

RF Exposure Report

Project Number: 4364134

Proposal Number: 6939

Report Number: 4364134EMC03

Revision Level: 2

Client: Persistent Systems LLC

Equipment Under Test: S-Band Interchangeable Frequency Module

Model: RF-2150

Applicable Standards: 47 C.F.R. §§ 2.1091

FCC KDB 447498 D01 General RF Exposure Guidance v06

Prepared by:

A handwritten signature in blue ink, appearing to read 'Martin Taylor'.

Martin Taylor, Project Engineer

Reviewed by:

A handwritten signature in blue ink, appearing to read 'Stephen Whalen'.

Stephen Whalen, EMC Lab Manager

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Client Information

Name: Persistent Systems LLC
Address: 303 Fifth Ave. Suite 306
City, State, Zip, Country: New York, New York 10016, USA

1.1 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.2 General Information of EUT

Equipment Under Test: S-Band Interchangeable Frequency Module
Model: RF-2150
Serial Number: 33079
Host Marketing Name: MPU5
Frequency Range: 2412 to 2462 MHz
Modulation: 802.11 bgn
Antenna: ANT-2010 (8.5 dBi), ANT-2012 (4.1 dBi), ANT-2005 (2.15 dBi)

Sample Received Date: 17 September 2018
Dates of testing: 19 September to 17 December 2018

1.3 Operating Modes and Conditions

Evaluation was performed as specified in FCC KDB 558074 D01 v05 and FCC KDB 447498 D01.

2 RF Exposure

2.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

Using the maximum power (including tune-up tolerances), the power density was calculated. Maximum antenna gain was provided by the client for this exercise.

