

VOLTA 1281

All-in-One Power Conditioning & Distribution Unit

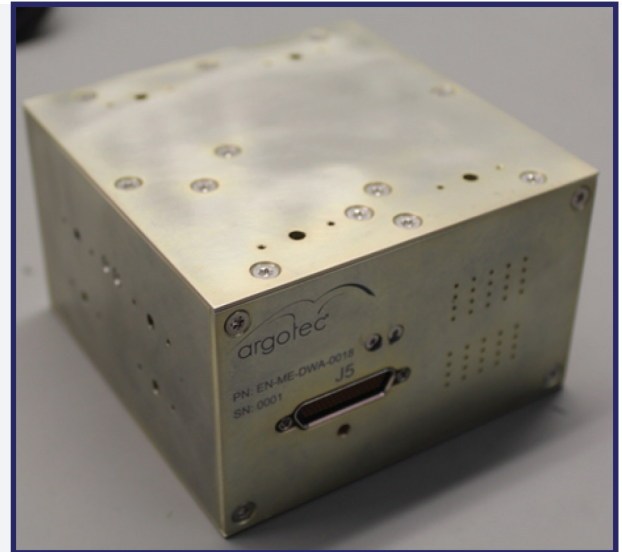


PRODUCT BRIEF

Argotec VOLTA 1281 is an all-in-one PCDU developed to cover a wide variety of application targeting micro-satellite platform.

The unit features solar panels management capabilities, battery charging regulation and isolated, latch-up protected secondary power rails.

The main bus nominal voltage is 28V and the secondary power rails can reach 100W (aggregated). Despite the usage of space-qualified components, the unit form factor is extremely compact: the overall volume is about 0.6U.



SOLAR PANELS MANAGEMENT

The primary DCDC converter is designed to manage 100W+ supplied by solar panels, 20V nominal working voltage.

The Maximum Power Point Tracking algorithm maximizes the power extraction under all conditions.

Voltage and current telemetries are available for both input and output rails of the primary DCDC converter are available. The converter itself is equipped with anti-SEL and anti-SET mechanisms.

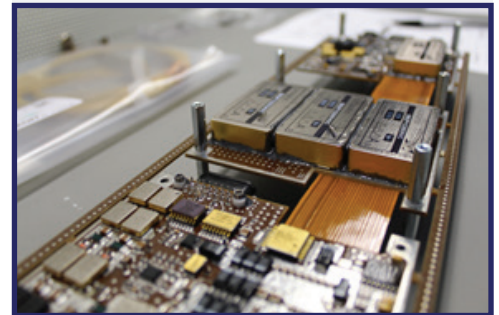
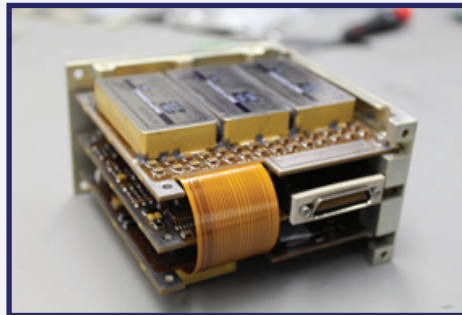
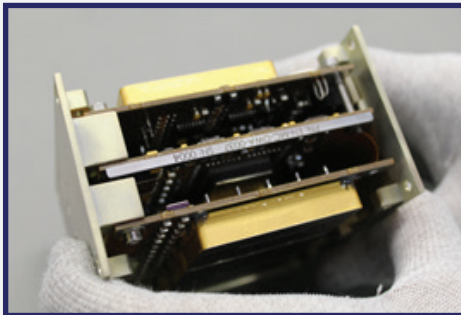
BATTERY CHARGER

The unit executes a Battery Charging Regulation algorithm to ensure the correct management of a battery pack connected to the main bus.

The BCR is tuned for a 28V, 140Wh battery pack with charge current up to 3A. A dedicated voltage sense line is reserved for the battery pack, and its temperature can be monitored installing an external NTC.

POWER CONVERSION DISTRIBUTION

Secondary, isolated DCDC converters make available 1x 3.3V, 1x 5V and 2x 12V buses. Secondary DCDC converters are connected to the main bus through an EMI filter. The aggregated output power reaches 100W. Each secondary power rail includes programmable anti-latch-up protection. Voltage and current telemetries are remotely collectable using 2x RS422 UART.



For further information

info@argotecgroup.com
www.argotecgroup.com