

RF Exposure Analysis / Report

On

Antenna Pedestal Model Numbers: NP12 PRI/PAB, NP12 SAB FCC ID: DO4NEO2PS

Customer Name: Checkpoint Systems, Inc.

Customer P.O: 1101200342

Date of Report: September 21, 2023

Test Report No: R-3728P-6

Test Start Date: June 19, 2023

Test Finish Date: June 19, 2023

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Richard J. Reitz

Director of Engineering

iNARTE Electromagnetic Compatibility Engineer EMC-050739-E

Scott Wentworth Branch Manager

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Colleen T. Reitz

Chief of Documentation, Innovation and Compliance

Richard J. Reitz

Director of Engineering

iNARTE Electromagnetic Compatibility Engineer EMC-050739-E

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Revision History

Revisions to this document are listed below; the latest revised document supersedes all previous issues of this document:

Revision Date		Pages Affected	
-	September 21, 2023	Original Release	



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Test Program Summary

Report Number: R-3728P-6

Customer: Checkpoint Systems, Inc.

Address: 101 Wolf Drive

Thorofare, NJ 08086

Manufacturer: Checkpoint Systems, Inc.

Manufacturer Address: 101 Wolf Drive

Thorofare, NJ 08086

Test Sample: Antenna Pedestal

FCC ID: DO4NEO2PS

Test Specification:

FCC Part 1.1310, Radiofrequency Radiation Exposure Limits

Test Procedure:

FCC OET Bulletin 65

Test Facility:

Retlif Testing Laboratories 3131 Detwiler Road Harleysville, PA 19438

FCC Accreditation Designation Number: US2321

Family Certification:

The Antenna Pedestal tested was provided as worst case configuration in accordance with Checkpoint Systems, Inc. The Neo v2.0 PAB/SAB family consists of the following versions:

- NP12 PRI/PAB
- NP12 SAB
- NP22 PRI/PAB
- NP22 SAB
- NG12 PRI/PAB RF PED
- NG12 SAB RF PED



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RF Exposure - Requirements and Test Results

Requirement: 1.1310(d)(2), Radiofrequency Radiation Exposure Limits

For operations within the frequency range of 300 kHz and 6 GHz (inclusive), the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 in paragraph (e)(1) of this section, may be used instead of whole-body SAR limits as set forth in paragraphs (a) through (c) of this section to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part, except for portable devices as defined in § 2.1093 of this chapter as these evaluations shall be performed according to the SAR provisions in § 2.1093.

Table 1 FCC § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)				
(i) Limits for Occupational/Controlled Exposure								
0.3-3.0	614	1.63	*(100)	≤6				
3.0-30	1842/f	4.89/f	*(900/f ²)	<6				
30-300	61.4	0.163	1.0	<6				
300-1,500			f/300	<6				
1,500-100,000			5	<6				
(ii) Limits for General Population/Uncontrolled Exposure								
0.3-1.34	614	1.63	*(100)	<30				
1.34-30	824/f	2.19/f	*(180/f²)	<30				
30-300	27.5	0.073	0.2	<30				
300-1,500			f/1500	<30				
1,500-100,000			1.0	<30				

f = frequency in MHz. * = Plane-wave equivalent power density.

Test Equipment:

The details of the test equipment utilized during the performance of this test method are shown below:

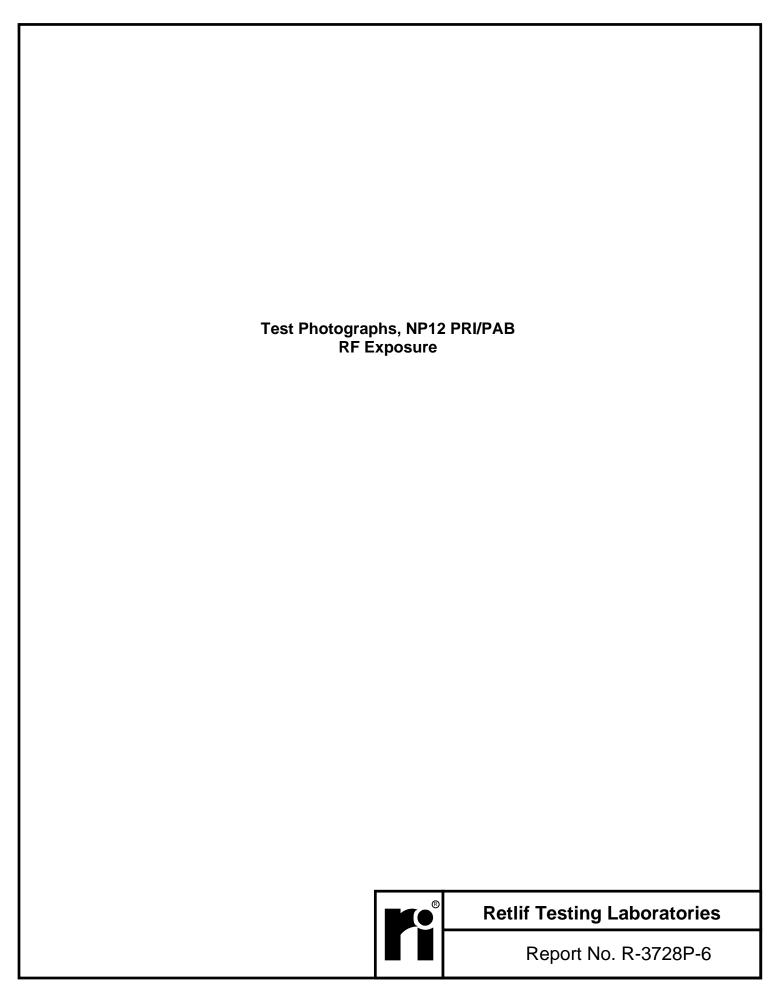
EN	Manufacturer	Model No.	Description	Serial No.	Due Date
8698	LENOVO	E73	COMPUTER, CONTROL	NSN	No Calibration Required
R849	NARDA	FHP-200A	ANALYZER FIELD STRENGTH 9 kHz - 30 MHz	1807X00616	11/25/2023