2.3 EUT Photographs

EUT with 3 high-gain (8.5dBi) antennas



EUT with 3 medium-gain (4.1dBi) antennas

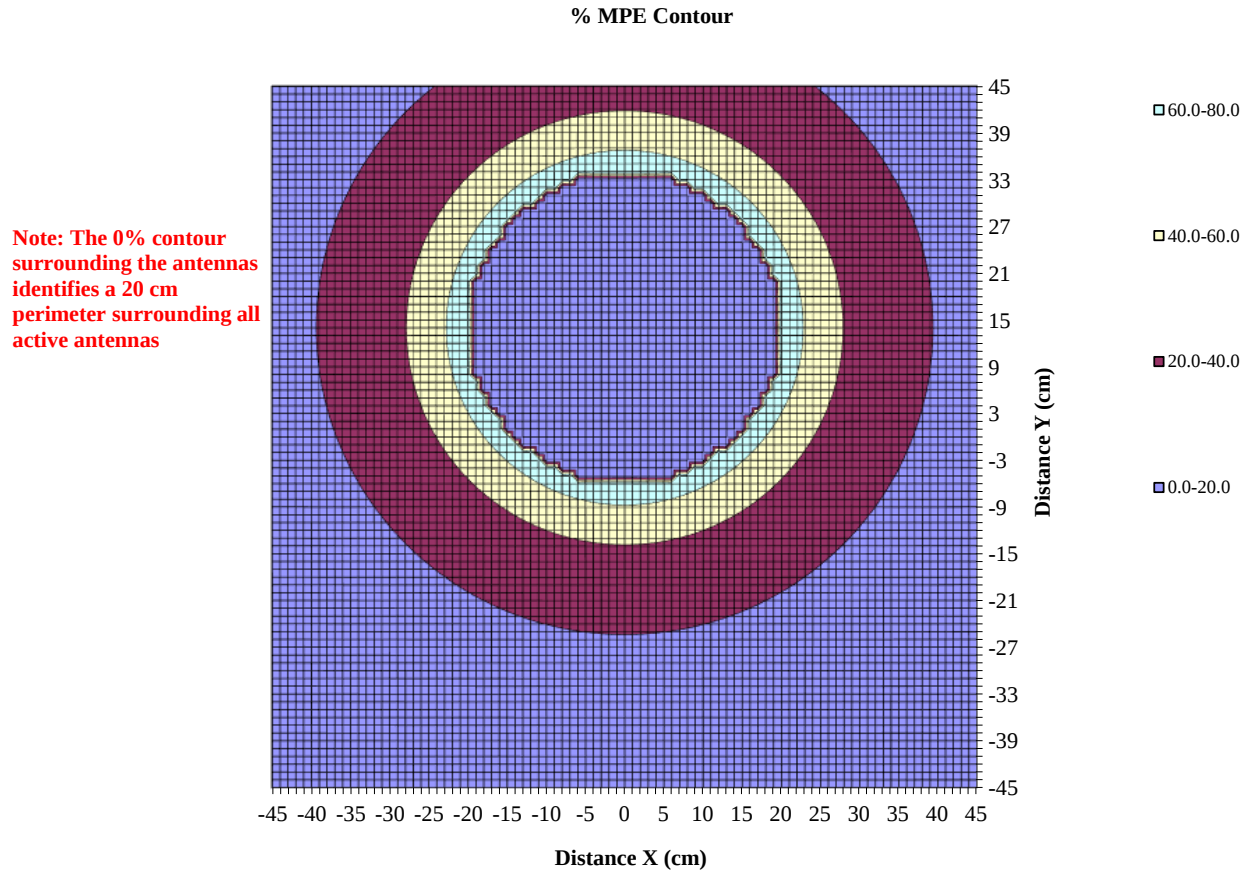


EUT with 3 low-gain (2.15dBi) antennas



