



CPS-HE

Micross CPS-HE is a multi-output converter designed for powering, processing, and mixed signal applications. The 3U form factor and back-plane connector allows for easy rack installation. The CPS-HE includes a broad set of control features and telemetries as well as output sequencing for safe turn ON and OFF.

**RAD-HARD, ITAR FREE**  
**100 kRad and 60 MeV**

## FEATURES

### Electrical Performance

- Eight Outputs for Mixed Signal Applications
- Dedicated Analog Ground for Two of the Outputs (Pos. Neg. Supply)
- Un-Switched Outputs are Always ON, Switched Outputs can be Turned ON and OFF by Command
- Telemetries: Temperature, Over Voltage, Output Voltage, Status, Input Current
- Commands: Master ON/OFF, Switched Outputs ON/OFF, Over Voltage Disable and Rest
- Output Sequencing During Turn ON/OFF
- Input Under Voltage Protection and Output Overload Protection
- Load Step Transient Response:  $\pm 5\%$  for a 50% to 100% Load Step
- WC EOL Output Voltage Accuracy:  $\pm 2\%$  for V3, V6, V7, V8  
 $\pm 5\%$  for V1, V2, V4, V5

### Mechanical

Outline Excl. Connectors	Mass
PCB: 124.2mm x 84.7mm x 23.6mm	< 320g
Chassis: 155mm x 70mm x 23.5mm	< 410g

### Output CE:

V1 and V2: < 10mVrms (50Hz to 50MHz)  
V3 to V5: > 5.0mVrms (50Hz to 50MHz)  
V6 to V8: < 1.0mVrms (50Hz to 50MHz)

### Output CE:

Input to Outputs  
All Outputs: >50dB

### Output Configurations

Un-Switched Outputs		Switched Outputs	
V1: +5V to +18V	0.5A or 5W	V4: +5V to +18V	1A or 10W (Analog GND)
V2: -5V to -18V	0.5A or 5W	V5: -5V to -18V	1A or 10W (Analog GND)
V3: +2V to +5.5V	2A or 5W	V6: +2V to +5.5V	2A or 5W
		V7: +2V to +15V	15A or 50W
		V8: +2V to +15V	10A or 35W

## BENEFITS

### Standard 3U Form-Factor, Tailored to Spec

- Outputs Can Be Configured to Customer Specifications
- Two High Efficiency Main Outputs + Six Low Power Auxiliary Outputs
- Separate Ground for Analog and Digital Domains
- On-Board EMC Filters Ensures Compliance Without Additional Filtering
- Input to Output Power Efficiency of up to 85%
- Design Data Package & Product Control Documentation Available

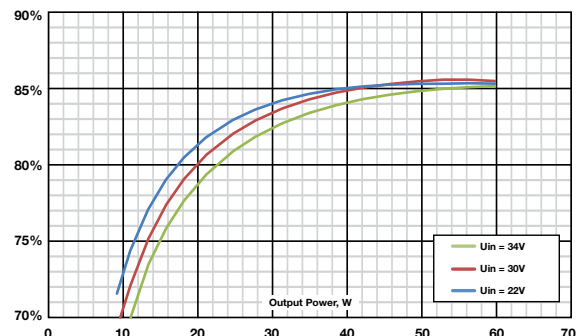
### Design Expertise

Our team helps review and specify payload specific DC-DC converters to ensure maximum compatibility and minimum risk at equipment level. We design, develop, manufacture and test complete DC-DC solutions for effortless payload integration.

