



Report No. : E86.12.292.007

This Test Report is Prepared for

Gobiz Electronics Limited

Rm 201, 2/F, Hi-Tech Centre, 9 Choi Yuen Road, Sheung Shui, N.T., Hong Kong .

Product Name: Tire Pressure Monitoring System

Model No.: TM-507, TM-510RV, TM-508, EK-215, TM-516, TM-519, M3,
M5, M6

Brand Name: N/A

Applicable standards: FCC Part 15B

Test result: The FCC testing has been performed on the submitted samples and found in compliance
with ANSI 63.4-2003 and FCC Part15B

Prepared by :

A handwritten signature in blue ink, appearing to read 'Shirley Xu', written over a horizontal line.

Shirley Xu Assistant

Reviewer :

A handwritten signature in blue ink, appearing to read 'Mary Huang', written over a horizontal line.

Mary Huang/Supervisor

Approved & Authorized Signer :

A handwritten signature in blue ink, appearing to read 'Mike Wang', written over a horizontal line.

Mike Wang/ Manager

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Test Report Conclusion
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1. General Information

1.1 Details of Applicant

Name: Gobiz Electronics Limited

Address: Rm 201, 2/F, Hi-Tech Centre, 9 Choi Yuen Road, Sheung Shui, N.T., Hong Kong .

1.2 Application Details

Date of Receipt of Application: August 9, 2012

Date of Receipt of Test Item: August 9, 2012

Date of Test: August 8, 2012~ August 30 2012

1.3 General Description of EUT

Product Name:	Tire Pressure Monitoring System
Model No.:	TM-507, TM-510RV, TM-508, EK-215, TM-516, TM-519, M3, M5, M6
Brand Name;	N/A
Operation Frequency:	433.92MHz
Antenna Type:	Integral Antenna
Power supply:	DC3.7V
Remark:	Only the basic model No. TM-507 was tested. The other models are identical in the same PCB layout, interior structure and electrical circuits with the basic model. The only difference is the model name for commercial purpose.
FCC ID:	VMKTPMS507

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2.0	Test Equipments				
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
Ultra Broadband ANT	ROHDE&SCHWARZ	HL562	100157	2012-04-26	2013-04-25
System Controller	CT	SC100	-	2012-04-26	2013-04-25
ESPI Test Receiver	ROHDE&SCHWARZ	ESI26	838786/013	2012-04-26	2013-04-25
3m OATS	--	--	N/A	2012-04-26	2013-04-25
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-631	2012-04-26	2013-04-25
Pre-amplifier	EM	EM30265	2727A05017	2012-04-26	2013-04-25
Pre-amplifier	HP	8447D	2727A05017	2012-04-26	2013-04-25
Signal Generator	HP	8657B	3208U02589	2012-08-04	2013-08-03
Rod Antenna	Deqing Xinqin Electronics Co., Ltd	TL-1000	--	--	--

3.0 Test Lab Details

Name: SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD

Address: 5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District, Shenzhen,CHINA.

FCC Registration Number: 899988

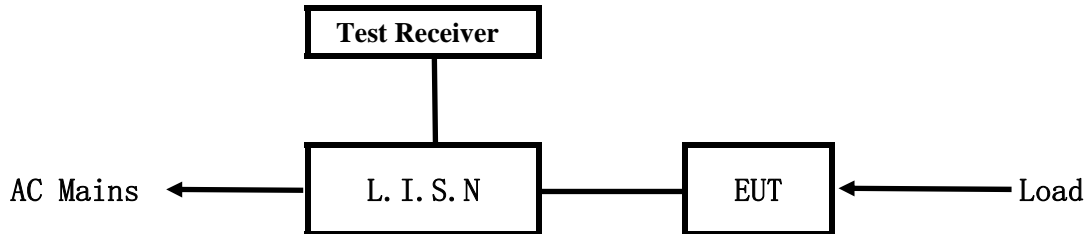
Note: All tests were done at SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD

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4. Power Line Conducted Emission Test