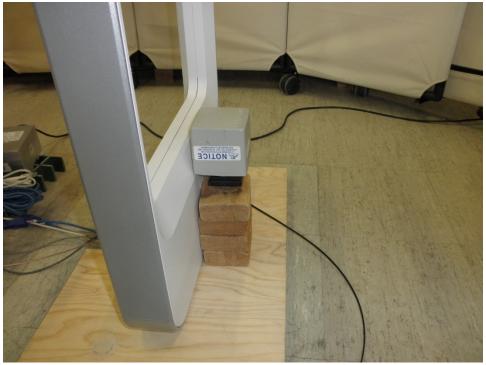
Test Results:

The calculated power density based on the manufacturers specified antenna gain and maximum measured output power did not exceed the specified MPE limits at a distance of 0 cm for both General Population/Uncontrolled Exposure and for Occupational/Controlled Exposure.



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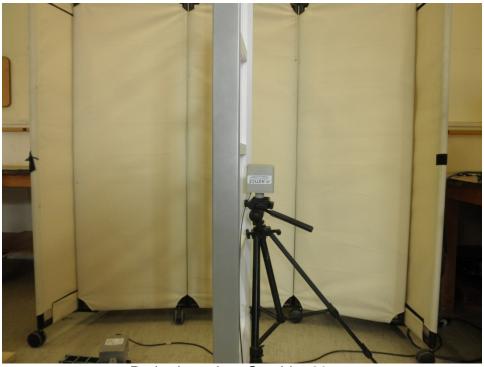
Probe Location, Outside, 30 cm



Probe Location, Outside, 60 cm



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Probe Location, Outside, 90 cm



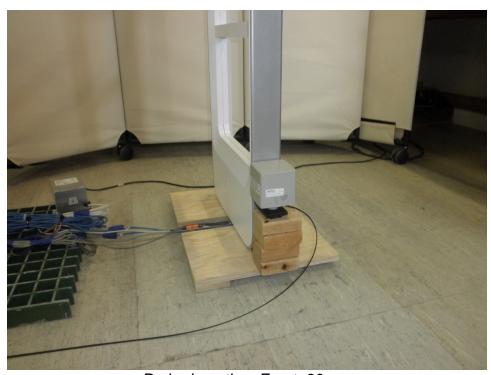
Probe Location, Outside, 120 cm



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Probe Location, Outside, 165 cm



Probe Location, Front, 30 cm



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Probe Location, Front, 60 cm



Probe Location, Front, 90 cm



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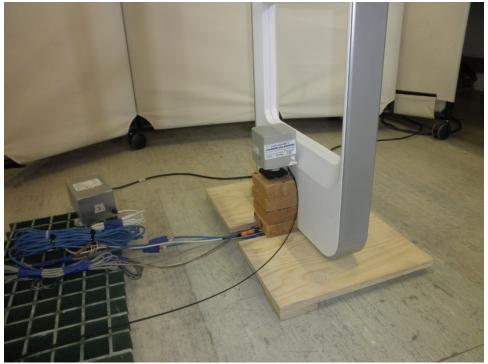
Probe Location, Front, 120 cm



