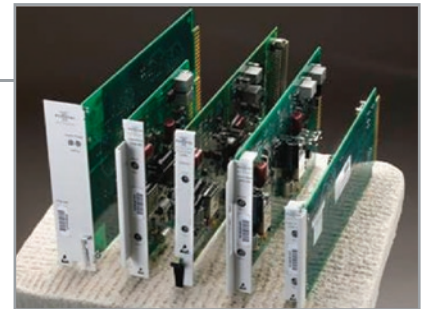


# EPMs

## EXPRESS POWER MODULES

Advancing Technologies for Broadband Service Providers • UTStarcom combines Universal Line Powering, a patent-pending power aggregation technology, with industry standard DSL line feed. Universal Line Powering enables service providers to reach subscribers with high speed broadband offerings regardless of their distance from the Central Office or DLC.



- **HARDENED FOR CO OR RT DEPLOYMENTS**
- **PROVIDES LINE POWER FOR REACHES BEYOND 60,000 FEET**
- **INDUSTRY STANDARD MECHANICS: 220, 3192, DDM+, TA3000, AND 200**
- **NEGATIVE VOLTAGE ONLY OPTION TO REDUCE POTENTIAL FOR COPPER LOOP CORROSION**
- **EXPRESS POWER CALCULATOR TOOL SIMPLIFIES POWER PLANNING**
- **NEBS LEVEL 3, UL, AND CSA CERTIFIED**

### UNIVERSAL LINE POWERING

UTStarcom's Universal Broadband Server (UBS) is a line-powered, environmentally hardened, hermetically sealed remote DSLAM. The UBS incorporates patent pending power aggregation technology that allows it to simultaneously use the power from the copper pairs that carry the HDSL2 or HDSL4 data and power from a separate express power pair.

For those locations where express power is required to provide further reach, UTStarcom supplies Express Power Modules (EPMs). The EPMs reside on a plug-in card that replicates the DC line powering properties of HDSL2 or HDSL4 technologies to deliver power over separate express power pairs.

### INDUSTRY COMPATIBLE DEPLOYMENT

EPMs are available in a variety of industry standard factors. For the central office EPM are available for 220, 3192, DDM+, and TA3000 mechanics, ensuring that power can be provided from any standards-based CO shelf. The EPMs is also available in 200 mechanics form factor allowing service providers to provision express power from smaller remote housings.

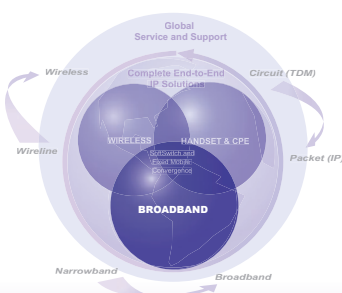
The voltage provided by the EPM was selected to be consistent with T1-418-2002 for powering over HDSL2 and HDSL4. Each EPM provides two power outputs for providing power to the UBS. Each power output provides up to 100mA of power at either -180 VDC. or +/- 96VDC (user selectable).

### SIMPLIFIED POWER PLANNING

The actual number of pairs required for a given application will vary based on the gauge, distance, loop conditions, and whether or not mid span repeaters are employed. To simplify power planning, UTStarcom provides an intuitive, easy to use web-based calculator. This planning tool allows users to easily plan for the required number of power pairs per UBS system.

### SAFETY

This power module meets the requirement of UL and of Telcordia GR-1089 specifications and has specifically been demonstrated to meet all safety requirements for handling by field technicians who may have barehanded contact with the output voltage. This is protected by short circuit, over current, lightning surge and power cross protection circuitry. so that technicians installing or working around this equipment do not come into contact with hazardous voltages/energy.



# Technical Specifications



## PHYSICAL

### Dimensions:

200 Mechanics:	5.6x.7x5.9.5 lbs
220 Mechanics:	5.9x1.4x10.5 lbs
3192 Mechanics:	4.9x.8x10.5 lbs
DDM+ Mechanics:	3.5x1.65x10.3.5 lbs
TA 3000 Mechanics:	5.2x1.3x10.5lbs

## POWER

Input Power:	-48VDC
Input Voltage:	-48VDC
Number of Outputs per EPM:	2
Output Voltage:	-180 VDC Line power or +/- 96VDC
Maximum output Current:	100mA per pair
Indicators:	Power on LED

## ENVIRONMENTAL

Operating temperature:	-40C to +70C
Storage temperature:	-40C to +85C
Humidity:	0% to 95% non condensing%
Altitude:	10000ft

## REGULATORY AND SAFETY CERTIFICATIONS

- NEBS GR=63-CORE
- GR-1089-CORE for Class A voltages
- FCC Part 15 Class A
- UL 60950-Part 21 remote power certified

Please note the information contained herein is for informational purposes only. Technical claims listed depend on a series of technical assumptions. Your experience with these products may differ if you operate the products in an environment, which is different from the technical assumptions. UTStarcom reserves the right to modify these specifications without prior notice. UTStarcom makes no warranties, express or implied, on the information contained in this document.

**UTStarcom, Inc. USA**  
1275 Harbor Bay Parkway  
Alameda, CA 94502 USA  
Tel: 510-864-8800  
Fax: 510-864-8802

[www.utstar.com](http://www.utstar.com)

### About UTStarcom, Inc.

UTStarcom is a global leader in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless, and handset solutions to operators in both emerging and established telecommunications markets around the world. UTStarcom enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks. Founded in 1991 and headquartered in Alameda, California, the company has research and design operations in the United States, China, Korea and India. UTStarcom is a FORTUNE 1000 company. For more information about UTStarcom, visit the company's Web site at [www.utstar.com](http://www.utstar.com)

Copyright © 2006 UTStarcom, Inc. All Rights Reserved. UTStarcom is a registered trademark, and the UTStarcom logo and A World of Better Communication are trademarks of UTStarcom, Inc. and its subsidiaries.