



# LigoWave Link Analysis Report

Date Generated: 7/30/2013 3:36 PM EST

## Site Information

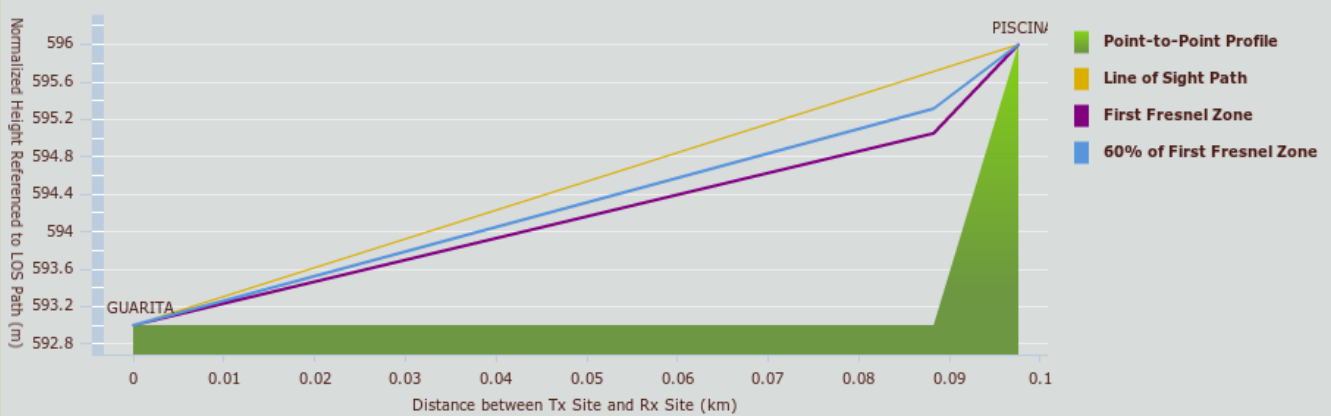
|                     |                               |                     |                               |
|---------------------|-------------------------------|---------------------|-------------------------------|
| <b>Tx Site Name</b> | <a href="#">GUARITA</a>       | <b>Rx Site Name</b> | <a href="#">PISCINA</a>       |
| <b>Radio Type</b>   | LigoPTP 5 Mimo                | <b>Radio Type</b>   | LigoPTP 5 Mimo                |
| <b>Latitude</b>     | 20° 30' 21.8285 S (20.506063) | <b>Latitude</b>     | 20° 30' 20.2096 S (20.505614) |
| <b>Longitude</b>    | 54° 35' 31.7056 W (54.59214)  | <b>Longitude</b>    | 54° 35' 28.8088 W (54.591336) |
| <b>Tx Power</b>     | 25 dBm                        | <b>RX Threshold</b> | -94 dBm                       |
| <b>Ant. Gain</b>    | 12 dBi                        | <b>Ant. Gain</b>    | 12 dBi                        |
| <b>Ant. Height</b>  | 3 meters                      | <b>Ant. Height</b>  | 3 meters                      |

## Parameters

|                          |          |                    |                       |
|--------------------------|----------|--------------------|-----------------------|
| <b>Frequency</b>         | 5800 MHz | <b>Climate</b>     | Continental Temperate |
| <b>Ant. Polarization</b> | Vertical | <b>Measurement</b> | Metric System         |
| <b>Misc. Loss</b>        | 0 dBm    | <b>Rain Rate</b>   | 0 mm/hr               |

## Results

|                        |        |                                      |         |
|------------------------|--------|--------------------------------------|---------|
| <b>Total Path Loss</b> | 0 dBm  | <b>Total Fade Margin</b>             | 143 dBm |
| <b>RX Signal Level</b> | 49 dBm | <b>Distance between sites</b>        | 0.1 km  |
| <b>EIRP</b>            | 37 dBm | <b>Link availability due to rain</b> | N/A     |



## MAP



DISCLAIMER: These results are provided with no guarantee or warranty.