2.4 Single, Double, Triple Transmission RF Exposure Levels (mW/cm^2)

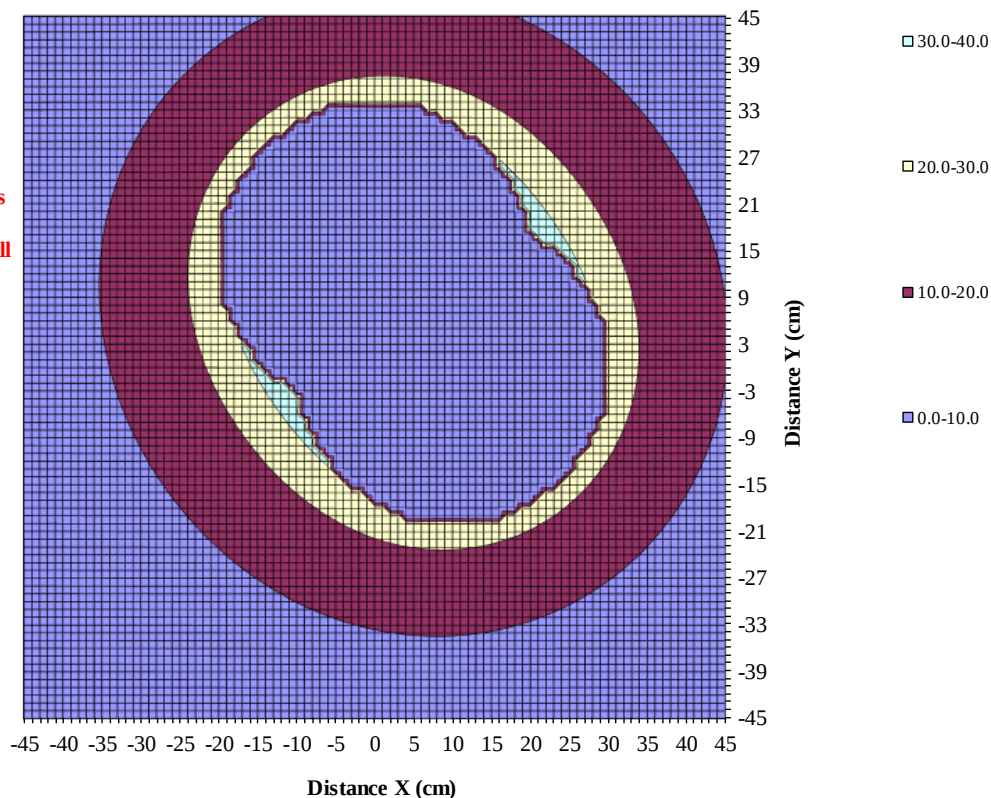
1 tx antenna @ 27.4dBm, gain = 8.5dBi



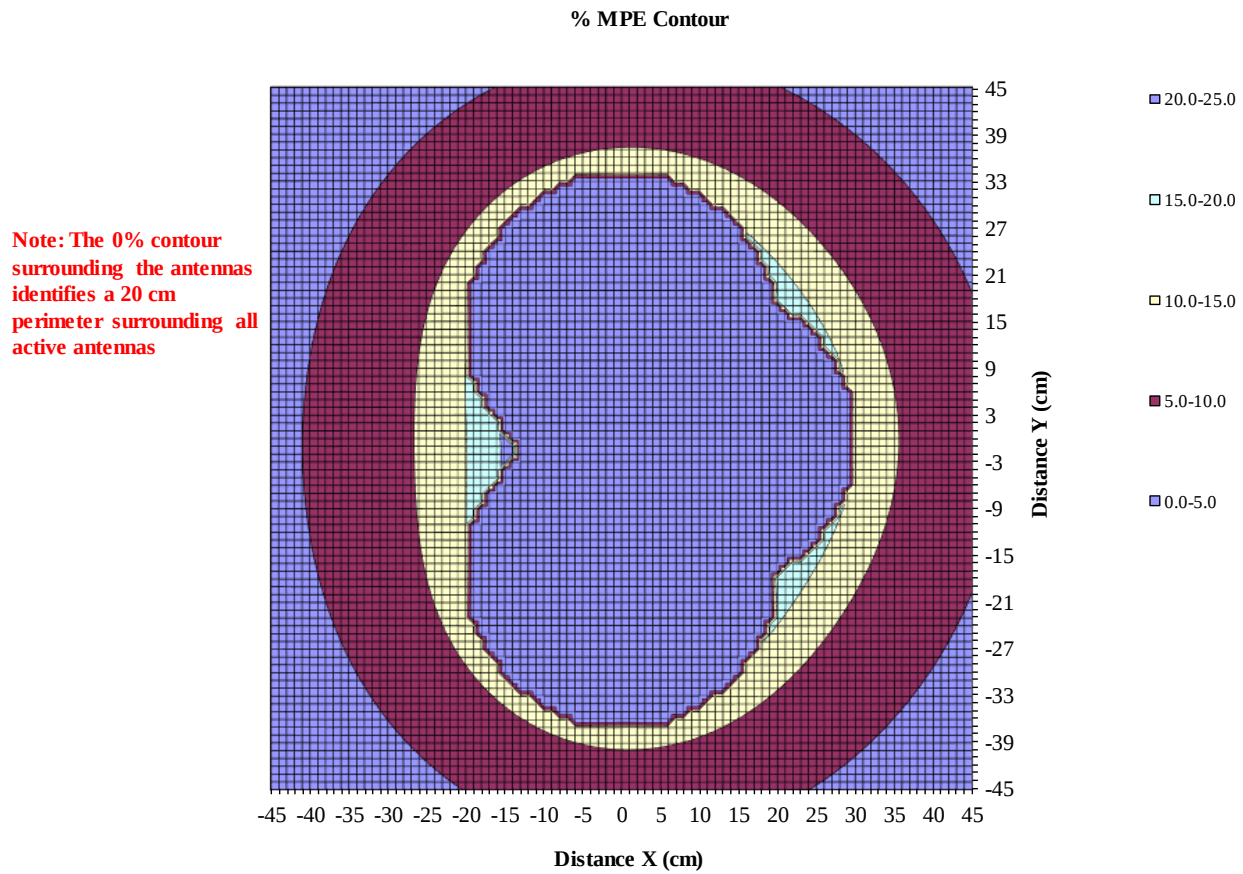
2 tx antennas @ 21.5dBm, gain for each = 8.5dBi