5.1 Schematics of the test

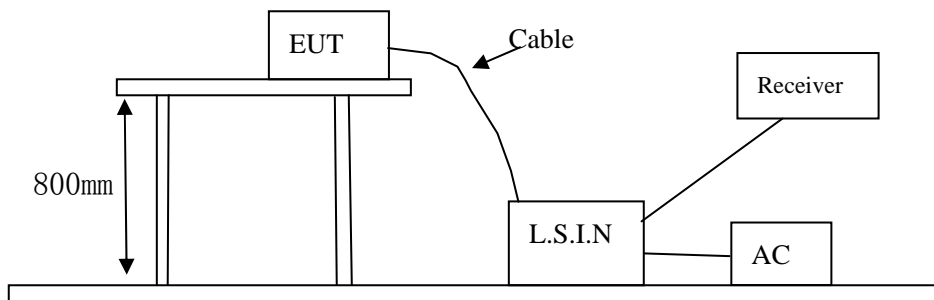


EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2003. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2003.

Block diagram of Test setup



4.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID
Tire Pressure Monitoring System	Gobiz Electronics Limited	TM-507	VMKTPMS507

B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable

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N/A				

4.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2003.

A Setup the EUT and simulators as shown on follow

B Enable AF signal and confirm EUT active to normal condition

4.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency (MHz)	Class A Limits (dB μ V)		Class B Limits (dB μ V)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	79.0	66.0	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	73.0	60.0	56.0	46.0
5.00 ~ 30.00	73.0	60.0	60.0	50.0

- Notes: 1. *Decreasing linearly with logarithm of frequency.
 2. The tighter limit shall apply at the transition frequencies

4.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz. (The average detector is necessary when the Quasi-peak emission level beyond the average Limit.)

Note: Due to DC operation, this test item not applicable.

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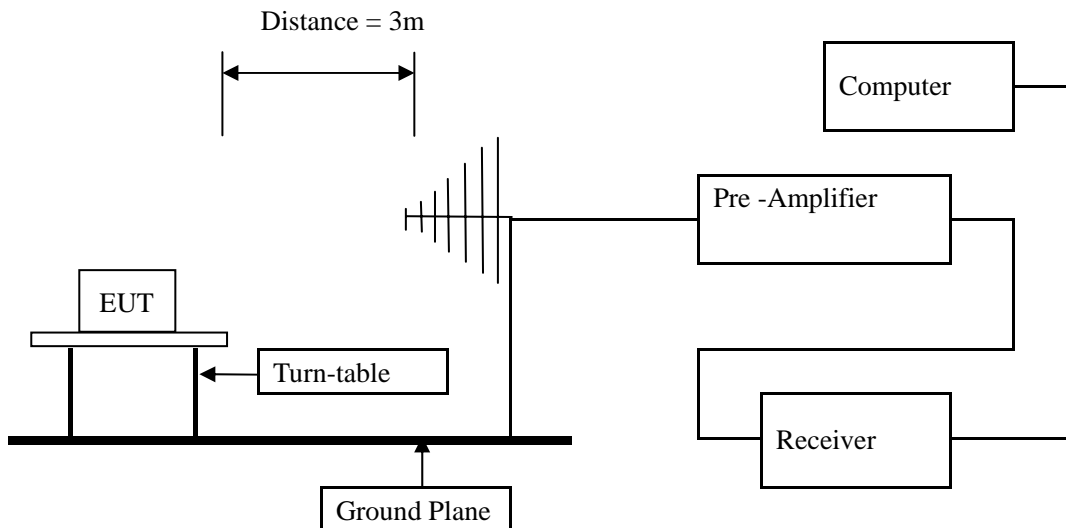


5 Radiated Emission Test

5.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.
- (3) The frequency spectrum from 30 MHz to 1 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization : Vertical polarization and Horizontal polarization.

Block diagram of Test setup



5.2 Configuration of The EUT

Same as section 5.3 of this report

5.3 EUT Operating Condition

Same as section 5.4 of this report.

