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**APPLICANT: BACKMI CORPORATION**

**FCC ID: RNDDA579B**

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## TEST EQUIPMENT LIST

| DEVICE               | MODEL        | MFGR            | SERNO       | DUE.CAL     |
|----------------------|--------------|-----------------|-------------|-------------|
| EMI Test Receiver    | ESVS 10      | Rohde & Schwarz | 830489/001  | 2004.04.25. |
| Spectrum Analyzer    | 8566B        | Hewlett Packard | 2311A02394  | 2004.03.17  |
| Spectrum Display     | 85662A       | Hewlett Packard | 2542A12429  | 2004.03.17  |
| Quasi-Peak Adapter   | 85650A       | Hewlett Packard | 2521A00887  | 2004.03.17  |
| RF Preselector       | 85685A       | Hewlett Packard | 2648A00504  | 2004.03.17  |
| Pre-Amplifier        | 8449B        | Hewlett Packard | 3008A00375  | 2004.03.17  |
| Pre-Amplifier        | 8447F        | Hewlett Packard | 3113A05367  | 2004.03.17  |
| Spectrum Monitor     | EZM          | Rohde & Schwarz | 862304/007  | 2004.03.17  |
| Bico-Antenna         | 94455-1      | Eaton           | 977         | 2004.03.17  |
| Log-Periodic Antenna | 3146         | EMCO            | 2051        | 2004.03.17  |
| Dipole Antenna       | TDA25/1/2    | Electro Metrics | 176/200/200 | 2004.03.17  |
| Horn Antenna         | SAS-571      | A.H Systems     | 414         | 2004.03.17  |
| Spectrum Analyzer    | R3261C       | Advantest       | 71720189    | 2004.04.26  |
| LISN                 | KNW-242      | Kyoritsu        | 8-923-2     | 2004.07.13  |
| LISN                 | 8012-50-R-24 | Solar           | 8379121     | 2004.07.12  |

**APPLICANT: BACKMI CORPORATION**

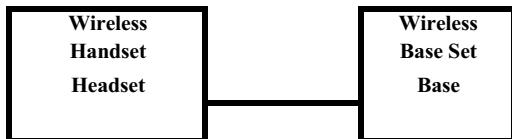
**FCC ID: RNDDA579B**

**15.214(d) THIS DEVICE COMPLIES WITH THE SECURITY CODE REQUIREMENTS  
OF 15.214(d) (1) (2) AND (3) BY MEANS OF THE FOLLOWING:**

**THIS DEVICE HAS 24 MILLION POSSIBLE SECURITY CODES. ONE SECURITY CODE OUT OF  
24 MILLION IS PRE-PROGRAMMED WHEN MANUFACTURED AT THE FACTORY.  
THE CPU CONTROLS THE RF FREQUENCY CHANNEL. AND THE ASIC CONTROLS  
ADPCM CODEC AND AUDIO SIGNAL SWITCHING ALSO SET UP THE SPREADING CODE.  
BEFORE THE COMMUNICATION LINK IS ESTABLISHED, THE DEVICE SEARCHES  
FOR A VACANT RF CHANNEL AND THEN TRANSMITS RF SIGNAL ON  
THE VACANT CHANNEL.**

**PRODUCT DESCRIPTION :**

This device is a 2.4GHz DSSS wireless system that can be used by the Police Department to record dialog between the police and a suspect. When a policeman arrests a suspect, he must read the Miranda Rights to suspect. At the scene, a receiver which will be connected to the camcorder. Therefore, both the scene and sound can be recorded for further use.



## TEST PROCEDURE

**GENERAL:** This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC. Shielded interface cables were used in all cases except for cables connecting to the telephone line and the power cords. A test program was run which simulated a normal data transmission on a network.

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.4-1992 using a 50uH LISN. Both lines were observed. The bandwitch of the spectrum analyzer was 10kHz with an appropriate sweep speed. The ambient temperature of the UUT was 74°F with a humidity of 44%.

**BANDWIDTH 6.0dB :** The measurement were made with the spectrum analyzer's resolution bandwidth(RBW) = 100kHz and the video bandwidth(VBW) = 300 kHz and the span set as shown on plot.

**POWER OUTPUT :** The RF power output was measured at the antenna feed point by removing the permanent antenna and connecting the UUT to a peak power meter, HP Model No. 8566B.

**ANTENNA CONDUCTED EMISSIONS :** The RBW = 100 kHz, VBW > or = RBW and the spectrum was scanned from 30 MHz to the 10th Harmonic of the fundamental.

**RADIATION INTERFERENCE :** The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a pre-selector. The bandwidth(RBW) of the spectrum analyzer was 100kHz up to 1GHz and 1.0MHz above 1 GHz with an appropriate sweep speed. The VBW above 1.0GHz was = 1.0 MHz. The analyzer was calibrated in dB above a microvolt at the ourput of the antenna. The ambient temperature of the UUT was 74°F with a humidity of 55%.

**15.247 (d) POWER SPECTRAL DENSITY.** The peak within the pass band was located with a RBW set to 30 kHz and span of 5MHz, slightly greater than the 6dB bandwidth, then the emission was centered on the display and the span and RBW reduced. A 1.5 MHz span, 3 kHz RBW, and a sweep time to sweep time set to 500 seconds. Since spectral line spacing could not be resolved, the noise power measured using the noise power density and adding the correction of 35dB and any attenuation used was added.

**2.1033 (b) (4)**

### ANTENNA AND GROUND SYSTEM :

This unit uses a short, inductively loaded, antenna element for the base unit and the handset. The antenna is permanently attached to the unit and no provision is made for connection to an external antenna.

No ground connection is provided. The only ground in use is the ground plane on the printed circuit board.

**APPLICANT:** BACKMI CORPORATION

**FCC ID:** RNDDA579B

**NAME OF TEST:** POWER LINE CONDUCTED INTERFRENCE

**RULES PART NUMBER:** 15.207

| <b>MINIMUM REQUIREMENTS :</b> | <b>FREQUENCY</b> | <b>LEVEL</b>     |
|-------------------------------|------------------|------------------|
|                               | MHz              | dBuV             |
|                               | 0.450-30         | 48 dBuV or 250uV |

