

Outdoor 1.2 GHz LBA-3827 MDU RF Amplifier Enclosures with 10 Ah 5-Hour UPS

LBA3827-x-UPS-O Series

LINDSAY
BROADBAND

Lindsay Broadband's LBA3827-x-UPS-O series are large, outdoor, multi-dwelling unit (MDU) RF amplifier enclosures with a valve-regulated lead-acid (VRLA) uninterruptible power supply (UPS) backup power system. The UPS is designed to continue to deliver regulated, low noise power to Lindsay's LBA-3827 MDU RF amplifier during AC power failures.

The UPS features 10 Ah hours of battery backup with zero millisecond power transfer time, output overload and battery discharge protection.

Lindsay's LBA-3827 high-gain MDU amplifier delivers reliable performance supporting DOCSIS[®] 3.1 frequencies to 1.2 GHz. The unique design offers configurations for 42, 85 and 204 MHz upstream bandwidth requirements. The two-way amplifier uses the latest 1.2 GHz GaAs FET push-pull technology, providing superior distortion performance and low noise.

The housing is a C/UL listed, lockable, polycarbonate enclosure.



LBA3827-x-UPS-O
(open angled view)

FEATURES

LBA-3827 MDU RF Amplifier

- Fully meets the requirements of DOCSIS 3.1
- Downstream frequency bandwidth extends to 1.2 GHz
- Operating Temperature Range: -40°C to +60°C (-40°F to +140°F)
- Forward gain 38 dB; reverse gain 27 dB
- -20 dB external test points
- GaAs FET push-pull technology for high output levels with low distortions
- Variable-type attenuators & EQs
- Available Diplex Filter Options: 42/54, 85/102 & 204/258 MHz
- 6 kV surge protection on all ports

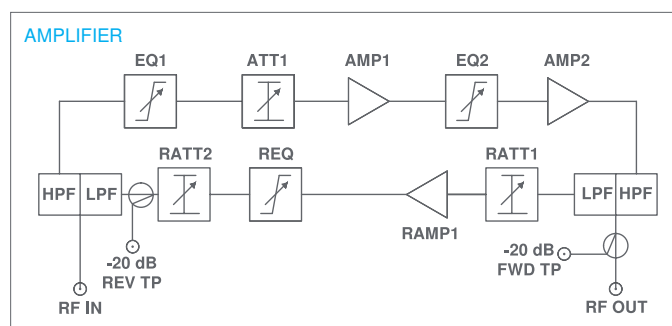
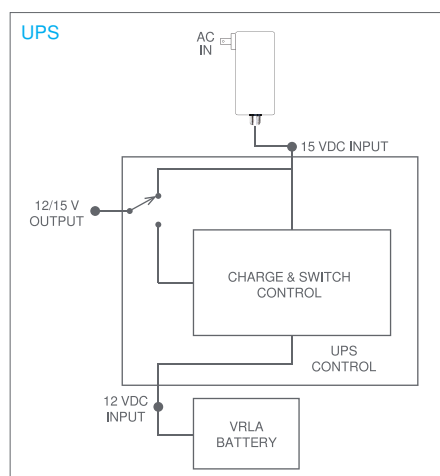
UPS

- 10 Ah battery yields 5 hours of battery backup
- Zero millisecond power transfer time
- Output overload & battery discharge protection

Enclosure

- Vented, weatherproof, wall mount housing with hidden hinge
- Enclosure snap locks & locking override
- Two 1" & two 3/4" ports with rubber grommets for protected cable entry & exit

