



APPLICATION GUIDE

Power Solutions Across Every Industry

INDUSTRY OVERVIEW

Distributed Antenna Systems deliver cellular, Wi-Fi, and public safety radio signals to areas where coverage is limited or nonexistent — large buildings, stadiums, tunnels, hospitals, and underground facilities. DAS head-ends and remote units require continuous, clean power to maintain signal distribution.

Public safety DAS (ERCES/BDA systems) face even stricter requirements. NFPA 1221, IFC Section 510, and local fire codes mandate battery backup durations of 12 to 24 hours for emergency responder communication systems. Power quality at DAS locations is often compromised by shared electrical infrastructure, and many remote units are in ceiling spaces, rooftops, or outdoor enclosures with limited access.

WHY INSTALL POWER PROTECTION FOR DAS?

Signal Continuity

Any power interruption to DAS head-end or remote units causes immediate loss of cellular and radio coverage — impacting thousands of users simultaneously.

Public Safety Compliance

NFPA 1221 and IFC Section 510 require battery backup for ERCES/BDA systems. Non-compliance can result in failed inspections and occupancy delays.

Remote & Harsh Locations

DAS equipment is often installed in rooftop enclosures, ceiling plenums, and parking structures where power quality is poorest and access for service is difficult.

Sensitive RF Electronics

DAS amplifiers, fiber-optic transceivers, and signal processing equipment are highly sensitive to power noise, harmonics, and voltage fluctuations.



This application guide helps RF engineers, DAS integrators, and facility managers select power protection solutions for indoor and outdoor DAS deployments, BDA/ERCES systems, and public safety communications.

EQUIPMENT PROTECTED

- BDA/ERCES Head-End Equipment
- Remote Radio Units (RRH/RU)
- DAS Fiber-Optic Transceivers
- Public Safety Radio Amplifiers
- Cellular Small Cell Sites
- Signal Processing Equipment
- Network Switches for DAS Backbone
- Monitoring & Alarm Controllers

RECOMMENDED MINUTEMAN SOLUTIONS

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output UPS — essential for RF amplifiers
- Rack/Tower for IDF/MDF closets
- Extended battery modules “EBMs” for public safety runtime
- [SNMP](#) communication card slot

Encompass® RTX Online UPS (1–3kVA)

- Double-conversion — zero transfer time
- Cleanest power for DAS head-end amplifiers
- Rack/Tower form factors
- TAA Compliant — government facility DAS
- [SNMP](#) monitoring card slot
- EBMs for public safety runtime

Endurance® Lithium Online UPS

- LiFePO4 battery — 10-year design life
- Wide operating temperature range for rooftop/outdoor
- High-density double-conversion
- Lightweight — ideal for ceiling/wall-mount locations
- Reduced service cycles vs. VRLA batteries

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize power distribution within DAS head-end racks, delivering UPS-protected power to amplifiers, fiber modules, switches, and monitoring equipment from a centralized source.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote monitoring and power cycling of DAS nodes without dispatching technicians. [SNMP](#)/web management integrates with DAS NOC platforms.

SNMP Monitoring Cards

Real-time UPS visibility at every DAS node. Integrates with DAS monitoring platforms for proactive power event management across all sites.

Extended Battery Modules (EBMs)

Meet NFPA 1221 and local fire code requirements for 12–24-hour backup durations on public safety DAS/ERCES systems.

SentryHD Software

Centralized multi-site UPS management with automated alerts. Schedule battery tests and monitor runtime compliance across all DAS locations.

Free Online Tools

www.sizemyups.com

www.sizemypdu.com

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