**TEST RROCEDURE :** ANSI STANDARD C63.4 - 1992

THE HIGHEST EMISSION READ FOR LINE 1 WAS 38dBuV @ 0.256 MHz

THE HIGHEST EMISSION READ FOR LINE 2 WAS 32.5uV @ 9.985 MHz

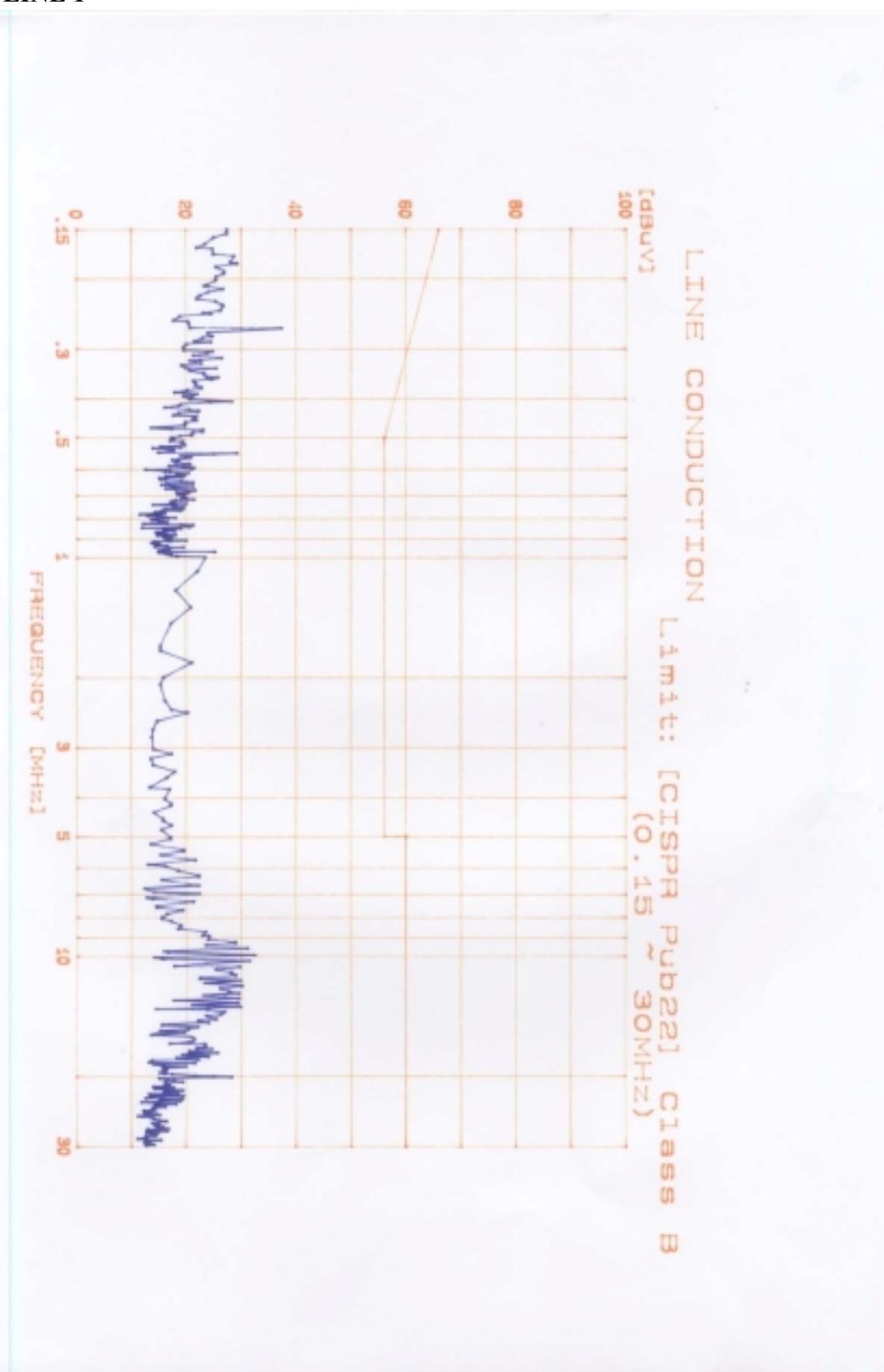
THE GRAPHS ARE ON THE FOLLOWING PAGES REPRESENT  
THE EMISSIONS READ FOR POWERLINE CONDUCTED FOR THIS DEVICE.

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

**PERFORMED BY :** Kyoung M Choi

**DATE:** Nov,21.03

**LINE 1**



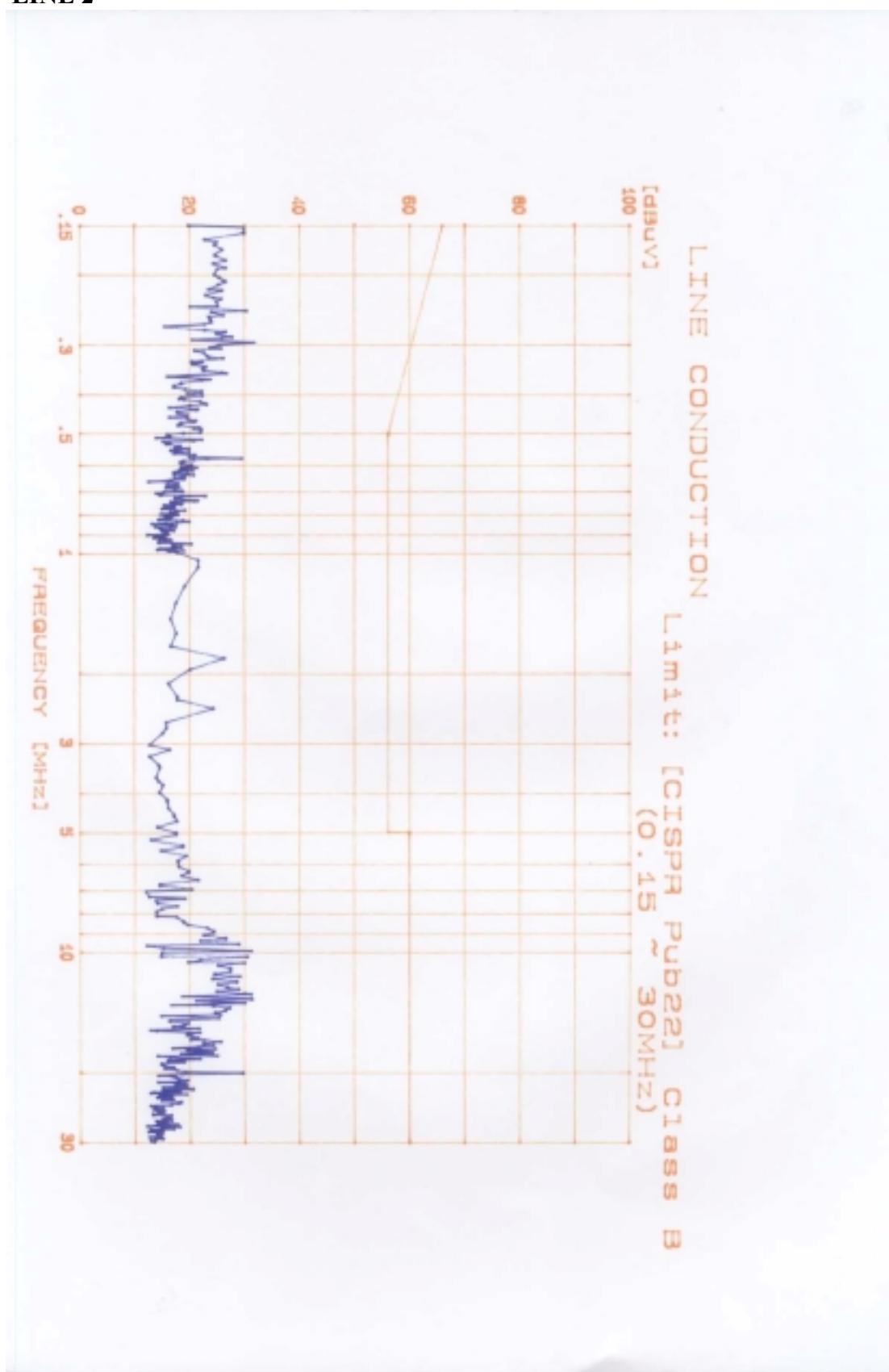
Applicant: BACKMI CORPORATION

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**LINE 2**



Applicant: BACKMI CORPORATION

FCCID:RNDDA579B

Report: THRU-112103

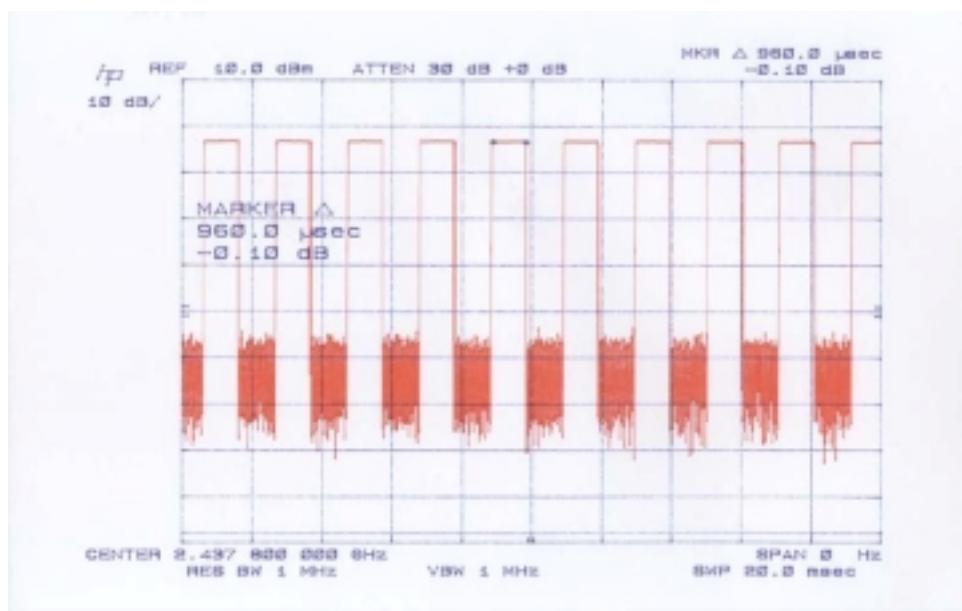
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## BASE

