

WIRELESSSITE

NIR Non-Ionizing Radiation Analysis

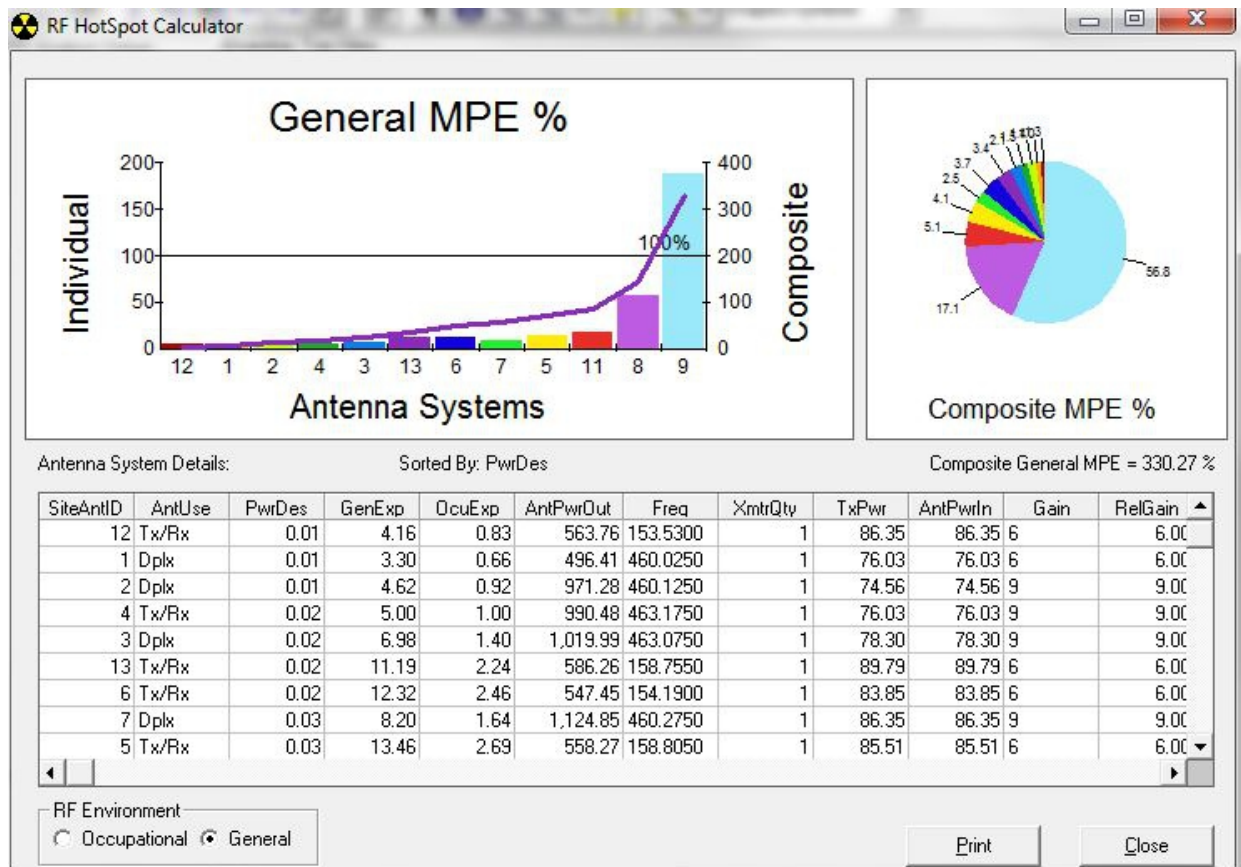
The Professional Tool For the Evaluation and Compliance of Non-Ionizing Radiation at Wireless Communication Sites.

WirelessSite-NIR Functional Overview

WirelessSiteNIR (WS-NIR) is an engineering software tool for evaluating non-ionizing radio frequency (RF) emissions and predicts the Maximum Permissible Exposure (MPE) potential to humans at or near wireless communication sites. The predicted RF emissions are evaluated against acceptable MPE limits as defined by specific established Standards. The analysis then determines if the communications site is in compliance with these Standards regarding safe human exposure to radio frequency radiation.

The RF HotSpot Calculator shown below allows the user to click on the antenna layout drawing at any location and calculates the individual antenna and composite RF exposure levels. It provides a summary of the exposure levels as well as a graphical representation of each contributor's exposure level percentage.. Results may be printed or saved as required.

The analysis considers all RF signals emanating from wireless communications system antennas defined by the user. These antennas can be located on communication towers, rooftops, poles or other types of antenna mounting structures.



Antennas can be easily activated or de-activated for a particular analysis to predict exposure levels for any particular communications system or individual antenna.

