

Bill of Materials:

AP Model Name	Quantity
AP-175	4

Antenna Name	Quantity
ANT-2x2-5010	4

Modeling Parameters:

Mesh Modeling By Throughput	
Threshold: -75	
	Throughput: 120
	Throughput: 90
	Throughput: 60
	Throughput: 40
	Throughput: 15

Global Model Parameters:

Country USA			
Frequency Band	Design Margin		
Frequency Band	Max EIRP	Client	Mesh
802.11b/g/n (2.4 GHz, Channels 1-14) (dBm)	20	6	3
802.11a/n Group 1 (5.15-5.25 GHz, Channels 36-48) (dBm)	N/A	6	3
802.11a/n Group 2 (5.25-5.35 GHz, Channels 52-64) (dBm)	N/A	6	3
802.11a/n Group 3 (5.4-5.7 GHz, Channels 100-140) (dBm)	N/A	6	3
802.11a/n Group 4 (5.75-5.825 GHz, Channels 149-165) (dBm)	27	6	3
Public Safety	N/A	6	3

Client Models:

Radio Type	Radio Gain	Radio Modes
2.4 GHz Client	0	802.11b17 802.11g15 HT20 15 HT40 12

Locations:

Name	Latitude	Longitude	Altitude
Folder: General			

Site #1	43.78231895310647	-86.43358331669472	6
Site #2	43.7816098052612	-86.43299776150754	6
Site #3	43.77919371513466	-86.43317882602446	12
Site #4	43.77797442096982	-86.43277373369088	6

Access Points/Groups:

Group Name: General	
AP Name: AP-175_Site #1	
Location: Site #1	
AP model: AP-175 - Outdoor Access Point	
149 Antenna:	-99 Antenna:
Antenna Model: ANT-2x2-5010	(No
Omnidirectional	antenna
802.11an	selected)
Frequency Band: Group 4	
Client Mode: HT40	
Radio Role: Mesh Portal	
Heading: 0	
Downtilt: 0	
Cable Loss: 0	
CPS: 13	
Antenna Gain: 14	
EIRP: 27	
Max Power: 27	
(No Model Information Available)	
AP Name: AP-175_Site #2	
Location: Site #2	
AP model: AP-175 - Outdoor Access Point	
149 Antenna:	-99 Antenna:
Antenna Model: ANT-2x2-5010	(No
Omnidirectional	antenna
802.11an	selected)
Frequency Band: Group 4	
Client Mode: HT40	
Radio Role: (None Selected)	
Heading: 0	
Downtilt: 0	
Cable Loss: 0	
CPS: 13	
Antenna Gain: 14	
EIRP: 27	
Max Power: 27	
(No Model Information Available)	
AP Name: AP-175_Site #3	
Location: Site #3	

AP model: AP-175 - Outdoor Access Point
149 Antenna: **-99 Antenna:**
Antenna Model: ANT-2x2-5010 (No
Omnidirectional antenna
802.11an selected)
Frequency Band: Group 4
Client Mode: HT40
Radio Role: (None Selected)
Heading: 0
Downtilt: 0
Cable Loss: 0
CPS: 13
Antenna Gain: 14
EIRP: 27
Max Power: 27
(No Model Information Available)

AP Name: AP-175_Site #4
Location: Site #4
AP model: AP-175 - Outdoor Access Point
149 Antenna: **-99 Antenna:**
Antenna Model: ANT-2x2-5010 (No
Omnidirectional antenna
802.11an selected)
Frequency Band: Group 4
Client Mode: HT40
Radio Role: (None Selected)
Heading: 0
Downtilt: 0
Cable Loss: 0
CPS: 13
Antenna Gain: 14
EIRP: 27
Max Power: 27
(No Model Information Available)

Mesh Links:

Group Name: General
Meshing On: 149

General Details:

Distance: 0.0919 km
Minimum clearance height: 0.02 m
Minimum transmit power: N/A
Total Alignment Error: 0 db