% MPE Contour

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



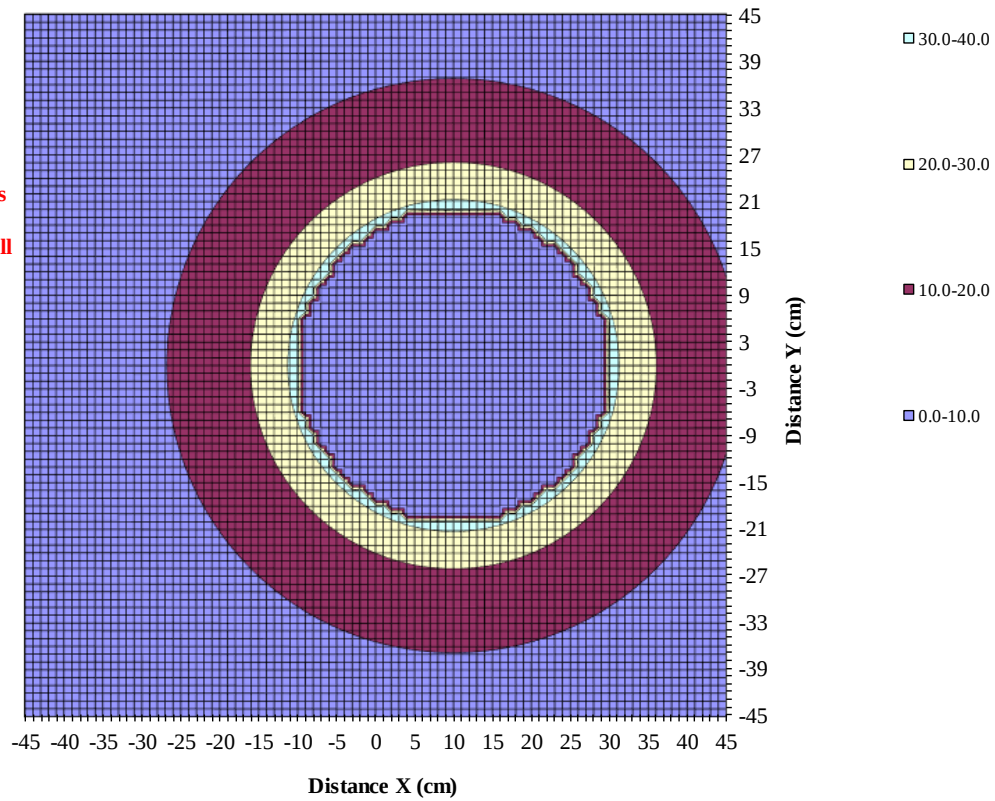
3 tx antennas @ 17.9dBm, gain for each = 8.5dBi



1 tx antenna @ 28.2dBm, gain = 4.1dBi

% MPE Contour

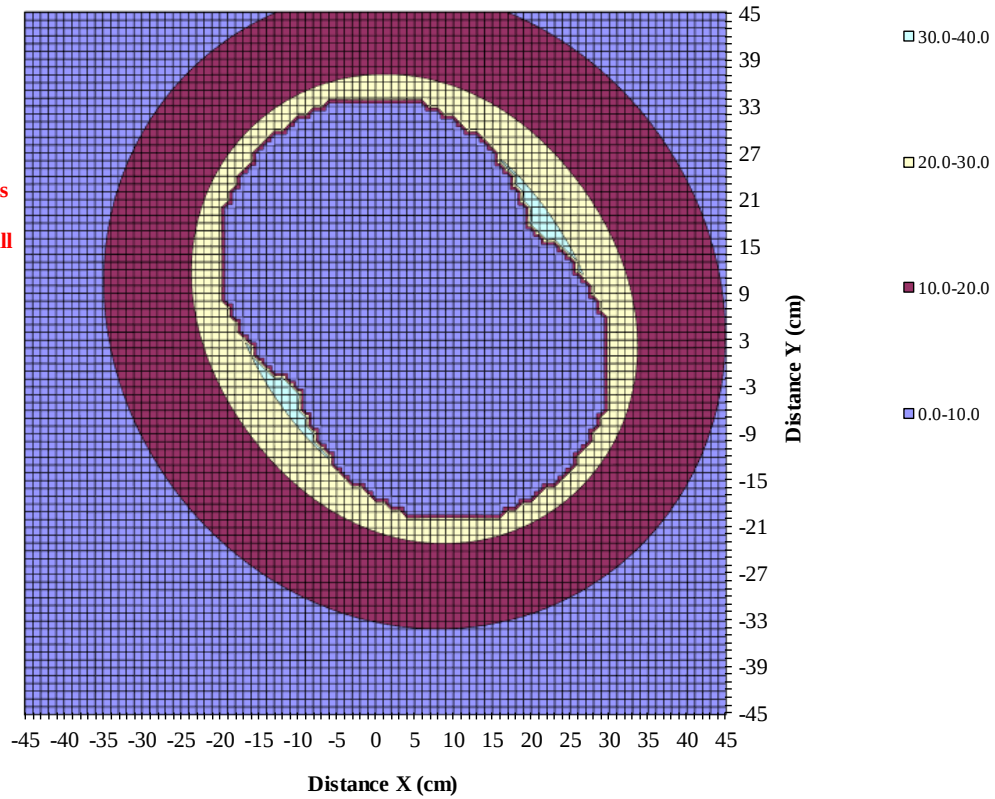
Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



