

BITS™micro Edge IDF

AGILE-CORE™ Distributed Edge Architecture

PROJECT:

QTY:

TYPE:

CATALOG:

SYSTEM OVERVIEW

The AGILE-CORE™ Distributed Edge Architecture solution is an intelligent power distribution and control system that leverages safe DC power to reduce the total installed and operating cost of a project while providing the best IT and OT networks possible. AGILE-CORE™ is a hub and spoke architecture where AC or DC power is fed into the HEADEND then converted to safe DC power. The power is then converged with data over fiber to safely distribute power and data to Edge IDFs up to 2000' away. Edge IDFs then distribute power and data again locally to end points such as wireless access points, cameras, clocks, lighting, motion/daylight sensors, motorized shades, USB convenience outlets and more.

OVERVIEW

The Building Infrastructure Termination System (BITS™) micro Edge IDF uses a single unified power and data infrastructure to provide modular options of data, lighting and controls, USB charging solutions, shade control, IoT and more. This flexible solution, extends power and control to the edge, substantially decreasing traditional cabling requirements, and creating a future proof infrastructure by providing a robust fiber and copper backbone with up to 10GB or more uplink connectivity. The in-ceiling edge IDF significantly reduces the amount of square footage needed to support IT and OT networks. It requires less maintenance, shorter cable runs and ease of system growth over the 50 year life of a commercial or industrial facility.

ORDERING GUIDE:

Example Catalog # BTM 2X2 PMD/1 USB/1 AT/1 LM/1 LK LT

Family of Edge IDFs	Mounting	Power Distribution Module / Qty	USB Power Distribution Module / Qty	Layer 2 Network Switch Or Optical Network Terminal / Qty	DC Lighting & Power Controller (DCLP) / Qty	Options
BTM BITS™ micro	2X2 2'x2' Ceiling Mount Enclosure	PDM 1 2	USB Power Distribution Module for USB Outlets 1 2 3 If none, skip to layer 2 network switch	AT Allied Telesis IE220 10GHX 980 1 2 TL Tellabs ONT205 If none, skip to DCLP selection	LM LUUM XS 108H 1 2 3 4 If none, skip to options	LK Door Lock LT Lighted Interior CUST CLR Custom Color

For additional network switches, optical network terminals or lighting and power controllers, please contact your sales representative.
BITS™ micro is intended for use with Sinclair Digital's AGILE-CORE™ Distributed Edge Architecture Solution



FEATURES:

- No local AC Power needed
- Ultra quiet fanless operation allowing use in noise sensitive locations
- NEC Class 2 (LPS) or Class 4 (FMPS) low voltage input power
- Convenient secure ceiling grid mount design reduces space needed to deploy IT & OT end points
- 10GB or more uplink connectivity and power availability exceeding 2000W per BITS™ micro
- Kitted for ease of assembly with UL and ETL listed components
- Works with normal and emergency lighting

APPLICATIONS:

- K-12 Schools
- Office Buildings
- Warehouse
- Manufacturing
- Data Centers
- Advanced Ed and more

SPECIFICATIONS - ELECTRICAL

PDM (Power Distribution Module) PDM-FMP-MW2000-F3

Input Power Voltage:	310 to 350VDC (336 nominal) fault managed power from AGILE-CORE™ HEADEND only
# of Input Channels:	1-2
Input Power Per Channel:	1,260W(VA) @ 336VDC / Up to 3.75A Max
Output Power Voltage:	57VDC
# of Output Ports:	4
Total Output Power: Ports 1 through 3 and Accessory Port	2,016W(VA) @ 57VDC / Up to 35.4A Max Combined Total Load Rating
Output Port 1:	1,008W(VA) @ 57VDC; Up to 17.6A Max
Output Ports 2&3 Combined Output:	1,008W(VA) @ 57VDC; Up to 17.6A Max
Output Port 4 (Accessories):	- Circuits 1 & 2: 114W(VA) @ 57VDC; Up to 2A; unswitched, shared with Output Port 1 - Circuit 3: 57W(VA) @ 57VDC; Up to 1A; switched, shared with Output Port 1 - Circuit 4: 57W(VA) @ 57VDC; Up to 1A; switched, shared with Output Port 2 - Circuit 5: 57W(VA) @ 57VDC; Up to 1A; switched, shared with Output Port 3
Output Protection Feature(s):	Constant current limiting with delay shutdown after 3 seconds, re-power on to recover

