



AstreX Inc.

# AXPHDY-PDU

## Power Distribution Unit for Micro Satellite

### ■ Outline

The AXPHDY-PDU is a device that distributes the supplied power as an unstable power supply of 28V, and as a stable power supply of 5V.

The power supply path has a complete double redundant circuit configuration, and the control units do not interfere with each other. As a result, in case a part or all of one of the control circuits fails, the other side can continue supplying power to the connected devices.

The digital control unit and the analog control unit are characterized by high noise resistance performance, with the GND isolated by the isolation circuit.



Figure.1-1 AXPHDY-PDU

### ■ Spec

BUS I/F	+22V~+33V
Output Line [28V]	10ch
Output Line [5V]	10ch
Heater Line [28V]	5ch
MTQ Line [5V]	3ch
Communication I/F	RS422/485 : 2ch   Reset : 2Line
Size	206mm × 192mm × 55mm *1
Weight	1.3kg *1
Number of connectors	11 (D-Sub connector)

# AXPHDY-PDU

## Feature

- ◆ UVC/overcurrent trip control function for connected devices
- ◆ OBC telecommunication function in RS422/485 (Commands reception & control, and telemetry transmission)
- ◆ Fully electrically isolated configuration of the analog and digital sections
- ◆ The BUS power supply and 5V power supply are electrically fully insulated.
- ◆ Various current and voltage monitors with up to 12 bits
- ◆ Complete double redundant circuit configuration
- ◆ 5V-MTQ's dedicated power-supply function
- ◆ Overlay on AXPHDY-PCU and chassis is possible



Figure.1-2 AXPHDY-PCU+PDU

Example of a device connection

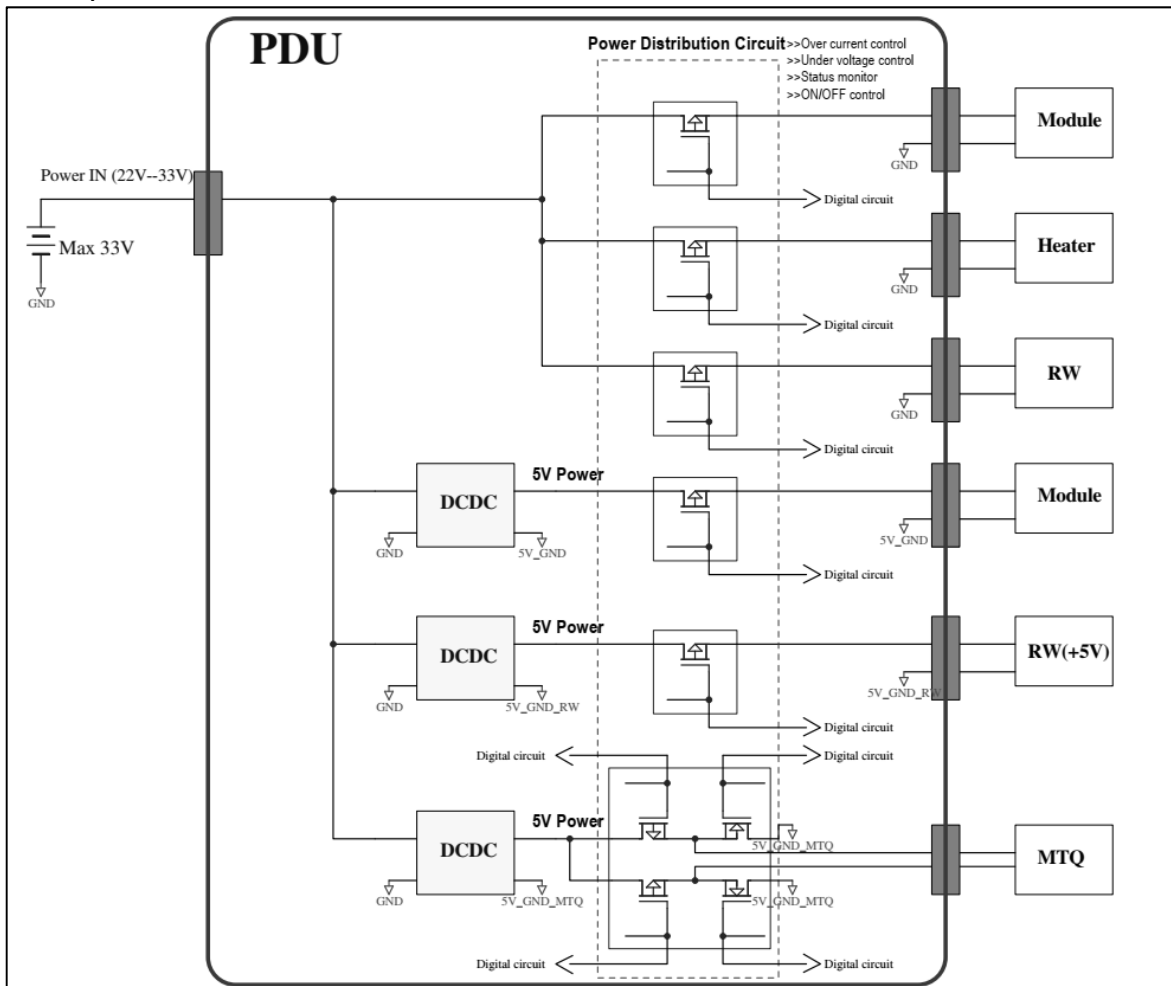


Figure.1-3 Power supply circuit diagram

\*1 : Some errors occur during manufacturing.