2 tx Antennas @ 25.8dBm, gain for each = 4.1dBi

% MPE Contour

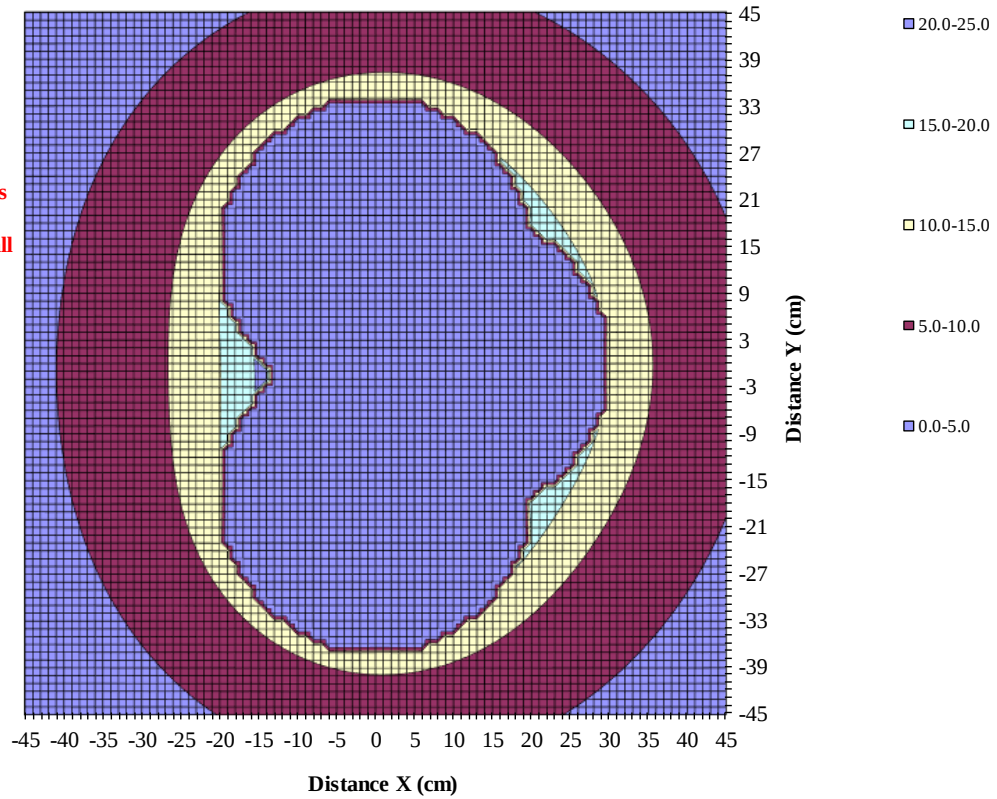
Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