USB PDM (Power Distribution Module for Low Voltage DC USB Outlets) PDM-FMP-MW1000-USB

Input Power Voltage:	310 to 350VDC (336 nominal) fault managed power from AGILE-CORE™ HEADEND only
# of Input Channels:	1
Input Current Per Channel:	1,260W(VA) @ 336VDC / Up to 3.75A Max
Output Power Voltage:	36VDC
Total Output Power:	1,008W(VA) @ 36VDC / Up to 27.8A Max Combined Total Load Rating
# of Output Ports:	10
Output Power Per Port:	100W(VA) @ 36VDC / Up to 2.78A Max
Output Protection Feature(s):	Constant current limiting with delay shutdown after 3 seconds, re-power on to recover

LUUM XS-108H DIRECT CURRENT LIGHTING & POWER CONTROLLER

Input Power Voltage:	57VDC from BITS™micro PDM
Input Power:	100 to 1000W
Output Power Voltage:	54VDC
# of Output Ports:	(8) IEEE 802.3bt PoE++ / 2 Channel X-PoE ports
Total Output Power:	1000W(VA) (2.3A max output per port)
Outputs Per Port:	2.3A max per port (each port is split among two separate channels with a 1.15A max output each)
Output Protection Feature(s):	automatic resetting overload and short circuit protection

ALLIED TELESIS IE220 10GHX 980
LAYER 2 NETWORKING SWITCH

Input Power Voltage:	57VDC from BITS™micro PDM
Input Power:	266W(VA) @ 57VDC / Up to 4.67A Max Power Consumption
Output Power Voltage:	48 to 54VDC (240W Max PoE Power Budget)
# of Output Ports:	(8) IEEE 802.3bt PoE++
Total Output Power:	240W(VA)
Output Protection Feature(s):	automatic resetting overload and short circuit protection

TELLABS ONT205 OPTICAL NETWORK TERMINAL

Input Power Voltage:	52-57VDC from BITSmicro PDM
Input Power:	150W(VA) @ 54VDC / Up to 2.78A Max Power Consumption
Output Power Voltage:	48 to 54VDC (140W Max PoE Power Budget)
# of Output Ports:	(5) IEEE 802.3af/at ports / Up to 30W per port / Up to 60W per three high power ports
Total Output Power:	140W(VA)
Output Protection Feature(s):	automatic resetting overload and short circuit protection

SPECIFICATIONS

MECHANICAL

Enclosure:	Installs in 2'x2' drop ceilings
Standard Color:	Putty white
Dimensions:	24" L x 24" W x 12" Tall
Mounting:	• Ceiling/Threaded Rod • 6 RU of standard 19" passive rack mountable space • Door has a capacity of 50 lbs • Removable door mounted assembly with optional (2) keyed locks • Plenum design • Cover opens safely with (2) built in pneumatic cylinders allowing the door to open to 45 degrees
Material Type:	• 16 GA galvanized steel with powder coated finish • Four point built-in support brackets for threaded rod or hangers
Fully loaded weight:	Up to 76 lbs
Enclosure Only weight:	28 lbs

ENVIRONMENTAL:

Operating Temperature:	35 ~ +50C
Storage Temperature:	-40 ~ +85C
Relative Humidity (non-condensing):	20 ~ 90% RH non-condensing
Environmental Space:	Indoor use only

