

Microwave Path Data Sheet

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COMSEARCH

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

PCN Date: 05/17/2011

Job Number: 110517COMSSL02

New Path

RCN Number: 11051701

Administrative Information

CA-SFO0263A CA
City/County San Leandro/Alameda
Status / License Basis Engineering Proposal / PRIMARY OPERATION
Call Sign WQLY403
Licensee Code CLESP3
Licensee Name Clearwire Spectrum Holdings III, LL
Radio Service / Station Class MG -- Microwave Industrial/Business Pool

CA-SFO0286A CA

Hayward/Alameda
Engineering Proposal / PRIMARY OPERATION
WQLY217
CLESP3
Clearwire Spectrum Holdings III, LL
FXO -- Fixed

Site Information

Latitude (NAD 83)	37 ° 42' 12.3" N	37 ° 39' 25.7" N
Longitude (NAD 83)	122 ° 8' 26.6" W	122 ° 5' 40.4" W
Ground Elevation (m/ft-AMSL)	12.80 / 42.0	22.20 / 72.8
Antenna Structure Registration #		
Path Azimuth (°)	141.576	321.604
Path Length (km / miles)	6.555 / 4.073	

Transmit Antenna

77041A	77083A
Manufacturer ANDREW CORPORATION	ANDREW CORPORATION
Model VHLP2.5-11	VHLP2-11A
Gain(dBi) / Beamwidth(°) / Tilt(°) 37.5 / 2.10 / -0.08	34.4 / 3.30 / 0.04
Centerline (m / ft - AGL) 39.01 / 128.0	22.86 / 75.0

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

TEM028	TEM028
Manufacturer DRAGONWAVE INC	DRAGONWAVE INC
Model 11HD40HFC212V02	11HD40HFC212V02
Model Description HORIZON DUO	HORIZON DUO
Emission Designator / Modulation 34M4D7W 128 QAM	34M4D7W 128 QAM
Loading 1 CH DIG 212000.000	1 CH DIG 212000.000
Stability (%) 0.001	0.001
Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm) 16.0	16.0
Received Level (dBm) -41.9	-41.9
EIRP (dBm) 53.5	50.4
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB) 129.8	

Transmit Frequencies (MHz)	11465.0000H(7)	11625.0000H(11)	10975.0000H(7)	11135.0000H(11)
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PCN Date: 05/17/2011

Job Number 110517COMSSL02

New Path

RCN Number: 11051701

Administrative Information

CA-SFO0314A CA
City/County Union City/Alameda
Status / License Basis Engineering Proposal / PRIMARY OPERATION
Call Sign WQLY322
Licensee Code CLESP3
Licensee Name Clearwire Spectrum Holdings III, LL
Radio Service / Station Class MG -- Microwave Industrial/Business Pool

CA-SFO0352A CA

Fremont/Alameda
Status / License Basis Engineering Proposal / PRIMARY OPERATION
Call Sign WQMM299
Licensee Code CLESP3
Licensee Name Clearwire Spectrum Holdings III, LL
Radio Service / Station Class FXO -- Fixed

Site Information

Latitude (NAD 83)	37 °36' 28.6" N	37 °33' 30.2" N
Longitude (NAD 83)	122 °2' 24.2" W	121 °58' 44.4" W
Ground Elevation (m/ft-AMSL)	15.30 / 50.2	17.20 / 56.4
Antenna Structure Registration #		
Path Azimuth (°)	135.545	315.583
Path Length (km / miles)	7.703 / 4.786	

Transmit Antenna

87059A	RB2160
Manufacturer ANDREW CORPORATION	RADIO WAVES, INC
Model VHLP2.5-18	HP4-18
Gain(dBi) / Beamwidth(°) / Tilt(°) 41.0 / 1.50 / -0.11	44.5 / 1.00 / 0.06
Centerline (m / ft - AGL) 32.61 / 107.0	19.39 / 63.6

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

TEM090	TEM090
Manufacturer DRAGONWAVE INC	DRAGONWAVE INC
Model 18HD50HFC215V02	18HD50HFC215V02
Model Description HORIZON DUO	HORIZON DUO
Emission Designator / Modulation 45M8D7W 64 QAM	45M8D7W 64 QAM
Loading 1 CH DIG 215000.000	1 CH DIG 215000.000
Stability (%) 0.001	0.001
Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm) 18.5	18.5
Received Level (dBm) -31.6	-31.6
EIRP (dBm) 59.5	63.0
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB) 135.6	

Transmit Frequencies (MHz)	19525.0000V(5)	19625.0000V(7)	17965.0000V(5)	18065.0000V(7)
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