

# Microwave Path Data Sheet

Page 1 of 1

## COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA, 20147  
(858)232-4372 [www.comsearch.com](http://www.comsearch.com)

PCN Date: 03/15/2011

Prev Job Num: 110126COMSSL07

Job Number: 110315COMSSL06

RCN Number: 11031526

### Administrative Information

**CA-SFO5000 CA**  
City/County Burlingame/San Mateo  
Status / License Basis Engineering Proposal / PRIMARY OPERATION  
Call Sign  
Licensee Code CLESP3  
Licensee Name Clearwire Spectrum Holdings III, LL  
Radio Service / Station Class MG -- Microwave Industrial/Business Pool

### CA-SFO0326C CA

Burlingame/San Mateo  
Engineering Proposal / PRIMARY OPERATION  
WQLZ449  
CLESP3  
Clearwire Spectrum Holdings III, LL  
FXO -- Fixed

### Site Information

|                                  |                                  |                             |
|----------------------------------|----------------------------------|-----------------------------|
| Latitude (NAD 83)                | 37 ° <u>35</u> ' <u>59.0</u> " N | 37 ° 35' 37.9" N            |
| Longitude (NAD 83)               | 122 ° 22' <u>42.8</u> " W        | 122 ° 21' 54.9" W           |
| Ground Elevation (m/ft-AMSL)     | <u>3.30</u> / <u>10.8</u>        | 2.40 / 7.9                  |
| Antenna Structure Registration # | <u>1201490</u>                   |                             |
| Path Azimuth (°)                 | <u>118.966</u>                   | <u>298.974</u>              |
| Path Length (km / miles)         |                                  | <u>1.343</u> / <u>0.835</u> |

### Transmit Antenna

|                                    |                           |                            |
|------------------------------------|---------------------------|----------------------------|
| Manufacturer                       | 99141R                    | 99141R                     |
| Model                              | RADIO WAVES, INC          | RADIO WAVES, INC           |
|                                    | HPCPE-23                  | HPCPE-23                   |
| Gain(dBi) / Beamwidth(°) / Tilt(°) | 34.4 / 2.90 / <u>1.44</u> | 34.4 / 2.90 / <u>-1.45</u> |
| Centerline (m / ft – AGL)          | 12.19 / 40.0              | 46.94 / 154.0              |

### Receive Antenna

Same As Transmit

Manufacturer  
Model  
Gain (dBi) / Beamwidth (°)  
Centerline (m / ft – AGL)

### Diversity Receive Antenna

Manufacturer  
Model  
Gain (dBi) / Beamwidth (°)  
Centerline (m / ft – AGL)

### Radio Information

|                                  |                             |                             |
|----------------------------------|-----------------------------|-----------------------------|
| Manufacturer                     | TEMU07                      | TEMU07                      |
| Model                            | DRAGONWAVE INC              | DRAGONWAVE INC              |
|                                  | 23HS50HFC364V01             | 23HS50HFC364V01             |
| Model Description                | HORIZON DUO                 | HORIZON DUO                 |
| Emission Designator / Modulation | 47M1D7W 256 QAM             | 47M1D7W 256 QAM             |
| Loading                          | 1 CH DIG 364000.000         | 1 CH DIG 364000.000         |
| Stability (%)                    | 0.001                       | 0.001                       |
|                                  | Nominal Coordinated Maximum | Nominal Coordinated Maximum |
| Power (dBm)                      | 16.0                        | 16.0                        |
| Received Level (dBm)             | <u>-37.1</u>                | <u>-37.1</u>                |
| EIRP (dBm)                       | 50.4                        | 50.4                        |
| Fixed Loss: Tx / Common (dB)     | 0.0 / 0.0                   | 0.0 / 0.0                   |
| Free Space Loss (dB)             |                             | <u>121.9</u>                |

**Transmit Frequencies (MHz)** 23225.0000V(5)

22025.0000V(5)