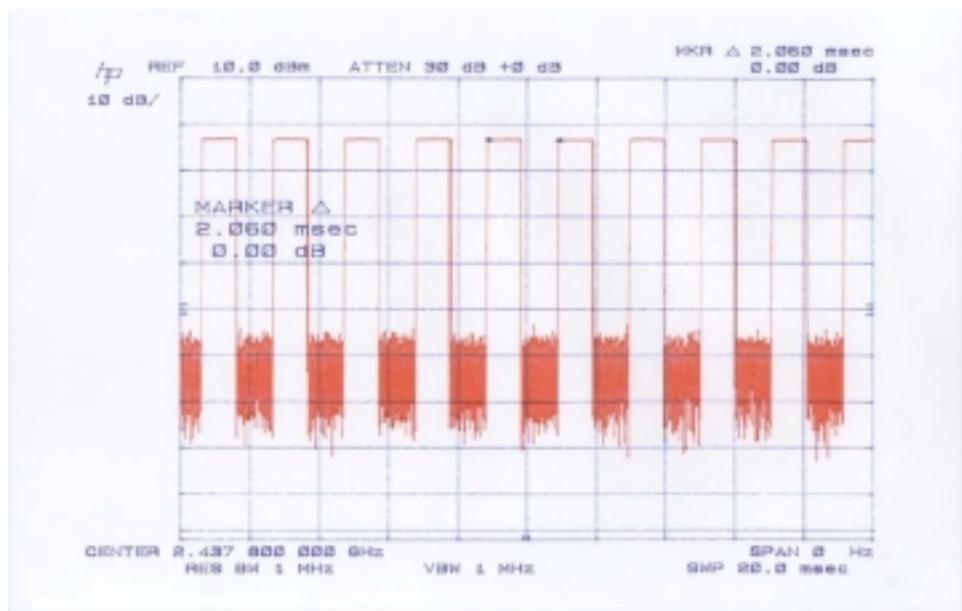
Duty cycle under normal operation

BASE

T-Duty



T-Cycle



$$* \text{ Duty factor} = 20 \log \left( \frac{\text{Twidth}}{\text{Tperiod}} \right) = 20 \log \left( 960 \times 10^{-6} / 2.06 \times 10^{-3} \right) = -6.632$$

**APPLICANT:** **BACKMI CORPORATION**

**FCC ID:** **RNDDA579B**

**NAME OF TEST:** **OCCUPIED BANDWIDTH (Conducted)**

**RULES PART NUMBER:** **15.247**

**15.247(a) (2)**

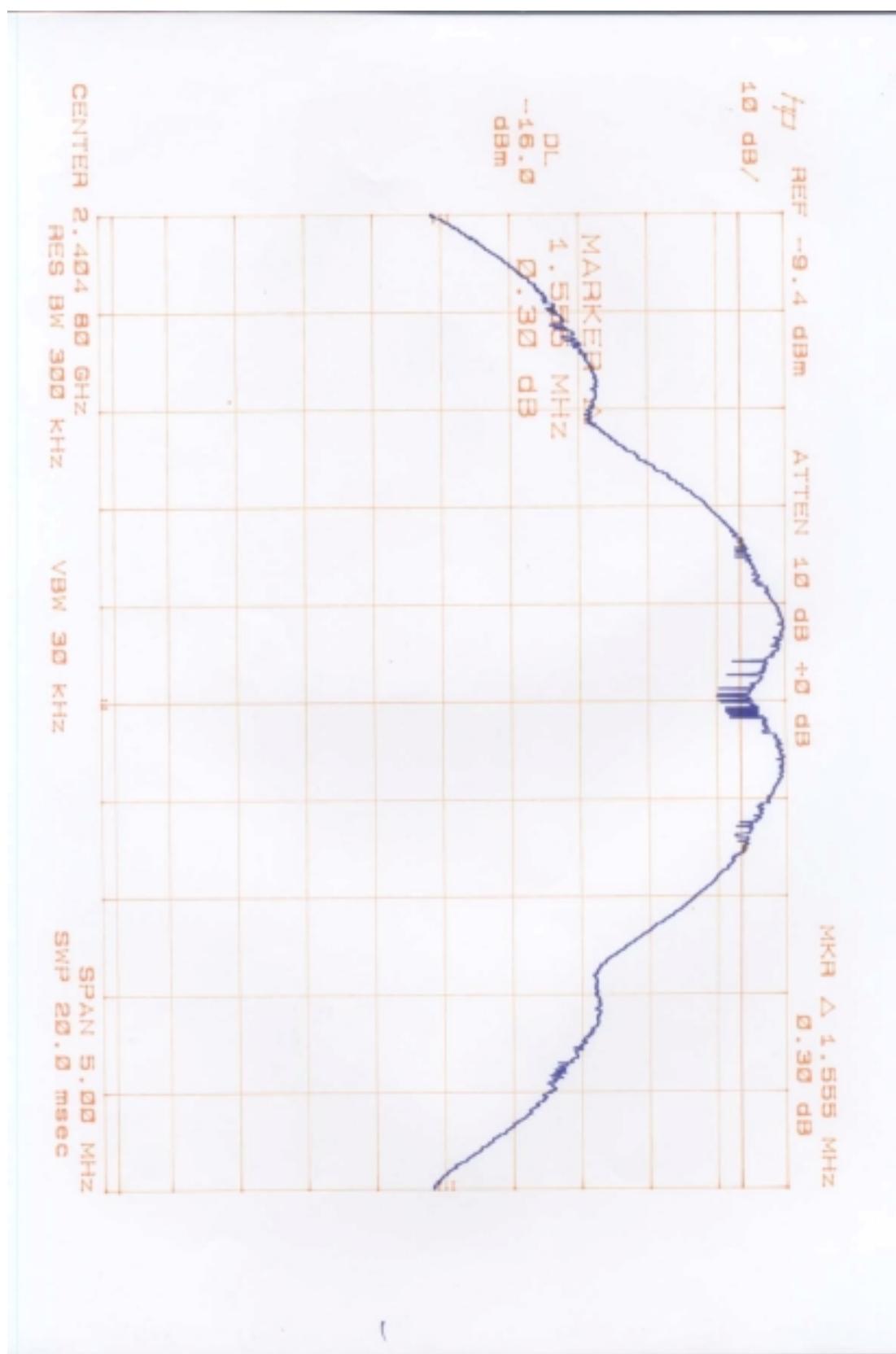
**6dB bandwidth shall be at least 500kHz. As shown in the accompanying plots. The bandwidth was measured at three places in the band and the narrowest is reported below.**

**Base 6dB Bandwidth= 1.490 Mhz**

| <b>Channal</b> | <b>MHz</b>   |
|----------------|--------------|
| <b>1CH</b>     | <b>1.555</b> |
| <b>20CH</b>    | <b>1.545</b> |
| <b>40CH</b>    | <b>1.490</b> |