Portal Details:

Point Details:

Name:	AP-175 Site #1	Name:	AP-175 Site #2
Ideal Bearing:	149°	Ideal Bearing:	329°
Actual Bearing:	0°	Actual Bearing:	0°
Horizontal Alignment Error:	No	Horizontal Alignment Error:	No
Height:	6 m	Height:	6 m
Vertical Alignment Error:	No	Vertical Alignment Error:	No
EIRP:	27 dBm	EIRP:	27 dBm
Received Signal Level:	-49 dBm	Received Signal Level:	-49 dBm
Data Rate:	148 Mbps	Data Rate:	148 Mbps

General Details:

Distance: 0.3494 km
Minimum clearance height: 0.04 m
Minimum transmit power: N/A
Total Alignment Error: -1.528 db

Portal Details:

Name: AP-175 Site #1
Ideal Bearing: 175°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 6 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -63 dBm
Data Rate: 144 Mbps

Point Details:

Name: AP-175 Site #3
Ideal Bearing: 355°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 12 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -63 dBm
Data Rate: 144 Mbps

General Details:

Distance: 0.488 km
Minimum clearance height: 0.05 m
Minimum transmit power: N/A
Total Alignment Error: 0 db

Portal Details:

Name: AP-175 Site #1
Ideal Bearing: 172°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 6 m
Vertical Alignment Error: No
EIRP: 27 dBm
Received Signal Level: -64 dBm
Data Rate: 139 Mbps

Point Details:

Name: AP-175 Site #4
Ideal Bearing: 352°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 6 m
Vertical Alignment Error: No
EIRP: 27 dBm
Received Signal Level: -64 dBm
Data Rate: 139 Mbps

General Details:**Distance:** 0.0919 km**Minimum clearance height:** 0.02 m**Minimum transmit power:** N/A**Total Alignment Error:** 0 db**Portal Details:****Name:** AP-175
Site #2**Ideal Bearing:** 329°**Actual Bearing:** 0°**Horizontal Alignment Error:** No**Height:** 6 m**Vertical Alignment Error:** No**EIRP:** 27 dBm**Received Signal Level:** -49 dBm**Data Rate:** 148
Mbps**Point Details:****Name:** AP-175
Site #1**Ideal Bearing:** 149°**Actual Bearing:** 0°**Horizontal Alignment Error:** No**Height:** 6 m**Vertical Alignment Error:** No**EIRP:** 27 dBm**Received Signal Level:** -49 dBm**Data Rate:** 148
Mbps**General Details:****Distance:** 0.2693 km**Minimum clearance height:** 0.04 m**Minimum transmit power:** N/A**Total Alignment Error:** -1.528 db**Portal Details:****Name:** AP-175
Site #2**Ideal Bearing:** 183°**Actual Bearing:** 0°**Horizontal Alignment Error:** No**Height:** 6 m**Vertical Alignment Error:** Yes**EIRP:** 27 dBm**Received Signal Level:** -60 dBm**Data Rate:** 148
Mbps**Point Details:****Name:** AP-175
Site #3**Ideal Bearing:** 3°**Actual Bearing:** 0°**Horizontal Alignment Error:** No**Height:** 12 m**Vertical Alignment Error:** Yes**EIRP:** 27 dBm**Received Signal Level:** -60 dBm**Data Rate:** 148
Mbps**General Details:****Distance:** 0.4051 km**Minimum clearance height:** 0.05 m**Minimum transmit power:** N/A**Total Alignment Error:** 0 db**Portal Details:****Name:** AP-175
Site #2**Ideal Bearing:** 177°**Point Details:****Name:** AP-175
Site #4**Ideal Bearing:** 357°