3 tx antennas @ 22.3dBm, gain for each = 4.1dBi

% MPE Contour

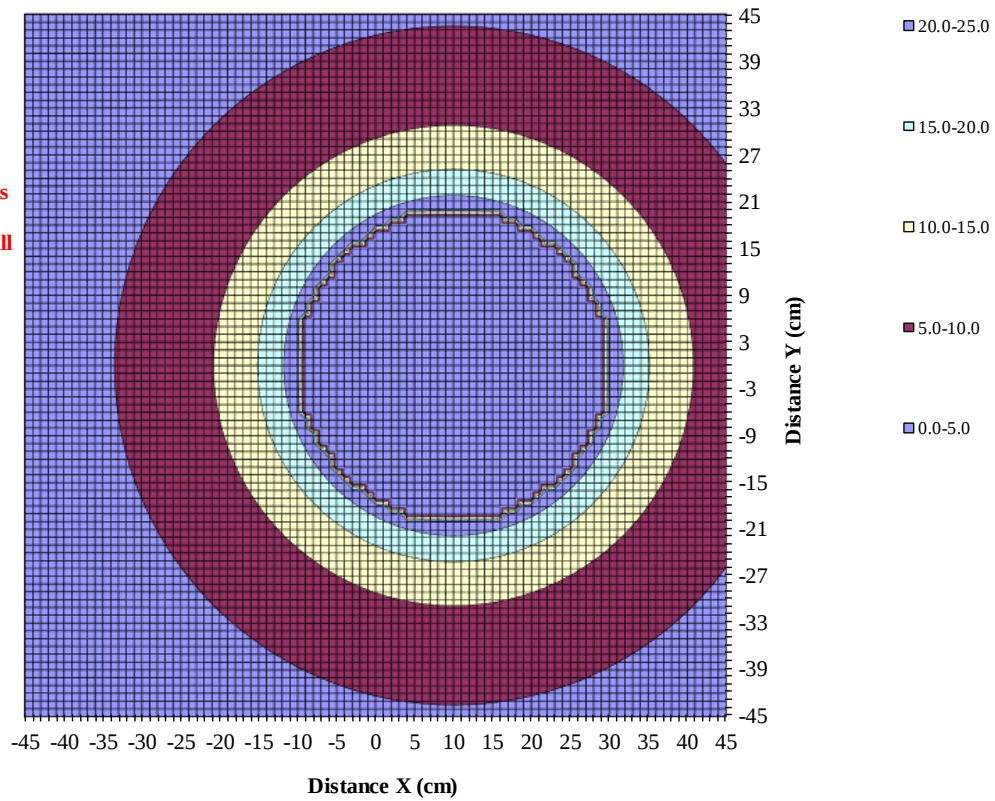
Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



