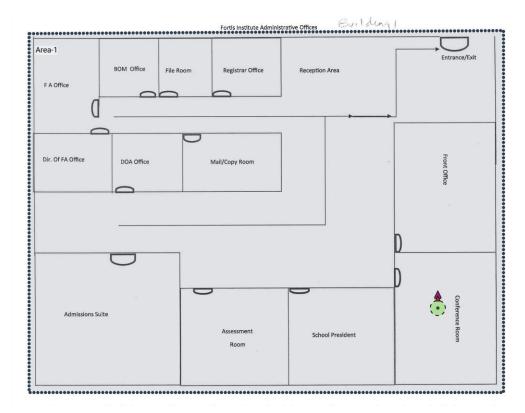
Windstream - Education Affiliates - Fortis Institute - Scranton, PA - Site Survey





Building #1 (Admin Area)



Survey routes and Access Points for Building #1 (Admin Area)

Area-1 (799 m²)

Coverage Requirement: Voice +	Signal Strength Min	-67.0 dBm
Data	Signal-to-noise Ratio Min	20.0 dB
	Data rate Min	20 Mbps
	Number of Access Points Min	2 at min75.0 dBm
	Channel Overlap Max	2 at min85.0 dBm
	Round Trip Time (RTT) Max	200ms
	Packet Loss Max	2.0 %
Capacity Requirement		
	No capacity devices for this area	
Notes		
NOIES		





Signal Strength for Building #1 (Admin Area) on 5 GHz band

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.

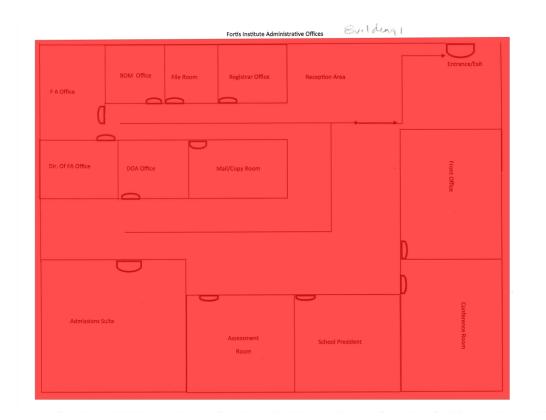


-80.0dBm	≥ -45.0dBm



Network Health for Building #1 (Admin Area) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.





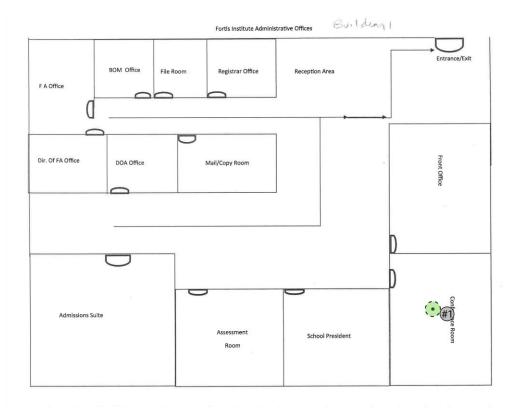
Network Issues for Building #1 (Admin Area) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str #APs Dat	a <mark>SNR RT</mark>	T Loss Ch.O
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Access Points on Building #1 (Admin Area)



My Access Points on Building #1 (Admin Area)

Simulated Access Points on Building #1 (Admin Area)

AP #	Access Point			
1	Meraki MR42	E + MA-ANT-	3-A (2)	
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

Measured Access Points on Building #1 (Admin Area)



Other Access Points on Building #1 (Admin Area)

Simulated Access Points on Building #1 (Admin Area)

None.

Measured Access Points on Building #1 (Admin Area)



Channel Bandwidth for Building #1 (Admin Area) on 5 GHz band

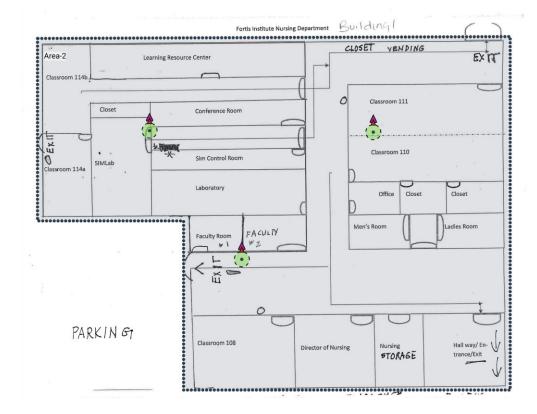
Shows the maximum channel bandwidth available in each area.