Actual Bearing:	0°	Actual Bearing:	0°
Horizontal Alignment Error:	No	Horizontal Alignment Error:	No
Height:	6 m	Height:	6 m
Vertical Alignment Error:	No	Vertical Alignment Error:	No
EIRP:	27 dBm	EIRP:	27 dBm
Received Signal Level:	-62 dBm	Received Signal Level:	-62 dBm
Data Rate:	149 Mbps	Data Rate:	149 Mbps

General Details:

Distance: 0.3494 km
Minimum clearance height: 0.04 m
Minimum transmit power: N/A
Total Alignment Error: -1.528 db

Portal Details:

Name: AP-175
 Site #3

Ideal Bearing: 355°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 12 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -63 dBm
Data Rate: 144 Mbps

Point Details:

Name: AP-175
 Site #1

Ideal Bearing: 175°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 6 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -63 dBm
Data Rate: 144 Mbps

General Details:

Distance: 0.2693 km
Minimum clearance height: 0.04 m
Minimum transmit power: N/A
Total Alignment Error: -1.528 db

Portal Details:

Name: AP-175
 Site #3

Ideal Bearing: 3°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 12 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -60 dBm
Data Rate: 148 Mbps

Point Details:

Name: AP-175
 Site #2

Ideal Bearing: 183°
Actual Bearing: 0°
Horizontal Alignment Error: No
Height: 6 m
Vertical Alignment Error: Yes
EIRP: 27 dBm
Received Signal Level: -60 dBm
Data Rate: 148 Mbps

General Details:

Distance: 0.1396 km

Minimum clearance height: 0.03 m
Minimum transmit power: N/A
Total Alignment Error: -2.878 db

Portal Details:

Name: AP-175
Site #3

Ideal Bearing: 167°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 12 m

Vertical Alignment Error: Yes

EIRP: 27 dBm

Received Signal Level: -56 dBm

Data Rate: 140
Mbps

Point Details:

Name: AP-175
Site #4

Ideal Bearing: 347°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Vertical Alignment Error: Yes

EIRP: 27 dBm

Received Signal Level: -56 dBm

Data Rate: 140
Mbps

General Details:

Distance: 0.488 km

Minimum clearance height: 0.05 m

Minimum transmit power: N/A

Total Alignment Error: 0 db

Portal Details:

Name: AP-175
Site #4

Ideal Bearing: 352°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Vertical Alignment Error: No

EIRP: 27 dBm

Received Signal Level: -64 dBm

Data Rate: 139
Mbps

Point Details:

Name: AP-175
Site #1

Ideal Bearing: 172°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Vertical Alignment Error: No

EIRP: 27 dBm

Received Signal Level: -64 dBm

Data Rate: 139
Mbps

General Details:

Distance: 0.4051 km

Minimum clearance height: 0.05 m

Minimum transmit power: N/A

Total Alignment Error: 0 db

Portal Details:

Name: AP-175
Site #4

Ideal Bearing: 357°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Point Details:

Name: AP-175
Site #2

Ideal Bearing: 177°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Vertical Alignment Error:	No	Vertical Alignment Error:	No
EIRP:	27 dBm	EIRP:	27 dBm
Received Signal Level:	-62 dBm	Received Signal Level:	-62 dBm
Data Rate:	149 Mbps	Data Rate:	149 Mbps

General Details:

Distance: 0.1396 km
Minimum clearance height: 0.03 m
Minimum transmit power: N/A
Total Alignment Error: -2.878 db

Portal Details:

Name: AP-175
Site #4

Ideal Bearing: 347°
Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 6 m

Vertical Alignment Error: Yes

EIRP: 27 dBm

Received Signal Level: -56 dBm

Data Rate: 140 Mbps

Point Details:

Name: AP-175
Site #3

Ideal Bearing: 167°

Actual Bearing: 0°

Horizontal Alignment Error: No

Height: 12 m

Vertical Alignment Error: Yes

EIRP: 27 dBm

Received Signal Level: -56 dBm

Data Rate: 140 Mbps