



A D T

RF EXPOSURE REPORT

REPORT NO.: SA110729E04

MODEL NO.: HES-209M1H, BM2022

FCC ID: ZMYHES209M1H

RECEIVED: July 29, 2011

TESTED: Sep. 28, 2011

ISSUED: Oct. 11, 2011

PREPARED BY: MitraStar Technology Corporation

ADDRESS: No. 6, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan (R.O.C.)

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

LAB ADDRESS: No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

This test report consists of 5 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by any government agency. The test results in the report only apply to the tested sample.



A D T

Table of Contents

RELEASE CONTROL RECORD	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION.....	5
5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	5



A D T

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA110729E04	Original release	Oct. 11, 2011



A D T

1. CERTIFICATION

PRODUCT: WiMAX Indoor VoIP IAD

BRAND: Mitrastar, Huawei

MODEL NO.: HES-209M1H, BM2022

PREPARED BY: MitraStar Technology Corporation

TEST SAMPLE: MASS-PRODUCTION

TESTED: Sep. 28, 2011

STANDARD: FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

IEEE C95.1

The above equipment (Model: HES-209M1H) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : *Claire* , **DATE:** *Oct. 11, 2011*
(Claire Kuan, Specialist)

APPROVED BY : *May Chen* , **DATE:** *Oct. 11, 2011*
(May Chen, Deputy Manager)



A D T

2. RF Exposure Limit

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

3. MPE calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

4. Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as a user stations.

5. Calculation result of maximum conducted power

For channel bandwidth: 5MHz

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2505~2680	442.6	5.9	20	0.343	1.00

For channel bandwidth: 10MHz

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2505~2685	445.0	5.9	20	0.344	1.00