Probe Location, Front, 165 cm



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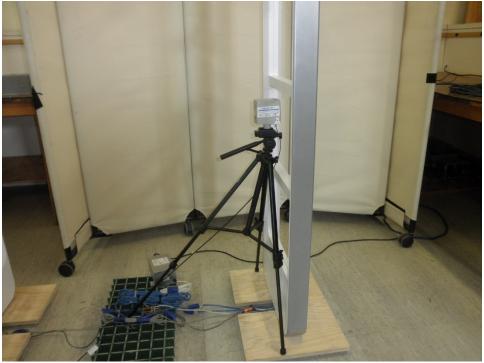
Probe Location, Inside, 30 cm



Probe Location, Inside, 60 cm



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Probe Location, Inside, 90 cm



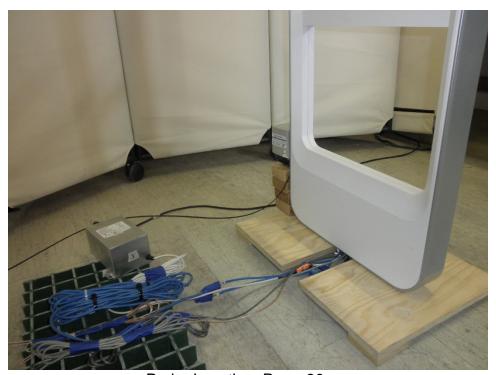
Probe Location, Inside, 120 cm



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Probe Location, Inside, 165 cm



Probe Location, Rear, 30 cm



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Probe Location, Rear, 60 cm



Probe Location, Rear, 90 cm



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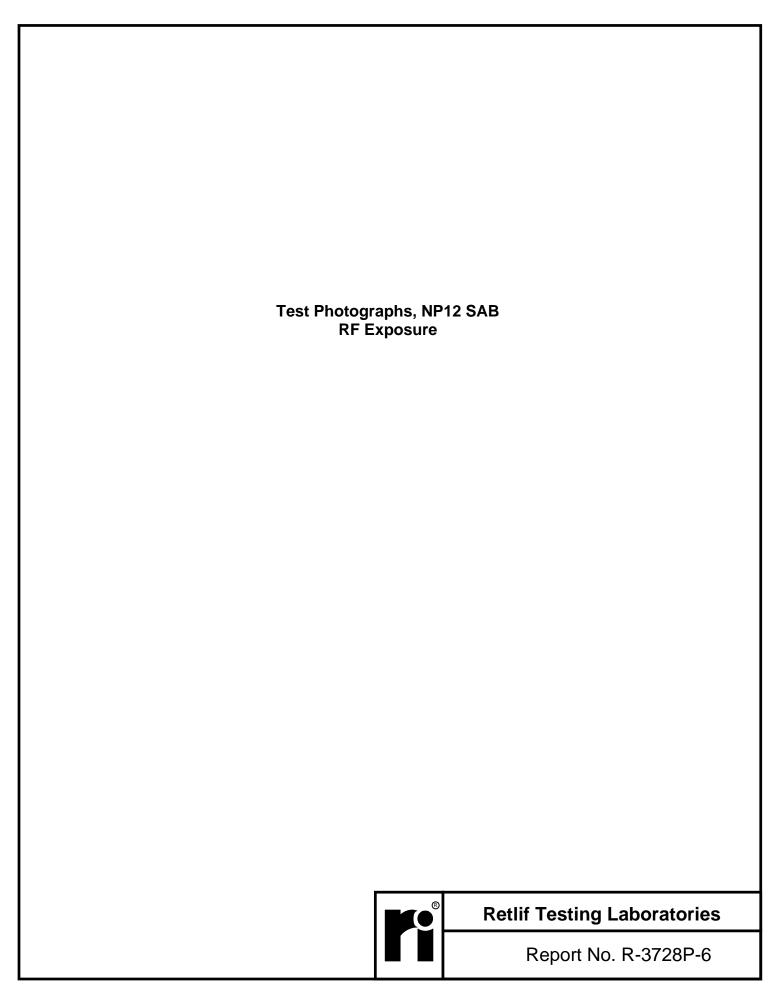
Probe Location, Rear, 120 cm

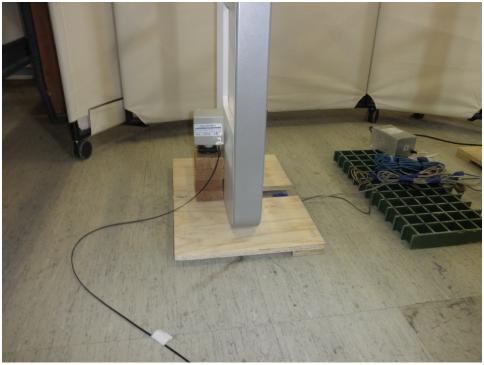


Probe Location, Rear, 165 cm



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Probe Location, Outside, 30 cm



Probe Location, Outside, 60 cm



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Probe Location, Outside, 90 cm



Probe Location, Outside, 120 cm



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