WS-NIR includes the following features:

On tower, off tower, Rooftop and other NIR analysis configurations

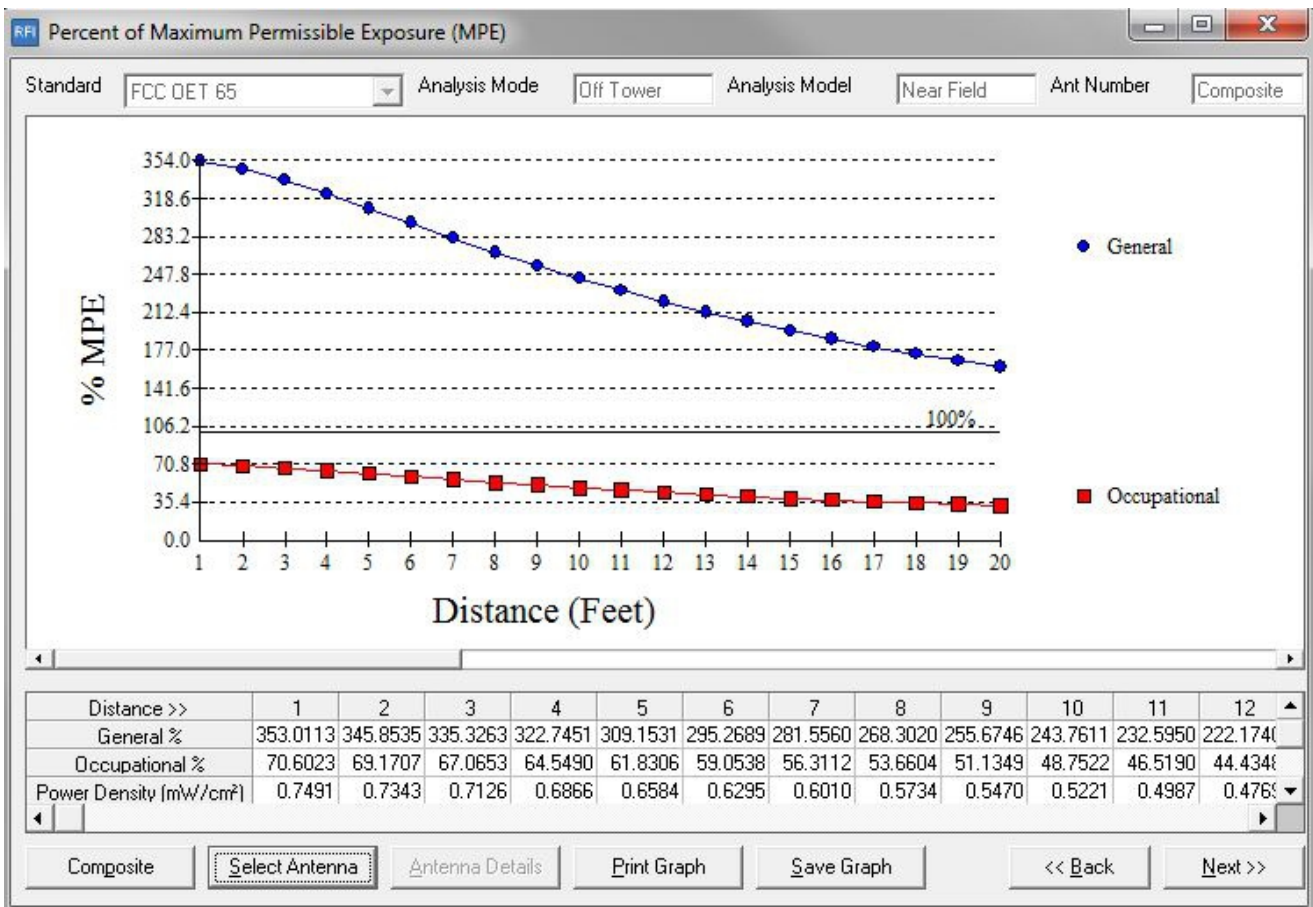
Exposure standards for the USA (FCC, ANSI/IEEE), UK, Australia (ARPANSA) Health Canada Safety Code 6 and other International Standards (ICNIRP)

Occupational/Controlled and General/Uncontrolled RF environment exposure evaluations

Near, Far and Near/Far Field prediction models

Evaluation along a single radial or 360 degree exposure analysis about a communications site (shown below)

View results on screen or create custom reports in Microsoft Word, which provides presentation quality reporting suitable for distribution



During the analysis, WS-NIR considers the following equipment and site factors:

- Transmitter power levels
 - Filter and other RF device losses
 - Transmission line losses
 - Antenna gain (published or relative gain based on the actual antenna radiation pattern)
 - Operating frequencies
 - Location of the human (Observer) with respect to antenna locations in both the horizontal and vertical planes

