TIMCO ENGINEERING INC.
849 NW State Road 45
Newberry, Florida 32669
http://www.timcoengr.com
888.472.2424 F 352.472.2030 email: sid@timcoengr.com

Test Report

Product Name: TRANSMITTER

FCC ID: TEK2542248

Applicant:

H.A.B.I.T Research Ltd.
692 Sumas Street
Victoria BC
Canada

Date Receipt: 11/21/2005

Date Tested: 11/21/2005

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APPLICANT: H.A.B.I.T Research Ltd.

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TEST REPORT CONTAINING:

EXHIBITS INCLUDING:

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Equipment List

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/27/04	3/26/07
3-Meter OATS	TEI	N/A	N/A	Listed 1/13/03	1/12/06
Biconnical Antenna	Eaton	94455-1	1057	CAL 3/18/03	3/18/05
Biconnical Antenna	Eaton	94455-1	1096	CAL 8/17/04	8/17/06
Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 4/29/05	4/29/07
Blue Tower Quasi-Peak Adapter	HP	85650A	2811A01279	CAL 4/13/05	4/13/07
Blue Tower RF Preselector	HP	85685A	2926A00983	CAL 8/3/05	8/3/07
Blue Tower Spectrum Analyzer	HP	8568B	2928A04729 2848A18049	CAL 4/13/05	4/13/07
LISN	Electro-Metrics	ANS-25/2	2604	CAL 8/27/04	8/27/06
LISN	Electro-Metrics	EM-7820	2682	CAL 4/28/05	4/28/07
Log-Periodic Antenna	Eaton	96005	1243	CAL 5/8/03	5/8/05

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TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2003 using a HEWLETT PACKARD spectrum analyzer with a pre-selector. The bandwidth of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz. The ambient temperature of the UUT was 80°C with a humidity of 76%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:
Freq (MHz) METER READING + ACF = FS
33 20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The unit under test was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The table used for radiated measurements is capable of continuous rotation.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

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APPLICANT: H.A.B.I.T Research Ltd.

FCC ID: TEK2542248

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NO.: 15.241

REQUIREMENTS: CARRIER EMISSION WILL NOT EXCEED 63.5 dBuV/m AT 3M.
Or 1500uV/m @3M.

OUT-OF-BAND EMISSIONS SHALL NOT EXCEED: 43.5dBuV/m @ 3M for any emission outside the 200kHz BW.

TEST DATA:

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Antenna Correction Factor dB	Duty Cycle	Field Strength dBuV/m	Margin dB
212.6	70.87	19.5	H	0.57	8.24	11.9	16.41	27.09
212.6	85.83	14.7	V	0.61	8.08	11.9	11.49	32.01
212.6	141.74	16.1	V	0.69	12.9	11.9	17.79	25.71
212.6	212.6	41.2	V	0.93	11.07	11.9	41.3	22.2
212.6	212.6	49.4	H	0.93	11.95	11.9	50.38	13.12
212.6	214.62	26.8	H	0.93	11.91	11.9	27.74	15.76
212.6	214.63	17.3	V	0.93	11.05	11.9	17.38	26.12
212.6	217.59	22	H	0.94	11.85	11.9	22.89	20.61
215.6	71.87	20.3	V	0.57	7.24	11.9	16.21	27.29
215.6	71.9	20.1	H	0.57	7.93	11.9	16.7	26.8
215.6	143.74	15.4	V	0.69	13.02	11.9	17.21	26.29
215.6	143.74	20.6	H	0.69	13.4	11.9	22.79	20.71
215.6	215.62	43.3	V	0.93	11.04	11.9	43.37	20.13
215.6	215.62	51.8	H	0.93	11.89	11.9	52.72	10.78
215.6	219.42	28.6	V	0.94	11.01	11.9	28.65	14.85
215.6	219.42	37.9	H	0.94	11.81	11.9	38.75	4.75
215.6	223.32	21.8	H	0.95	11.8	11.9	22.65	20.85
215.6	223.37	14.4	V	0.95	11	11.9	14.45	29.05
215.6	287.48	16	H	1.07	14.1	11.9	19.27	24.23
215.6	431.23	22.4	V	1.23	16.22	11.9	27.95	15.55

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APPLICANT: H.A.B.I.T Research Ltd.