					Entrance/Exit
F A Office	BOM Office File	Room Registrar Office	Reception Area		
	<u> </u>		· · · ·		
Dir. Of FA Office	DOA Office	Mail/Copy Room			Front Office
					76
				D	
				D	
Admissions St	ite	0			Conference Room
		Assessment Room	School President		Room

20MHz 40MHz 80MHz 160MHz	20MHz	40MHz	80MHz	160MHz
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Building #1 (Student Area and Parking)



Survey routes and Access Points for Building #1 (Student Area and Parking)

Area-2 (909 m²)

Coverage Requirement: Voice +	Signal Strength Min	-67.0 dBm
Data	Signal-to-noise Ratio Min	20.0 dB
	Data rate Min	20 Mbps
	Number of Access Points Min	2 at min75.0 dBm
	Channel Overlap Max	2 at min85.0 dBm
	Round Trip Time (RTT) Max	200ms
	Packet Loss Max	2.0 %
Capacity Requirement		
	No capacity devices for this area	
Notes		





Signal Strength for Building #1 (Student Area and Parking) on 5 GHz band

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.



-80.0dBm	≥ -45.0dBm
-00.04.0111	2 40.04Dm



Network Health for Building #1 (Student Area and Parking) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.

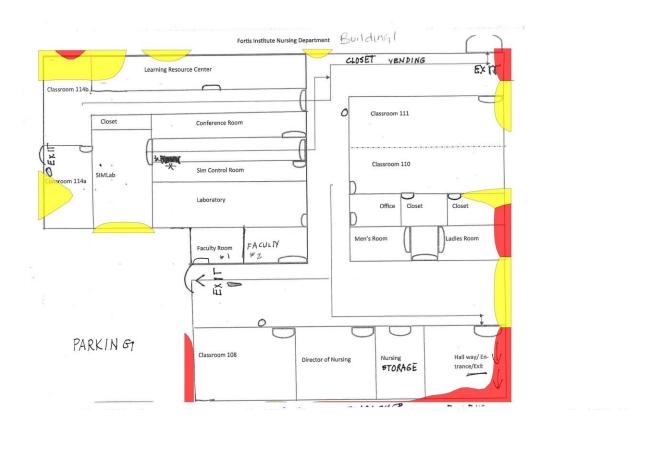


Fail Pas



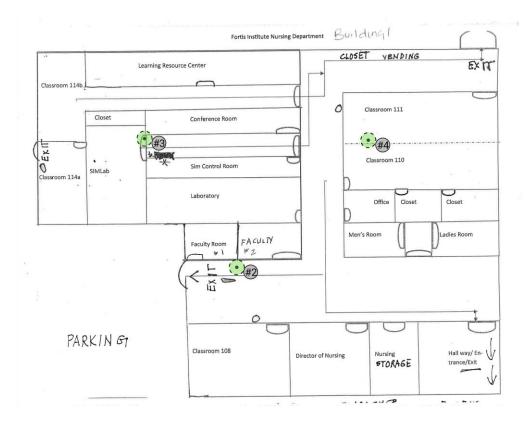
Network Issues for Building #1 (Student Area and Parking) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str	#APs	Data	SNR	RTT	Loss	Ch.O





Access Points on Building #1 (Student Area and Parking)



My Access Points on Building #1 (Student Area and Parking)

Simulated Access Points on Building #1 (Student Area and Parking)

AP #	Access Point					
2	Meraki MR42	2E + MA-ANT-	3-A (11)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi		
	802.11ac	36	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi		
3	Meraki MR42E + MA-ANT-3-A (3)					
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi		
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi		
4	Meraki MR42	2E + MA-ANT-	3-A (5)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi		
	802.11ac	36	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi		

Measured Access Points on Building #1 (Student Area and Parking)



Other Access Points on Building #1 (Student Area and Parking)

Simulated Access Points on Building #1 (Student Area and Parking)

None.

Measured Access Points on Building #1 (Student Area and Parking)



Channel Bandwidth for Building #1 (Student Area and Parking) on 5 GHz band

Shows the maximum channel bandwidth available in each area.

