Flom Test Labs
EMI, EMC, RF Testing Experts Since 1963
toll-free: (866) 311-3268
fax: (480) 926-3598
http://www.flomlabs.com
info@flomlabs.com

Date: July 24, 2007

Applicant: Modular Mining Systems Inc
3289 East Hemisphere Loop
Tucson, AZ 85706-5028

Attention of: (520) 806-9127; FAX: 889-5790 (Headquarters)
Les Zoschke, Vice President, Product Development
Email: zoschke@mmsi.com
Romer Johnson, Supervisor, Product Design
(520) 806-3603; FAX: 3344
Email: johnsonr@mmsi.com

Equipment: MLX - Broadcom SRC
FCC ID: FJ6-302924-1
P.O. Number:
FCC Rules: Radiofrequency Radiation Exposure Limits
47 CFR 1.1310
MPE - Mobiles _____ Fixed Based Station _____

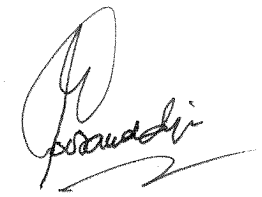
Gentlemen:

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

enclosure(s)
HSB/mdw

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Date: July 24, 2007

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

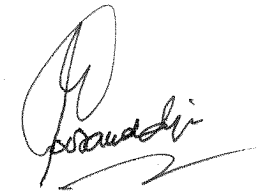
Applicant: Modular Mining Systems Inc
Equipment: MLX - Broadcom SRC
FCC ID: FJ6-302924-1
FCC Rules: Radiofrequency Radiation Exposure Limits
47 CFR 1.1310
MPE - Mobiles _____ Fixed Based Station _____

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

enclosure(s)
cc: Applicant
HSB/mdw

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Environmental Assessment

for

Mobiles / Fixed Base Station

for

FCC ID: FCC ID: FJ6-302924-1
Model: MLX - Broadcom SRC

to

Federal Communications Commission

47 CFR 1.1310 (MPE)
Radiofrequency Radiation Exposure Limits

Date Of Report: July 24, 2007

On the Behalf of the Applicant:

Modular Mining Systems Inc

At the Request of:

Modular Mining Systems Inc
3289 East Hemisphere Loop
Tucson, AZ 85706-5028

Attention of: (520) 806-9127; FAX: 889-5790 (Headquarters)
Les Zoschke, Vice President, Product Development
Email: zoschke@mmsi.com
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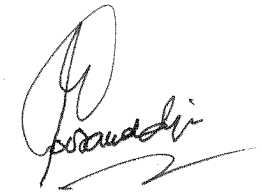
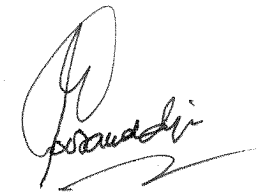


Supervised By: Hoosamuddin S. Bandukwala, Lab Director

Table of Contents

Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

a)	**Test Report (Supplemental)**
b) Laboratory: (FCC: 31040/SIT) (Canada: IC 2044)	Flom Test Labs 3356 N. San Marcos Place, Suite 107 Chandler, AZ 85225
c) Report Number:	d0730033
d) Client:	Modular Mining Systems Inc 3289 East Hemisphere Loop Tucson, AZ 85706-5028
e) Identification: Description:	MLX - Broadcom SRC FCC ID: FJ6-302924-1
f) EUT Condition:	Not required unless specified in individual tests.
g) Report Date: EUT Received:	July 24, 2007
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:

Modular Mining Systems Inc
3289 East Hemisphere Loop
Tucson, AZ 85706-5028

Manufacturer:

Modular Mining Systems Inc
3289 East Hemisphere Loop
Tucson, AZ 85706-5028

FCC ID: FJ6-302924-1

Model Number: MLX - Broadcom SRC

Description: 802.11 wireless hub

Type of Emission: DTS

Frequency Range, MHz: 2400 to 2483.5

Power Rating, Watts:
____ Switchable ____ Variable __x__ N/A

Modulation:
____ AMPS
____ TDMA
____ CDMA
__X__ OTHER DTS

Antenna:
____ Helical
____ Monopole
____ Whip
__X__ Other Patch Antenna

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

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: Controlled Exposure	0.3-3.0 MHz:	Limit [mW/cm^2] = 100
47 CFR 1.1310	3.0-30 MHz:	Limit [mW/cm^2] = ($900/f^2$)
Table 1, (A)	30-300 MHz:	Limit [mW/cm^2] = 1.0
	300-1500 MHz	Limit [mW/cm^2] = f/300
	1500-100,000 MHz:	Limit [mW/cm^2] = 5.0
Limits: Uncontrolled	0.3-1.234 MHz:	Limit [mW/cm^2] = 100
Exposure	1.34-30 MHz:	Limit [mW/cm^2] = ($180/f^2$)
47 CFR 1.1310	30-300 MHz:	Limit [mW/cm^2] = 0.2
Table 1, (B)	300-1500 MHz	Limit [mW/cm^2] = f/1500
	1500-100,000 MHz:	Limit [mW/cm^2] = 1.0
Test Frequencies, MHz	= 2.437MHz	
Power, Conducted, W	= .500	
Antenna Gain	= 2.5 dB	
Antenna Model	Omni Directional Vertical antenna	

MPE CALCULATION

$S - (P \times G) / 4 \times \Pi \times r^2$

Where:

S = Power Density (W/m^2)
P = Power Input to antenna (~0.5 Watts) (see table below)
G = Antenna Gain (2.5 dBi)
r = distance to the center of radiation of the antenna (20 cm or 0.2 m for Mobile minimum distance)

$4 \times 3.14 \times .04 = 0.5026 m^2$

OFDM modulation

Frequency, MHz	Power Conducted, Watts	Antenna Gain r.w.t Isotropic, dB	Power Density, W/m^2	Limits 1500–100,000 MHz
2412.0	.485	2.5	2.41 W/m^2	10.0 W/m^2
2437.0	.503	2.5	2.50 W/m^2	10.0 W/m^2
2462.0	.481	2.5	2.39 W/m^2	10.0 W/m^2

CCK modulation

Frequency, MHz	Power Conducted, Watts	Antenna Gain r.w.t Isotropic	Power Density, W/m^2	Limits 1500–100,000 MHz
2412.0	.425	2.5	2.11 W/m^2	10.0W/m^2
2437.0	.478	2.5	2.37 W/m^2	10.0W/m^2
2462.0	.417	2.5	2.07 W/m^2	10.0W/m^2

(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: **4.41 inches.**

Antenna Gain: **2.5 dBi**.

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. **4.41 inches**.

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 **4.41 inches**.

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.

Flom Test Labs
EMI, EMC, RF Testing Experts Since 1983

Testimonial
and
Statement of Certification

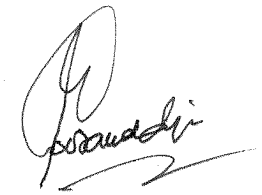
This is to certify that:

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

Flom Test Labs
3356 N. San Marcos Place, Suite 107
Chandler, Arizona 85225-7176
(866) 311-3268 phone, (480) 926-3598 fax