Warranty: see general terms and conditions at sinclair-digital.com

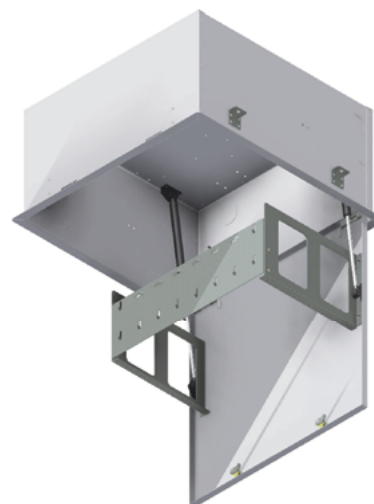
ACCESSORIES

Field installable, order as a separate catalog number

LVDC USBC1 60 W	Low voltage DC powered decorator outlet - (1) USB A & (1) USB C
LIGHTING	AGILE-CORE™ luminaires
LIGHTING CONTROLS	AGILE-CORE™ lighting controls
POE-DCO-100	PoE++ 100W Decorator Outlet - (1) USB C
POE-DCP-65	PoE++ 65W Decorator Outlet - (2) USB C
VTEVO-6-LED	CAT6 Keystone jack 180° w/ LED indicator
VTEVO-6A-LED	CAT6A Keystone jack 180° w/ LED indicator
VTHT-0044-LED	Crimp tool
VT-0010-LEDPDT	Power Test Tool

MOUNTING

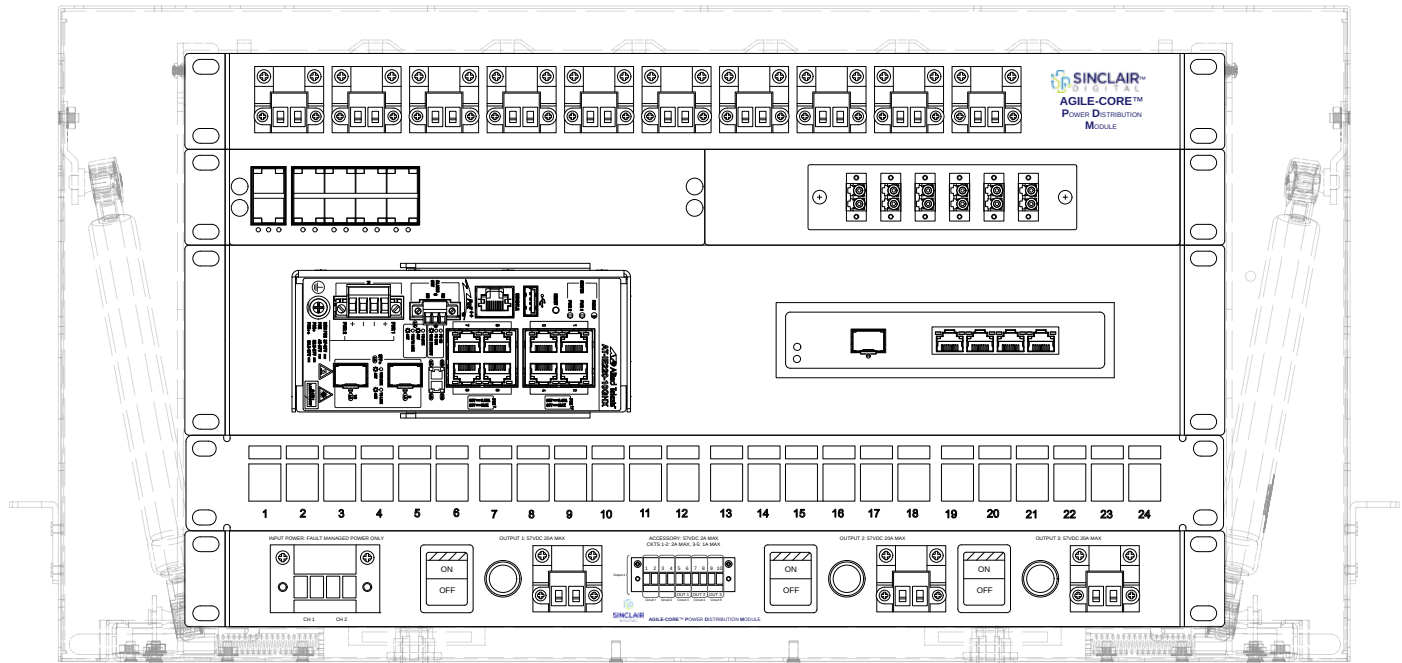
Four point built-in support brackets for threaded rod or hangers. Installer to provide and use third party mounting accessories.