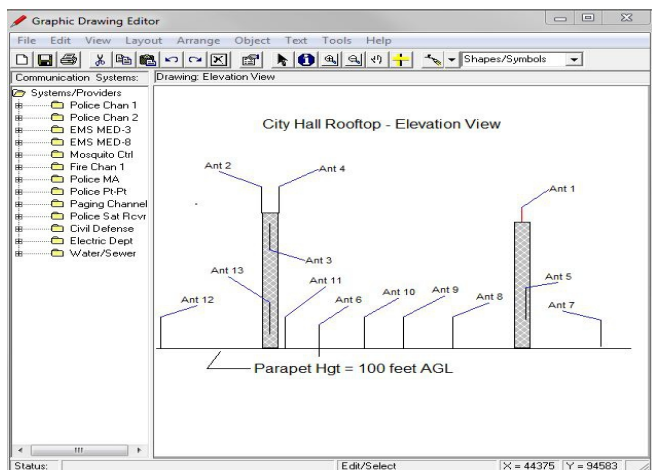
Graphic Drawing Editor

A full-featured Graphic Drawing Editor (GDE) is included. This tool is a comprehensive two-dimensional vector-based drawing application that allows the user to create antenna layout drawings to scale in record time. One may draw and lay out antenna systems for communications sites that include towers, rooftops or any other type of antenna mounting structures. The GDE has an Auto-Populate feature that utilizes the current communication system antenna data and automatically draws each antenna on the drawing to its scaled location. The Auto-Populate feature will also create a label for each antenna and provide a link-line to the associated antenna.

The GDE allows one to draw irregular shaped rooftops, penthouses, antenna mounting platforms as well as other objects, shapes and text. The user has full control of the drawing object attributes and can change any of them (ie. color, style, width, transparency, etc.). Merging other images into the drawing or setting an image, as a background to the drawing is just a couple of the many helpful features included with WS-NIR.

Once the antenna layout drawing has been created, it will be utilized for displaying the results of the MPE analysis. The results may be viewed on-screen as well as by create reports that contain the MPE analysis overlaid on the antenna drawing image.

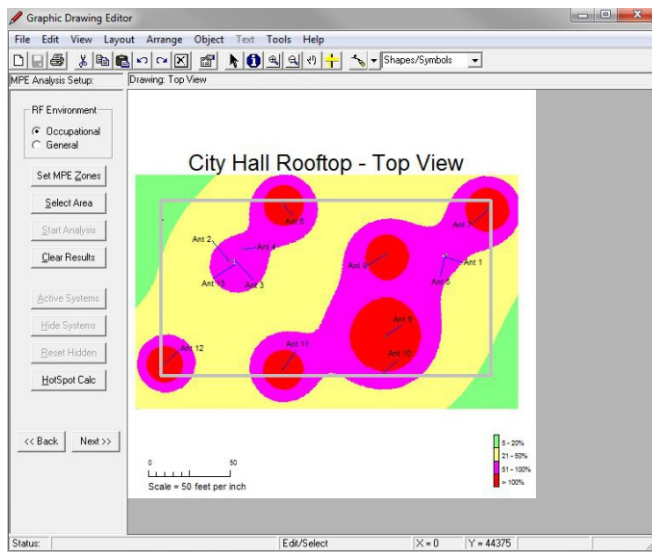
The user may define the analysis area with a selection rectangle that is re-sizeable on demand. The analysis definition area is stored for future evaluations.



NIR Exposure Analysis

When performing a 360-degree analysis of an area, the results are displayed in the GDE. The analysis depicts the MPE exposure levels as differing colored zones overlaid on the drawing. Each color represents a particular exposure level and the colors are user selectable.

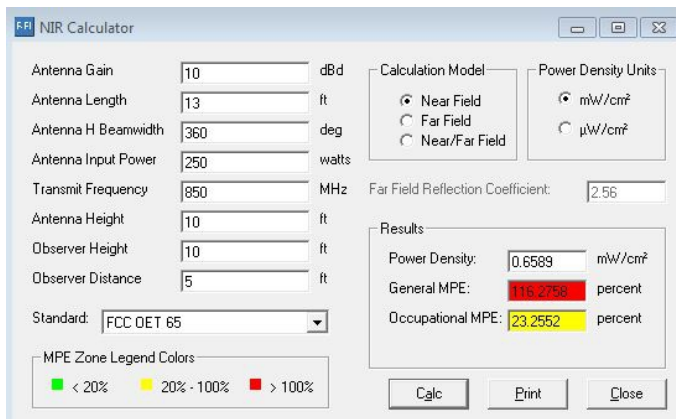
The drawing is scalable with a maximum size of 2,000 by 2,000 feet with an accuracy of plus or minus 0.1 foot.



