

Microwave Path Data Sheet

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COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA, 20147

(703)726-5653 www.comsearch.com

PCN Date: 04/04/2006

Job Number: 060404COMSDS05

New Path

RCN Number: 06040437

Administrative Information

City/County
Status / License Basis
Call Sign
Licensee Code
Licensee Name
Radio Service / Station Class

PHOENIX AIR AZ

Goodyear/Maricopa
Engineering Proposal / PRIMARY OPERATION
Temporary Experimental License
BOWING
The Boeing Company
MG -- Microwave Industrial/Business Pool

RX1 AZ

Goodyear/Maricopa
Engineering Proposal / PRIMARY OPERATION

BOWING
The Boeing Company
FXO -- Fixed

Site Information

Latitude (NAD 83)
Longitude (NAD 83)
Ground Elevation (m/ft-AMSL)
Antenna Structure Registration #
Path Azimuth (°)
Path Length (km / miles)

Within 5Km centered around:

33 ° 25' 48.0" N
112 ° 21' 49.0" W
293.52 / 963.0

VARIOUS

VARIOUS

VARIOUS

Transmit Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00 / -0.16

6.00 / 19.7

Receive Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00

6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

Manufacturer
Model
Model Description
Emission Designator / Modulation
Loading
Stability (%)

Power (dBm)
Received Level (dBm)
EIRP (dBm)

Fixed Loss: Tx / Common (dB)
Free Space Loss (dB)

TEM195

HEWLETT-PACKARD COMPANY

HP SIGNAL GENERATOR

50M0A3N/NON

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

20.0

30.0

0.0 / 0.0

VARIOUS

999999

RECEIVE

ONLY

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

VARIOUS

0.0 / 0.0

Transmit Frequencies (MHz)

933V-960V,
1850V – 1990V,
1990V-2100V,
3700V- 4200V,
5925 – 5975V

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New Path

RCN Number: 06040437

Administrative Information

City/County /Pinal
 Status / License Basis Engineering Proposal / PRIMARY OPERATION
 Call Sign Temporary Experimental License
 Licensee Code BOWING
 Licensee Name The Boeing Company
 Radio Service / Station Class MG -- Microwave Industrial/Business Pool

RX1 AZ

/Pinal
 Engineering Proposal / PRIMARY OPERATION
 BOWING
 The Boeing Company
 FXO -- Fixed

Site Information

Latitude (NAD 83) 32 ° 30' 42.0" N
 Longitude (NAD 83) 111 ° 19' 11.0" W
 Ground Elevation (m/ft-AMSL) 575.00 / 1886.5
 Antenna Structure Registration #
 Path Azimuth (°) VARIOUS
 Path Length (km / miles) VARIOUS

Transmit Antenna

Manufacturer O00000
 Model OMNI
 Gain (dBi) / Beamwidth (°) / Tilt (°) OMNI DIRECTIONAL
 Centerline (m / ft - AGL) 10.0 / 198.00 / -0.26
 6.00 / 19.7

Receive Antenna

Manufacturer O00000
 Model OMNI
 Gain (dBi) / Beamwidth (°) OMNI DIRECTIONAL
 Centerline (m / ft - AGL) 10.0 / 198.00
 6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

Manufacturer TEMI95
 Model HEWLETT-PACKARD COMPANY
 Model Description HP SIGNAL GENERATOR
 Emission Designator / Modulation 999999
 Loading ANALOG 0.000
 Stability (%) 0.001
 Nominal Coordinated Maximum
 Power (dBm) 20.0
 Received Level (dBm) VARIOUS
 EIRP (dBm) 30.0
 Fixed Loss: Tx / Common (dB) 0.0 / 0.0
 Free Space Loss (dB) VARIOUS

Transmit Frequencies (MHz)

933V-960V,
 1850V – 1990V,
 1990V-2100V,
 3700V- 4200V,
 5925 – 5975V

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New Path

RCN Number: 06040437

Administrative Information

City/County
Status / License Basis
Call Sign
Licensee Code
Licensee Name
Radio Service / Station Class

MOJAVE AIR CA

Mojave/Kern
Engineering Proposal / PRIMARY OPERATION
Temporary Experimental License
BOWING
The Boeing Company
MG -- Microwave Industrial/Business Pool

RX1 CA

Mojave/Kern
Engineering Proposal / PRIMARY OPERATION

BOWING
The Boeing Company
FXO -- Fixed

Site Information

Latitude (NAD 83)
Longitude (NAD 83)
Ground Elevation (m/ft-AMSL)
Antenna Structure Registration #
Path Azimuth (°)
Path Length (km / miles)

Within 5km centered around:

