

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 total installed and operating cost while providing robust IT and OT network infrastructure.

AC or DC power is fed into the Sinclair Digital Transmitter (HEADEND) then converted to Class 4 Fault Managed Power (FMP). Power and data are converged over hybrid cabling and distributed to Edge IDF's up to 2000 feet away.

The BITS™ Edge IDF – Industrial converts Class 4 power to regulated 56VDC locally and distributes power and data to edge devices including wireless access points, cameras, robotics infrastructure, industrial automation systems, and IoT platforms.

OVERVIEW

The BITS™ Edge IDF – Industrial is a hardened wall or pole mounted enclosure with active components designed for warehouse, manufacturing, fulfillment, and outdoor deployments.

Available enclosure options:

- NEMA 3R – Rain, sleet, and external ice protection
- NEMA 4 & 4X – Hose-directed water protection and corrosion resistance

This solution eliminates local AC branch circuits and centralizes power distribution through AGILE-CORE™.

ORDERING GUIDE:

Example Catalog # BTI-4X-316-R/2-CISCO/2-HX-SPD/4-W



FEATURES:

- No local AC power required
- Powered by remote Class 4 Fault Managed Power Transmitter
- 500W or 1000W 56VDC output configurations
- Multi-vendor industrial Ethernet switch and ONT compatibility
- Configurable DC surge protection
- Single-mode fiber uplink (dual LC patch panel)
- Optional heater, heat exchanger, or DC air conditioner
- Wall or pole mount capable
- Kitted for ease of assembly with UL and ETL listed components

APPLICATIONS:

- Warehouse & Fulfillment Centers
- Manufacturing Facilities
- Loading Docks
- Outdoor Industrial Sites
- Coastal or Corrosive Environments (316 stainless option)

Family	Enclosure Rating (ENV)	Receiver Configuration (RX)	Switch / ONT Configuration <small>Quantity defined after brand selection</small>	Climate Control (CLIMATE)	Surge Protection (SPD)	Mounting (MOUNT)	Options
BTI	3R NEMA 3R – Powder-Coated Steel	R/1 (1) Receiver – 500W @ 56VDC R/2 (2) Receivers – 2x500W @ 56VDC	<ul style="list-style-type: none"> • Cisco IE3300-8U2X • Allied Telesis IE220-10GHX-980-FL01 • Tellabs ONT 205 • Aruba • Extreme Networks • Fortinet • Moxa • Other compatible industrial networking platforms If none, skip to Climate Control Selection	N - None HT - 56VDC Heater HX - DC Heat Exchanger AC - 48–60VDC Air Conditioner	SPD/QTY (1–8) Class 4 / 350VDC DIN rail mounted DC surge protectors provided for installation upstream of the Fault Managed Power receiver inputs. If none, skip to Mounting Selection	W Wall Mount P Pole Mount	3PTLL 3 Pt Latch with Lock
	4 NEMA 4 – Powder-Coated Steel						
	4X-316 NEMA 4X – 316 Stainless Steel (Coastal / Chemical)						

For additional configurations or third-party network equipment integration, contact your sales representative.

SPECIFICATIONS - ELECTRICAL

FAULT-MANAGED POWER RECEIVER

Input Voltage:	240–350VDC (Nominal 350VDC)
Output Voltage:	51–57VDC (Nominal 56VDC)
Output Power:	500W per receiver
Operating Temperature:	–40°C to +65°C
Total System Capacity:	R/1 configuration: 500W R/2 configuration: 1000W

DC SURGE PROTECTION (SPD):

Optional Class 4 rated DIN rail mounted DC surge protective devices provided for installation upstream of the receiver.

- Rated for 240–350VDC Fault Managed Power circuits
- Bonded to facility grounding system
- Installed at cable point-of-entry
- Quantity selectable from SPD/1 to SPD/8
- Passive device – no continuous power draw

DC SURGE PROTECTION (SPD) SELECTION & QUANTITY GUIDE

WHEN TO USE SPD

Strongly Recommended:	Optional:
<ul style="list-style-type: none"> • Hybrid cable routed outdoors • Building-to-building runs • NEMA 4X exterior installations • High lightning density regions • Copper runs >1000 ft • Industrial environments with large inductive loads 	<ul style="list-style-type: none"> • Fully interior runs • Same grounding system • Short runs (<500 ft)

SPD QUANTITY SELECTION

Receiver Configuration	Max FMP Channels	Recommended SPD Quantity
R/1	Up to 4	SPD/1 – SPD/4
R/2	Up to 8	SPD/2 – SPD/8

SPD quantity should match number of FMP copper channels entering enclosure. See above recommendations. If none is required, skip to the next section of cat no ordering matrix.

SPECIFICATIONS

MECHANICAL

NEMA 3R Version:

Enclosure Rating:	NEMA 3R
Material:	Powder-coated steel
Protection:	Rain, sleet, external ice formation
Application:	Indoor / sheltered outdoor

NEMA 4 & 4X VERSION:

Enclosure Rating:	NEMA 4 & 4X
Material Options:	<ul style="list-style-type: none"> • Powder-coated steel • 316 Stainless Steel
Protection:	Hose-directed water, corrosion resistant (4X only)
Application:	Outdoor, wash-down, corrosive or coastal environments (4X only)
Mounting:	Wall or Pole
Door:	Hinged, gasketed, lockable
Cable Entry:	Sealed conduit fittings or gland plate

ENVIRONMENTAL:

Operating Temperature:	Dependent on selected climate option
Storage Temperature:	–40°C to +85°C
Relative Humidity:	0–95% non-condensing

Environmental rating dependent upon enclosure selection (3R,4 or 4X).