BASE  
CH1

OCCUPIED BANDWIDTH



Applicant: BACKMI CORPORATION

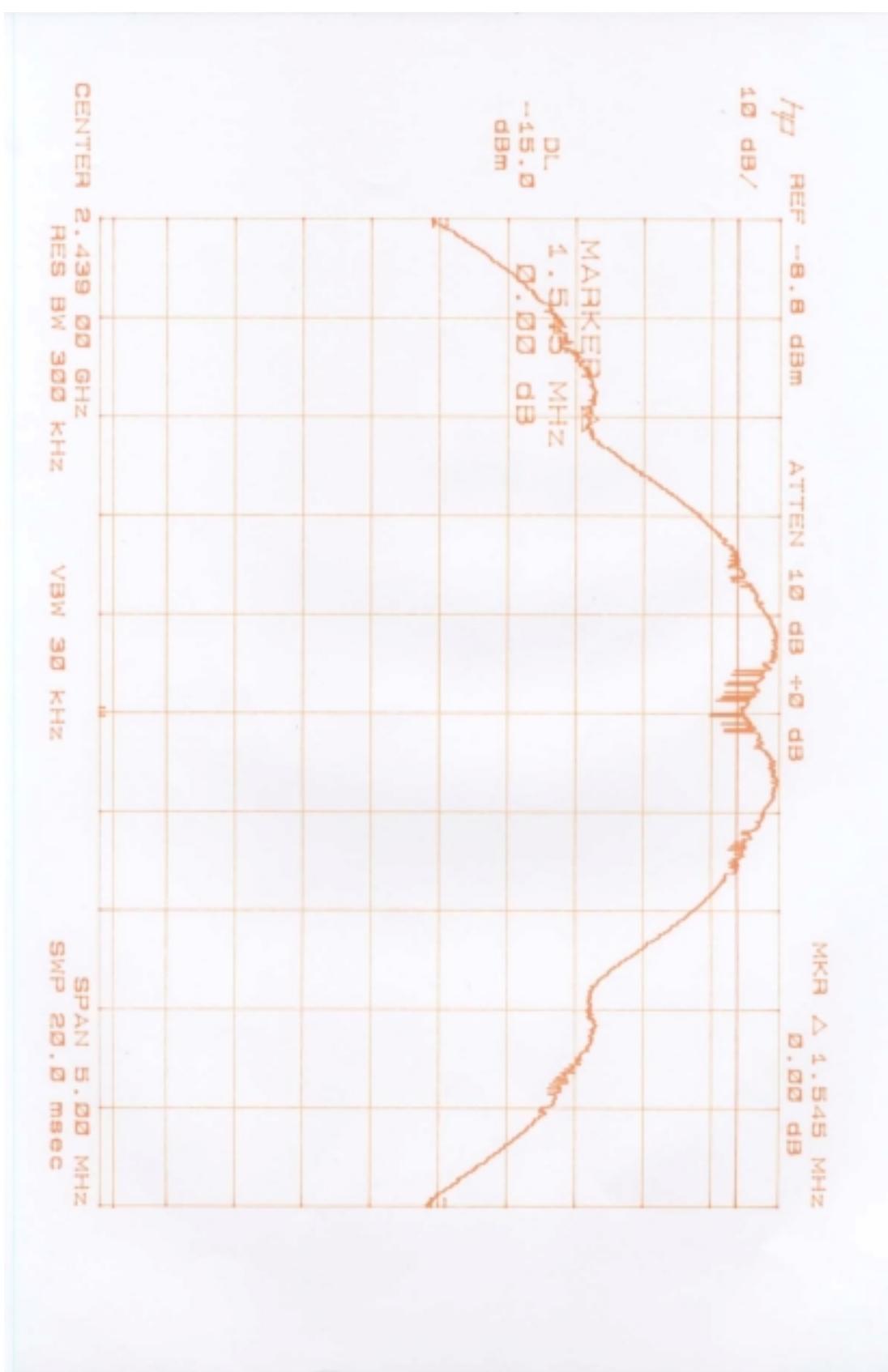
FCCID:RNDDA579B

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CH20

OCCUPIED BANDWIDTH



Applicant: BACKMI CORPORATION

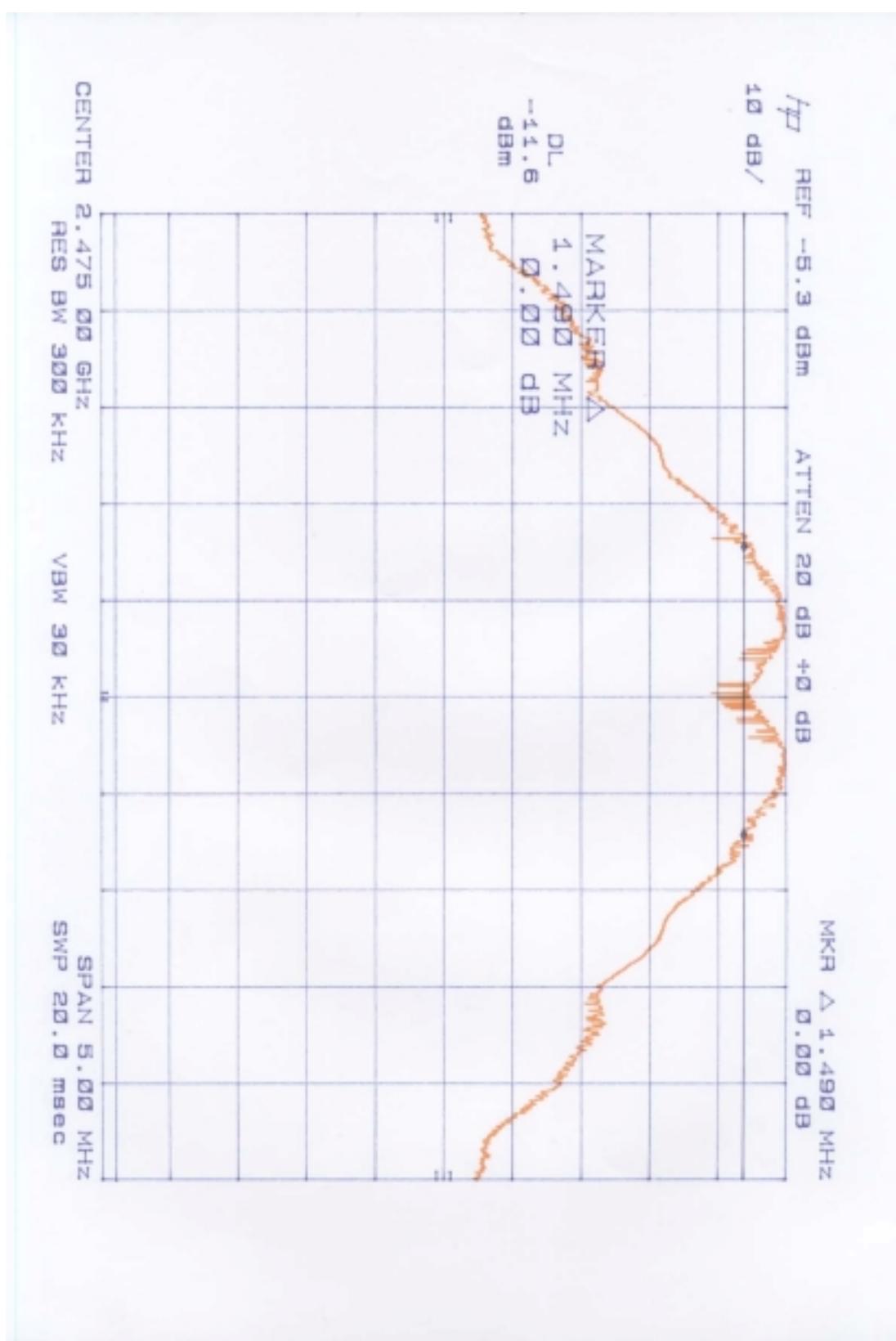
FCCID:RNDDA579B

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CH40

OCCUPIED BANDWIDTH



Applicant: BACKMI CORPORATION

FCCID:RNDDA579B

Report: THRU-112103

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APPLICANT: **BACKMI CORPORATION**

