



# A Test Lab Techno Corp.

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## MPE Report

Test Report No.	: 1209FS11
Applicant	: Applied Wireless Identifications Group Inc.
Manufacturer	: EMMT SYSTEMS CORPORATION
Product Type	: MPR-1910 RFID Reader Module
Trade Name	: AWID
Model Number	: MPR-1910
Date of Received	: Aug. 24, 2012
Date of Test	: Sep. 05, 2012
Date of Issued	: Sep. 06, 2012
Test Specification	: 47 CFR § 2.1091 47 CFR §1.1310 ANSI / IEEE Std.C95.1-1992
Application Purpose	: Class II Permissive Change
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
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4. This document may be altered or revised by A Test Lab Techno. Corp. personnel only, and shall be noted in the revision section of the document.

Approved By : Yung-Tan Tsai Tested By : Bill Hu  
(Yung Tan Tsai) (Bill Hu)



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## 1. Description of Equipment under Test (EUT)

Applicant	Applied Wireless Identifications Group Inc.
Applicant Address	18300 Sutter Blvd, Morgan Hill, CA 95037 USA
Manufacturer	EMMT SYSTEMS CORPORATION
Manufacturer Address	TAICHUNG EXPORT PROCESSING ZONE P.O BOX 1-45, TAN-TZU TAICHUNG. NO.16-1 NAN-ER ROAD,TAN-TZU,TAICHUNG HSIEN,TAIWAN R.O.C
Product Type	MPR-1910 RFID Reader Module
Trade Name	AWID
Model Number	MPR-1910
Frequency Range	902.6 - 927.4 MHz (RFID)
Transmit Power (conducted power)	RFID: 0.647 W / 28.11 dBm
Antenna Specification	Printronix, UHF RFID Coupler Max gain : 0 dBi
Antenna Designation	Balanced Terminated Transmission Line
Temperature Range	-30 ~ +70°C
Class II permissive change description	The Class II permissive change is add new Antenna source, the engineer evaluate need to verify MPE test.

The above equipment was tested by A Test Lab Techno Corp. For compliance with the requirements set forth in 47 CFR § 2.1091 & 47 CFR § 1.1310. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties



## 2. Human Exposure Assessment

Due to the design and installation of this product, it is not possible to conduct SAR evaluation. This is because client either manufactures or supplies the antenna(s) that will be used in the installation of this product. Therefore, this product will be evaluated as a mobile device per 47 CFR §1.1310 titled "Radiofrequency radiation exposure limits", generally referred to as MPE limits.

In 47 CFR § 2.1091, paragraph (b) defines a mobile device as "a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. " This product is intended to be installed into a vehicle such that the unit is physically secured at one location. In the installation guide supplied with the product,

Client has made the following statement: "IMPORTANT: To meet the FCC's RF Exposure Guidelines, the antenna should be installed so there is at least 20 cm of separation between the body of the user and nearby persons and the antenna". Based on the installation of the transceiver and the antenna, the transmitters radiating structure is more than 20 cm from the user. Thus, this product is a "mobile device" as defined in section § 2.1091 paragraph (b).

### Exposure evaluation

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna.

### 3. Test Result

Band	Frequency (MHz)	Limit (mw)	Distance (cm) [R]	Power (dBm) [P]	ANT Gain (dBi) [G]	[P]+ [G] (W) [TP]	Power Density [S]	Min. distance (cm)
RFID(Antenna Port1) ISO Link	902.6	0.600	20	27.64	0	0.011	0.002	20cm
	915.0	0.600	20	27.67	0	0.011	0.002	20cm
	927.4	0.600	20	26.28	0	0.008	0.002	20cm
RFID(Antenna Port1) Gen Link	902.6	0.600	20	27.48	0	0.011	0.002	20cm
	915.0	0.600	20	28.11	0	0.012	0.002	20cm
	927.4	0.600	20	26.59	0	0.009	0.002	20cm
RFID(Antenna Port2) ISO Link	902.6	0.600	20	26.70	0	0.009	0.002	20cm
	915.0	0.600	20	26.98	0	0.009	0.002	20cm
	927.4	0.600	20	25.75	0	0.007	0.001	20cm
RFID(Antenna Port2) Gen Link	902.6	0.600	20	27.38	0	0.010	0.002	20cm
	915.0	0.600	20	27.42	0	0.010	0.002	20cm
	927.4	0.600	20	27.50	0	0.011	0.002	20cm