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CNASL1225

partner

MPE TEST REPORT

FCC Per 47 CFR 2.1091(b)

FCC ID: **Q5EPT820002**

Compiled by

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Date of issue.....: Sep 04, 2008

Testing Laboratory Name: **Shenzhen Huatongwei International Inspection Co., Ltd**

Address.....: Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China

Applicant's name.....: **KIRISUN ELECTRONICS(SHENZHEN) CO., LTD.**

Address.....: 6/F., BLDG. H-2, EAST INDUSTRIAL ZONE OF OVERSEAS CHINESE TOWN NANSHAN DIST. SHENZHEN P.R. CHINA

Test specification:

Standard: **FCC Per 47 CFR 2.1091(b)**

TRF Originator.....: Shenzhen Huatongwei International Inspection CO., Ltd

Master TRF.....: Dated 2006-06

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Test item description : Mobile Radio

Trade Mark: Kirisun

Manufacturer: KIRISUN ELECTRONICS(SHENZHEN) CO., LTD.

Model/Type reference.....: PT8200-02

Listed Models: /

Ratings.....: DC 13.6V

Frequency Range: 400 MHz -470 MHz

Result.....: **Positive**

M P E T E S T R E P O R T

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Equipment under Test : Mobile Radio

Model /Type : PT8200-02

Listed Models : /

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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

- 1. MEASUREMENT UNCERTAINTY 4**

- 2. METHOD OF MEASUREMENT 4**
 - 2.1. EME measurements made on trunk mounted antennas 4**
 - 2.1.1. External vehicle EME measurement4
 - 2.1.2. Internal vehicle EME measurement4
 - 2.2. EME measurements made on center roof mounted antennas 4**
 - 2.2.1. External vehicle EME measurement4
 - 2.2.2. Internal vehicle EME measurement4

- 3. TEST RESULT 5**

- 4. CONCLUSION 7**

- 5. ANTENNA LOCATION DRAWING 8**

1. Measurement Uncertainty

The information below presents an estimate of the possible errors that are associated with the measurement system.

<u>Description</u>	<u>Error</u>
NARDA Survey Meter	± 3%
Repeatability Accuracy	± 7%

2. Method of measurement

2.1. EME measurements made on trunk mounted antennas

2.1.1. External vehicle EME measurement

(Antenna mounted in trunk center)

With the survey meter and probe, take ten (10) measurements, at the standard test distance of 60 cm to the antenna, from the back of the vehicle in a vertical line and then average the results. These measurements are taken and recorded at every twenty (20) centimeters over a range starting at twenty (20) centimeters above ground and ending at 2.0 meters.

2.1.2. Internal vehicle EME measurement

(Antenna mounted in trunk center)

While rotating survey meter probe through 180 degrees to ensure that the highest level is found, scan the inside of the vehicle, both front and back seating areas, for the highest level in each location. After the highest level is found, scan vertically making two (2) additional measurements within an area approximately 40 cm wide (representing the width of a person) so as to have a total of three (3) measured points as indicated below that will be averaged

- a) Head area
- b) Chest area
- c) Lower Trunk area

2.2. EME measurements made on center roof mounted antennas

2.2.1. External vehicle EME measurement

With the survey meter and probe, take ten (10) measurements, at the standard test distance of 110 cm from the vehicle-mounted antenna, in a vertical line and then average the results. These measurements are taken and recorded at every twenty (20) centimeters over a range starting at twenty (20) centimeters above ground and ending at 2.0 meters; this would be representative of a person standing next to a vehicle during a mobile radio transmission.

2.2.2. Internal vehicle EME measurement

While rotating survey meter probe through 180 degrees to ensure that the highest level is found, scan the inside of the vehicle, both front and back seating areas, for the highest level in each location. After the highest level is found, scan vertically making two (2) additional measurements within an area approximately 40 cm wide (representing the width of a person) so as to have a total of three (3) measured points as indicated below that will be averaged.

- a) Head area
- b) Chest area
- c) Lower Trunk area

3. Test Result

Measurement Information			
Measurement Freq.(MHz)	400.000	435.000	470.000
Raw Data Power(W)	45.6	43.5	44.4
Controlled Limit	1.	1.	1.
Uncontrolled Limit	0.	0.	0.
Cal.	1	1	1
Antenna / gain(dBi)	Whip / 0	Whip / 0	Whip / 0
External Vehicle Power Density(50%	average over body/2		
Internal Vehicle Power Density(50%	average over (head/chest/leg)/2		

External Vehicle MPE Assessment at 400.000 MHz						
Antenna Location	Antenna/ gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average Over Body	Pwr. Density (mW/cm^2)
Trunk	Whip / 0	60	E	1	0.162	0.081
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height(cm)	% of controlled limit	
1	20	7	6	120	25	
2	40	11	7	140	30	
3	60	10	8	160	22	
4	80	8	9	180	12	
5	100	14	10	200	18	

External Vehicle MPE Assessment at 435.000 MHz						
Antenna Location	Antenna/ gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average Over Body	Pwr. Density (mW/cm^2)
Trunk	Whip / 0	60	E	1	0.094	0.047
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height(cm)	% of controlled limit	
1	20	7	6	120	27	
2	40	11	7	140	31	
3	60	12	8	160	25	
4	80	9	9	180	14	
5	100	12	10	200	15	