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5.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

- Note:
1. RF Voltage (dBuV) = 20 log RF Voltage (μ V)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-2G, the final emission level got using PK detector.
 5. Battery full charged were installed in the equipment under test for radiated emission testing



5.5 Test result

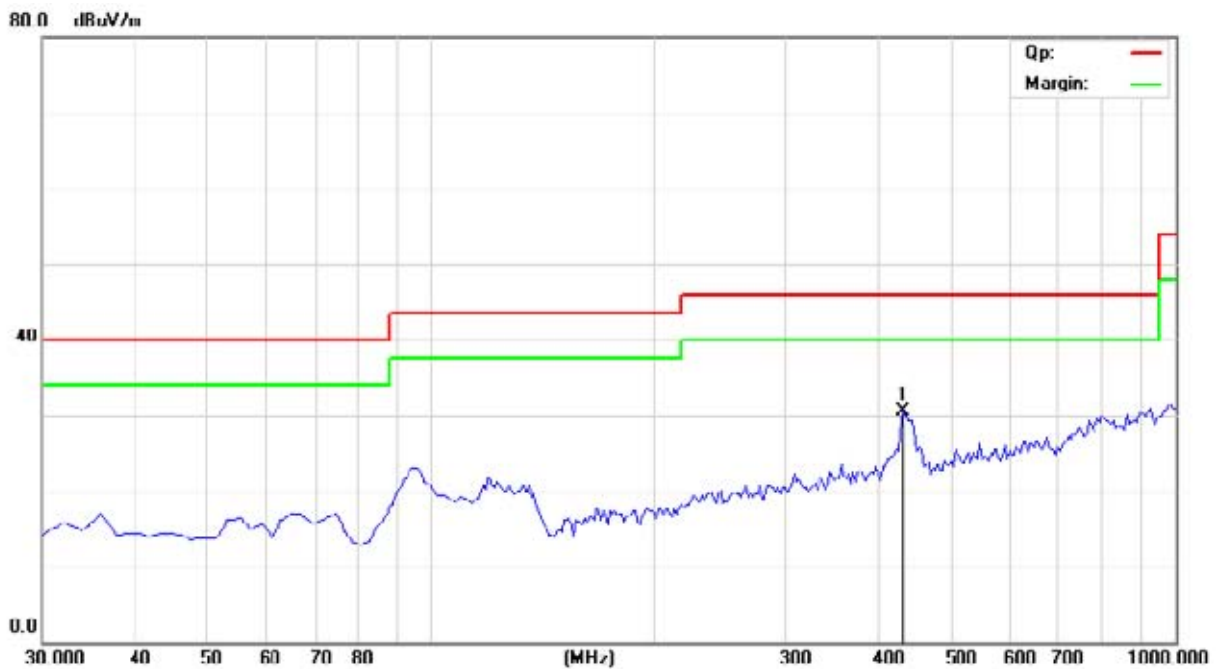
A General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Tx Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
432.285	30.49	H	46.00