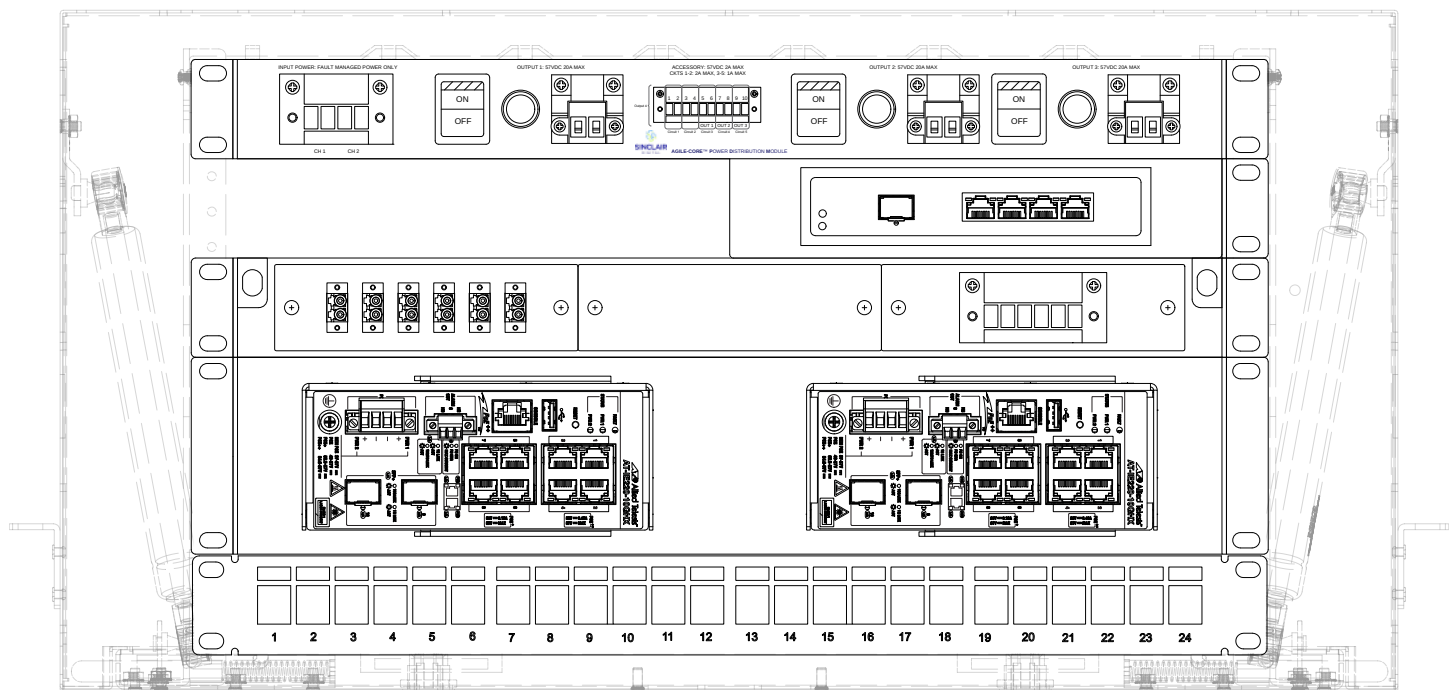
ADDITIONAL DRAWINGS

BTM 2X2 PDM/1 USB/1 AT/1 LM/1

1U - slide out - 3 fiber patch and splice panel not available with this configuration