	Le	arning Resource Center	CLOSET VENDING EX T
ssroom 114b	loset	Conference Room	Classroom 111
	ILAD	Sim Control Room	Classroom 130 Office Closet Closet
		Faculty Room FA CUL IV	Men's Room
PARK	ING	Classroom 108 Dire	ctor of Nursing Hall way/ En-

20MHz 40MHz	80MHz	160MHz
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Building #2 (Medical and Massage)

Area-3 Room 212	Room 211	Room 210	Computer LAb	Phiebotomy Lab	Room Room	Classroom PD O
Area-3 Raam 212 Room 213b			-			sage Clinic
4				C PR Offi	ce Career	Room 201
Room 213b	Room 213a	Faculty Office	Room 209	Room 207	Services	
					Dean Educa- tion	Room 203

Survey routes and Access Points for Building #2 (Medical and Massage)

Area-3 (449 m²)

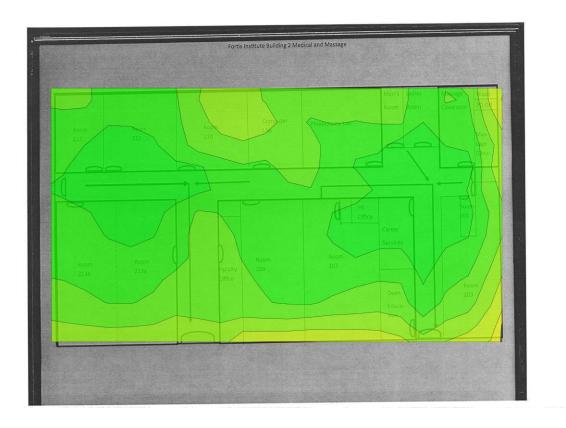
Coverage Requirement: Voice +	Signal Strength Min	-67.0 dBm
Data	Signal-to-noise Ratio Min	20.0 dB
	Data rate Min	20 Mbps
	Number of Access Points Min	2 at min75.0 dBm
	Channel Overlap Max	2 at min85.0 dBm
	Round Trip Time (RTT) Max	200ms
	Packet Loss Max	2.0 %
Capacity Requirement		
	No capacity devices for this area	
Notes		





Signal Strength for Building #2 (Medical and Massage) on 5 GHz band

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.

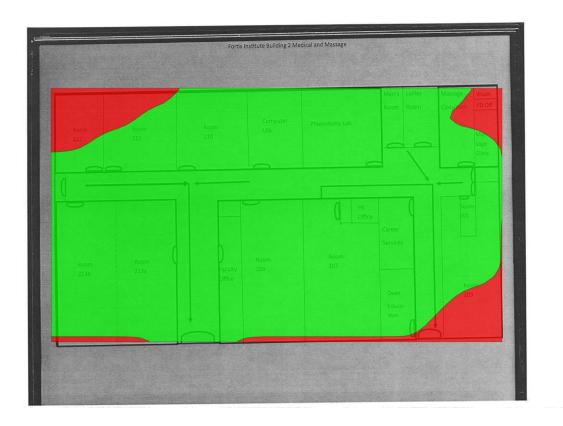


-80.0dBm	≥ -45.0dBm
-00.045111	≥ 40.000m



Network Health for Building #2 (Medical and Massage) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.



Fail Pass



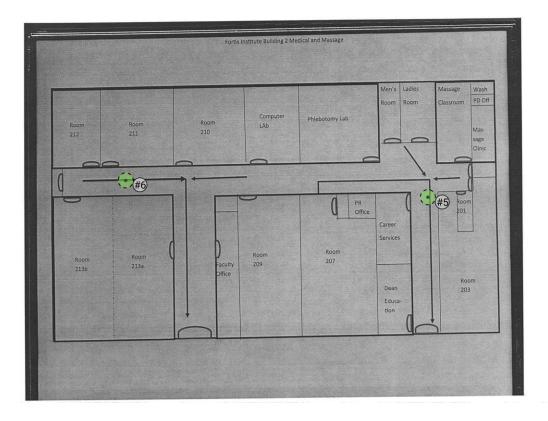
Network Issues for Building #2 (Medical and Massage) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str	#APs	Data	SNR	RTT	Loss	Ch.O





Access Points on Building #2 (Medical and Massage)



My Access Points on Building #2 (Medical and Massage)

Simulated Access Points on Building #2 (Medical and Massage)

AP #	Access Point			
5	Meraki MR42	E + MA-ANT	-3-A (6)	
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
6	Meraki MR42	E + MA-ANT	-3-A (7)	
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	153	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

Measured Access Points on Building #2 (Medical and Massage)



Other Access Points on Building #2 (Medical and Massage)

Simulated Access Points on Building #2 (Medical and Massage)

None.

