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**16740 Peters Road**  
**Middlefield, Ohio 44062**  
**United States of America**  
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## **CERTIFICATION TEST REPORT**

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**Manufacturer:** Harsco Rail  
a Division of Harsco Corporation  
2401 Edmund Highway  
West Columbia, South Carolina 29170

**Applicant:** Same as Above

**Product Name:** PT-704 Ranging Radio Module

**Product Description:** 2.4 GHz Nanotron Ranging radio module with built-on RF Amplifier circuit and Antenna Switching for use in Ranging Personal Alert Device.

**Model:** PT-704

**FCC ID:** 2AEO5-PT-704

**Testing Commenced:** Nov. 29, 2016

**Testing Ended:** Dec. 2, 2016

**Test Results:** In Compliance

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

**Standards:**

- KDB447498
- FCC Part 2.1091
- FCC Part 1.1310



Order Number: F2LQ9197

Client: Harsco Rail

Model: PT-704

**Evaluation Conducted by:**

Ken Littell, Director of EMC & Wireless Operations

**Report Reviewed by:**

Wendy Fuster, President

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## 1 ADMINISTRATIVE INFORMATION

### 1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

### 1.2 Measurement Procedure:

All measurements were performed according to KDB558074.

### 1.4 Document History

Document Number	Description	Issue Date	Approved By
F2LQ9197-03E	First Issue	Jan. 31, 2017	K. Littell



## 2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	<ul style="list-style-type: none"><li>• KDB447498</li><li>• FCC Part 2.1091</li><li>• FCC Part 1.1310</li></ul>	Complies

Modifications Made to the Equipment
None



### **3 ENGINEERING STATEMENT**

This report has been prepared on behalf of Harsco Rail to provide documentation for the testing described herein. This equipment has been tested and found to comply with KDB447498, FCC Part 2.1091, and FCC Part 1.1310. The test results found in this test report relate only to the item(s) tested.



#### **4 EUT INFORMATION AND DATA**

##### **4.1 Equipment Under Test:**

Product: Radio Module

Model: PT--704

Serial No.: None Specified

FCC ID: 2AEO5-PT-704

##### **4.2 Trade Name:**

Harsco Rail

##### **4.3 Power Supply:**

Lenovo 42T4418

##### **4.4 Applicable Rules:**

KDB447498

FCC Part 2.1091

FCC Part 1.1310

##### **4.5 Equipment Category:**

Radio Transmitter-DTS

##### **4.6 Antenna:**

5dBi External

##### **4.7 Accessories:**

N/A

##### **4.8 Test Item Condition:**

The equipment to be tested was received in good condition.



## 5. RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

### 5.1 Requirements:

Limit:  $1\text{mW}/\text{cm}^2$

Formula used for result:  $\frac{\text{E.I.R.P.}}{4 \pi R^2}$

Results: E.I.R.P. = 8.43mW

8.43mW at 2440 MHz

$$\frac{8.43\text{mW}}{4 \pi R^2} = \frac{8.43\text{mW}}{5026.55} = 0.0017\text{mW}/\text{cm}^2$$