FCC ID: **RNDDA579B**

NAME OF TEST: **PEAK POWER OUTPUT (Conducted)**

RULES PART NUMBER: **15.247 (B)**

**The maximum peak output power shall not exceed 1 watt (30dBm)**

**If directional transmitting antennas with a gain of more than 6 dBi  
are used, the power shall be reduced by the amount in dB that  
the directional gain of the antenna exceeds 6 dBi.**

**Both the base and headset have a maximum power output of less than  
+30 dBm. Power was measured by disconnecting the antennas and measuring  
across a 50ohm load as recommended by the manufacturer using a HP  
spectrum Analyzer model 8566B. The antennas are non directional and do not  
exceed 6 dBi gain. The power output was measured at three places .**

| Base | CHANNEL | dBm   | mW    | LIMIT          |
|------|---------|-------|-------|----------------|
|      | 1 CH    | -4.18 | 0.381 | 2400-2483.5MHz |
|      | 20CH    | -2.30 | 0.500 | 1.0 WATT       |
|      | 40CH    | 1.20  | 1.318 | or +'30dBm     |

**HARMONICS**

| 1CH     | dBm   | 20CH    | dBm   | 40CH    | dBm    |
|---------|-------|---------|-------|---------|--------|
| 4.8096  | -55.1 | 4.8780  | -53.2 | 4.9500  | -54.6  |
| 7.2144  | -62.1 | 7.3170  | -60.2 | 7.4250  | -61.9  |
| 9.6192  | -65.6 | 9.7560  | -66.0 | 9.9000  | -64.5  |
| 12.0240 | -63.9 | 12.1950 | 63.0  | 12.3750 | -637.0 |
| 14.4288 | -60.7 | 14.6340 | 62.5  | 14.8500 | -64.0  |

**APPLICANT:** **BACKMI CORPORATION**

**FCC ID:** **RNDDA579B**

**NAME OF TEST:** **RADIATED SUPURIOUS EMISSIONS**

**RULES PART NUMBER:** **15.247 (C)**

**REQUIREMENTS:** **Emissions that fall in the restricted bands (15.205). These emissions must be less than or equal to 500 Uv/m (54 dBuV/m). Spurious not in a restricted band must be 20 dBc.**

**DATA NEXT PAGES**

**SAMPLE CALCULATION:**  $FSdBuV/m = MR \text{ (dBuV)} + ACFdB + C.F.$

**METHOD OF MEASURMENT:** The procedure used was ANSI STANDARD C63.4 1991. 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 spectrum was scanned from 30 MHz to 10 GHz using a Hewlett Packard Model 8566B Spectrum Analyzer, Hewlett Packard Model 85685A Preselector, Hewlett Packard Model 85650A Quasi-Peak Adaptor, and an appropriate antenna. Low loss coax was used above 1 GHz. Measurements were made at Timco Engineering, Inc. 849 NW State Road 45 Newberry, F1.

**TEST RESULTS :** The unit DOES meet the FCC requirements.

**PERFORMED BY :**

## **DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)**

APPLICANT: **BACKMI CORPORATION.**  
RULES PART NUMBER : **15.209**

FCC ID: **RNDDA579B**  
Mode: **Transmitting (ch1:2.4048)**  
Model: **DA579 Wireless Headset-BASE**

### **QP DETECT**

| No | Frequency (MHz) | Result (dBuv) | Polar | Ant Height | Antenna Factor | Cable Loss | Limit value (dBuv) | Reading (dBuv) | Margin (dBuv) |
|----|-----------------|---------------|-------|------------|----------------|------------|--------------------|----------------|---------------|
| 1  | 49.36           | 34.2          | H     | 4.0        | 11.0           | 1.5        | 40.0               | 21.7           | -5.8          |
| 2  | 96.05           | 37.0          | V     | 2.0        | 10.9           | 2.4        | 43.0               | 23.7           | -6.0          |
| 3  | 106.85          | 36.0          | H     | 3.1        | 11.1           | 2.5        | 43.0               | 22.4           | -7.0          |
| 4  | 122.64          | 36.9          | H     | 2.5        | 11.3           | 2.8        | 43.0               | 22.8           | -6.1          |
| 5  | 130.65          | 38.7          | H     | 3.2        | 12.8           | 2.9        | 43.0               | 23.0           | -4.3          |
| 6  | 138.72          | 38.0          | H     | 2.8        | 14.8           | 2.9        | 43.0               | 20.3           | -5.0          |
| 7  | 141.45          | 33.6          | H     | 2.6        | 15.3           | 3.0        | 43.0               | 15.3           | -9.4          |
| 8  | 154.60          | 36.3          | V     | 2.1        | 16.9           | 3.1        | 43.0               | 16.2           | -6.7          |
| 9  | 157.20          | 38.5          | H     | 3.0        | 17.0           | 3.2        | 43.0               | 18.3           | -4.5          |
| 10 | 177.64          | 38.0          | H     | 3.1        | 15.0           | 3.4        | 43.0               | 19.6           | -5.0          |
| 11 | 189.54          | 39.0          | V     | 1.5        | 13.6           | 3.5        | 43.0               | 21.9           | -4.0          |
| 12 | 234.61          | 37.8          | H     | 2.5        | 11.1           | 4.0        | 46.0               | 22.7           | -8.2          |
| 13 | 245.27          | 34.4          | V     | 1.2        | 11.6           | 4.1        | 46.0               | 18.7           | -11.6         |
| 14 | 306.42          | 33.7          | V     | 1.6        | 15.9           | 4.7        | 46.0               | 13.1           | -12.3         |
| 15 | 423.84          | 31.8          | H     | 2.4        | 15.8           | 5.8        | 46.0               | 10.2           | -14.2         |
| 16 | 537.26          | 33.2          | V     | 1.7        | 17.9           | 6.9        | 46.0               | 8.4            | -12.8         |
| 17 | 576.28          | 35.2          | V     | 1.3        | 18.5           | 7.3        | 46.0               | 9.4            | -10.8         |
| 18 | 880.07          | 41.7          | H     | 2.3        | 23.6           | 9.8        | 46.0               | 8.2            | -4.3          |

**METHOD OF MEASUREMENT** The procedure used was ANSI STANDARD C63.4

1991. 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 spectrum was scanned from 30 MHz to 1000MHz using a Hewlett Packard

Model 8566B Spectrum Analyzer, Hewlett Packard Model 85685A

Preselector, Hewlett Packard Model 85650A Quasi-Peak Adaptor, and an appropriate antenna. Low loss coax was used above 1 GHz.

Measurements were made at Timco Engineering, Inc. 849 NW State Road 45

Newberry, FL.

**TEST RESULTS :** The unit DOES meet the FCC requirements.

Applicant:BACKMI COPORATION

FCCID:RNDDA579B

Report:

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## **DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)**

APPLICANT: BACKMI CORPORATION.