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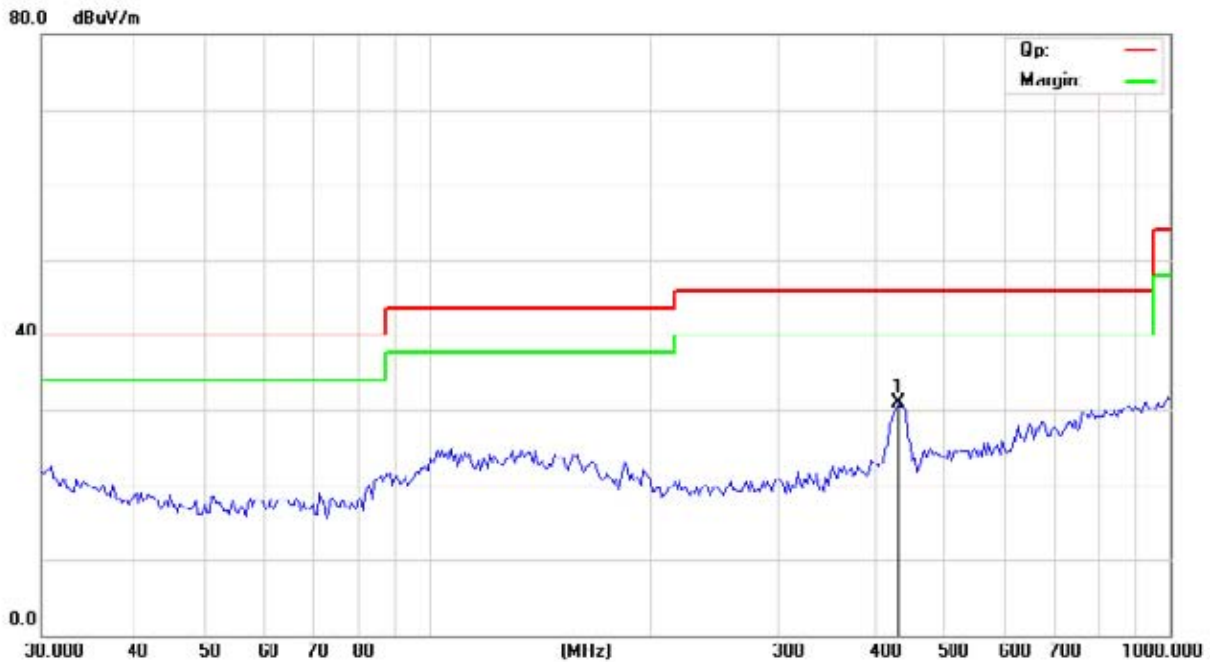
B. General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Tx Transmitting

Results: Pass

Please refer to following diagram for individual



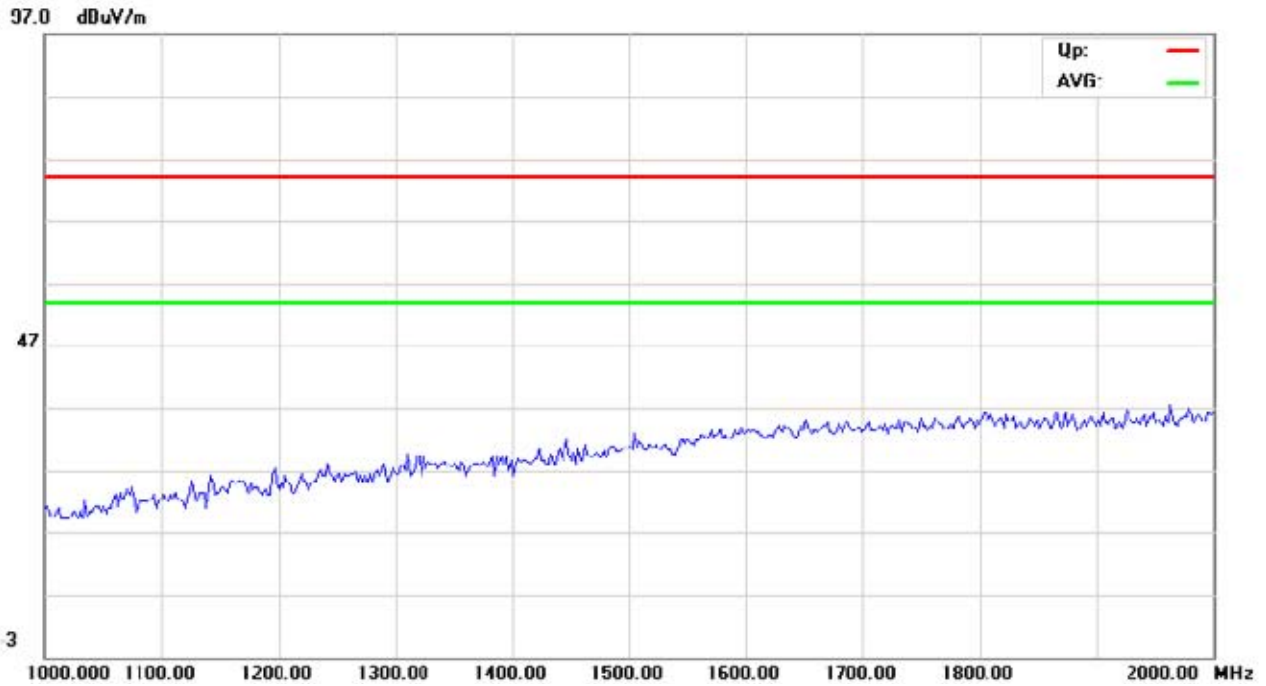
Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
432.385	30.97	V	46.00