FCC ID: TEK2542248

NAME OF TEST: RADIATION INTERFERENCE

SAMPLE CALCULATION: FSdBuV/m = MR (dBuV) + ACFdB.

TEST PROCEDURE: The procedure used was ANSI STANDARD C63.4-2003. The spectrum was scanned from 30 MHz to the 10th harmonic. When an emission was found, the table was rotated to produce the maximum signal strength. The antenna was placed in both the horizontal and vertical planes and the worse case emissions were reported. The UUT was tested in 3 orthogonal planes.

TEST RESULTS: THE UNIT DOES MEET THE FCC REQUIREMENTS.

PERFORMED BY: NAM NGUYEN **DATE:** 11/21/2005

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APPLICANT: H.A.B.I.T Research Ltd.

FCC ID: TEK2542248

NAME OF TEST: Occupied Bandwidth

RULES PART NO.: 15.241

REQUIREMENTS: The field strength of any emissions appearing outside the 200kHz allowed Bandwidth shall not exceed the limit of 43.5dBuV/m on any frequency outside the 200kHz authorized bandwidth.

THE GRAPH ON THE NEXT PAGE REPRESENTS THE EMISSIONS TAKEN FOR THE DEVICE.

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was taken. The vertical scale is set to 10 dB per division.

TEST RESULTS: The unit DOES meet the FCC requirements.

PERFORMED BY: NAM NGUYEN **DATE:** 11/21/05

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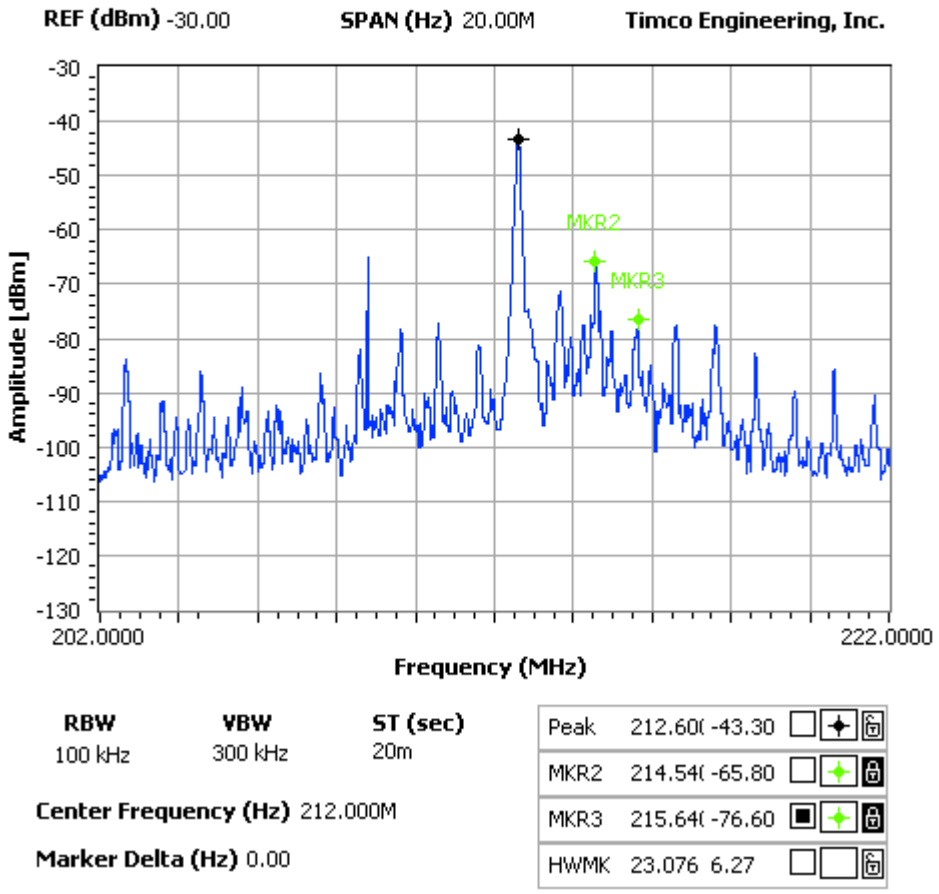
NOTES:
H.A.B.I.T Research Ltd. - FCC ID: TKE0902
OCCUPIED BANDWIDTH PLOT (212MHz)



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APPLICANT: H.A.B.I.T Research Ltd.