RULES PART NUMBER : 15.209

FCC ID: RNDDA579B

Mode: Transmitting (ch20:2.4390)

Model: DA579 Wireless Headset-BASE

### **QP DETECT**

| No | Frequency (MHz) | Result (dBuv) | Polar | Ant Height | Antenna Factor | Cable Loss | Limit value (dBuv) | Reading (dBuv) | Margin (dBuv) |
|----|-----------------|---------------|-------|------------|----------------|------------|--------------------|----------------|---------------|
| 1  | 49.06           | 34.3          | H     | 4.0        | 11.1           | 1.5        | 40.0               | 21.7           | -5.7          |
| 2  | 106.85          | 37.0          | V     | 2.0        | 11.1           | 2.5        | 43.0               | 23.4           | -6.0          |
| 3  | 112.10          | 34.2          | H     | 3.1        | 11.0           | 2.6        | 43.0               | 20.6           | -8.8          |
| 4  | 122.63          | 37.8          | H     | 2.5        | 11.3           | 2.8        | 43.0               | 23.7           | -5.2          |
| 5  | 141.45          | 37.0          | H     | 3.2        | 15.3           | 3.0        | 43.0               | 18.7           | -6.0          |
| 6  | 144.15          | 38.3          | H     | 2.8        | 15.8           | 3.0        | 43.0               | 19.5           | -4.7          |
| 7  | 154.60          | 38.7          | H     | 2.6        | 16.9           | 3.1        | 43.0               | 18.6           | -4.3          |
| 8  | 168.01          | 38.1          | V     | 2.1        | 16.3           | 3.3        | 43.0               | 18.5           | -4.9          |
| 9  | 177.63          | 38.8          | H     | 3.0        | 15.0           | 3.4        | 43.0               | 20.4           | -4.2          |
| 10 | 186.85          | 38.2          | H     | 3.1        | 13.9           | 3.5        | 43.0               | 20.9           | -4.8          |
| 11 | 309.07          | 38.9          | V     | 1.5        | 15.8           | 4.7        | 46.0               | 18.4           | -7.1          |
| 12 | 423.86          | 31.8          | H     | 2.5        | 15.8           | 5.8        | 46.0               | 10.2           | -14.2         |
| 13 | 470.07          | 41.7          | V     | 1.2        | 20.2           | 6.3        | 46.0               | 15.3           | -4.3          |
| 14 | 481.24          | 40.1          | V     | 1.6        | 19.0           | 6.4        | 46.0               | 14.7           | -5.9          |
| 15 | 537.26          | 40.7          | H     | 2.4        | 17.9           | 6.9        | 46.0               | 15.9           | -5.3          |
| 16 | 556.47          | 40.7          | V     | 1.7        | 18.3           | 7.1        | 46.0               | 15.3           | -5.3          |
| 17 | 880.01          | 41.1          | V     | 1.3        | 23.6           | 9.8        | 46.0               | 7.6            | -4.9          |
| 18 | 891.04          | 41.9          | H     | 2.3        | 23.5           | 9.9        | 46.0               | 8.4            | -4.1          |

**METHOD OF MEASURMI** The procedure used was ANSI STANDARD C63.4

1991. 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 spectrum was scanned from 30 MHz to 1000MHz using a Hewlett Packard

Model 8566B Spectrum Analyzer, Hewlett Packard Model 85685A

Preselector, Hewlett Packard Model 85650A Quasi-Peak Adaptor, and an appropriate antenna. Low loss coax was used above 1 GHz.

Measurements were made at Timco Engineering, Inc. 849 NW State Road 45

Newberry, F1.

**TEST RESULTS :** The unit DOES meet the FCC requirements.

Applicant:BACKMI COPORATION

FCCID:RNDDA579B

Report:

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## **DATA OF SUPURIOUS EMISSIONS(30MHz to 1000MHz)**

APPLICANT: BACKMI CORPORATION

RULES PART NUMBER : 15.209

FCC ID: RNDAA579B

Mode: Transmitting (ch40:2.4750)

Model: DA579 Wireless Headset-BASE

| No | Frequency (MHz) | Result (dBuv) | Polar | Ant Height | Antenna Factor | Cable Loss | Limit value (dBuv) | Reading (dBuv) | Margin (dBuv) |
|----|-----------------|---------------|-------|------------|----------------|------------|--------------------|----------------|---------------|
| 1  | 79.36           | 31.7          | H     | 4.0        | 7.9            | 2.1        | 40.0               | 21.7           | -8.3          |
| 2  | 94.05           | 36.5          | V     | 2.1        | 10.7           | 2.4        | 43.0               | 23.4           | -6.5          |
| 3  | 120.27          | 37.4          | V     | 2.3        | 10.9           | 2.7        | 43.0               | 23.8           | -5.6          |
| 4  | 122.62          | 38.8          | H     | 3.2        | 11.3           | 2.8        | 43.0               | 24.7           | -4.2          |
| 5  | 141.45          | 37.0          | H     | 3.5        | 15.3           | 3.0        | 43.0               | 18.7           | -6.0          |
| 6  | 151.95          | 35.8          | V     | 2.1        | 16.8           | 3.1        | 43.0               | 15.9           | -7.2          |
| 7  | 154.60          | 38.7          | V     | 1.8        | 16.9           | 3.1        | 43.0               | 18.6           | -4.3          |
| 8  | 170.70          | 35.6          | H     | 2.8        | 16.0           | 3.3        | 43.0               | 16.3           | -7.4          |
| 9  | 177.62          | 37.9          | V     | 3.5        | 15.0           | 3.4        | 43.0               | 19.5           | -5.1          |
| 10 | 189.54          | 34.8          | V     | 3.4        | 13.6           | 3.5        | 43.0               | 17.7           | -8.2          |
| 11 | 423.86          | 31.9          | H     | 1.9        | 15.8           | 5.8        | 46.0               | 10.3           | -14.1         |
| 12 | 447.62          | 37.6          | H     | 2.0        | 16.4           | 6.1        | 46.0               | 15.2           | -8.4          |
| 13 | 470.03          | 40.6          | V     | 1.6        | 20.2           | 6.3        | 46.0               | 14.2           | -5.4          |
| 14 | 550.26          | 39.1          | H     | 2.4        | 18.2           | 7.0        | 46.0               | 13.8           | -6.9          |
| 15 | 666.82          | 38.4          | V     | 1.4        | 20.8           | 8.1        | 46.0               | 9.5            | -7.6          |
| 16 | 699.35          | 38.1          | V     | 1.6        | 21.4           | 8.3        | 46.0               | 8.4            | -7.9          |
| 17 | 872.26          | 41.0          | H     | 2.4        | 23.6           | 9.8        | 46.0               | 7.6            | -5.0          |
| 18 | 800.02          | 38.6          | V     | 1.7        | 21.6           | 9.2        | 46.0               | 7.8            | -7.4          |

**METHOD OF MEASUREMENT** The procedure used was ANSI STANDARD C63.4

1991. 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 spectrum was scanned from 30 MHz to 1000MHz using a Hewlett Packard

Model 8566B Spectrum Analyzer, Hewlett Packard Model 85685A

Preselector, Hewlett Packard Model 85650A Quasi-Peak Adaptor, and an appropriate antenna. Low loss coax was used above 1 GHz.

Measurements were made at Timco Engineering, Inc. 849 NW State Road 45

Newberry, FL.