FUNCTIONAL SCHEMATICS



SPECIFICATIONS

| Parameter | | Specification |
|--|----------------|---|
| UPS | | |
| Power Transfer Time | | 0 ms |
| Backup Run-Time | 5 hrs @ 17 W | Load device dependent - 10 Ah |
| Status Indicators | Power On | Green LED |
| | Battery Mode | Red LED |
| Battery Type | | 12 V 10 Ah sealed VRLA AGM, maintenance-free |
| Battery Overdischarge | | Protected ⁽¹⁾ |
| Amplifier | | |
| | | Forward |
| | | Reverse |
| Bandwidth | | 54/102/258-1220 MHz |
| Average Full Gain | | 38 dB |
| Flatness | | ± 1 dB |
| Return Loss | | -14 dB |
| Test Points | FwdOUT/RevOUT | -20 ± 1 dB |
| Input EQ Control Range ⁽²⁾ | | 0-18 dB |
| Interstage EQ Control Range ⁽²⁾ | | 0-18 dB |
| Output EQ Control Range ⁽²⁾ | | 0-18 dB |
| Input Attenuator Control Range ⁽²⁾ | | 0-20 dB |
| Output Attenuator Control Range ⁽²⁾ | | 0-20 dB |
| Reference Output Level | | 48 dBmV |
| Forward Distortions: 33/48 dBmV (15 dB tilt 54/1220 MHz) output level, 79 NTSC channels, digital at -6 dB from 550 MHz - 1.2 GHz | | |
| CTB | | -66 dBc |
| CSO | | -66 dBc |
| Reverse Distortions: 46 dBmV flat output, 2 CH (13 & 19 MHz) according to ANSI SCTE 1152011 | | |
| DTO | on 7 & 25 MHz | -75 dBc |
| DSO | on 6 & 32 MHz | -60 dBc |
| Noise Figure | with Full Gain | 8 dB |
| Group Delay | 3.58 MHz Span | ≤ 35 ns |
| | 1 MHz Span | ≤ 35 ns |
| Hum Modulation | | -65 dBc |
| Surge Withstand | In/Out | IEEE C62.41-Cat B3, Combination Wave, 6 kV, 3 kA |
| Power, Environmental & Physical | | |
| Power Pack | | 100-240 VAC, AC to DC switching, 15 VDC/1.5 A, C/UL certified |
| Output Voltage | Standby Mode | 15 VDC |
| | Backup Mode | 13.8-11.8 VDC |
| Operating Temperature ⁽³⁾ UPS | | -20°C to +55°C (-4°F to +131°F) |
| Power Consumption | | 17 W |
| Operating Temperature Amplifier | | -40°C to +60°C (-40°F to +140°F) |
| Dimensions (H x W x D) | Open | 15.0"H x 24.5"W x 3.0"D (38.1H x 62.2W x 7.6D cm) |
| | Closed | 15.0"H x 13.0"W x 4.3"D (38.1H x 33.0W x 10.9D cm) |
| Weight | | 12.4 lb (5.6 kg) |

NOTES:

Typical for T = +20°C (+68°F); ZIN=ZOUT = 75 Ω

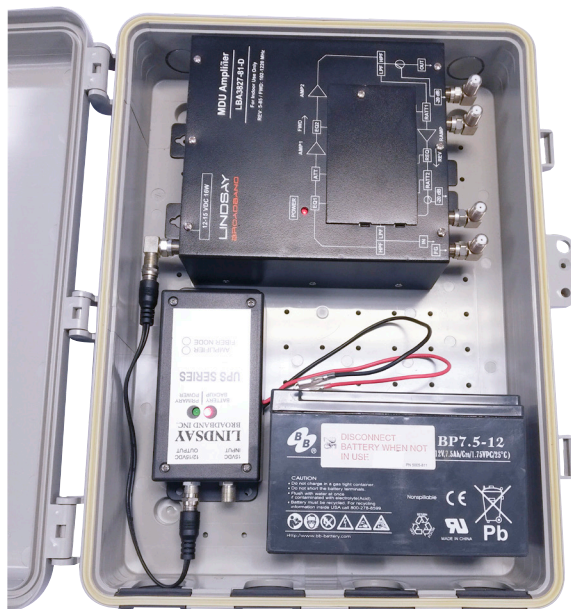
(1) The NIU/CPE equipment will be automatically disconnected when the battery is discharged but the battery terminals should be disconnected if the UPS will be unpowered or in storage for more than 2 days

(2) Continuously adjustable with hard stop at ends of rotation

(3) Battery backup time reduced at cold. Battery lifetime reduced at hot. Optimal operating temperature is +20°C (+68°F)

ORDERING INFORMATION

| Part # | Description |
|-----------------|---|
| LBA3827-L-UPS-O | Outdoor large enclosure with 10 Ah, 5-hour, VRLA battery & charge controller, & LBA-3827 1.2 GHz, 42/54 MHz split, MDU RF amplifier |
| LBA3827-M-UPS-O | Outdoor large enclosure with 10 Ah, 5-hour, VRLA battery & charge controller, & LBA-3827 1.2 GHz, 85/102 MHz split, MDU RF amplifier |
| LBA3827-H-UPS-O | Outdoor large enclosure with 10 Ah, 5-hour, VRLA battery & charge controller, & LBA-3827 1.2 GHz, 204/258 MHz split, MDU RF amplifier |

LBA3827-x-UPS-O
(open view)