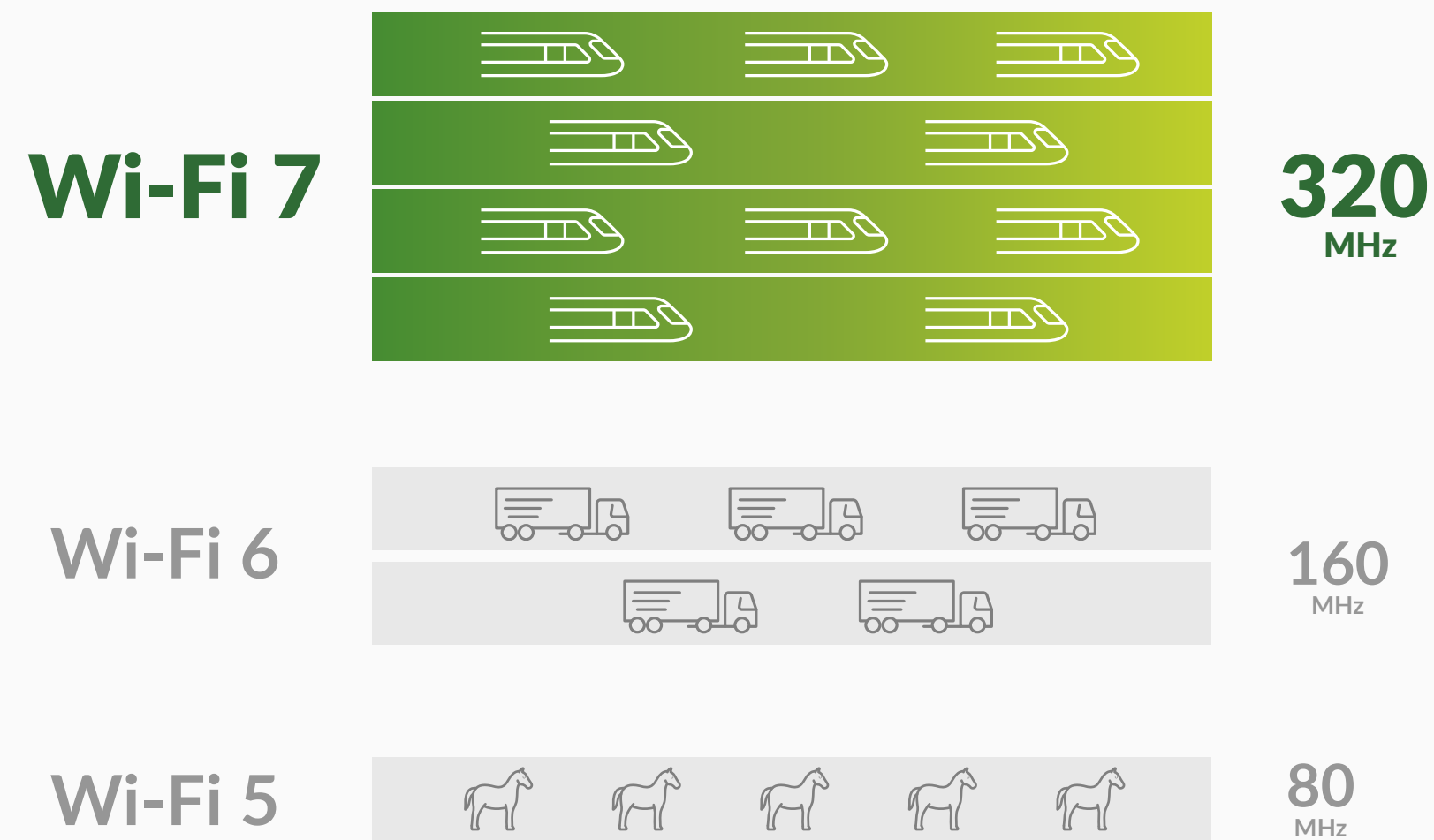


Wi-Fi 7 Quick Guide

The next-generation 802.11 standard delivers faster, more secure, more resilient connections — and a host of other improvements.

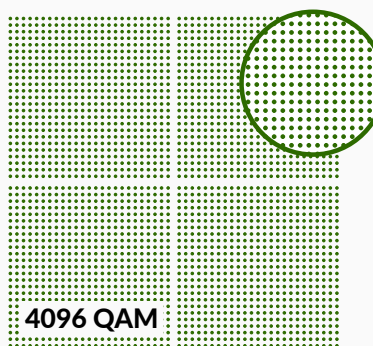
320 MHz Channels: 2X higher throughput

Wi-Fi 7 introduces ultrawide 320 MHz channels that are only available in the 6 GHz spectrum, effectively doubling throughput and significantly enhancing network speeds compared to previous Wi-Fi standards.