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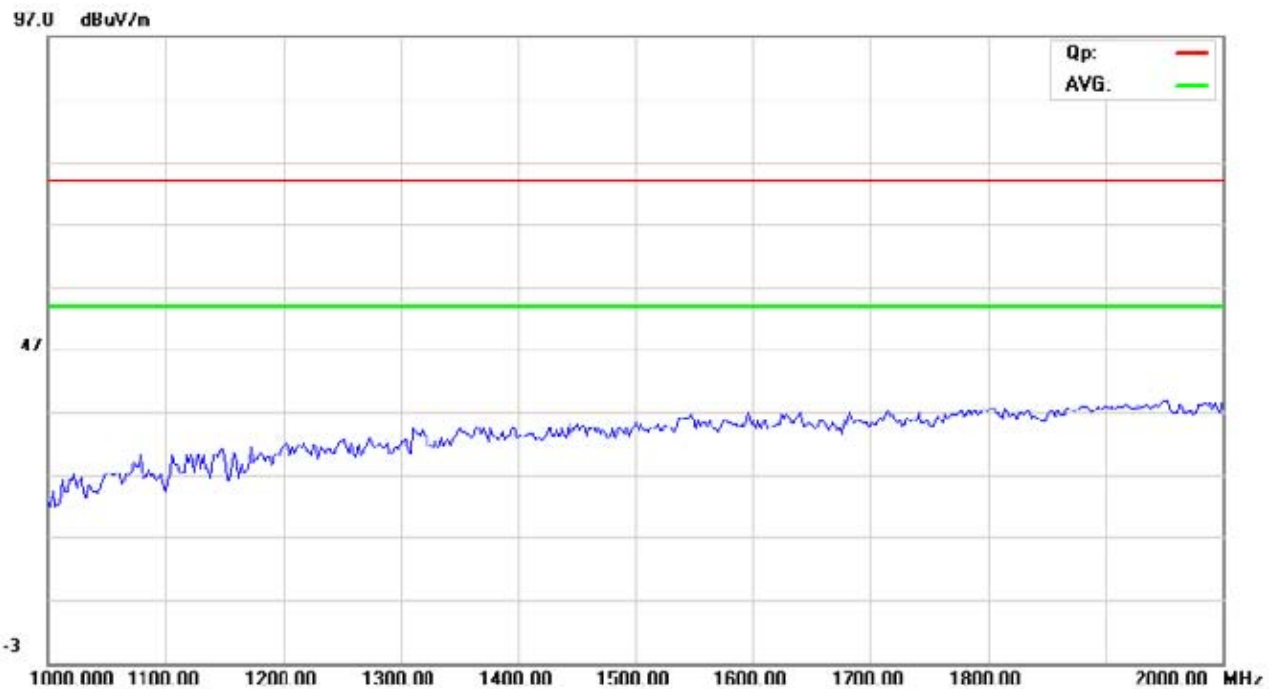


Test Plot above 1G

Horizontal



Vertical



Note: for the emission test, A 433.92 MHz CW signal was injected (radiated) from a nearby signal generator using a rod antenna