35 ° 3' 24.0" N
118 ° 9' 26.0" W
841.90 / 2762.1

VARIOUS

VARIOUS

VARIOUS

Transmit Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00 / -0.59

6.00 / 19.7

Receive Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00

6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

Manufacturer
Model
Model Description
Emission Designator / Modulation
Loading
Stability (%)

Power (dBm)
Received Level (dBm)
EIRP (dBm)

Fixed Loss: Tx / Common (dB)
Free Space Loss (dB)

TEM195

HEWLETT-PACKARD COMPANY

HP SIGNAL GENERATOR

50M0A3N/NON

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

20.0

30.0

0.0 / 0.0

VARIOUS

999999

RECEIVE

ONLY

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

VARIOUS

0.0 / 0.0

Transmit Frequencies (MHz)

933V-960V,
1850V – 1990V,
1990V-2100V,
3700V- 4200V,
5925 – 5975V

Microwave Path Data Sheet

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COMSEARCH

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PCN Date: 04/04/2006

Job Number 060404COMSDS05

New Path

RCN Number: 06040437

Administrative Information

GEORGE AFB CA
City/County Victorville/San Bernardino
Status / License Basis Engineering Proposal / PRIMARY OPERATION
Call Sign Temporary Experimental License
Licensee Code BOWING
Licensee Name The Boeing Company
Radio Service / Station Class MG -- Microwave Industrial/Business Pool

RX1 CA

Victorville/San Bernardino
Engineering Proposal / PRIMARY OPERATION

BOWING
The Boeing Company
FXO -- Fixed

Site Information

Within 5km centered around:
Latitude (NAD 83) 34 ° 35' 16.0" N
Longitude (NAD 83) 117 ° 22' 31.0" W
Ground Elevation (m/ft-AMSL) 880.71 / 2889.5
Antenna Structure Registration #
Path Azimuth (°) VARIOUS
Path Length (km / miles) VARIOUS

Transmit Antenna

O00000
Manufacturer OMNI
Model OMNI DIRECTIONAL
Gain (dBi) / Beamwidth (°) / Tilt (°) 10.0 / 198.00 / -0.47
Centerline (m / ft - AGL) 6.00 / 19.7

Receive Antenna

O00000
Manufacturer OMNI
Model OMNI DIRECTIONAL
Gain (dBi) / Beamwidth (°) 10.0 / 198.00
Centerline (m / ft - AGL) 6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

TEM195	999999
Manufacturer HEWLETT-PACKARD COMPANY	RECEIVE
Model HP SIGNAL GENERATOR	ONLY
Model Description	
Emission Designator / Modulation 50M0A3N/NON	
Loading ANALOG 0.000	ANALOG 0.000
Stability (%) 0.001	0.001
Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm) 20.0	
Received Level (dBm)	VARIOUS
EIRP (dBm) 30.0	
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB) VARIOUS	

Transmit Frequencies (MHz)

933V-960V,
1850V – 1990V,
1990V-2100V,
3700V- 4200V,
5925 – 5975V

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PCN Date: 04/04/2006

Job Number 060404COMSDS05

New Path

RCN Number: 06040437

Administrative Information

ROSEWELL NM
 City/County Roswell/Chaves
 Status / License Basis Engineering Proposal / PRIMARY OPERATION
 Call Sign Temporary Experimental License
 Licensee Code BOWING
 Licensee Name The Boeing Company
 Radio Service / Station Class MG -- Microwave Industrial/Business Pool

RX1 NM

Roswell/Chaves
 Engineering Proposal / PRIMARY OPERATION
 BOWING
 The Boeing Company
 FXO -- Fixed

Site Information

Within 5km centered around:
 Latitude (NAD 83) 33 ° 24' 24.0" N
 Longitude (NAD 83) 104 ° 32' 36.0" W
 Ground Elevation (m/ft-AMSL) 1098.00 / 3602.4
 Antenna Structure Registration #
 Path Azimuth (°) VARIOUS
 Path Length (km / miles) VARIOUS

Transmit Antenna

O00000
 Manufacturer OMNI
 Model OMNI DIRECTIONAL
 Gain (dBi) / Beamwidth (°) / Tilt (°) 10.0 / 198.00 / -0.05
 Centerline (m / ft - AGL) 6.00 / 19.7

Receive Antenna

O00000
 Manufacturer OMNI
 Model OMNI DIRECTIONAL
 Gain (dBi) / Beamwidth (°) 10.0 / 198.00
 Centerline (m / ft - AGL) 6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