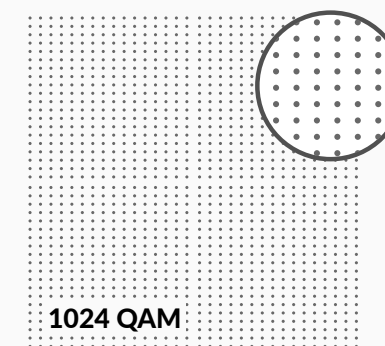
4K QAM: Higher transmission efficiency

Wi-Fi 7



12 bits/symbol

Wi-Fi 6

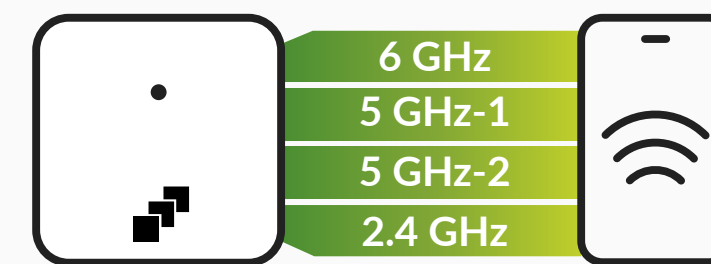


10 bits/symbol

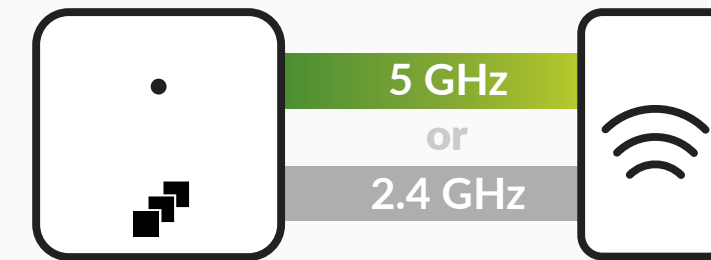
4K-QAM (Quadrature Amplitude Modulation) boosts data transmission rates by up to 20% compared to the 1K-QAM of Wi-Fi 6, thanks to its ability to pack signals more densely in the same amount of spectrum.

Multi-Link Operation (MLO): Increased throughput, lower latency, enhanced reliability

Wi-Fi 7



Wi-Fi 6



Prior to Wi-Fi 7, devices used a single band for data transmission. For the first time, Multi-Link Operation (MLO) employs simultaneous bands to transmit and receive over multiple links, supporting more efficient load balancing, lowering latency, and enhancing reliability.

6 GHz Channel Allocations		1200 MHz																																																										
FCC – USA																																																												
Low Power Indoor	5dBm/MHz - Net EIRP 18dBm			7125																																																								
Radio Band	U-NII-5			U-NII-6	U-NII-7	U-NII-8																																																						
Center Frequency	5.955, 5.957, 5.995, 6.015, 6.035, 6.055, 6.075, 6.095, 6.115, 6.135, 6.155, 6.175, 6.195, 6.215, 6.235, 6.225, 6.275, 6.295, 6.315, 6.335, 6.355, 6.375, 6.395, 6.415, 6.435, 6.455, 6.475, 6.495, 6.515, 6.535, 6.555, 6.575, 6.595, 6.615, 6.635, 6.655, 6.675, 6.695, 6.715, 6.735, 6.755, 6.775, 6.795, 6.815, 6.835, 6.855, 00000, 6.895, 6.915, 6.935, 6.955, 6.975, 6.975, 7.015, 7.035, 7.055, 7.075, 7.095, 7.115			6425	6525	6875																																																						
20MHz	1	5	9	13	17	21	25	29	33	37	41	45	49	53	57	61	65	69	73	77	81	85	89	93	97	101	105	109	113	117	121	125	129	133	137	141	145	149	153	157	161	165	169	173	177	181	185	189	193	197	201	205	209	213	217	221	225	229	233	QTY 59
40MHz	3	11	19	27	35	43	51	59	67	75	83	91	99	107	115	123	131	139	147	155	163	171	179	187	195	203	211	219	227	QTY 29																														
80MHz	7	23	39	55	71	87	103	119	135	151	167	183	167	183	QTY 14																																													
160MHz	15	47	79	111	143	175	207	QTY 7																																																				
320MHz	31	63	95	127	159	191																																																						
Allowed Unlicensed Usage	Low Power Indoor			Low Power Indoor, Standard Power AP	Low Power Indoor	Low Power Indoor, Standard Power AP																																																						
	Fixed Service, Satellite Service			Satellite Service, TV & Broadcast Services	Fixed Service, Satellite Service	Satellite Service, TV and Broadcast Services																																																						

- US 6 GHz support : UNII-5 (5.955-6.425), UNII-6 (6.425-6.525), UNII-7 (6.525-6.875), UNII-8 (6.875-7.125)
- EU 6 GHz support : UNII-5 (5.955-6.425)

[Learn more about Wi-Fi 7 and Juniper solutions →](#)