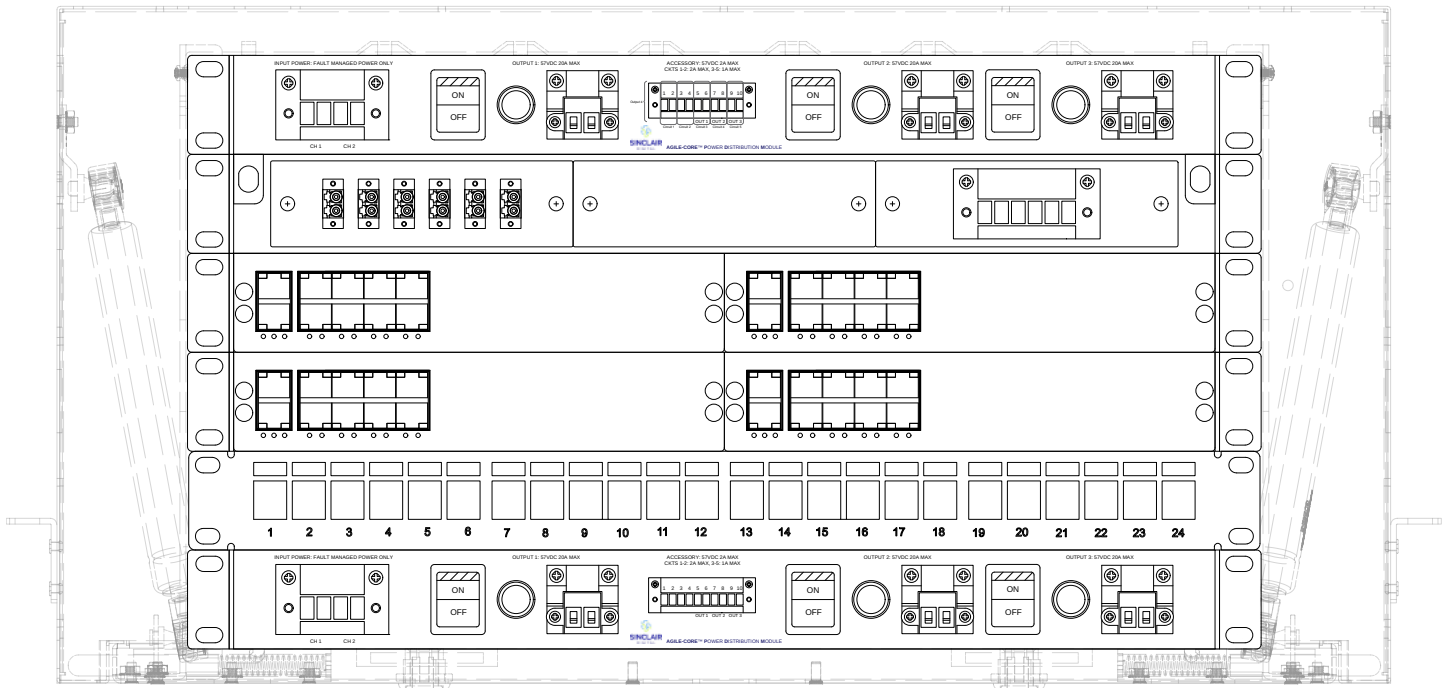


BTM 2X2 PDM/1 AT/2



BTM 2X2 PDM/2 LM/4

Fiber switch for network communication with the DC lighting & power controller is included but not shown

