

Power & Communication Distribution Unit – Ground Mobile (PCDU-GM) series

**Full protected power supply and charger from vehicle power.
Fast battery charger (Enable working while charging)**

General Description

PCDU-GM is a vehicular multipurpose power distribution, battery (4Cell Li-Ion) charger and LAN (1GBT) signal transfer unit. The PCDU connects and charges 2 individual consumers channels Man Portable Energy Pack (MPEP), while facilitates on-line mission operation.

It has the capabilities of:

- Supply regulated power voltage for man portable electronic equipment such as: Ruggedized field computers, Displays etc.
- Charging smart batteries using SMBus communication protocol.
- Identifying vehicle power source capacity (small wheeled vehicles or armored heavy vehicles), for the determining appropriate charging current.
- Indication of fault situation and charging status.
- Fail Safe situation for alternate channel.
- Output short circuit protection
- Fully comply with MIL-STD-1275 and MIL-STD-461.



Typical Specifications

- Comply with MIL-STD-1275 in all versions.
 - ✓ Input steady-state voltage: 18 to 32 VDC
 - ✓ Transient surge: 100V@50mSec
 - ✓ Transient spike: $\pm 250\text{Vpk}@15\text{mJoul}$
 - ✓ 7Vp-p ripples, up to 200KHz.
 - ✓ Polarity protection provided
- Output voltage:
 - ✓ 12V output - man portable equipment
 - ✓ 16.8V max charger voltage.
- Shut down (On-Off switch), provided
- Return line floated.
- Provided short circuit/over current protection, electronic self recovery circuit breaker.
- Push button, (temporary operation) for indications
- Max charging current – 7A per channel.

Environmental Conditions:

Fully comply with MIL-STD-810F:

| | |
|---------------------------|---|
| Operating Temperatures: | - 20°C to 55°C |
| Storage temperatures: | - 40°C to 70°C |
| Vibration: | Method 514.5, Proc I, Cat 20 Ground Vehicle. |
| Shock: | 40g X 15ms Saw Tooth |
| Humidity: | Method 507.4 (240 hrs up to 95% @60°C) |
| Salt Fog | Method 509.4 |
| Operating altitude: | Up to 30,000 @-40°C |
| Comply with MIL-STD-461E: | CE101, CE102, CS101, CS114, CS115, CS116, RE102, RE103, RS101, RS103. |

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