



Exhibit 5: EMI Test Report

**External Radio Frequency
Power Amplifier ACOM 600S**

Model 600S

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EMI Test Report for ACOM 600S

Product Name: ACOM 600S

Regulation: FCC, Part 97 Sub Part D

Date of test: NOVEMBER 5 2013

Tested by: Eng. Philip Iliev, R&D at ACOM OOD

Test Method: FCC, Part 97.317 (a)(1)(2)(3), (b)(1)(2)
Part 97.307 (d), (e)

Responsible Parties

Manufacturer: ACOM OOD – Bulgaria

Applicant: Array Solutions

EUT Type/Model #: Linear Amplifier ACOM 600S

Test Location: ACOM OOD laboratory

EUT Description

The EUT (ACOM 600S) is a Linear Amplifier for Amateur Radio.

The tests were run in a typical configuration including the following support equipment:

- 1) H.F. Transceiver
- 2) Power Supply for transceiver

Reason for Test

Compliance with FCC Part 97

Changes made during test: none

Deviations from standard test method: none

Test Summary

The ACOM 600S complied with FCC Part 97 Subpart D, 97.307 and 97.317 Limits for Amateur Radio equipment when tested in the system configuration defined herein.

The following table indicates the measurement points and test results for the harmonic emissions to the tenth order:

Power Gain per 97.317-(a) (1) (2) (3)				Spurious emissions per 97.307 (d) (e)		
Frequency f ₁ , MHz	Input Power, W	Output Power, W	Amplifier Gain, dB	2f ₁ , dBc	3f ₁ , dBc	(4-10)f ₁ , dBc worst case
1.800	23.9	600	14.0	-65	-77	Better than -77dBc
3.500	20.5	600	14.7	-77	-82	Better than -74dBc
7.100	23.4	600	14.1	-77	-79	Better than -85dBc
10.125	22.1	600	14.3	-86	-81	Better than -73dBc
14.350	20.0	600	14.8	-70	-62	Better than -70dBc
18.100	27.0	600	13.5	-94	-61	Better than -70dBc
21.200	22.9	600	14.2	-98	-62	Better than -67dBc
24.900	20.1	600	14.7	-71	-74	Better than -70dBc
28.800	19.6	600	14.8	-77	-73	Better than -69dBc
52.000	24.6	600	13.9	-89	-77	Better than -70dBc
Amplifier was not capable of operation on any frequency or frequencies between 26 and 28MHz as measured at the points below per 97.317-(a) (3). Data for: amplifier in Stand-by /Operate.						
26.000	100	100	0.0	-	-	-
27.000	100	100	0.0	-	-	-
28.000	100	100	0.0	-	-	-

Table 1 Spurious emission test

97.307(a)(b). Intermodulation & Linearity

Exciter operating in SSB mode with two equal-tone audio applied to the microphone input. Amplifier under test driven to 600W PEP output at the center of the band with 24W PEP input power.

The following table indicates the measurement points and test results for the Inter Modulation Distortions to the 11-th order:

Intermodulation in dB relative to 600W PEP per 97.307(a)(b)			
Order:	D3	D5	D7 and higher
Freq. (MHz)	dB	dB	dB
1.800	-38	-47	-66
3.500	-41	-38	-57
7.100	-36	-39	-58
10.100	-41	-39	-51
14.350	-56	-42	-53
18.100	-29	-35	-43
21.200	-31	-37	-47
24.900	-29	-41	-44
28.800	-29	-43	-47
52.000	-30	-45	-56

