



Attachment to
ELECTROMAGNETIC EMISSIONS TEST REPORT
according to FCC Part 15 subpart C, §15.247 and subpart B

for
BREEZECOM LTD.

EQUIPMENT UNDER TEST:
DS11M system

Approved by
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Electrical



Description of equipment under test

Test items	DS11M family
Manufacturer	BreezeCom Ltd.
Types (Models)	DS11M
Receipt date	April 2, 2000

Applicant information

Applicant's representative	Mr. David Shechter
Applicant's responsible person	Mr. Tsach Shwarts, engineering manager
Company	BreezeCom Ltd.
Address	Technologic Park ATIDIM, Bld.1
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Country	Israel
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Test performance

Project Number:	14002
Location	Hermon Laboratories
Test performed	April 12, 16, June 13, 2000
Purpose of test	The EUT certification in accordance with CFR 47, part 2, §2.1033
Test specification(s)	FCC Part 15, Subpart C, §15.247, §§15.205, 15.207, 15.209, 15.107, 15.109



1 Emission measurements

1.1 Processing gain according to §15.247 (e)(2)

1.1.1 General

This test was performed to demonstrate that the processing gain of the system was at least 10 dB.

1.1.2 Test procedure

The processing gain was measured using the CW jamming margin method. Test setup is shown in Figure 1.

A signal generator was stepped in 50 kHz increments across the passband of the system, recording at each point the generator level required to produce the BER = 10⁻⁵. This level was the jammer level. The output power of the intentional radiator was measured at the same point. The jammer to signal ratio (J/S) was then calculated, discarding the worst 20% of the J/S data points. The lowest remaining J/S ratio was used to calculate the processing gain as follows:

$$G_p = (S/N)_o + M_j + L_{sys}, \text{ where}$$

G_p = processing gain of the system,
 $(S/N)_o$ = signal to noise ratio = 16.4 dB @ BER 10⁻⁵ (Breezcom Declaration, dated June 13, 2000),
 M_j = J/S ratio, the worst case, was found -5.6 dB,
 L_{sys} = system losses = 2 dB;

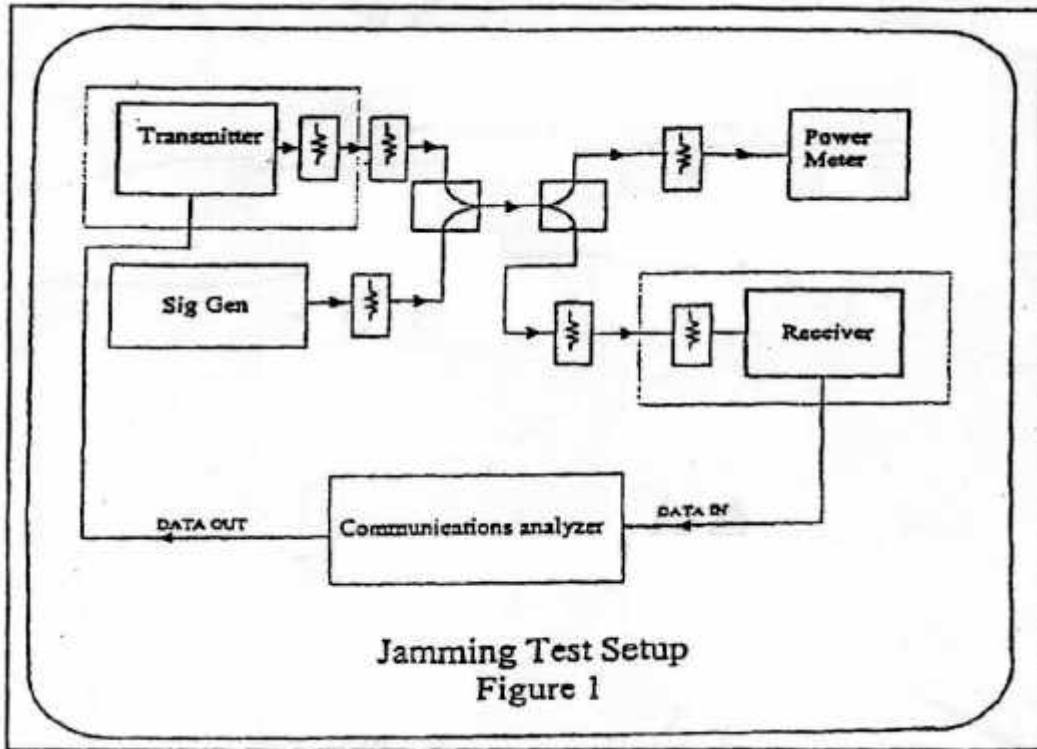
hence

$$G_p = 16.4 - 5.6 + 2 = 12.8 \text{ dB.}$$

Reference numbers of test equipment used

HL 0025	HL 0056	HL 0316	HL 0460	HL 0661	HL 0740
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Full description is given in Appendix A.





APPENDIX A – Test equipment and ancillaries used for tests

HL Serial No.	Serial No.	Description	Manufacturer	Model No.	Due Calibr.
0025	5837	Spectrum analyzer, 10 kHz-23 GHz	Anritsu	MS-710C	8/00
0056	2627	Attenuator, 50 Ohm, 2W, 0-18 GHz, 30 dB	Hewlett Packard	8492A	2/01
0316	02BK	Power meter, RF, IEEE-488, 100 kHz-100GHz, -70 to +37 dBm	Boonton	4220-01	2/01
0460	27705	Power sensor 500 kHz to 18 GHz, 50 Ohm	Boonton	51075	2/01
0661	0266	Generator Swept Signal, 10MHz to 40GHz+ 10dBm	Hewlett Packard	83640B	2/01
0740	08167	Coupler coaxial directional 1.7-4.2 GHz	Narda	3043B-30	4/01