NIR Calculator

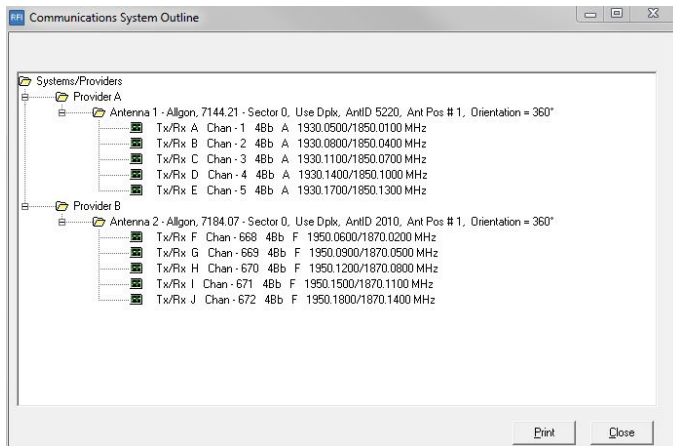
The NIR Calculator is an easy to use "back-pocket" calculator, which provides a quick method of calculating MPE levels for a single antenna. The user may select Near/Far field modeling based on a particular MPE Standard.

The results are displayed and the background color for the General and Occupational MPE levels reflect various exposure zone classification colors. Printing or saving results may be performed as required.



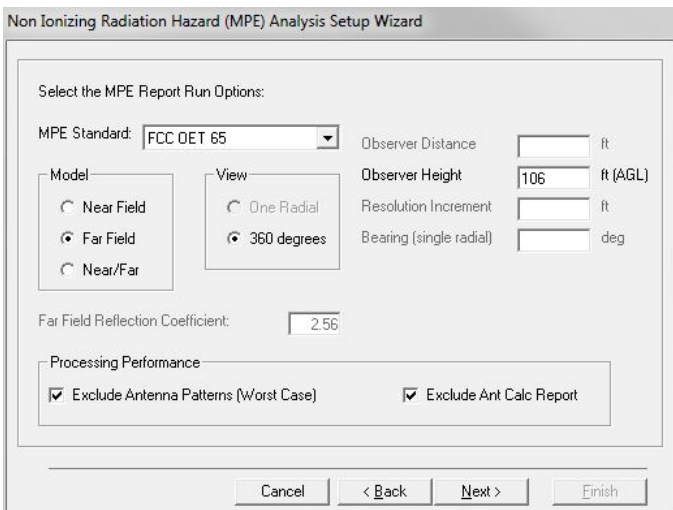
View Site Data in Outline Form

When Site files include many communication systems, it helps to get an overall perspective of how the Site is configured. The View System Outline feature provides this visibility. The Site data is displayed in a hierarchical tree view format.



NIR Analysis Setup Wizard

A NIR Analysis Setup Wizard provides a simple step-by-step method for setting up the non-ionizing RF exposure analysis and report options.



Custom Reports

WS-NIR automatically performs the exposure analysis and create a custom report in Microsoft Word. The document is concise and provides a presentation quality report suitable for distribution to engineers, managers, city/county governments, siting councils and other agencies requiring proof of non-ionizing radiation exposure compliance.

The report includes a customizable Cover Page, Table of Contents, Executive Summary, Site description, Communications systems, Antenna systems, Frequency listings, Graphs, Images and Tables depicting the analysis results.

Full Featured and Easy To Use

Calculates antenna spacing distances and isolation values for horizontal, vertical and other complex antenna positioning configurations.

Distance/Azimuth, Unit Conversion and Antenna Space Loss calculators.

Data entry defaults, lookup tables, and list boxes minimize keystrokes and avoid data entry errors.

Online help and tutorials available to get you up and running fast.

270 Page User Guide.

Program and Library updates available on the Internet.

Network version available.

System Requirements

System requirements vary with the WS-NIR configuration you purchase. The basic minimum requirements are listed below:

Pentium III, 1 GHz processor or equivalent.

Windows 7 or higher.

1 GB of RAM.

60 MB minimum hard disk space.

SVGA monitor.

CD-ROM drive.

A printer supported by Windows.

MicroSoft Word 2007 or higher installed on computer.

We Also Offer...

Custom software design and development.

Wireless site and equipment asset management software and services.

Wireless site interference analysis software.

Communications system consultation services.

RF basic online training.

Software application online training.

Riverview Software Solutions, LLC



1295 South Sauty Road
Langston, AL 35755

Phone: 256-582-9652

U.S. Veteran Owned Business

www.RiverviewSoftwareSolutions.com

All prices and specifications are subject to change without notice.
Copyright 2010 - 2022, Riverview Software Solutions, LLC All rights reserved.