



Radiated Emissions Test Data

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

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA- 25	EMCO 3150	CDL_P100 0	ALO 400	AFT18895	Gm_MPL	None	None	None

[illegible]

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:	PC: 11.247
EUT: Antenna 1 on 500 mw C-radio	S/N #:	Units:	11
Project #: J99013298	Test Date: May 24 1999	Test Distance:	3
Test Mode: xmit 2440 500mw	Engineer: Barry S.	Out of Range:	0

	Antenna Used			Pre-Amp Used			Cable Used			Transceiver Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3150	OP_P100	A10 100	APT15505	cm_M4-L	None	None	None

[illegible]

15

- 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 (R.B.)
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 ODL P100 ATO 400 APT18955	Omni None 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)	Pk/Ave	#	#	dBV	dB	dB	dB	dB(µV/m)	dB(µV/m)	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	Standard: 11-229
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

	Antenna Used			Pre-Amp Used			Cable Used			Transceiver Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA 2	EMCO 3118	CD P100 0	ALO 60	AFT16055	Gen. J4-L	None	None	None

Frequency	Reading	Detector	Ant	Amp	Ant. Pol.	Ant. Factor	Pre-Amp	Isom. Loss	D.C. F.	Ref.	Ant. Gain	Margin
MHz	dB(μV)	P/A/C	#	#	H/V	dB(1m)	dB	dB	dB	dB(1V/m)	dB(1V/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

[illegible]

1000

- 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	Unit #:	11
EUT:	Antenna 2 on C-radio	S/N #:		Test Date:	3
Project #:	J99013298	Test Date:	May 24 1999	Test Results:	0
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.		

	Antennas Used			Pre-Amp Used			Cable Used			Repeater Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	8400	8400	8400	CDL-P100	115	AT-1000	Gen. 34L	None	None	None
	3115	2	3150	0	0					

[illegible]

- 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 3 on C-radio	S/N #:	
Project #:	J99013298	Test Date:	May 13 1999
Test Mode:	xmit 2440 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:	EMCO 3115	EMCO 25	EMCO 3100	OD-1100 0	ATC 00	AT1500S	Gen. Int'l.	None	None	None

[illegible]

100

- 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	Sum (m)	11
EUT: Antenna 3 on C-radio	S/N #:	11	
Project #: J99013298	Test Date: May 13 1999	3	
Test Mode: xmit 2402 500mw	Engineer: Barry S.	0	

	Antenna Used			Pre-Amp Used			Cable Used			Remedies Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EM-600 3115	EM-100 2	EM-600 3110	OD-1100 1	ATO 20	AT-1600S	Gen-M-1	None	None	None

Frequency	Reading	Detector	Ant. Area	Ant. Pol.	Ant. Factor	Pre-Amp	Insert. Loss	Dist. F.	Ref.	Comp. Eff. m	Margin	
MHz	dB(μV)	Pk/Ave	#	#	HA	dB(1m)	dB	dB	dB	dB(1V/m)	dB(1V/m)	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

[illegible]

100

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

	Amplifier Used			Pre-Amp Used			Capacitor Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3160	CDL P400 5	ALC 400	APT16050	Om. MCL	None	None	None

[illegible]

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.

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

	Sensors Used			Pre-Alert Cases			Cable Cases			Transition Cases
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3150	COI 8100 0	ALC 400	APT 1500S	OmniAlert	None	None	None

[illegible]

- 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	On Site Measurement Report
EUT:	Antenna 4 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			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EM05 3115	EM1PA 25	EM05 3102	SDI P100 0	ASD 402	APT1805K	Om. MP1	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)	PIA/Q	A	V	H/V	dB(1/m)	dB	dB	dB	dB(μV/m)	dB(μV/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	Serial #:	
EUT:	Antenna 4 on 500 mw C-radio	S/N #:		11
Project #:	J99013298	Test Date: May 25 1999		3
Test Mode:	xmit 2480 500mw	Engineer: Barry S.		0

	Antenna 12500			Pre-Amp 12500			22.5MHz 12500			Transceiver 12500
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO S115	EM1PA 25	EMCO S100	CDI P100 3	ALD 200	APT 15005	Om. Mod	None	None	None

[illegible]

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 5 on 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			Cable Used			Receiver Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3182	ODI-100 0	ATO 400	APT-1000	ODI-100	None	None	None

[illegible]

100

- 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:	FC-114-24 (FC-1)
EUT:	Antenna 5 on 500 mw C-radio	S/N #:		Symbol:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Category:	3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Results:	0

	Antenna Used			Pre-Amp Used			Cable Used			Frequency Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3115	EMCO 1	ATC 40	ATF1000	Omni-1	None	None	None

[illegible]

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 5 on 500 mw C-radio	S/N #:		11
Project #: J99013298	Test Date: May 24 1999		3
Test Mode: xmit 2480 500mw	Engineer: Barry S.		0

	Antenna Used			Pre-Amp Used			Post-Amp Used			Transition Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO S10	EMCO S	EMCO S10	EMCO P100	Alco 60	UHF8550	Omni	None	None	None

[illegible]

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><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 2402 500mw	Engineer: Barry S.				

