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CERTIFICATION TEST REPORT

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:

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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



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2 SUMMARY OF TEST RESULTS

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

Modifications Made to the Equipment
None



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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.



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5. RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

5.1 Requirements:

Limit: 1mW/cm²

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

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