12	V	40.2	23.3	7.1	-9.5	48.1	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												

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.

## Radiated Emissions Test Data

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

<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>										

Frequency MHz	Reading dBm	Category	Dist	Factor	Mod	Pre-amp	Insert	Transducer	Duty	Relaxation	Net	Margin
			ft	dB	dB	dB	dB	dB	dB	dB	dB	dB
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	56.7	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	58.8	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**

<b>Company:</b> Symbol	<b>Model #:</b> LA-3021-500-US	<table border="1"> <tr> <td>11</td> </tr> <tr> <td>3</td> </tr> <tr> <td>0</td> </tr> </table>	11	3	0
11					
3					
0					
<b>EUT:</b> Antenna 10 on 500 mw C-radio	<b>S/N #:</b>				
<b>Project #:</b> J99013298	<b>Test Date:</b> May 24 1999				
<b>Test Mode:</b> xmit 2440 500mw	<b>Engineer:</b> Barry S.				

<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>										

Frequency MHz	Reading dBm	Character	A dB	B dB	Pre-amp dB	Antenna Factor dB(m)	Pre-amp dB	Net dB	D.C.F. dB	Net dB(m)	Limits ES dB(m)	Margin dB
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	58.7	74.0	-17.3
12200	37.0	Ave.	8	10	V	42.5	39.1	5.9	0.0	48.3	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												

<b>Notes:</b>	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.

**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
Model:										

Frequency MHz	Reading dBm	Limit	A	B	C	D.C.F.	Factor	Pre-amp	Insert Loss	Net	Transducer	Duty	Margin
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	46.9	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		3
Test Mode: xmit 2402 500mw	Engineer: Barry S.		0

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

Frequency MHz	Reading dB(A)	Limit dB(A)	Ch	Pol	Mod	Dist. Corr. Factor (dB)	Net (dB)	Margin (dB)	dB(A)/m	dB(V)/m	dB	
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	38.0	28.0	4.3	0.0	53.2	74.0	-20.8
7206	29.6	Ave.	8	8	V	38.0	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	-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.

## Radiated Emissions Test Data

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

Number	Antenna Used			Pre-Amp Used			Cable Used			Pass/Fail
	8	7	17	8	12	10	12	0	0	
Model	EM65 313	EM105 32	EM65 313	CDL1100 0	AL0 490	APT1505	GM101	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Fct.	Att. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit	Margin
MHz	dB(µV)	Pk/Ave	F	F	µV	dB(µV)	dB	dB	dB	dB(µV/m)	dB(µV/m)	dB
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.



## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Standard	FCC § 15.247 (R.B.)
EUT: Antenna 11 on 500 mw C-radio	S/N #:	Limits	11
Project #: J99013298	Test Date: May 24 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	EMIPA-25	EMCO #160	CDL #100 0	ALO 400	AFT18855	Gm M+L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/C	#	#	H/V	dB(1m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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

<b>Notes:</b>	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.

**Radiated Emissions  
Test Data**

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (R.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 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/PA 25	EMCO 3150	CDI_P100 0	ALO 400	AFT13855	Gm_MFL	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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												

<b>Notes:</b>	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (R.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 2440 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
		8	7	17	8	12	10	12	0	0
Model:	EMCO 3115	EM LPA-25	EMCO 3160	CDI_P100 0	ALO 400	AFT18855	GR_M+L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	P/A/Q	#	#	H/V	dB(F/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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												

<b>Notes:</b>	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Standard	FCC § 15.247 (R.E.)
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 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	CDI PT00 9	ALD 400	AFT18895	Gen. MET	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant #	Amp #	Ant. Pol. HV	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (P.B.)
EUT:	Antenna 13 on 500 mw C-radio	S/N #:		Limit:	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	EMLPA-25	EMCO 3160	CDL P100 0	ALO 400	APT1605E	Gm M+L	None	None	None

Frequency	Reading	Detector	Ant. #	Amp. #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(μV)	P/A/Q	#	#	H/V	dB(1m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC 5 15.247 (R.B.)
EUT:	Antenna 13 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	EM-LPA- 25	EMCO 3160	CDL P100 9	ALO 400	AFT10805	Grt_MxL	None	None	None

Frequency	Reading	Detector	Ant. #	Amp. #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/O	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

## 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 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	EMGO 3160	CDL_P100 0	ALO 400	APT16955	Gr_M-L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

**Radiated Emissions  
Test Data**

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC 47 CFR 15.247 (R.B.)
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 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 LPA-25	EMCO 3160	CDL P100 7	ALO 400	AFT18855	Gr M+L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	P/A/Q	#	#	H/V	dB(1m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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
<b>* Noise Floor with RBW 300KHz</b>												

- 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.



**Radiated Emissions Test Data**

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

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMCO 3115	EM LPA-25	EMCO 3160	CDL P100 0	ALO 400	AFT18855	Gr_M-L	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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	5.9	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.