**TEST RESULTS :** The unit DOES meet the FCC requirements.

Applicant:BACKMI CORPORATION

FCCID:RNDAA579B

Report:

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## DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

APPLICANT :BACKMI CORPORATION

ULES PART NUMBER: 15.247 (C)

REQUIREMENT

Emission that fall in the restricted bands (15.205). These emisisns must be less than or equal to 500uV/m(54dBuV/m). Spurious not in a restricted band must be 20 dBc

FCC II RNDDA579B

Mode: Transmitting (ch1:2.4048)

Model: DA579 Wireless Headset-BASE

Koung M Choi

ENGINEER

AV DATECT(S/A:RBW 1MHz and VBW 10Hz)

| No. | FREQ<br>[GHz] | S/A READING |        | ANT<br>Factor | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE |        | Limit<br>AV<br>dBuV/m | MARGIN |      |
|-----|---------------|-------------|--------|---------------|---------------------|-----------------------|--------------|--------------|---------------|--------|--------|-----------------------|--------|------|
|     |               | HOR         | VER    |               |                     |                       |              |              |               | HOR    | VER    |                       | HOR    | VER  |
|     |               | [dBuV]      | [dBuV] |               |                     |                       |              |              |               | [dBuV] | [dBuV] |                       | [dBuV] | [dB] |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor

|   |        |      |      |       |       |      |      |       |  |       |       |        |       |       |
|---|--------|------|------|-------|-------|------|------|-------|--|-------|-------|--------|-------|-------|
| 1 | 2.4048 | 42.1 | 50.2 | 27.60 |       | 3.25 | 0.00 | -6.60 |  | 66.35 | 74.45 | 127.00 | 60.65 | 52.55 |
| 2 | 4.8096 | 41.3 | 46.9 | 33.10 | 35.60 | 4.42 | 0.00 | -6.60 |  | 36.62 | 42.22 | 54.00  | 17.38 | 11.78 |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac

|   |         |      |      |       |       |      |      |       |      |       |       |       |       |       |
|---|---------|------|------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|
| 3 | 7.2144  | 39.1 | 33.9 | 36.10 | 38.10 | 5.53 | 0.00 | -6.60 | 9.40 | 26.63 | 21.43 | 54.00 | 27.37 | 32.57 |
| 4 | 9.6192  | 35.7 | 32.4 | 38.30 | 38.50 | 6.48 | 0.00 | -6.60 | 9.40 | 25.98 | 22.68 | 54.00 | 28.02 | 31.32 |
| 5 | 12.0240 | 32.0 | 31.8 | 40.50 | 38.50 | 7.50 | 0.00 | -6.60 | 9.40 | 25.50 | 25.30 | 54.00 | 28.50 | 28.70 |
| 6 | 14.4288 | 33.0 | 33.1 | 41.20 | 38.50 | 8.30 |      | -6.60 | 9.40 | 28.00 | 28.10 | 54.00 | 26.00 | 25.90 |

PK DATECT(S/A:RBW 1MHz and VBW 1MHz)

| No. | FREQ<br>[GHz] | S/A READING |        | ANT<br>Factor | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE |        | Limit<br>AV<br>dBuV/m | MARGIN |      |
|-----|---------------|-------------|--------|---------------|---------------------|-----------------------|--------------|--------------|---------------|--------|--------|-----------------------|--------|------|
|     |               | HOR         | VER    |               |                     |                       |              |              |               | HOR    | VER    |                       | HOR    | VER  |
|     |               | [dBuV]      | [dBuV] |               |                     |                       |              |              |               | [dBuV] | [dBuV] |                       | [dBuV] | [dB] |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor

|   |        |      |      |       |       |      |      |       |  |       |       |        |       |       |
|---|--------|------|------|-------|-------|------|------|-------|--|-------|-------|--------|-------|-------|
| 1 | 2.4048 | 46.1 | 56.5 | 27.60 |       | 3.25 | 0.00 | -6.60 |  | 70.35 | 80.75 | 127.00 | 56.65 | 46.25 |
| 2 | 4.8096 | 48.9 | 51.5 | 33.10 | 35.60 | 4.42 | 0.00 | -6.60 |  | 44.22 | 46.82 | 74.00  | 29.78 | 27.18 |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac

|   |         |      |      |       |       |      |      |       |      |       |       |       |       |       |
|---|---------|------|------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|
| 3 | 7.2144  | 46.2 | 42.8 | 36.10 | 38.10 | 5.53 | 0.00 | -6.60 | 9.40 | 33.73 | 30.33 | 74.00 | 40.27 | 43.67 |
| 4 | 9.6192  | 45.7 | 43.3 | 38.30 | 38.50 | 6.48 | 0.00 | -6.60 | 9.40 | 35.98 | 33.58 | 74.00 | 38.02 | 40.42 |
| 5 | 12.0240 | 43.1 | 43.9 | 40.50 | 38.50 | 7.50 | 0.00 | -6.60 | 9.40 | 36.60 | 37.40 | 74.00 | 37.40 | 36.60 |
| 6 | 14.4288 | 45.0 | 44.8 | 41.20 | 38.50 | 8.30 | 0.00 | -6.60 | 9.40 | 40.00 | 39.80 | 74.00 | 34.00 | 34.20 |

### REMARKS

\* Test Distance 0.5m : Distance Factor (D-fac)=20log(3/1) = 9.45dB

\* Duty factor = 20log (Twidth/Tperiod) = 20log (960\*10-6 / 2.06 \* 10-3) = -6.632

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

Applicant:BACKMI CORPORATION

FCCID:RNDDA579B

Report:THUR-112103

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## DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

APPLICANT :BACKMI CORPORATION

ULES PART NUMBER: 15.247 (C)

REQUIREMENT

Emission that fall in the restricted bands (15.205). These emisisns must be less than or equal to 500uV/m(54dBuV/m). Spurious not in a restricted band must be 20 dBc

FCC II RNDDA579B

Mode: Transmitting (ch40:2.4750)

Model: DA579 Wireless Headset-BASE

**ENGINEER**

**AV DATECT(S/A:RBW 1MHz and VBW 10Hz)**

| No.  | FREQ<br>[GHz] | S/A READING   |      | ANT<br>Factor<br>[dB] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE      |       | Limit<br>AV<br>dBuV/m | MARGIN        |       |
|--|---------------|---------------|------|-----------------------|---------------------|-----------------------|--------------|--------------|---------------|-------------|-------|-----------------------|---------------|-------|
|  |               | HOR<br>[dBuV] | VER  |                       |                     |                       |              |              |               | HOR<br>[dB] | VER   |                       | HOR<br>[dBuV] | VER   |
|  |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| <b>Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor</b> |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| 1  | 2.4750        | 38.7          | 49.0 | 27.70                 |                     | 3.34                  | 0.00         | -6.60        |               | 63.14       | 73.44 | 127.00                | 63.86         | 53.56 |
| 2  | 4.9500        | 47.3          | 45.0 | 34.00                 | 35.60               | 4.63                  | 0.00         | -6.60        |               | 43.73       | 41.43 | 54.00                 | 10.27         | 12.57 |

**Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac**

| No.   | FREQ<br>[GHz] | S/A READING   |      | ANT<br>Factor<br>[dB] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE      |       | Limit<br>AV<br>dBuV/m | MARGIN        |       |
|---|---------------|---------------|------|-----------------------|---------------------|-----------------------|--------------|--------------|---------------|-------------|-------|-----------------------|---------------|-------|
|   |               | HOR<br>[dBuV] | VER  |                       |                     |                       |              |              |               | HOR<br>[dB] | VER   |                       | HOR<br>[dBuV] | VER   |
|   |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| <b>Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor +D-Fac</b> |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| 3   | 7.4250        | 33.0          | 29.0 | 36.80                 | 38.10               | 5.44                  | 0.00         | -6.60        | 9.40          | 21.14       | 17.14 | 54.00                 | 32.86         | 36.86 |
| 4   | 9.9000        | 37.7          | 34.4 | 38.40                 | 38.50               | 6.90                  | 0.00         | -6.60        | 9.40          | 28.50       | 25.20 | 54.00                 | 25.50         | 28.80 |
| 5   | 12.3750       | 32.5          | 32.6 | 40.50                 | 38.50               | 7.52                  | 0.00         | -6.60        | 9.40          | 26.02       | 26.12 | 54.00                 | 27.98         | 27.88 |
| 6   | 14.8500       | 32.9          | 32.7 | 41.00                 | 38.50               | 8.33                  | 0.00         | -6.60        | 9.40          | 27.73       | 27.53 | 54.00                 | 26.27         | 26.47 |