Measured Access Points on Building #2 (Medical and Massage)



Channel Bandwidth for Building #2 (Medical and Massage) on 5 GHz band

Shows the maximum channel bandwidth available in each area.

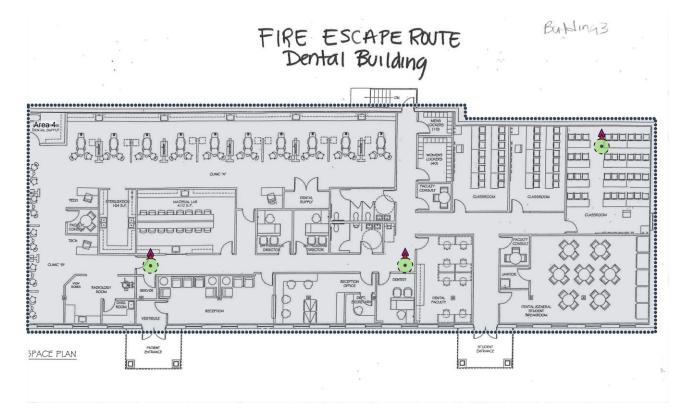
					Men's Ladies Room Room	Massage Wash Classroom PD Off Mas- Sage Clinic
Room 213b	Room 213a	Faculty	Room 209	Room 207	e Career Services	Room 201
					Dean Educa- tion	Room 203

20MHz 40MHz 80MHz 160MHz



Building #3 (Dental)

Survey routes and Access Points for Building #3 (Dental)



Area-4 (1,280 m²)

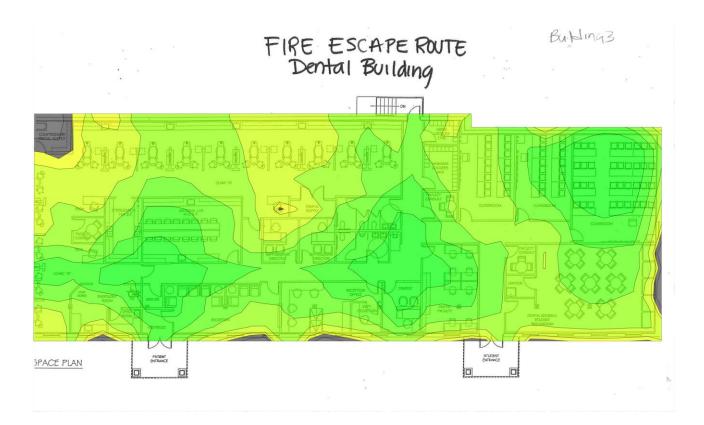
Coverage Requirement: Voice +	Signal Strength Min	-67.0 dBm
Data	Signal-to-noise Ratio Min	20.0 dB
	Data rate Min	20 Mbps
	Number of Access Points Min	2 at min75.0 dBm
	Channel Overlap Max	2 at min85.0 dBm
	Round Trip Time (RTT) Max	200ms
	Packet Loss Max	2.0 %
Capacity Requirement		
	No capacity devices for this area	
Notes		





Signal Strength for Building #3 (Dental) on 5 GHz band

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.

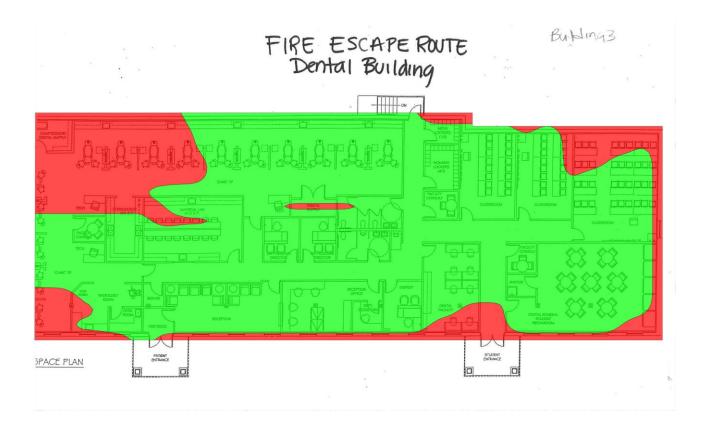


-80.0dBm	≥ -45.0dBm



Network Health for Building #3 (Dental) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.

