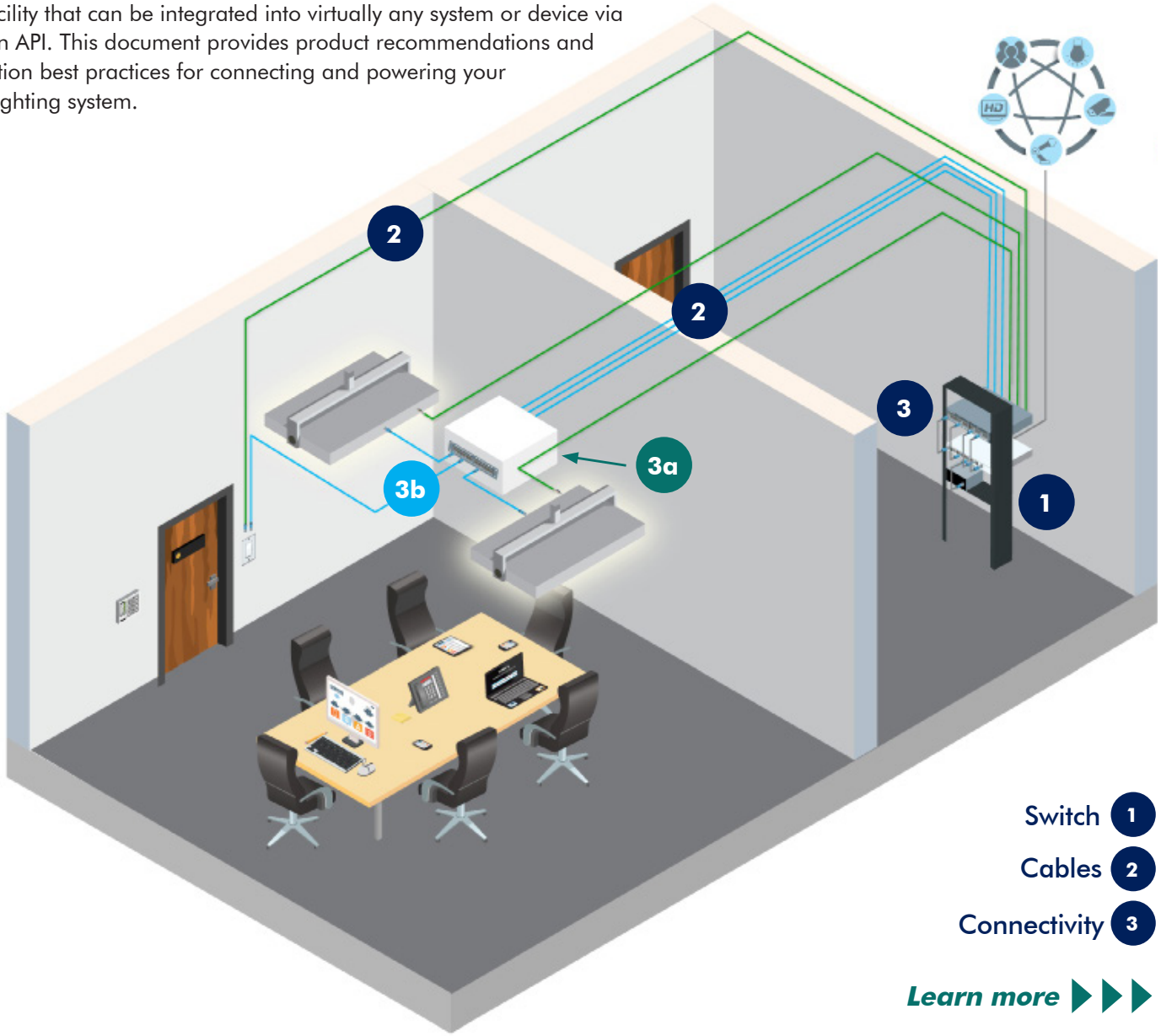
Berk-Tek®
A NEXANS COMPANY

MAKING THE SMART BUILDING SIMPLE

INSTALLATION BEST PRACTICES FOR SMART BUILDING INFRASTRUCTURE

A smart building starts in the ceiling with a smart lighting system. The true value of smart lighting is that it establishes a birds-eye-view sensor network throughout your facility that can be integrated into virtually any system or device via an open API. This document provides product recommendations and installation best practices for connecting and powering your smart lighting system.



