



MPE TEST REPORT

FCC Per 47 CFR 2.1091(b)

FCC ID: **YAM-TM628HV**

Compiled by

(position+printed name+signature)...: File administrators Xiankun Ding

Xiankun Ding

Supervised by

(position+printed name+signature)...: Test Engineer Wenliang Li

Wenliang Li

Approved by

(position+printed name+signature)...: Manager Jimmy Li

Jimmy Li

Date of issue.....: June 02, 2010

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

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

Applicant's name.....: **Hytera Communications Corporation Ltd.**

Address.....: HYT Tower, Hi-Tech Industrial Park North, Nanshan District, Shenzhen China. 518057

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: HYT

Manufacturer: **Hytera Communications Corporation Ltd.**

Model/Type reference.....: TM-628HV

Listed Models: /

Ratings.....: DC 13.60V

Frequency Range: 136 MHz -174 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 : TM-628HV

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.

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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	$\pm 3\%$
Repeatability Accuracy	$\pm 7\%$

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)	136.1250	155.1250	173.9875
Raw Data Power(W)	52.00	50.35	50.47
Controlled Limit	1.00	1.00	1.00
Uncontrolled Limit	0.20	0.20	0.20
Cal.	1.00	1.00	1.00
Antenna / gain(dBi)	Whip / 0	Whip / 0	Whip / 0
External Vehicle Power Density(50% duty)	average over body/2		
Internal Vehicle Power Density(50% duty)	average over (head/chest/leg)/2		

External Vehicle MPE Assessment at 136.1250 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	1.00	0.32	0.16
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height (cm)	% of controlled limit	
1	20	6	6	120	18	
2	40	8	7	140	22	
3	60	10	8	160	16	
4	80	9	9	180	13	
5	100	12	10	200	10	

External Vehicle MPE Assessment at 155.1250 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	1.00	0.36	0.18
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height (cm)	% of controlled limit	
1	20	5	6	120	15	
2	40	8	7	140	21	
3	60	11	8	160	17	
4	80	9	9	180	12	
5	100	11	10	200	11	

External Vehicle MPE Assessment at 173.9875 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	1.00	0.33	0.17
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height (cm)	% of controlled limit	
1	20	7	6	120	19	
2	40	9	7	140	23	
3	60	10	8	160	17	
4	80	9	9	180	12	
5	100	12	10	200	11	

External Vehicle MPE Assessment at 136.1250 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average Over Body	Pwr. Density (mW/cm ²)
Trunk	Whip / 0	110	E	1.00	0.18	0.09
Measurement grid						
Test position	Height (cm)	% of controlled limit	Test position	Height (cm)	% of controlled limit	
1	20	3	6	120	9	
2	40	4	7	140	10	
3	60	5	8	160	9	
4	80	4	9	180	7	
5	100	6	10	200	5	

Internal Vehicle MPE Assessment at 136.1250 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	1.00	0.170/0.012	0.085/0.006
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Chest		% of controlled limit Leg	
Back Seat	8		7		1	
Front Sea	5		3		1	

Internal Vehicle MPE Assessment at 155.1250 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	1.00	0.120/0.009	0.060/0.005
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Chest		% of controlled limit Leg	
Back Seat	7		6		1	
Front Sea	3		2		1	

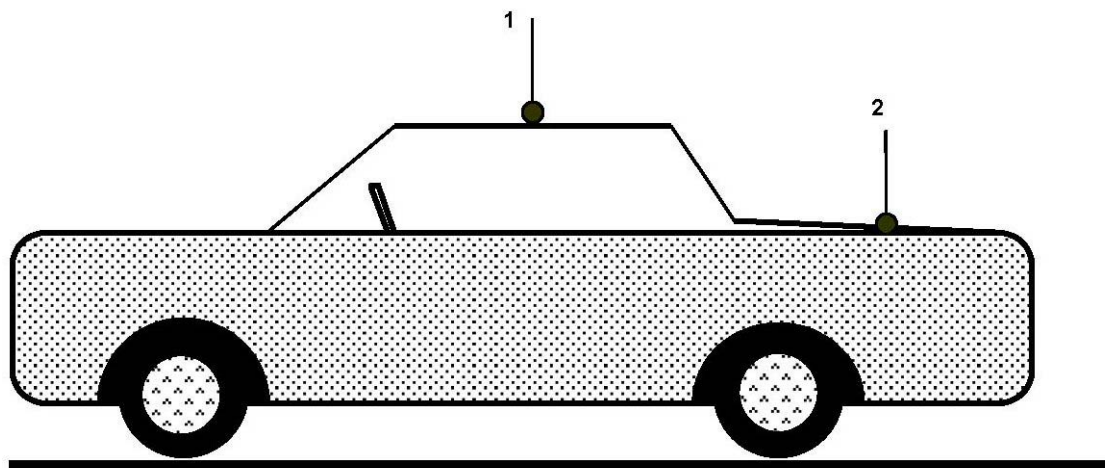
Internal Vehicle MPE Assessment at 173.9875 MHz						
Antenna Location	Antenna/gain	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head,Chest,Leg Back/Front Seats (mW/cm ²)	Pwr. Density of Higher Level (mW/cm ²)
Trunk	Whip / 0	Highest Reading	E	1.00	0.110/0.008	0.055/0.004
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Chest		% of controlled limit Leg	
Back Seat	6		4		1	
Front Sea	3		3		1	

Internal Vehicle MPE Assessment at 173.9875 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)
Roof	Whip / 0	Highest Reading	E	1.00	0.090/0.008	0.045/0.004
Measurement grid						
Test position	% of controlled limit Head		% of controlled limit Chest		% of controlled limit Leg	
Back Seat	5		4		1	
Front Sea	2		2		1	

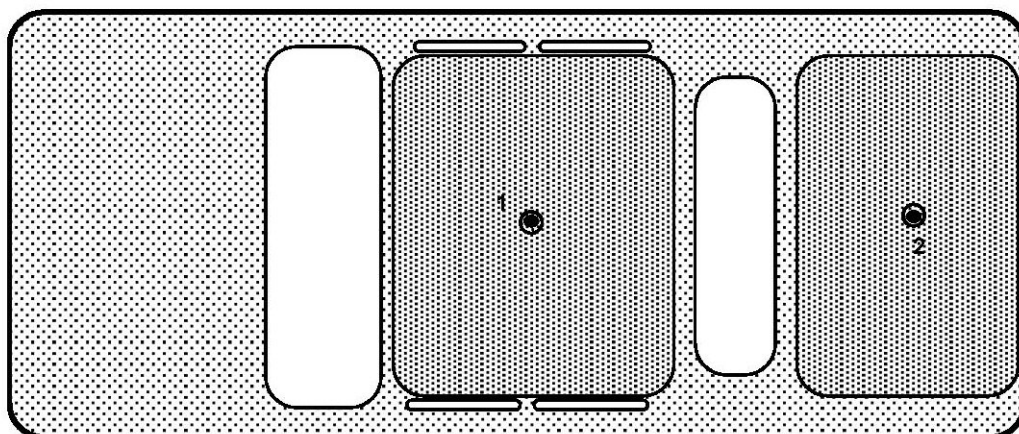
4. Conclusion

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.....