



SKU: 0101-0066

Category:

High Density Remote Power Supply Unit (HD R-PSU)

The Tellabs 1000 Multi-service Access Platform (MSAP) Series High Density Channel Bank Assembly (HD CBA) Remote Power Supply Unit (HD R-PSU) plug-in card converts standard -48 V DC from batteries or a rectifier into the voltages required by the common control equipment and plug-in cards located in a HD CBA.

Features

- Low thermal dissipation
- Low output voltage alarm
- Over-voltage/over-current shutdown
- Thermal overload protection
- Reverse input polarity protection
- Programmable ringing generator
- High-efficiency switching DC-DC converter
- Compatibility with the Tellabs 1000 series HD CBA only

Highlights

Superior Reliability

A Tellabs 1000 series HD CBA requires only one HD R-PSU card; however, a second dedicated power supply slot allows for redundancy. When two HD R-PSUs are installed, they share the total power load to the HD CBA. In addition, if one HD R-PSU fails, the second carries the total power load. The HD R-PSU card features input fusing to protect redundancy.

Efficient Operations

The HD CBA R-PSU card also generates sine wave ringing voltage for use by the subscriber interfaces. The card uses a DC-to-DC switching converter for high efficiency and low thermal dissipation.

Ease of Maintenance

LEDs and receptacles on the faceplate of the HD R-PSU plug-in card have the following uses. Visual LEDs to identify quick operations, troubleshooting and fusing conditions. Three system voltage sampling jacks are also present for +5Vj ack, -48V jack, and Ground.

Specifications

LED Indicators

- Red FUSE: Failed fuse on plug-in card
- Green ACTV: Plug-in card is active
- Red FAIL: Plug-in card failure

Test and Measurement

- +5V jack
- 48V jack
- GND jack

DC-DC Converter

- Low voltage disconnect: -37 V DC
- Low voltage alarm: -44 V DC
- Output: +5.15 V DC 31.5% and -5.15 V DC 310.0%
- Input: -42.0 to -60.0 V DC

Regulation

- 35.15 V DC: $x < 1.5\%$ load, $x < 1.5\%$ line and $x < 0.2\%$ per specified temp range
- $< 1.5\%$ line
- $< 1.5\%$ load

Ripple and Noise (DC – 20 MHz)

- 52 V DC, -32 V DC: < 100 mV peak-to-peak
- 35 V DC: 1.0% peak-to-peak

Output Current

- Total available output: 165 W
- 32 V DC: 3 A
- 52 V DC: 2 A
- 5 V DC: 3 A
- +5 V DC: 20 A

Isolation

- Output ground: Referenced to input battery ground
- Internal converter: 500 V input to output

Ringing Generator

- Power (continuous) 5 REN
- Frequency tolerance $\pm 2.5\%$
- Output frequency in Hz (provisionable): 16.7, 17.7, 18.7, 20.0, 21.0, 22.3, 23.5, 25.0, 26.4, 28.0, 29.8, 31.6, 33.3, 35.4, 37.6, 40.0, 42.2, 44.4, 47.4, 50.0 Hz
- Voltage tolerance: $\pm 5\%$
- Output voltage range: 60, 65, 85, 95 V AC
- Pedestal voltage: -48 V DC

Environmental

- Humidity: 5% – 95%, non-condensing
- Storage temperature: -40°C to $+70^{\circ}\text{C}$ (-40°F to $+158^{\circ}\text{F}$)
- Operating temperature: -40°C to $+65^{\circ}\text{C}$ (-40°F to $+149^{\circ}\text{F}$)

Physical

- Weight: 1.0 lb (0.45 kg)
- Depth: 10.5 in (26.67 cm)
- Width: 1.0 in (2.54 cm)
- Height: 5.125 in (13.018 cm)

Compliance

- GR-1089-CORE