PERFORMANCE SUMMARY

Configuration	Available Power	Typical Usable Budget*
R/1	500W	Up to 500W
R/1 + Heater	500W	~450W
R/2	1000W	Up to 1000W
R/2 + AC	1000W	~800W

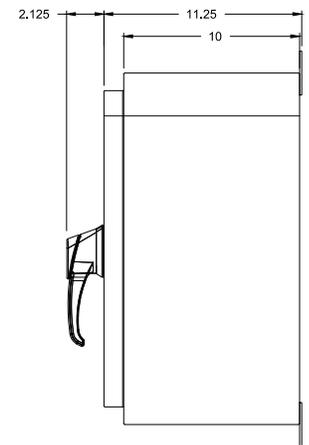
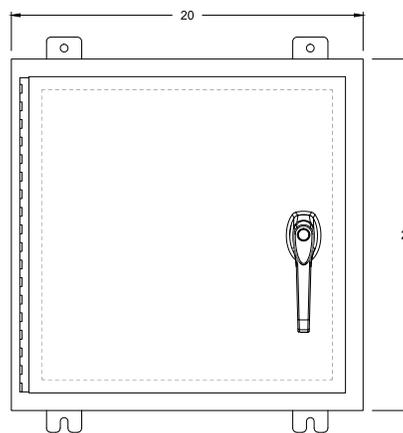
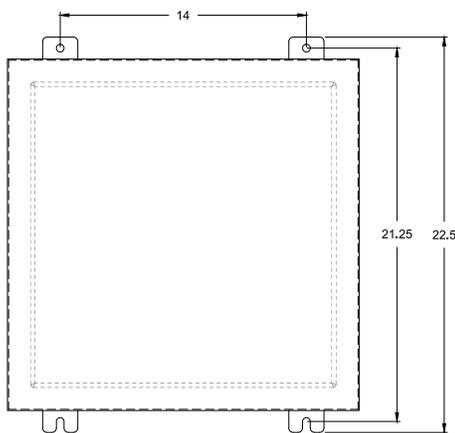
*Usable budget dependent upon switch, climate, and SPD options.

HYBRID CABLE REQUIREMENTS

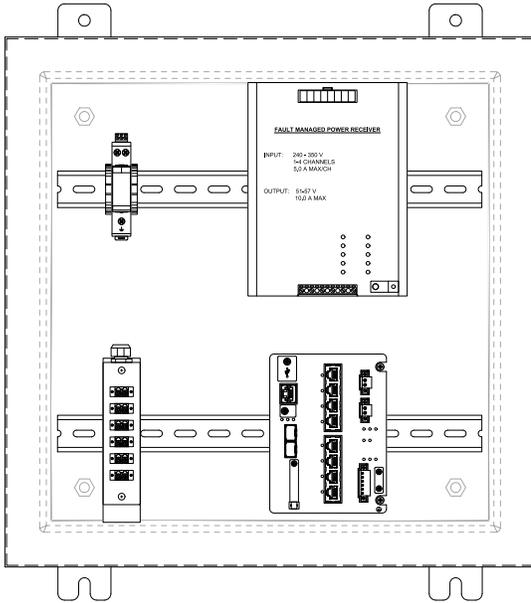
Catalog	RX Config	FMP Channels	Copper Pairs	Fiber Strands	Recommended Cable
R/1-S0	1×500W	1–2	2P	6F	HYB ISP FMP16 2P OS2 6F
R/1-S1	1×500W + 1 Switch	2	3P	6F	HYB ISP FMP16 4P OS2 6F
R/2-S1	2×500W + 1 Switch	2–3	4P	6F	HYB ISP FMP16 4P OS2 6F
R/2-S2	2×500W + 2 Switches	3–4	6P	12F	HYB ISP FMP16 6P OS2 12F
R/2 High PoE	2×500W	4	6P	12F	HYB ISP FMP16 6P OS2 12F

For outside plant applications, change hybrid cable catalog number from ISP to OSP.

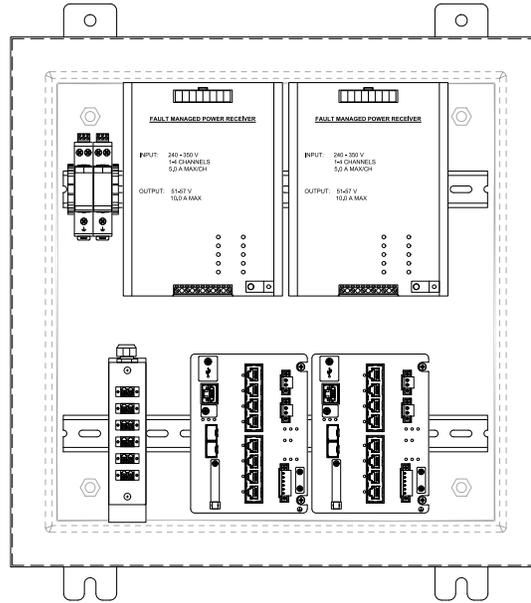
DIMENSIONAL DRAWINGS



ADDITIONAL DRAWINGS



BTI-4-R/1-CISCO/1-N-SPD/1-W



BTI-4-R/2-CISCO/2-N-SPD/2-W

AGILE-CORE POWER DISTRIBUTION AND CONTROL SYSTEM

