

## Cabling for the Next Wave of Enterprise Wireless

Smart building applications, the Internet of things (IoT), and machine-to-machine (M2M) connections can all encourage more Wi-Fi activity and can place significant strain on existing network infrastructure. Wi-Fi 5 (IEEE 802.11ac) and Wi-Fi 6/6E (IEEE 802.11ax) technology can help support greater wireless demands.

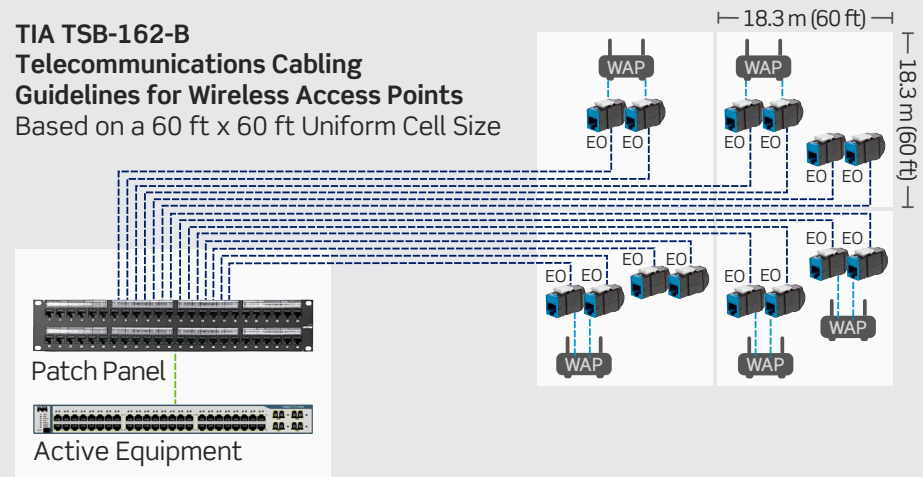
The cable channel design below provides the greatest probability for achieving the theoretical speeds of Wi-Fi 5 and 6/6E. Learn more about Leviton cabling systems for enterprise wireless at [Leviton.com/wireless](https://leviton.com/wireless).



Wi-Fi Comparison				
	Wi-Fi 4 802.11n	Wi-Fi 5 802.11ac Wave 1	Wi-Fi 5 802.11ac Wave 2	Wi-Fi 6/6E 802.11ax
Year Introduced	2009	2013	2015	2021
Channel Bandwidth (MHz)	20, 40	20, 40, 80	20, 40, 80, 80+80/160	
Frequency Band (GHz)	2.4, 5	5		2.4, 5, 6
Spatial Streams	4	8		16
Antenna Configuration	4X4 MIMO	8X8 MIMO	8X8 MU-MIMO	Downlink MU-MIMO and OFDMA
Highest Order Modulation (QAM)	64	256		1024
Maximum Throughput	600 Mb/s	1.3 Gb/s	6.93 Gb/s	~10 Gb/s
Recommended Cable Category	Cat 6	Cat 6A	Cat 6A	Cat 6A

### Recommended Cabling for Wi-Fi 5 and Wi-Fi 6/6E

**TIA TSB-162-B  
Telecommunications Cabling  
Guidelines for Wireless Access Points**  
Based on a 60 ft x 60 ft Uniform Cell Size



- Cat 6A Cable **Max = 80 m (262 ft)**
- Equipment Cord **Max = 6 m (20 ft)**
- WAP Cord **Max = 13 m (42 ft)**  
(Two Cat 6A cables per WAP)