	Antenna Used			Pre-Amp Used			Cable Used			Impedance Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	PM55 N/A	EM-17 N/A	EM-02 N/A	OD-100 N/A	AD-1 N/A	AD-11000 N/A	GM-101 N/A	NONE N/A	NONE N/A	NONE N/A

[illegible]

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	Test Date:	May 25 1999	Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Result:	11
EUT:	Antenna 6 on 500 mw C-radio	S/N #:		Test Date:	May 25 1999	Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Result:	3
Project #:	J99013298	Test Date:	May 25 1999	Test Date:	May 25 1999	Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Result:	0
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Date:	May 25 1999	Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Result:	0

	Amplifier Used			Pre-Amp Used			Cable Used			Pinch Plug Used
Number	8	7	17	8	12	10	12	0	0	0
Model	BA60	BF 10	BA60	OD 100	AO	AT 1600	GM 100	None	None	None

[illegible]

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

	Antenna Used			Pre-Amp Used			Cable Used			Remedial Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3115	CDL P100 0	ALC 400	AT116855	GM 341	None	None	None

[illegible]

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 #:	11
Project #: J99013298	Test Date: May 24 1999	3
Test Mode: xmit 2440 500mw	Engineer: Barry S.	0

	Antenna Used			Program Used			Font Used			Transmission Used
Number	8	7	17	8	12	10	12	0	0	0
Model	ELCO 315	ELCO 25	ELCO 315	COM 200	ALC 200	ANALOG	CHARLES	None	None	None

[illegible]

- 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	Page: 1 of 1	Date: 5/24/99
EUT: Antenna 7 on C-radio	S/N #:	11	
Project #: J99013298	Test Date: May 24 1999	3	
Test Mode: xmit 2480 500mw	Engineer: Barry S.	0	

	Antenna 1 (dB)			Antenna 2 (dB)			Antenna 3 (dB)			Reference (dB)
Number	8	7	17	8	12	10	12	0	0	0
Model	EMC-2	EM-1A	EMC-2	EM-1A	EM-1A	EM-1A	EM-1A	EM-1A	EM-1A	EM-1A
	3115	2	3115	2	3115	2	3115	2	3115	2

[illegible]

1255

- 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: 2402.500 MHz	Power: 500 mW
EUT: Antenna 8 on 500 mw C-radio	S/N #:	Channel: 11	Bandwidth: 12.5 MHz
Project #: J99013298	Test Date: May 24 1999	Mode: 3	Modulation: GFSK
Test Mode: xmit 2402 500mw	Engineer: Barry S.	Duration: 0	Notes:

	Antenna Used			Pre-Amp Used			Cable Used			Transition Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 3115	EMCO 3115	OP-1100	ALC 400	AMT-1000	Omni-100	None	None	None

[illegible]

100

- 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	Page:	11/22/99
EUT:	Antenna 8 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			Transceiver Used
Number	8	7	17	8	12	10	12	0	0	0
Model	4400	2400	4400	2400	4400	4400	4400	None	None	None

[illegible]

100

- 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:	FCR 3.15-27 (R.F.)
EUT:	Antenna 8 On 500 mw C-radio	S/N #:		Time:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Cycle:	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Test Result:	0

	Amplifier Used			Pre-Amplifier			Cable Used			Transducer Used
Number	8	7	17	8	12	10	12	0	0	0
Model	8000	8000	8000	8000	8000	8000	8000	None	None	None

[illegible]

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 2402 500mw	Engineer:	Barry S.	0

	Amplifier Used			Pre-Amp Used			Cable Used			Removal Sub
Number:	8	7	17	8	12	10	12	0	0	0
Model:	6000	2110	1000	6000	110	1000	6000	110	1000	110

[illegible]

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

	Antenna (cm)			Pre-Amp (dB)			Bands (dB)			Trim (cm)
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO	EMCO	EMCO	ODI P-100	110	Antenna	ODI P-100	None	None	None
	3115	25	2150	0	500					

[illegible]

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

	Antenna Used			Proposed Antenna						Distance
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EM-50 N/A	EM-100 5	EM-50 N/A	EM-100 5	EM-100 5	EM-100 5	EM-100 5	None	None	None

[illegible]

100

- 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 2402 500mw	Engineer: Barry S.	0

	Antenna Unit			Micro-Unit				Power Unit		
Number:	8	7	17	8	12	10	12	0	0	0
Model:	BBC S16	BBB S15	BBC S17	BBB S15	BBC S16	BBB S15	BBC S16	BBB S15	BBB S15	BBB S15

[illegible]

- 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
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.