FCC ID: TEK2542248

NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE

RULES PART NO.: 15.207

REQUIREMENTS:

	QUASI-PEAK	**AVERAGE**
.15 – 0.5 MHz	66-56 dBuV	56-46 dBuV
0.5 – 5.0	56	46
5.0 – 30.	60	50

TEST PROCEDURE: ANSI STANDARD C63.4-2003. The spectrum was scanned from .15 to 30 MHz.

THE ATTACHED GRAPHS REPRESENT THE EMISSIONS READ FOR POWERLINE CONDUCTED FOR THIS DEVICE.

TEST RESULTS: Both lines were observed. The measurements indicate that the unit DOES appear to meet the FCC requirements for this class of equipment.

PERFORMED BY: NAM NGUYEN **DATE: 11/21/05**

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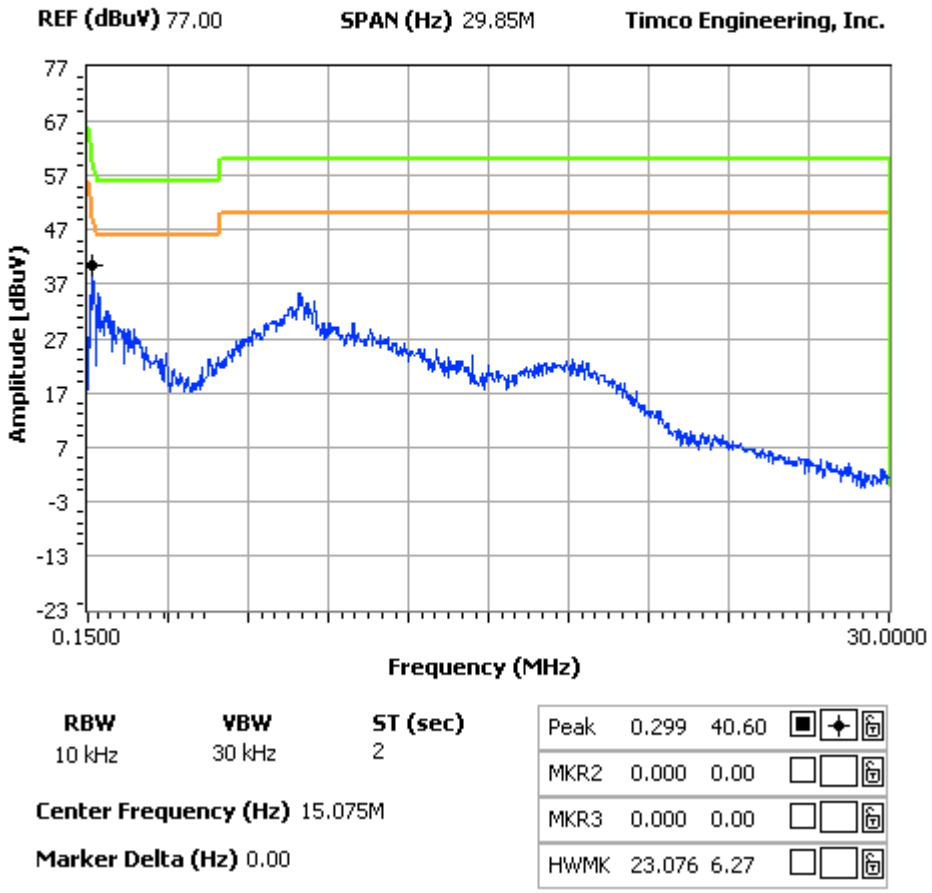
NOTES:

H.A.B.I.T Research Ltd. - FCC ID: TKE2542248
POWERLINE CONDUCTED PLOT - LINE 1

FCC 15.107 Mask Class B



NOTES:

H.A.B.I.T Research Ltd. - FCC ID: TKE2542248
POWERLINE CONDUCTED PLOT - LINE 2

FCC 15.107 Mask Class B