| 20MHz CHANNEL |          |             |              |       |                |
|---------------|----------|-------------|--------------|-------|----------------|
| MODULATION    | RX LEVEL | FADE MARGIN | AVAILABILITY | TX/RX | MAX THROUGHPUT |
| BPSK 1/2      | 49 dBm   | 143 dBm     | N/A%         | 1X1   | 6 Mbps         |
| QPSK 1/2      | 49 dBm   | 140 dBm     | N/A%         | 1X1   | 12 Mbps        |
| QPSK 3/4      | 49 dBm   | 138 dBm     | N/A%         | 1X1   | 18 Mbps        |
| 16-QAM 1/2    | 48 dBm   | 134 dBm     | N/A%         | 1X1   | 22 Mbps        |
| 16-QAM 3/4    | 46 dBm   | 128 dBm     | N/A%         | 1X1   | 38 Mbps        |
| 64-QAM 2/3    | 45 dBm   | 122 dBm     | N/A%         | 1X1   | 44 Mbps        |
| 64-QAM 3/4    | 44 dBm   | 119 dBm     | N/A%         | 1X1   | 50 Mbps        |
| 64-QAM 5/6    | 43 dBm   | 116 dBm     | N/A%         | 1X1   | 55 Mbps        |
| BPSK 1/2      | 49 dBm   | 143 dBm     | N/A%         | 2X2   | 12 Mbps        |
| QPSK 1/2      | 49 dBm   | 140 dBm     | N/A%         | 2X2   | 24 Mbps        |
| QPSK 3/4      | 49 dBm   | 138 dBm     | N/A%         | 2X2   | 36 Mbps        |
| 16-QAM 1/2    | 48 dBm   | 134 dBm     | N/A%         | 2X2   | 44 Mbps        |
| 16-QAM 3/4    | 46 dBm   | 128 dBm     | N/A%         | 2X2   | 76 Mbps        |
| 64-QAM 2/3    | 45 dBm   | 122 dBm     | N/A%         | 2X2   | 88 Mbps        |
| 64-QAM 3/4    | 44 dBm   | 119 dBm     | N/A%         | 2X2   | 100 Mbps       |
| 64-QAM 5/6    | 43 dBm   | 116 dBm     | N/A%         | 2X2   | 110 Mbps       |

| 40MHz CHANNEL |          |             |              |       |                |
|---------------|----------|-------------|--------------|-------|----------------|
| MODULATION    | RX LEVEL | FADE MARGIN | AVAILABILITY | TX/RX | MAX THROUGHPUT |
| BPSK 1/2      | 49 dBm   | 143 dBm     | N/A%         | 1X1   | 12 Mbps        |
| QPSK 1/2      | 49 dBm   | 140 dBm     | N/A%         | 1X1   | 24 Mbps        |
| QPSK 3/4      | 49 dBm   | 138 dBm     | N/A%         | 1X1   | 36 Mbps        |
| 16-QAM 1/2    | 48 dBm   | 134 dBm     | N/A%         | 1X1   | 44 Mbps        |
| 16-QAM 3/4    | 46 dBm   | 128 dBm     | N/A%         | 1X1   | 76 Mbps        |
| 64-QAM 2/3    | 45 dBm   | 122 dBm     | N/A%         | 1X1   | 88 Mbps        |
| 64-QAM 3/4    | 44 dBm   | 119 dBm     | N/A%         | 1X1   | 100 Mbps       |
| 64-QAM 5/6    | 43 dBm   | 116 dBm     | N/A%         | 1X1   | 110 Mbps       |
| BPSK 1/2      | 49 dBm   | 143 dBm     | N/A%         | 2X2   | 24 Mbps        |
| QPSK 1/2      | 49 dBm   | 140 dBm     | N/A%         | 2X2   | 48 Mbps        |
| QPSK 3/4      | 49 dBm   | 138 dBm     | N/A%         | 2X2   | 72 Mbps        |
| 16-QAM 1/2    | 48 dBm   | 134 dBm     | N/A%         | 2X2   | 88 Mbps        |
| 16-QAM 3/4    | 46 dBm   | 128 dBm     | N/A%         | 2X2   | 115 Mbps       |
| 64-QAM 2/3    | 45 dBm   | 122 dBm     | N/A%         | 2X2   | 135 Mbps       |
| 64-QAM 3/4    | 44 dBm   | 119 dBm     | N/A%         | 2X2   | 160 Mbps       |
| 64-QAM 5/6    | 43 dBm   | 116 dBm     | N/A%         | 2X2   | 180 Mbps       |

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