

Microwave Path Data Sheet

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COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA, 20147
(858)232-4372 www.comsearch.com

PCN Date: 11/12/2010

Job Number: 101112COMSSL03

Prev Job Num: 100819COMSSL02

RCN Number: 10111202

Administrative Information

CA-SJC0045B CA
City/County Milpitas/Santa Clara
Status / License Basis Engineering Proposal / PRIMARY OPERATION
Call Sign WQLY446
Licensee Code CLESP3
Licensee Name Clearwire Spectrum Holdings III, LL
Radio Service / Station Class MG -- Microwave Industrial/Business Pool

CA-SJC0096A CA

San Jose/Santa Clara
Engineering Proposal / PRIMARY OPERATION
WQLY658
CLESP3
Clearwire Spectrum Holdings III, LL
FXO -- Fixed

Site Information

Latitude (NAD 83)	37 °24' 11.0" N	37 °23' <u>25.0</u> " N
Longitude (NAD 83)	121 °54' 41.0" W	121 °55' <u>3.0</u> " W
Ground Elevation (m/ft-AMSL)	11.00 / 36.1	9.50 / 31.2
Antenna Structure Registration #		1015129
Path Azimuth (°)	<u>200.887</u>	<u>20.884</u>
Path Length (km / miles)		<u>1.518</u> / <u>0.943</u>

Transmit Antenna

80014A	80014A
ANDREW CORPORATION	ANDREW CORPORATION
VHLP1-23A	VHLP1-23A
Gain(dBi) / Beamwidth(°) / Tilt(°) 35.3 / 3.00 / <u>-0.38</u>	35.3 / 3.00 / <u>0.37</u>
Centerline (m / ft - AGL) 29.26 / 96.0	20.73 / 68.0

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

TEMQ16	TEMQ16
DRAGONWAVE INC	DRAGONWAVE INC
23HD50SFC322V02	23HD50SFC322V02
HORIZON DUO	HORIZON DUO
Emission Designator / Modulation 45M8D7W 256 QAM	45M8D7W 256 QAM
Loading 1 CH DIG 322000.000	1 CH DIG 322000.000
Stability (%) 0.001	0.001
Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm) 5.5	5.5
Received Level (dBm) <u>-46.9</u>	<u>-46.9</u>
EIRP (dBm) 40.8	40.8
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB) <u>123.0</u>	

Transmit Frequencies (MHz)	23125.0000V(3)	23275.0000V(6)	21925.0000V(3)	22075.0000V(6)
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PCN Date: 11/12/2010

Prev Job Num: 100819COMSSL02

Job Number 101112COMSSL03

RCN Number: 10111202

Administrative Information

CA-SJC0090C CA
 City/County Santa Clara/Santa Clara
 Status / License Basis Engineering Proposal / PRIMARY OPERATION
 Call Sign WQLY660
 Licensee Code CLESP3
 Licensee Name Clearwire Spectrum Holdings III, LL
 Radio Service / Station Class MG -- Microwave Industrial/Business Pool

CA-SJC0096A CA

San Jose/Santa Clara
 Engineering Proposal / PRIMARY OPERATION
 WQLY658
 CLESP3
 Clearwire Spectrum Holdings III, LL
 FXO -- Fixed

Site Information

Latitude (NAD 83)	37 °23' 40.0" N	37 °23' <u>25.0</u> " N
Longitude (NAD 83)	121 °56' 41.2" W	121 °55' <u>3.0</u> " W
Ground Elevation (m/ft-AMSL)	6.40 / 21.0	9.50 / 31.2
Antenna Structure Registration #		1015129
Path Azimuth (°)	<u>100.830</u>	<u>280.846</u>
Path Length (km / miles)		<u>2.459</u> / <u>1.528</u>

Transmit Antenna

87205A	87205A
Manufacturer ANDREW CORPORATION	ANDREW CORPORATION
Model VHLP2-23B	VHLP2-23B
Gain(dBi) / Beamwidth(°) / Tilt(°) 40.5 / 1.70 / -0.05	40.5 / 1.70 / 0.03
Centerline (m / ft - AGL) 22.56 / 74.0	17.68 / 58.0

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

TEMQ16	TEMQ16
Manufacturer DRAGONWAVE INC	DRAGONWAVE INC
Model 23HD50SFC322V02	23HD50SFC322V02
Model Description HORIZON DUO	HORIZON DUO
Emission Designator / Modulation 45M8D7W 256 QAM	45M8D7W 256 QAM
Loading 1 CH DIG 322000.000	1 CH DIG 322000.000
Stability (%) 0.001	0.001
	Nominal Coordinated Maximum
Power (dBm) 5.5	5.5
Received Level (dBm) <u>-40.7</u>	<u>-40.7</u>
EIRP (dBm) 46.0	46.0
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB)	<u>127.2</u>

Transmit Frequencies (MHz)	23075.0000V(2)	23225.0000V(5)	21875.0000V(2)	22025.0000V(5)
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