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6.0 FCC ID Label

FCC ID: VMKTPMS507

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



FCC ID Label Location

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7.0 Photo of testing

7.1 Conducted test View--
N/A

7.2 Emission Radiated test View



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7.3 Photo for the EUT

Outside View for Rx



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Outside View for Rx



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Outside View for Rx



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Inside View for Rx



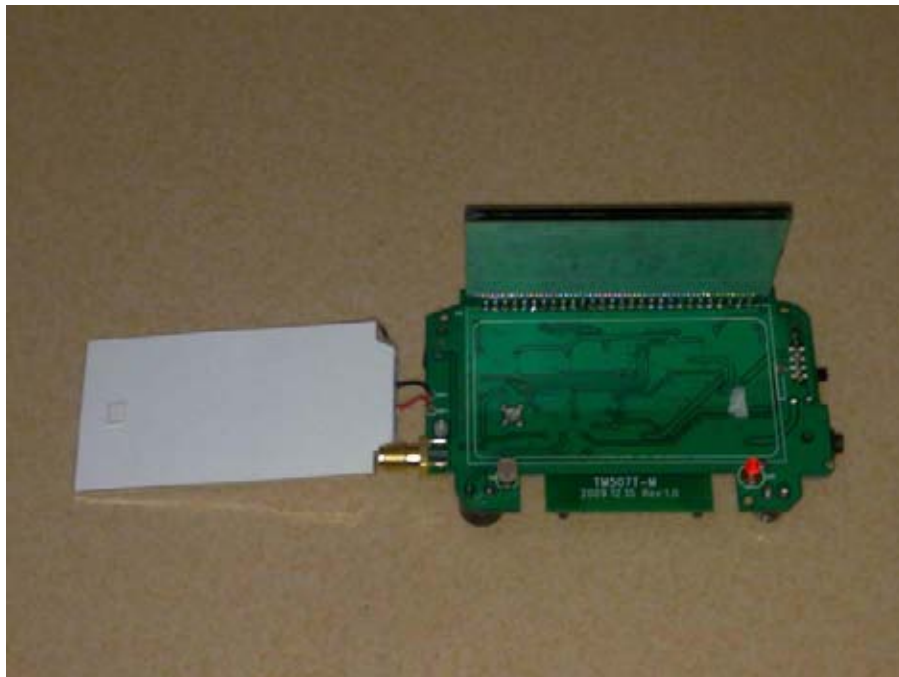
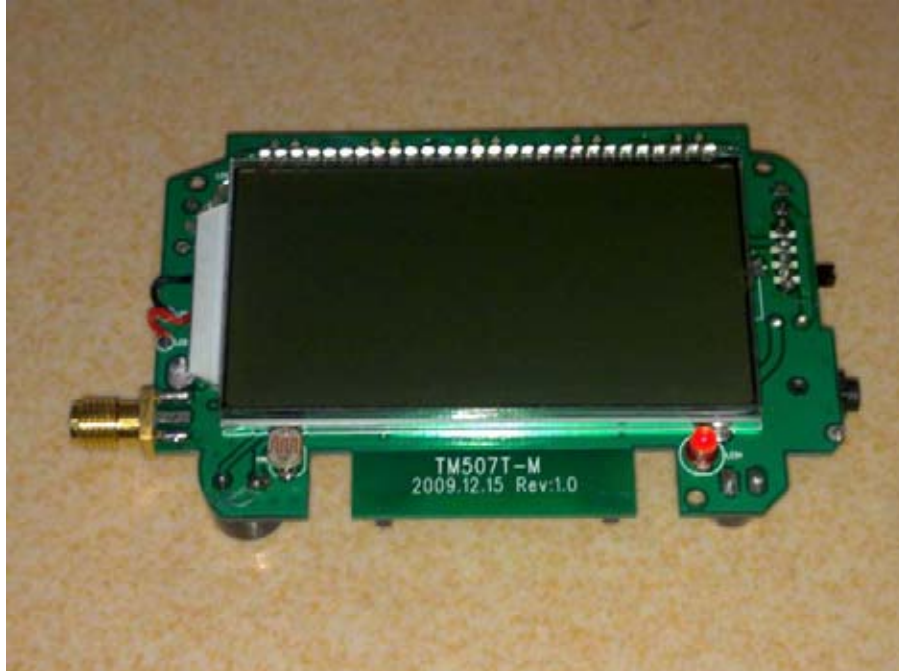
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Inside View for Rx



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Inside View for Rx



End of the report

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