**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	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	CDJ_P100 0	ALO 400	AFT15355	Gr_MHL	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	PA/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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	38.0	28.0	4.3	0.0	55.8	74.0	-18.2
7440	34.1	Ave.	8	8	V	38.0	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.

### Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Standard	FCC 5 15.247 (R.B.)
EUT: Antenna 15 on 500 mw C-radio	S/N #:	Limite	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 LPA-25	EMCO 3160	CDL P100 D	ALO 400	AFT16855	Gr_M+L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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

<b>Notes:</b>	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.

**Radiated Emissions  
Test Data**

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC 47 CFR 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 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	CDL P100 9	ALO 400	AFT16855	Grt_M-L	None	None	None

Frequency	Reading	Detector	Ant. #	Amp. #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	P/A/O	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

**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 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 I PA-25	EMCO 3160	CDL P100 0	ALG 400	APT18855	Gen MPT	None	None	None

Frequency	Reading	Detector	Ant. #	Amp. #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	PIA/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

### Radiated Emissions Test Data

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

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMCO 3115	EMIPA 25	EMCO 3150	CDL P100 0	ALO 400	AFT18055	Gm_MFL	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(μV)	P/A/G	#	#	H/V	dB(1/m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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												

<b>Notes:</b>	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard	FCC § 15.247 (R.B.)
EUT:	Antenna 16 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	EM LPA 25	EMCO 3160	CDL P100 0	ALO 400	AFT16855	Gr. JHL	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	P/A/O	#	#	H/V	dB(1m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

## Radiated Emissions Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FCC § 15.247 (R.B.)
EUT:	Antenna 16 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3 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	ODL P100 0	ALO 400	AET10065	Gr_MSL	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
Mhz	dB(µV)	P/A/Q			H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.





**Radiated Emissions  
Test Data**

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

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMCO 3115	EM LPA-25	EMCO 3160	CDL P100 0	ALC 400	APT16065	Gn_MPL	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(μV)	P/A/C	#	#	H/V	dB(1/m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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.

**Radiated Emissions  
Test Data**

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

Number	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMCO 3115	EM/LPA- 25	EMCO 3160	CDI_P100 5	ALO 430	AFT16855	Gn_M+L	None	None	None

Frequency	Reading	Detector	Ant #	Amp #	Ant Pol	Ant Factor	Pre-Amp	Insert. Loss	D. C. F.	Net	Limit @3m	Margin
MHz	dB(µV)	P/A/Q	#	#	H/V	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.



### Radiated Emissions Test Data

<b>Company:</b> Symbol	<b>Model #:</b> LA-3021-500-US	Standard Limits	IEEE 1529 (E.P.)	
<b>EUT:</b> Antenna 18 on 500 mw C-radio	<b>S/N #:</b>		11	
<b>Project #:</b> J99013298	<b>Test Date:</b> May 25 1999		3	
<b>Test Mode:</b> xmit 2440 500mw	<b>Engineer:</b> Barry S.		0	

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
<b>Number:</b>	8	7	17	8	12	10	12	0	0	0
<b>Model:</b>	EMCO 3135	EMCPA 26	EMCO 3135	SD-1100 0	ALC 400	AT-118005	Gen 103	100V	100V	None

Frequency MHz	Reading µV/m	Detector P.A.C.	Ant. #	Amp. #	Ant. Pol. HV	Ant. Factor dB(F/m)	Pre-Amp dB	Insert. Loss dB	D.C.F. dB	Net adj.(V/m)	Limit dBµV/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:**

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

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	S/N #: 11
EUT: Antenna 18 on 500 mw C-radio	S/N #:	3
Project #: J99013298	Test Date: May 25 1999	0
Test Mode: xmit 2480 500mw	Engineer: Barry S.	

Number:	Antenna Used			Pre-Amp Used			Cable Used			Reference Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 315	EMCO 2	EMCO 260	ODI P100	ALC 400	AP1600	CA 345	None	None	None

Frequency	Reading	Detector	Ant	Amp	A.F. Co.	Ant. Factor	Pre-Amp	Insert. Loss	D.C.F.	Net	Limit	Margin
MHz	dB(μV)	P/Ave	A	F	WV	dB(μV/m)	dB	dB	dB	dB(μV/m)	dB(μV/m)	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Serial #: 3021-500-247
EUT: Antenna 19 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

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMT PA-25	EMCO 3160	ODI 7100 2	ALO 430	APT 1000	SHO ANT	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/AVG	Ant #	Amp #	Ant Pol V	Ant Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(µV/m)	Limit dB(µV/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	56.3	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.