	Antenna Used			Pre-Amp Used			Post-Amp Used			Power (dBm)
Number:	8	7	17	8	12	10	12	0	0	0
Model:	6000 311	611A 20	6000 310	6000 310	611 20	611 20	611 20	None	None	None

[illegible]

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 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

	Antenna (dB)			Pre-Amp (dB)			PA (dB)		Transistor (dB)	
Number:	8	7	17	8	12	10	12	0	0	0
Model:	BMOO 111	BH19A 25	BMOO 110	BO BMOO 8	BS 65	BM19B 65	BM19C 65	Good	None	None

[illegible]

1552

- 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 11 on 500 mw C-radio	S/N #:	11
Project #:	J99013298	Test Date:	May 24 1999
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.
			0

	Approved			Pre-Appr.			In-Appr.			Number Used
Number	8	7	17	8	12	10	12	0	0	0
Moral	Expo SFB	TPB 6	SFB 10	CPL 10	AFL 10	ATL 10	CPL 12	PBB 0	Dow 0	SFB 0

[illegible]

15

- 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	EM-LPA- 25	EMCO 3162	CDL_P100 0	ALO 400	AFT18895	Gin_M+L	None	None	None

[illegible]

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 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-LPA 25	EMCO 3100	CDL_P100 0	ALO 400	AFT13555	Gn_M+L	None	None	None

[illegible]

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 12 on 500 mw C-radio	S/N #:	Limits:	11	
Project #:	J99013298	Test Date: May 25 1999	Test Distance:	3	meters
Test Mode:	xmit 2440 500mw	Engineer: Barry S.	Duty Relaxation:	0	dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA- 25	EMCO 3102	CDL_P100 0	ALO 400	AFT18855	Grr_M+L	None	None	None

[illegible]

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 12 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 3101	CDL P100 0	ALO 400	AFY18855	Gm_MPL	None	None	None

[illegible]

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 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	EM LPA- 25	EMCO 3160	CDL_P100 3	ALO 400	APT10055	Gm_MPL	None	None	None

[illegible]

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 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	CDI_P100 0	ALO 400	AFT16055	Gn_M+L	None	None	None

[illegible]

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 #:		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	CDL P100 0	ALO 400	AFT16855	Gm M-L	None	None	None

[illegible]

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:	FCR § 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 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	CDI_P100 0	ALO 400	APT16355	Gr_M-L	None	None	None

[illegible]

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 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-M-L	None	None	None

[illegible]

- 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.

Test Data

Company:	Symbol	Model #:	LA-3021-500-US	Standard:	FGC § 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 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 P100 0	ALO 400	AFT16855	Gm JHL	None	None	None

[illegible]

- 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 #:		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	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)	PA/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

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:	FGC § 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 0	ALO 400	APT16855	Gra_M+L	None	None	None

[illegible]

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 (F.B.)
EUT:	Antenna 15 on 500 mw C-radio	S/N #:		Limit:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3 meters
Test Mode:	xmit 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.P.A. 25	EMCO 3160	CDL P100 G	ALO 400	AFT18895	Gm_M+L	None	None	None

[illegible]

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 #:		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	EM-LPA- 25	EMCO 3160	CDI_P100 0	ALO 400	APT18855	Gin_MFL	None	None	None

[illegible]

150

- 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 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 3100	CDI P100 0	ALO 400	AFT16355	Gm J+L	None	None	None

[illegible]

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 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 3100	CDL P100 0	ALO 400	APY16855	Gm M+L	None	None	None

[illegible]

100

- 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.F.)
EUT:	Antenna 17 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance:	3 meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relocation:	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	ALG 400	AFT16855	Gr M-L	None	None	None

[illegible]

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 17 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Distance:	3 meters
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA- 25	EMCO 3160	CDL P100 0	ALO 400	APT16855	Gn JHL	None	None	None

[illegible]

100%

- 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 17 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	EM LPA- 25	EMCO 3160	CDL P100 0	ALO 400	AFT16055	Gn_M+L	None	None	None

[illegible]

