



**EVERYTHING IP**

# WIRELESS SOLUTIONS

**Connect. Control. Converge.**

**Berk-Tek<sup>®</sup>**  
A NEXANS COMPANY

CONNECTING **IT** ALL

# WIRELESS SOLUTIONS



IN SCHOOLS, HOSPITALS AND COMMERCIAL BUILDINGS, WIRELESS IS NO LONGER A NICE-TO-HAVE.

A high-performing wireless network is no longer a perk. Customer satisfaction levels, basic business functions, and sometimes even lifesaving patient care are becoming dependent on the speed and effectiveness of your wireless network.

With the rapid growth in not only the number of wireless devices being used, but also the amount of content being transmitted by each device, networks are more taxed than ever by increasing bandwidth demand. This growing demand is why the IEEE is working to advance wireless standards. The current standard, 802.11ac, is being rolled out in waves. When 802.11ac is fully mature, wireless access points (WAP) will be able to transmit up to 6.9Gbps back to the IDF. You'd need seven 1Gbps Category 6 cables to move that much IP traffic. That's why we recommend Category 6A (10Gbps) for wireless.

Two Category 6A cables are recommended to each WAP. As speeds increase, WAP range will decrease, meaning more WAPs will be needed in the future to cover the same square footage.

*By 2020, the average smartphone will create 4.4GB of network traffic per month (a 5X increase over 5 years).*

*By 2021, smartphone traffic will exceed PC traffic.*

And what about the next generation of wireless? As 802.11ac continues to roll out, IEEE 802.3ax is being developed in the background, with a goal at least 4X more bandwidth than 802.11ac can deliver – an estimated 30Gbps delivered back to the IDF.

Will your network be able to manage that bandwidth demand?

Wireless Standards at a Glance		
	Year	Maximum Throughput
802.11m	2009	600 Mbps
802.11ac Wave 1	2013	866 Mbps
802.11ac Wave 2	2015	1.7 Gbps
802.11ax (in development)	2017	3.4 Gbps
	2019 (est.)	6.9 Gbps
	2020 (est.)	10 Gbps

For more information on Berk-Tek's Wireless Solutions, please visit [www.berktek.us/wireless](http://www.berktek.us/wireless).





## RECOMMENDED SOLUTIONS



### LANmark-XTP: The only choice for 802.11ac wireless

- Designed to support 1.0, 2.5, 5.0 & 10.0 Gbps.
- Fully supports 802.3bt PoE (100W).
- Discontinuous foil shield means no bonding or grounding is needed.

BERK-TEK LANMARK-XTP



## ABOUT BERK-TEK

Berk-Tek is the premier source for network infrastructure solutions. For more than 50 years, we have led the industry in the development of high-performance fiber optic and copper cables designed to transport high-speed data, voice and power transmissions. Our world-class research and development teams are dedicated to developing innovative structured cabling solutions that are critically important to managing the demands of today's emerging technologies. Our mission is to provide our customers with the solutions that meet both the current and future network needs, while continuously striving to maximize their return on investment.