Switch 1
Cables 2
Connectivity 3

Learn more

1 TRANSITION NETWORKS 24 PORT POE++ SWITCH

For easy access to the uLAN and to easily connect it to the UPS, we recommend a PoE switch be placed in a centrally located, temperature-controlled Telecom Room (TR). Transition Networks' Managed Gigabit Ethernet PoE++ Switch with Device Management System (DMS) simplifies management of connected devices, monitors power to connected devices and resets power to the devices if unresponsive, and retains power to connected lights during firmware upgrades or reboot of the switch.

RECOMMENDED PRODUCT	PART #
Transition Networks 24-port PoE++ switch with (2) 100/1000Base-X SFP/RJ-45 combo ports. Includes (1) AC power supply (for total power budget of 820W)	SM24TBT2DPA
Optional secondary AC power supply (offers an additional 820W for a total power budget of 1640W)	PS-AC-920
Small Form-Factor Pluggable (SFPs) Optical Devices	Contact Transition Networks

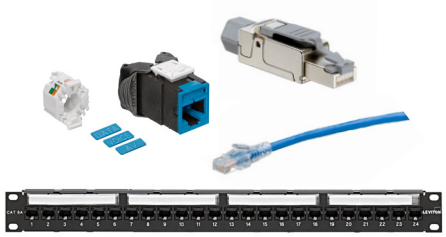
2 BERK-TEK CABLING

LANmark-SST's specially designed insulated metallic isolation wrap acts like a heat sync to dissipate heat, whereas LANmark-IP's larger AWG size and long twist lays minimize the amount of heat generated. Both products provide excellent PoE performance. LANmark-SST (found in the Berk-Tek Leviton Technologies CX6900 High-Density Cat 6A Premium+ UTP system) will prepare you for future high-bandwidth/high-power applications, while LANmark-IP (found in both the Berk-Tek Leviton Technolgoies CP5300 High-PoE UTP system and UP1000 Ultra-High PoE 1G system) is best for low-bandwidth/high-power applications. In the fiber backbone, we recommend GIGAlite™-10XB OM4+ or a hybrid cable containing OM4+ and OS2 single-mode fiber.

RECOMMENDED PRODUCTS	PART #
LANmark™-IP 22AWG, CMP Blue, Cat 5e, Reel in Box	11098078
LANmark™-SST 23AWG, CMP, Blue, Cat 6A, Reel	11101842
Fiber Backbone Cables	Contact Berk-Tek

3 LEVITON CONNECTIVITY

We have solutions available for both homerun or zone installations. The following products are recommended for either option:



RECOMMENDED PRODUCTS	PART #
Patch Panel - 5e, flat, 110 style 24-port, 1RU	5G596-U24
Patch Panel - 6A, flat, 110 style 24-port, 1RU	6A586-U24
Face Plate	41080-2xP / 42080-2xS

3a For home run installations

Leviton's universal tool-free plug is compatible with both cable options, is easy to install, and built with a rugged metal body for superior performance.

RECOMMENDED PRODUCTS	PART #
Universal Cat 6A Tool-Free Plug	6APLG-56A

3b For zone installations

A patch panel in the ceiling offers maximum flexibility for uLAN™ expansion. Atlas-X1™ connectivity (found in both the CX6850 Cat 6A Premium+ UTP system and CP5300 High-PoE UTP system) is recommended due to its outstanding performance. The GigaMax® jack is found in the UP1000 Ultra-High PoE 1G system).

RECOMMENDED PRODUCTS	PART #
Passive Ceiling Mount Enclosure	Z1000-PC2
SDX Small Patch and Splice Wall-Mount Enclosure	5WSML-02C
Atlas-X1 Quickport 6A Connector	6AUJK-Rx6
Atlas-X1 Quickport 5e Connector	5EUJK-Rx5
GigaMax® Quickport Cat 5e Jack	5G108-Rx5
Patch Cord, Cat 6A plenum	AXPPP-10W