100

- | |
|--|
| 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 § 18.247 (R.B.)
EUT:	Antenna 18 on 500 mw C-radio	S/N #:		Limits:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Distance:	3 meters
Test Mode:	xmit 2402 500mw	Engineer:	Barry S.	Duty Relaxation:	0 dB

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA- 25	EMCO 3100	CDL P100 0	ALO 400	APT16855	Gm_M+L	None	None	None

[illegible]**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 (F-B)	Pass: 11
EUT: Antenna 18 on 500 mw C-radio	S/N #:	Limit:	11
Project #: J99013298	Test Date: May 25 1999	Test Distance:	3
Test Mode: xmit 2440 500mw	Engineer: Barry S.	Pass:	0

	Antenna Used			Pre-Amp Used			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3100	CDI 2100 0	ALC 405	AT-116055	Gen. 100	None	None	None

[illegible]

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 #: 11
EUT: Antenna 18 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

	Antenna Used			Prg. Ant. Used			Cable Used			Terminator Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM CPA 2	EMCO 3160	CDL P-100 0	ALC 400	ANT 16500	Gen. JML	None	None	None

[illegible]

1005

- 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 #:	15247
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	

	Antenna Used			Pre-Amp Used			Cable Used			Transceiver Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM-LPA-25	EMCO 3160	ODEP100	ALC 400	APT16655	Gn J4-1	None	None	None

[illegible]

1000

- 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:	FC-10-24
EUT:	Antenna 19 on 500 mw C-radio	S/N #:		Units:	11
Project #:	J99013298	Test Date:	May 25 1999	Test Projects:	3
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Test Results:	0

	Antenna Used			Pre-App. Data			Post-App. Data			Transducer Used	
Number:	8	7	17	8	12	10	12	0	0	0	
Model:	EMCO 3115	EMCO 25	EMCO 2100	OP-100 0-100	AL-3 0-300	AP-10005	OP-100 0-100	None	None	None	

[illegible]

100

- 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 19 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			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EMCO 25	EMCO 3150	CDL 9100 0	ALC 400	APT16065	Omni 300	None	None	None

[illegible]

████████████████████

- 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	FCB 5-15-247 (R.F.)
EUT:	Antenna 20 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			Cable Used			Transducer Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	ELCO 3115	DAI 17A 25	ELCO 3100	COI 1000 2	ALC 400	APT10000	Am. M-L	None	None	None

[illegible]

155

- 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:	FCR 15.24 (10/93)	
EUT:	Antenna 20 on 500 mw C-radio	S/N #:		Units:	11	
Project #:	J99013298	Test Date:	May 24 1999	Test Duration:	3	
Test Mode:	xmit 2440 500mw	Engineer:	Barry S.	Auto Relocation:	0	

	Antenna Used			Pre-Amp Used			Cable Used			Video Out Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 5115	EM 5	EMCO 5100	COI_P100 0	ALO 100	APY16005	Gm_M4-L	None	None	None

[illegible]

100%

- 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:	155.15 MHz
EUT:	Antenna 20 on 500 mw C-radio	S/N #:		Power:	11
Project #:	J99013298	Test Date:	May 24 1999	Test Time:	3
Test Mode:	xmit 2480 500mw	Engineer:	Barry S.	Test Result:	0

	Amplifier Used			Pre-Amp Used			Digi Amp Used			Test Model Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EM20 3115	EM1PA 20	EMod 2160	ODI_P100 0	ALO 400	AFT16865	GH_AMP	None	None	None

[illegible]

100

- 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><tr><td>11</td></tr><tr><td>3</td></tr><tr><td>0</td></tr></table>	11	3	0
11					
3					
0					
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.				

	Antenna Used			Pre-Amp Used			Cable Used		SWR	Frequency Used
Number:	8	7	17	8	12	10	12	0	0	0
Model:	EMCO 3115	EM LPA-25	EMCO 3100	ODL P100	ALO 400	APT18855	Gen. JHL	Nine	None	None

[illegible]

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

	Amplifier Used			Pre-Amp Used			Tuner Used			Hi-Fi Meter Used
Number	8	7	17	8	12	10	12	0	0	0
Model	EMCO 3115	EMCO 2	EMCO 2150	ODI 3100	ALC 450	APT1000	Gen. JBL	None	None	None

[illegible]

100

- 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	Rev: 1.5.20
EUT: Antenna 21 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

Analog Input			Pulse Input			Digital Input			Relay Output	
Number	8	7	17	8	12	10	12	0	0	0
Model	EM600	EM100	EM600	OD_P100	AI3	APT1000	On JAIL	None	None	None
	3115	15	3102	0	00					

[illegible]

RESULTS

- 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.