1 tx antenna @ 28.6dBm, gain = 2.15dBi

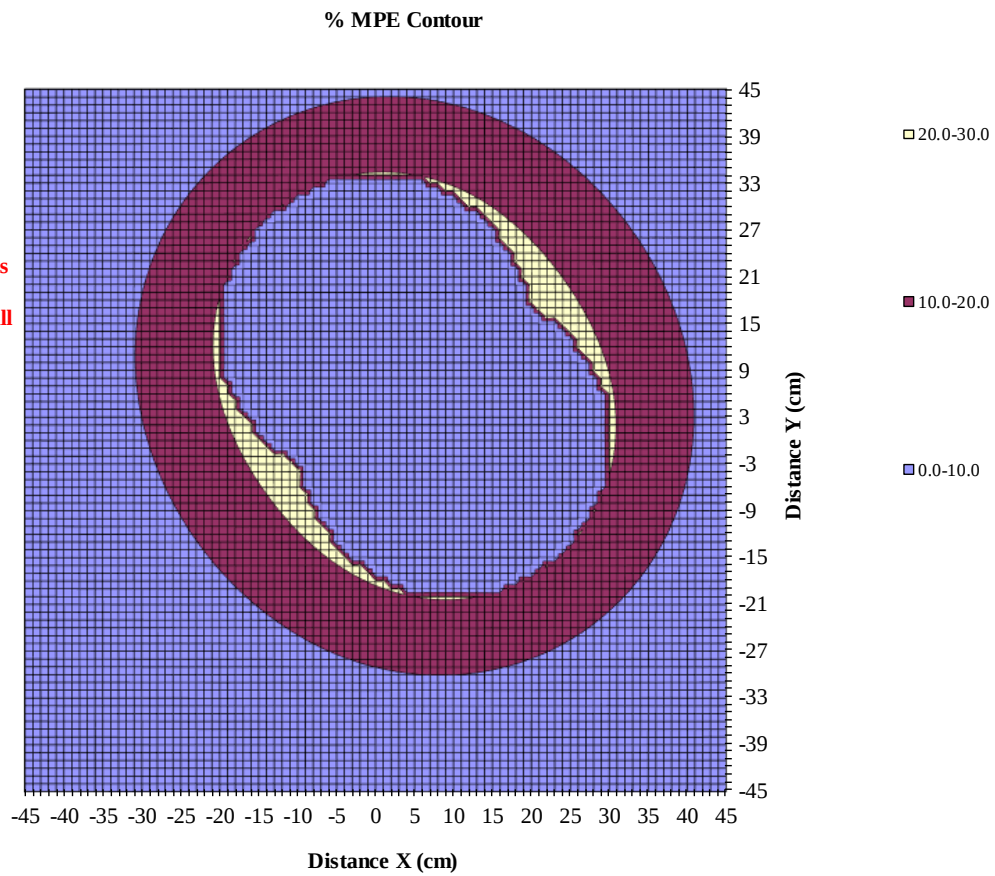
% MPE Contour

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



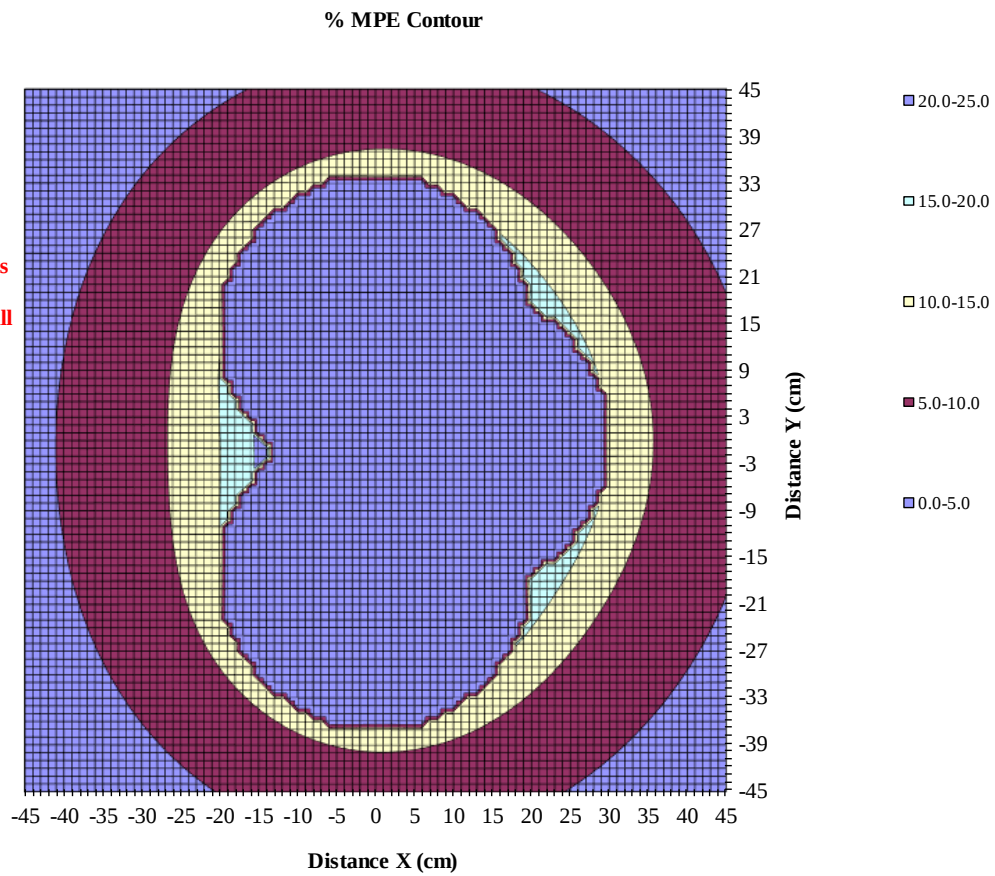
2 tx Antennas @ 26.8dBm, gain for each = 2.15dBi

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



3 tx Antennas @ 24.3dBm, gain for each = 2.15dBi

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas



3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	27 March 2019
1	Added photographs showing antenna configurations (section 2.3)	02 October 2019
2	Added signatures on title page Removed FCC part 2.1093 (portable devices) from title page	09 September 2020