Manufacturer	TEM95	999999
Model	HEWLETT-PACKARD COMPANY	RECEIVE
Model Description	HP SIGNAL GENERATOR	ONLY
Emission Designator / Modulation	50M0A3N/NON	
Loading	ANALOG 0.000	ANALOG 0.000
Stability (%)	0.001	0.001
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	20.0	
Received Level (dBm)		VARIOUS
EIRP (dBm)	30.0	
Fixed Loss: Tx / Common (dB)	0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB)		VARIOUS

Transmit Frequencies (MHz)

933V-960V,
 1850V – 1990V,
 1990V-2100V,
 3700V- 4200V,
 5925 – 5975V

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New Path

RCN Number: 06040437

Administrative Information

City/County
Status / License Basis
Call Sign
Licensee Code
Licensee Name
Radio Service / Station Class

BOEING FIELD WA

Seattle/King
Engineering Proposal / PRIMARY OPERATION
Temporary Experimental License
BOWING
The Boeing Company
MG -- Microwave Industrial/Business Pool

RX1 WA

Seattle/King
Engineering Proposal / PRIMARY OPERATION

BOWING
The Boeing Company
FXO -- Fixed

Site Information

Latitude (NAD 83)
Longitude (NAD 83)
Ground Elevation (m/ft-AMSL)
Antenna Structure Registration #
Path Azimuth (°)
Path Length (km / miles)

Within 5km centered around:

47 ° 32' 20.0" N
122 ° 18' 46.0" W
4.57 / 15.0

VARIOUS

VARIOUS

VARIOUS

Transmit Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00 / -0.07

6.00 / 19.7

Receive Antenna

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

O00000

OMNI

OMNI DIRECTIONAL

10.0 / 198.00

6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

Manufacturer
Model
Model Description
Emission Designator / Modulation
Loading
Stability (%)

Power (dBm)
Received Level (dBm)
EIRP (dBm)

Fixed Loss: Tx / Common (dB)
Free Space Loss (dB)

TEM195

HEWLETT-PACKARD COMPANY

HP SIGNAL GENERATOR

50M0A3N/NON

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

20.0

30.0

0.0 / 0.0

VARIOUS

999999

RECEIVE

ONLY

ANALOG 0.000

0.001

Nominal

Coordinated

Maximum

VARIOUS

0.0 / 0.0

Transmit Frequencies (MHz)

933V-960V,
1850V – 1990V,
1990V-2100V,
3700V- 4200V,
5925 – 5975V

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PCN Date: 04/04/2006

Job Number 060404COMSDS05

New Path

RCN Number: 06040437

Administrative Information

PAIN FIELD WA
 City/County Everett/Snohomish
 Status / License Basis Engineering Proposal / PRIMARY OPERATION
 Call Sign Temporary Experimental License
 Licensee Code BOWING
 Licensee Name The Boeing Company
 Radio Service / Station Class MG -- Microwave Industrial/Business Pool

RX1 WA

Paine Field-Lake Stickney/Snohomish
 Engineering Proposal / PRIMARY OPERATION

BOWING

The Boeing Company
 FXO -- Fixed

Site Information

Within 5km centered around:
 Latitude (NAD 83) 47 ° 54' 43.0" N
 Longitude (NAD 83) 122 ° 16' 20.0" W
 Ground Elevation (m/ft-AMSL) 174.00 / 570.9
 Antenna Structure Registration #
 Path Azimuth (°) VARIOUS
 Path Length (km / miles) VARIOUS

VARIOUS

Transmit Antenna

O00000
 Manufacturer OMNI
 Model OMNI DIRECTIONAL
 Gain (dBi) / Beamwidth (°) / Tilt (°) 10.0 / 198.00 / -0.30
 Centerline (m / ft - AGL) 6.00 / 19.7

Receive Antenna

O00000
 Manufacturer OMNI
 Model OMNI DIRECTIONAL
 Gain (dBi) / Beamwidth (°) 10.0 / 198.00
 Centerline (m / ft - AGL) 6.00 / 19.7

Diversity Receive Antenna

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

Radio Information

TEM195	999999
Manufacturer HEWLETT-PACKARD COMPANY	RECEIVE
Model HP SIGNAL GENERATOR	ONLY
Model Description	
Emission Designator / Modulation 50M0A3N/NON	
Loading ANALOG 0.000	ANALOG 0.000
Stability (%) 0.001	0.001
Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm) 20.0	
Received Level (dBm)	VARIOUS
EIRP (dBm) 30.0	
Fixed Loss: Tx / Common (dB) 0.0 / 0.0	0.0 / 0.0
Free Space Loss (dB)	VARIOUS

Transmit Frequencies (MHz)

933V-960V,
 1850V – 1990V,
 1990V-2100V,
 3700V- 4200V,
 5925 – 5975V