



Flom Test Labs

EMI, EMC, RF Testing Experts Since 1963

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Date: May 30, 2008

Applicant: Thrane & Thrane A/S
Lundtoftegardsvej 93D
DK-2800 Lyngby, Denmark

Attention of: Morten Becker
+45 39 55 88 00; FAX: +45 39 55 88 88
Email: MBS@thrane.com

Equipment: Explorer E727
FCC ID: ROJEXPLORER-727
FCC Rules: Radio Frequency Radiation Exposure Limits
47 CFR 1.1310
MPE - Mobiles X Fixed Based Station

Gentlemen:

Enclosed please find your copy of the Supplemental Test Data Report, the whole for Environmental Assessment (MPE) of the referenced equipment as shown.

Please allow from 8-12 weeks to hear from the Commission, who may request additional data or information, and even a sample for pre-grant audit testing.

Should you need any clarification, just fax or phone. Thank you again for this order - it has been a pleasure to be of service.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director



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Date: May 30, 2008

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Thrane & Thrane A/S
Equipment: Explorer E727
FCC ID: ROJEXPLORER-727
FCC Rules: Radio Frequency Radiation Exposure Limits
47 CFR 1.1310
MPE - Mobiles X Fixed Based Station _____

Gentlemen:

On behalf of the Applicant, enclosed please find the Supplemental Test Data Report, the whole for Environmental Assessment (MPE) of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director



Environmental Assessment

for

Mobiles

for

FCC ID: ROJEXPLORER-727

Model: Explorer E727

to

Federal Communications Commission

47 CFR 1.1310 (MPE)

Radio Frequency Radiation Exposure Limits

Date Of Report: May 30, 2008

On the Behalf of the Applicant: Thrane & Thrane A/S

At the Request of: Thrane & Thrane A/S
Lundtoftegardsvej 93D
DK-2800 Lyngby, Denmark

Attention of: Morten Becker
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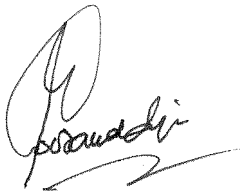
Supervised By:

Hoosamuddin S. Bandukwala, Lab Director

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Required information per ISO 17025-2005, paragraph 5.10:

- a) **Test Report (Supplemental)**
- b) Laboratory: Flom Test Labs
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044) Chandler, AZ 85225
- c) Report Number: d0850059
- d) Client: Thrane & Thrane A/S
Lundtoftegardsvej 93D
DK-2800 Lyngby, Denmark
- e) Identification: Explorer E727
Description: Satellite Transmitter
- f) EUT Condition: Not required unless specified in individual tests.
- g) Report Date: May 30, 2008
- h, j, k): As indicated in individual tests.
- i) Sampling method: No sampling procedure used.
- l) Uncertainty: In accordance with MFA internal quality manual.
- m) Supervised by:
- 
- Hoosamuddin S. Bandukwala, Lab Director
- n) Results: The results presented in this report relate only to the item tested.
- o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

Identification of the Equipment Under Test (EUT)

Name and Address of Applicant:

Name and Address of Applicant: Thrane & Thrane A/S
Lundtoftegardsvej 93D
DK-2800 Lyngby, Denmark

Manufacturer: Thrane & Thrane A/S
Lundtoftegardsvej 93D
DK-2800 Lyngby, Denmark

FCC ID: ROJ

Model Number: Explorer E727

Description: Solid state power amplifier antenna system

Type of Emission: PI/4 QPSK, 16-QAM

Frequency Range, MHz: 1626.5 to 1660.5

Power Rating, Watts: 2.29
 Switchable Variable N/A

Modulation:
 AMPS
 TDMA
 CDMA
 OTHER

Antenna:
 Helical
 Monopole
 Whip
 Other

Note: For RF Safety test antenna gain taken at the upper range of expected gain (i.e. 0 dBd) and RF Power set to highest nominal power across all channels.

A2LA

“A2LA has accredited Flom Test Labs, Inc. Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 ‘General Requirements for the Competence of Testing and Calibration Laboratories’ and any additional program requirements in the identified field of testing.”

Please refer to www.a2la.org for current scope of accreditation.

Certificate number: 2152.01



Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-2003 and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

Name of Test: Environmental Assessment

Specification: FCC: 47 CFR 1.1310

Measurement Guide: ANSI/IEEE C95.1 1992

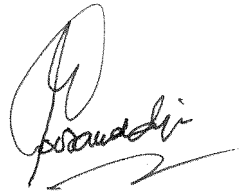
Name of Test: R.F. Radiation Exposure

FCC Rules: 1.1307, 1.1310, 1.1311, 2.1091
Description, EUT: See page 2 of Test Report

Limits: Uncontrolled Exposure	0.3-1.234 MHz:	Limit [mW/cm ²] = 100
47 CFR 1.1310	1.34-30 MHz:	Limit [mW/cm ²] = (180/f ²)
Table 1, (B)	30-300 MHz:	Limit [mW/cm ²] = 0.2
	300-1500 MHz	Limit [mW/cm ²] = f/1500
	1500-100,000 MHz:	Limit [mW/cm ²] = 1.0

Test Frequencies, MHz	=1660.4
Power, Conducted, W	= 2.99
Antenna Gain	= 11.5 dB
Antenna Model	Helical

MPE Calculations	Power _[W EIRP] = P _[conducted] x G _[antenna]	=	42.2
	Limit _[mW/cm²]	=	1
	Limit _[W/m²] = 10 x Limit _[mW/cm²]	=	.10
	R _[m] = [P _[W EIRP] / (4π x Limit _{[W/m²])]^{1/2}}	=	0.579



Supervised By:

Hoosamuddin S. Bandukwala, Lab Director

(The following will be placed in the Instruction Manual)

Mandatory Safety Instructions to Installers & Users

Use only manufacturer or dealer supplied antenna.

Antenna Minimum Safe Distance: 0.579m.

Antenna Gain: zero dBd referenced to a dipole.

The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio Frequency) energy, which is below the OSHA (Occupational Safety and Health Act) limits.

Antenna Mounting: The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person or persons can come closer than the above indicated minimum safe distance to the antenna i.e. 0.579m.

To comply with current FCC RF Exposure limits, the antenna must be installed at or exceeding the minimum safe distance shown above, and in accordance with the requirements of the antenna manufacturer or supplier.

Base Station Installation: The antenna should be fixed-mounted on an outdoor permanent structure. RF Exposure compliance must be addressed at the time of installation.

Antenna Substitution: Do not substitute any antenna for the one supplied or recommended by the manufacturer or radio dealer. You may be exposing person or persons to excess radio frequency radiation. You may contact your radio dealer or the manufacturer for further instructions.

Warning: Maintain a separation distance from the antenna to a person(s) of at least 0.579 m.

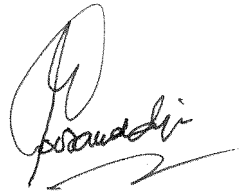
You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (above) is maintained between the antenna and nearby persons for satisfying RF Exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use. Transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna.

**Testimonial
and
Statement of Certification**

This is to certify that:

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

Certifying Engineer:



Hoosamuddin S. Bandukwala, Lab Director