Table 2 Intermodulation products

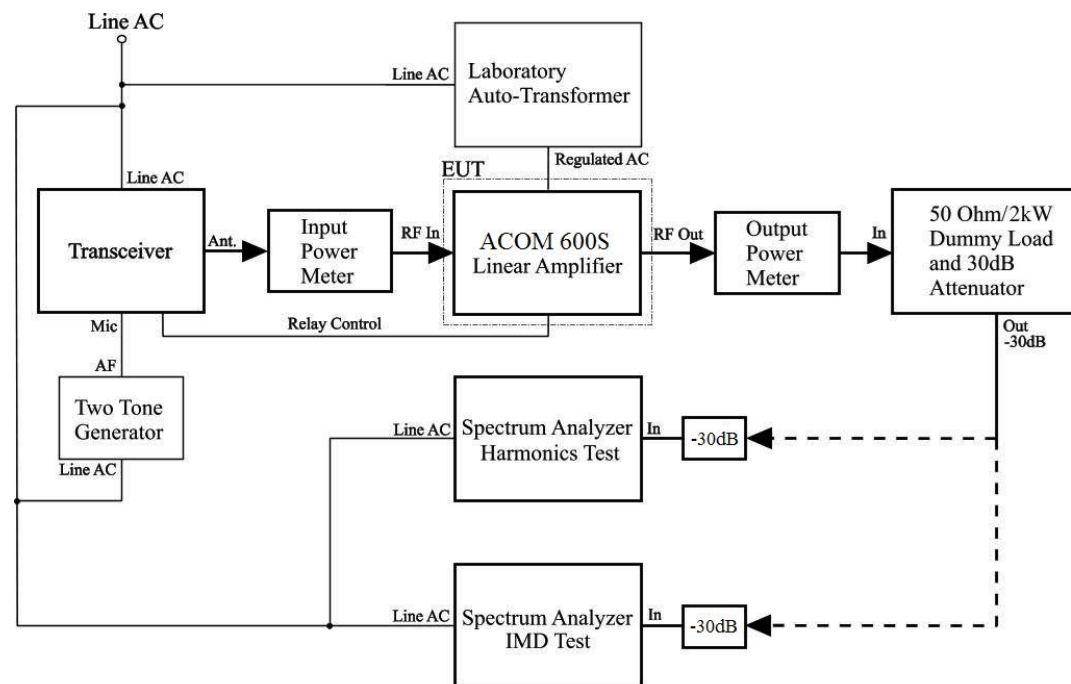


Fig.1 Setup Block Diagram for ACOM 600S

EUT Technical Data

Description: Linear Amplifier ACOM 600S
Manuf/Model: ACOM OOD Bulgaria / Model 600S
Serial #: 130101
FCC Ident.: A600S
Power supply (Rated): 240 VAC 50/60Hz
Power supply (Tested): 240VAC 50Hz
Internal Options: None
Frequencies Amplified: Amateur radio bands from 1.8MHz through 54 MHz

Support Equipment Data

Description: HF Transceiver
Manuf/Model: ICOM Model No. IC-7600
Serial #: 0401484
Power supply: 220VAC 50Hz
Internal Options: None
Frequencies Generated: Amateur radio bands from 1.8MHz through 54MHz

Description: Two-Tone Generator
Manuf/Model: Kenwood Station Monitor, Model SM-220
Serial #: None
Power supply: 220VAC 50Hz
Internal Options: None
Frequencies Generated: 1000Hz plus 1575Hz Audio

Description: Laboratory Auto-Transformer
Manuf/Model: RFT, Model LSS 020
Serial #: 13/004
Power supply: 220VAC 50Hz
Internal Options: None
Frequencies Generated: None

Cables Description

Transceiver Ant. To Input Power Meter - RG213/U, 1m length

Input Power Meter to EUT input – RG213/U, 1m length

Output Power Meter to Dummy Load /Attenuator – RG213/U, 1m length

Dummy Load /Attenuator/out to Spectrum Analyzer – RG58/U, 1.5m length

EUT I/O Ports

ACOM600S

Key-In (Transmit/Receive Relay Control)

Key-Out (Not Connected)

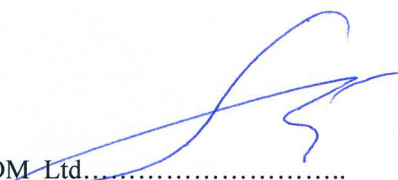
RF INPUT 50 Ohm

RF OUTPUT 50 Ohm

Mains AC Input 240V 50/60Hz

Test Equipment List

#	Equipment type	Manufacturer	Model #	Serial #	Used
1	Spectrum Analyzer	AEROFLEX	3251	1303/004	Yes
2	2kW 30dB Attenuator	Bird	8329-300	842	Yes
3	30dB Attenuator	Russia	n/a	n/a	Yes
4	Power Meter	Bird Electronic Corp.	Model 4421	4328	Yes
5	Power Sensor	Bird Electronic Corp.	Model 4021	13100002	Yes
7	Power Sensor	Bird Electronic Corp.	Model 4022	131201496	Yes
8	Power Meter	Bird Electronic Corp.	Model 4421	131201485	Yes
9	Power Sensor	Bird Electronic Corp.	Model 4021	131300001	Yes
10	Power Sensor	Bird Electronic Corp.	Model 4022	131201498	Yes
10	HF Transceiver	ICOM	IC-7600	0401484	Yes
11	Two-Tone Generator	Kenwood	SM-220 Station Monitor	n/a	Yes
12	Laboratory Auto-Transformer	RFT	LSS 020	13/004	Yes


 CEO ACOM Ltd.....
 Lydia Vassileva