**Radiated Emissions  
Test Data**

<b>Company:</b> Symbol		<b>Model #:</b> LA-3021-500-US	<b>Ref: 20</b>	<b>Per: 15.20</b>
<b>EUT:</b> Antenna 19 on 500 mw C-radio		<b>S/N #:</b>	<b>11</b>	
<b>Project #:</b> J99013298		<b>Test Date:</b> May 25 1999	<b>3</b>	
<b>Test Mode:</b> xmit 2480 500mw		<b>Engineer:</b> Barry S.	<b>0</b>	

Number:	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EMCO	EM CPA	EMCO	COL P100	KLO	APT16860	Gra. 30V	None	None	None
	3135	25	3180	0	00					

Frequency	Reading	Detector	Ant. Amp.	Ant. RBW	Ant. Factor	Pre-Amp	Insert. Loss	Net	Dist. Factor	Limit @2m	Margin	
MHz	dB(AV)	F/A/C	F	F	dB(Gr)	dB	dB	dB(dB/m)	dB	dB(AV/m)	dB	
4960	40.2	Peak	8	8	V	33.5	28.1	3.2	0.0	48.8	74.0	-25.2
4960	36.8	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.

**Radiated Emissions  
Test Data**

Company: Symbol	Model #: LA-3021-500-US	Standard	EN 301 241 (R82)
EUT: Antenna 20 on 500 mw C-radio	S/N #:	Limit	11
Project #: J99013298	Test Date: May 24 1999	Ant Distance	3
Test Mode: xmit 2402 500mw	Engineer: Barry S.	Duty Cycle (%)	0

Number	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
	8	7	17	8	12	10	12	0	0	0
Model:	EM60 3119	EM1PA 26	EM60 3119	EM1PA 26	AS3 49	AP1000	EM101	None	None	None

Frequency MHz	Reading dB(μV)	Detector	Ant. Amp #	Ant. Pos #	Ant. Pol #	Ant. Factor dB(1m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(1V/m)	Limit dB(1V/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	74.0	-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	74.0	-5.2
12010	46.2	Peak	8	10	V	42.5	39.1	5.9	0.0	55.5	74.0	-18.6
12010	36.3	Ave.	8	10	V	42.5	39.1	5.9	0.0	45.6	74.0	-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	74.0	-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	47.6	74.0	-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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Standard: FCC Part 15.247 (B)
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

Antenna Class	Pre-Amp Used	Cable Used	Transducer Used
Number: 8 7 17	8 12 10	12 0 0	0
Model: BMOO EM LPA BMOO ODL-100 ATO APT16830 Gnt_M-1 None None None			

Frequency	Reading	Detector	Ant. #	Amp. #	Ant. Pol.	Ant. Factor	Pre-Amp	Insert Loss	D.C.F.	Net	Limit	Margin
MHz	dB(µV)	P/A/C	f	f	H/V	dB(µV/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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	55.8	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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Pass/Fail	11
EUT: Antenna 20 on 500 mw C-radio	S/N #:		3
Project #: J99013298	Test Date: May 24 1999		0
Test Mode: xmit 2480 500mw	Engineer: Barry S.		

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	BM00 315	EM LPA 25	EM04 2150	GD 2100 2	AEO 430	APT18855	Gen JME	None	None	None

Frequency MHz	Reading dB(µV)	Detector P/A/Q	Ant #	Ant Pol	Ant Factor dB(1/m)	Pre-Amp dB	Insert Loss dB	D.C.F. dB	Net dB(µV/m)	Limit dB(µV/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	58.4	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	48.8	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.

## 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 2402 500mw	Engineer:	Barry S.

Number:	Antenna Used			Pre-Amp Used			Cable Used			Total Loss (dB)
	8	7	17	8	12	10	12	0	0	
Model:	EMCO 3115	EM11PA 25	EMCO 3160	ODL P100 1	ATO 400	APT16865	Gen. Int.	None	None	None

Frequency	Reading	Detector	Ant. Amp.	Ant. Vol.	Ant. Factor	Pre-Amp	Insert. Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(µV)	PI/AO	F	F	dB	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

## Radiated Emissions Test Data

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

Antenna Used	Pre-Amp Used	Other Used	Other Used	Other Used
Number: 8 7 17 8 12 10 12 0 0 0				
Model: EMC 3115 EM117A EMC 2150 OLI 1100 ALG 400 APY1000 G-100 None None None				

Frequency	Reading	Detector	Ant. Amp	Ant. Pos.	Ant. Factor	Pre-Amp	Insert Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(µV)	P/A/C	F	F	dB(1/m)	dB	dB	dB	dB(µV/m)	dB(µV/m)	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.

## Radiated Emissions Test Data

Company: Symbol	Model #: LA-3021-500-US	Pass/Fail	11
EUT: Antenna 21 on 500 mw C-radio	S/N #:		3
Project #: J99013298	Test Date: May 25 1999		0
Test Mode: xmit 2480 500mw	Engineer: Barry S.		

Antenna US-93	Pre-amp US-93	Insert Loss US-93
8	7	17
8	12	10
12	0	0
0	0	0

Frequency	Reading	Detector	Ant. Amp	Ant. Pol	Ant. Factor	Pre-Amp	Insert Loss	D.C.F.	Net	Limit	Margin	
MHz	dB(µV)	PK/Ave	F	F	dB(CEM)	dB	dB	dB	dB(µV/m)	dB(µV/m)	dB	
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.