External Vehicle MPE Assessment at 470.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average Over Body	Pwr. Density (mW/cm ²)
Trunk	Whip / 0	60	E	1	0.122	0.061
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height(cm)	% of controlled limit	
1	20	8	6	120	24	
2	40	15	7	140	32	
3	60	11	8	160	25	
4	80	10	9	180	11	
5	100	12	10	200	13	

External Vehicle MPE Assessment at 400.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average Over Body	Pwr. Density (mW/cm ²)
Roof	Whip / 0	110	E	1	0.082	0.041
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height(cm)	% of controlled limit	
1	20	6	6	120	11	
2	40	8	7	140	15	
3	60	8	8	160	10	
4	80	6	9	180	8	
5	100	10	10	200	10	

Internal Vehicle MPE Assessment at 400.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head,Chest,Leg Back/Front Seats (mW/cm ²)	Pwr. Density of Higher Level (mW/cm ²)
Trunk	Whip / 0	Highest Reading	E	1	0.060/0.010	0.030/0.005
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Ches		% of controlled limit Leg	
Back Seat	8		5		1	
Front Seat	3		2		1	

Internal Vehicle MPE Assessment at 435.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head,Chest,Leg Back/Front Seats	Pwr. Density of Higher Level
Trunk	Whip / 0	Highest Reading	E	1	0.040/0.020	0.020/0.010
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Ches		% of controlled limit Leg	
Back Seat	7		4		1	
Front Seat	4		2		1	

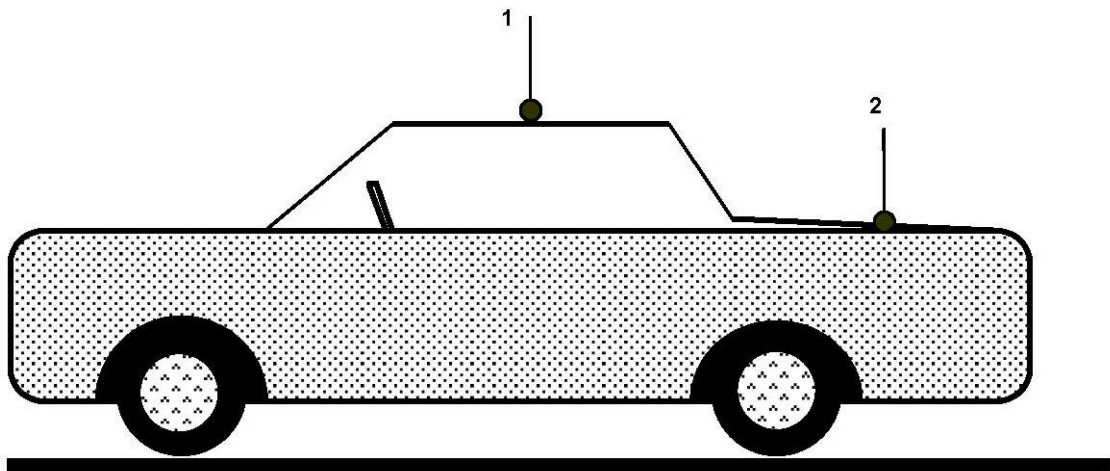
Internal Vehicle MPE Assessment at 470.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head,Chest,Leg Back/Front Seats (mW/cm^2)	Pwr. Density of Higher Level (mW/cm^2)
Trunk	Whip / 0	Highest Reading	E	1	0.050/0.010	0.025/0.005
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Ches		% of controlled limit Leg	
Back Seat	8		5		2	
Front Seat	5		3		1	

Internal Vehicle MPE Assessment at 470.000 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head,Chest,Leg Back/Front Seats	Pwr. Density of Higher Level
Roof	Whip / 0	Highest Reading	E	1	0.048/0.018	0.024/0.009
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Ches		% of controlled limit Leg	
Back Seat	5		4		2	
Front Seat	1		2		1	

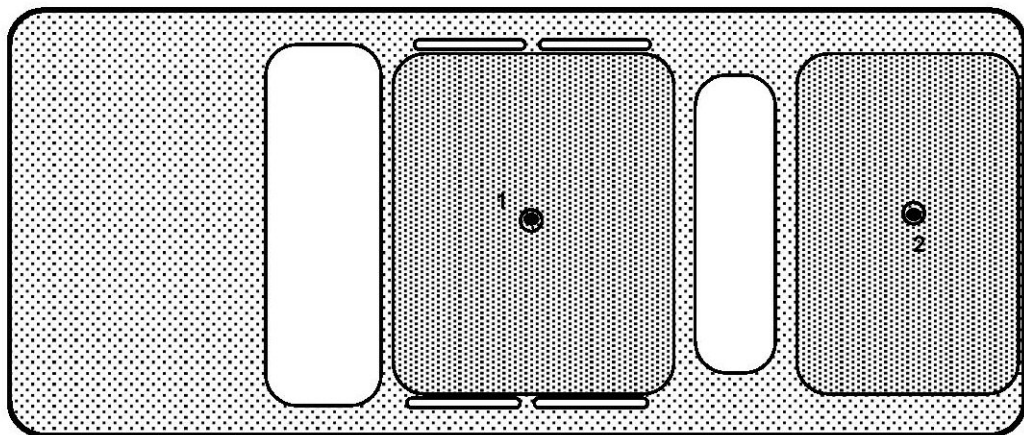
4. Conclusion

The measurement results comply with the FCC Limit Per 47 CFR 2.1091 (b) for the controlled RF Exposure.

5. Antenna Location Drawing



- 1 - Roof (center)
- 2 - Trunk (center)



.....End of Report.....