**PK DATECT(S/A:RBW 1MHz and VBW 1MHz)**

| No.  | FREQ<br>[GHz] | S/A READING   |      | ANT<br>Factor<br>[dB] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE      |       | Limit<br>AV<br>dBuV/m | MARGIN        |       |
|--|---------------|---------------|------|-----------------------|---------------------|-----------------------|--------------|--------------|---------------|-------------|-------|-----------------------|---------------|-------|
|  |               | HOR<br>[dBuV] | VER  |                       |                     |                       |              |              |               | HOR<br>[dB] | VER   |                       | HOR<br>[dBuV] | VER   |
|  |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| <b>Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor</b>       |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| 1  | 2.4750        | 46.5          | 52.5 | 27.70                 |                     | 3.34                  | 0.00         | -6.60        |               | 70.94       | 76.94 | 127.00                | 56.06         | 50.06 |
| 2  | 4.9500        | 52.1          | 50.6 | 34.00                 | 35.60               | 4.63                  | 0.00         | -6.60        |               | 48.53       | 47.03 | 74.00                 | 25.47         | 26.97 |
| <b>Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac</b> |               |               |      |                       |                     |                       |              |              |               |             |       |                       |               |       |
| 3  | 7.4250        | 42.8          | 39.5 | 36.80                 | 38.10               | 5.44                  | 0.00         | -6.60        | 9.40          | 30.94       | 27.64 | 74.00                 | 43.06         | 46.36 |
| 4  | 9.9000        | 44.7          | 43.6 | 38.40                 | 38.50               | 6.90                  | 0.00         | -6.60        | 9.40          | 35.50       | 34.40 | 74.00                 | 38.50         | 39.60 |
| 5  | 12.3750       | 42.1          | 43.8 | 40.50                 | 38.50               | 7.52                  | 0.00         | -6.60        | 9.40          | 35.62       | 37.32 | 74.00                 | 38.38         | 36.68 |
| 6  | 14.8500       | 42.8          | 44.4 | 41.00                 | 38.50               | 8.33                  | 0.00         | -6.60        | 9.40          | 37.63       | 39.23 | 74.00                 | 36.37         | 34.77 |

### REMARKS

\* Test Distance 0.5m : Distance Factor (D-fac)=20log(3/1) = 9.45dB

\* Duty factor = 20log (Twidth/Tperiod) = 20log (960\*10-6 / 2.06 \* 10-3) = -6.632

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

## DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

APPLICANT :BACKMI CORPORATION

ULES PART NUMBER: 15.247 (C)

REQUIREMENT

Emission that fall in the restricted bands (15.205). These emissins must be less than or equal to 500uV/m(54dBuV/m). Spurious not in a restricted band must be 20 dBc

FCC II RNDDA579B

Mode: Transmitting (ch20:2.4390)

Model: DA579 Wireless Headset-BASE

ENGINEER

### AV DATECT(S/A:RBW 1MHz and VBW 10Hz)

| No. | FREQ<br>[GHz] | S/A READING |     | ANT<br>Factor | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE |     | Limit<br>dBuV/m | MARGIN |     |
|-----|---------------|-------------|-----|---------------|---------------------|-----------------------|--------------|--------------|---------------|--------|-----|-----------------|--------|-----|
|     |               | HOR         | VER |               |                     |                       |              |              |               | HOR    | VER |                 | HOR    | VER |
|     |               | [dBuV]      |     |               |                     |                       |              |              |               | [dBuV] |     |                 | [dBuV] |     |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor

|   |        |      |      |       |       |      |  |       |  |       |       |        |       |       |
|---|--------|------|------|-------|-------|------|--|-------|--|-------|-------|--------|-------|-------|
| 1 | 2.4390 | 37.6 | 48.3 | 27.60 |       | 3.25 |  | -6.60 |  | 61.85 | 72.55 | 127.00 | 65.15 | 54.45 |
| 2 | 2.8780 | 44.8 | 47.7 | 33.10 | 35.60 | 4.48 |  | -6.60 |  | 40.18 | 43.08 | 54.00  | 13.82 | 10.92 |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac

|   |         |      |      |       |       |      |  |       |      |       |       |       |       |       |
|---|---------|------|------|-------|-------|------|--|-------|------|-------|-------|-------|-------|-------|
| 3 | 7.3170  | 35.2 | 30.9 | 36.10 | 38.10 | 5.62 |  | -6.60 | 9.40 | 22.82 | 18.52 | 54.00 | 31.18 | 35.48 |
| 4 | 9.7560  | 36.2 | 32.9 | 38.30 | 38.50 | 6.51 |  | -6.60 | 9.40 | 26.51 | 23.21 | 54.00 | 27.49 | 30.79 |
| 5 | 12.1950 | 32.5 | 32.4 | 40.50 | 38.50 | 7.50 |  | -6.60 | 9.40 | 26.00 | 25.90 | 54.00 | 28.00 | 28.10 |
| 6 | 14.6340 | 32.5 | 32.5 | 41.20 | 38.50 | 8.33 |  | -6.60 | 9.40 | 27.53 | 27.53 | 54.00 | 26.47 | 26.47 |

### PK DATECT(S/A:RBW 1MHz and VBW 1MHz)

| No. | FREQ<br>[GHz] | S/A READING |     | ANT<br>Factor | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | ATTN<br>[dB] | Duty<br>[dB] | D-fac<br>[dB] | RESULE |     | Limit<br>dBuV/m | MARGIN |     |
|-----|---------------|-------------|-----|---------------|---------------------|-----------------------|--------------|--------------|---------------|--------|-----|-----------------|--------|-----|
|     |               | HOR         | VER |               |                     |                       |              |              |               | HOR    | VER |                 | HOR    | VER |
|     |               | [dBuV]      |     |               |                     |                       |              |              |               | [dBuV] |     |                 | [dBuV] |     |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor

|   |        |      |      |       |       |      |  |       |  |       |       |        |       |       |
|---|--------|------|------|-------|-------|------|--|-------|--|-------|-------|--------|-------|-------|
| 1 | 2.4390 | 46.1 | 56.5 | 27.60 |       | 3.25 |  | -6.60 |  | 70.35 | 80.75 | 127.00 | 56.65 | 46.25 |
| 2 | 2.8780 | 48.9 | 51.5 | 33.10 | 35.60 | 4.48 |  | -6.60 |  | 44.28 | 46.88 | 74.00  | 29.72 | 27.12 |

Test distance 3meter Result =Reading + ANT Factor -AmpGain +CABLELOSS +DutyFactor-D-Fac

|   |         |      |      |       |       |      |  |       |      |       |       |       |       |       |
|---|---------|------|------|-------|-------|------|--|-------|------|-------|-------|-------|-------|-------|
| 3 | 7.3170  | 46.2 | 42.8 | 36.10 | 38.10 | 5.62 |  | -6.60 | 9.40 | 33.82 | 30.42 | 74.00 | 40.18 | 43.58 |
| 4 | 9.7560  | 45.7 | 43.3 | 38.30 | 38.50 | 6.51 |  | -6.60 | 9.40 | 36.01 | 33.61 | 74.00 | 37.99 | 40.39 |
| 5 | 12.1950 | 43.1 | 43.9 | 40.50 | 38.50 | 7.50 |  | -6.60 | 9.40 | 36.60 | 37.40 | 74.00 | 37.40 | 36.60 |
| 6 | 14.6340 | 45.0 | 44.8 | 41.20 | 38.50 | 8.33 |  | -6.60 | 9.40 | 40.03 | 39.83 | 74.00 | 33.97 | 34.17 |

### REMARKS

\* Test Distance 0.5m : Distance Factor (D-fac)=20log(3/1) = 9.45dB

\* Duty factor = 20log (Twidth/Tperiod) = 20log (960\*10-6 / 2.06 \* 10-3) = -6.632

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

Applicant:BACKMI CORPORATION

FCCID:RNDDA579B

Report:THUR-112103

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