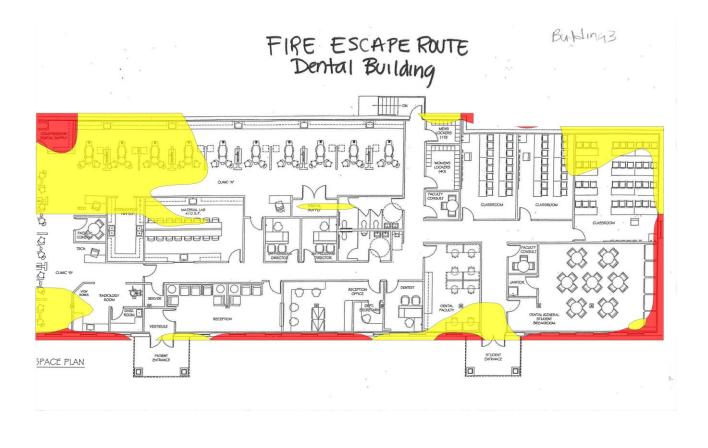


Fail Pass



Network Issues for Building #3 (Dental) on 5 GHz band

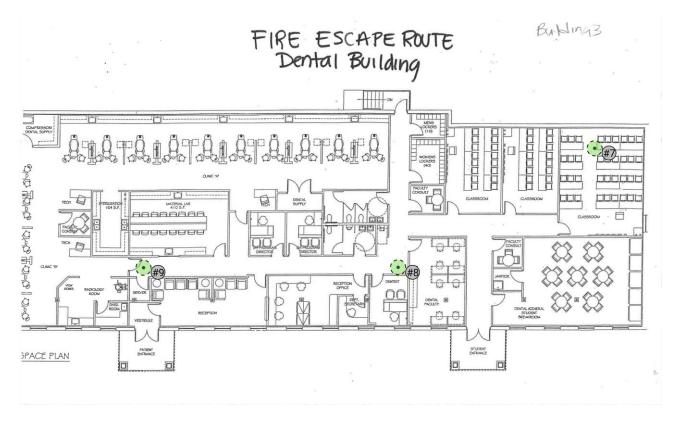
Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str #APs Data SNR RTT Loss Ch.O









My Access Points on Building #3 (Dental)

Simulated Access Points on Building #3 (Dental)

AP #	Access Point				
7	Meraki MR42E + MA-ANT-3-A (10)				
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi	
	802.11ac	161	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi	
8	Meraki MR42E + MA-ANT-3-A (8)				
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi	
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi	
9	Meraki MR42E + MA-ANT-3-A (9)				
	802.11n	6	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi	
	802.11ac	153	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi	

Measured Access Points on Building #3 (Dental)



Other Access Points on Building #3 (Dental)

Simulated Access Points on Building #3 (Dental)

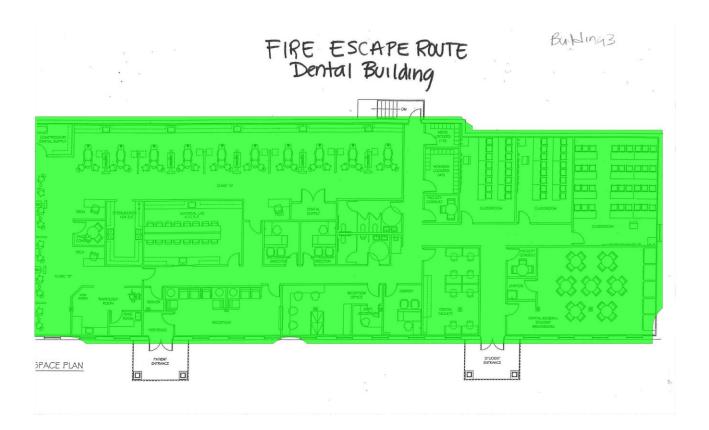
None.

Measured Access Points on Building #3 (Dental)



Channel Bandwidth for Building #3 (Dental) on 5 GHz band

Shows the maximum channel bandwidth available in each area.



20MHz 40MHz	80MHz 160MHz
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