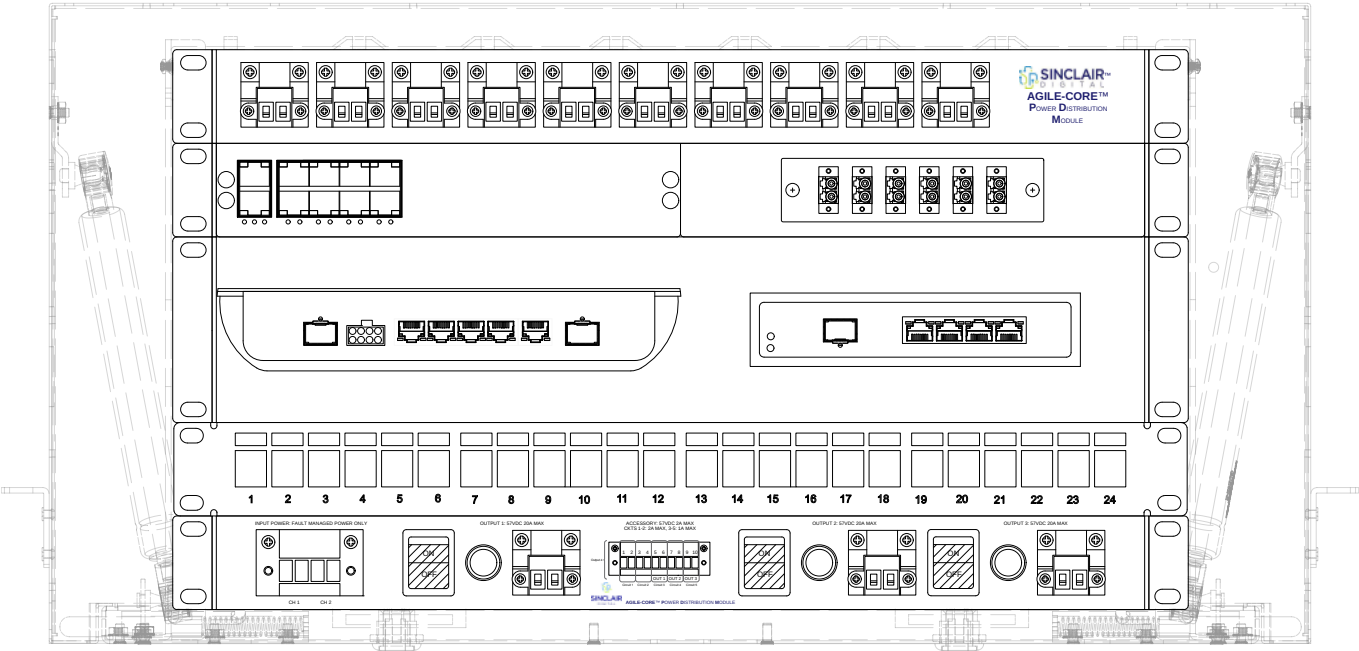


BTM 2X2 USB/4



BTM 2X2 PDM/1 USB/1 TL/1 LM/1

1U - slide out - 3 fiber patch and splice panel not available with this configuration



PERFORMANCE TABLE

of Channels of Fault Managed Power Per BITS™ micro

BITS™ micro Catalog #	# of Input Channels	Recommended Hybrid Cable*
BTM 2X2 PDM/1 AT/2	1-2	HYB ISP FMP16 3P OS2 6F or 12F
BTM 2X2 PDM/1 USB/1 AT/1 LM/1	2-3	HYB ISP FMP16 4P OS2 6F or 12F
BTM 2X2 PDM/2 LM/4	2-4	HYB ISP FMP16 6P OS2 6F or 12F
BTM 2X2 USB/4	4	HYB ISP FMP16 6P OS2 6F or 12F
BTM 2X2 PDM/1 USB/1 TL/1 LM/1	2-3	HYB ISP FMP16 4P OS2 6F or 12F

*Recommendation includes going up to the next available pairs of copper to account for a spare; if using for emergency lighting, recommend adding a pair for EM contact input.

AGILE-CORE POWER DISTRIBUTION AND CONTROL SYSTEM