### Rapid Delivery for Tailored Designs:

- 6 Months for Engineering Models
- 9 Months for CDR Data Package
- 12 Months for Flight Units

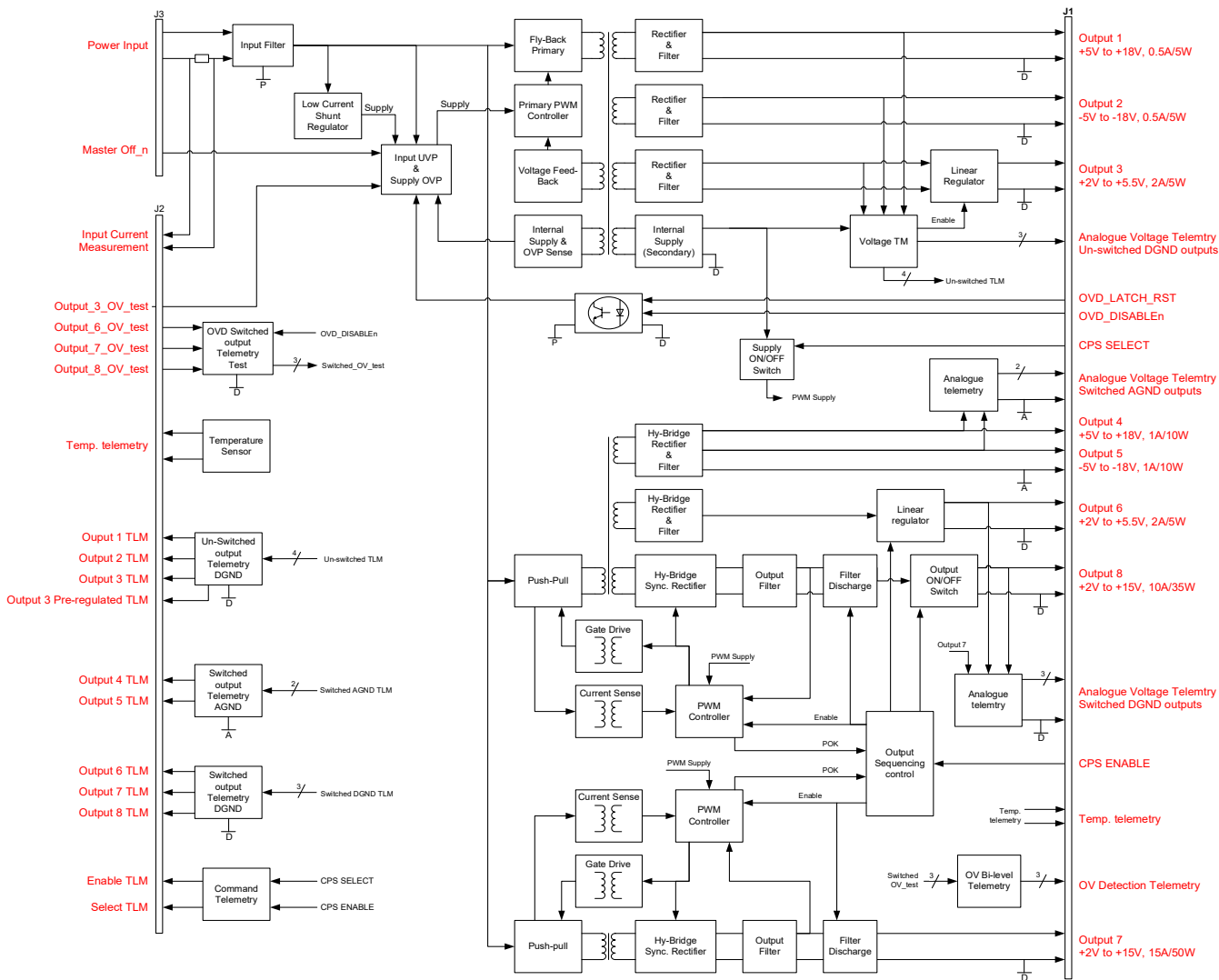
Typical Efficiency



All 4 Outputs Loaded Equal Relative to Max Load

# CPS-HE Series

## GENERIC BLOCK SCHEMATIC



### Flight Qualified and Export Approved Configurations

Part #	Input Voltage	V1	V2	V3	V4	V5	V6	V7	V8
		DGND			AGND			DGND	
12144	24V - 34V	+15V / 50mA	-15V / 30mA	+3.3V / 600mA	+15V / 130mA	-15V / 190mA	+5V / 710mA	3.3V / 8.1A	2.5V / 3.5A

ECCN: 9A515.y.1

### About Micross

Micross is the most complete provider of advanced microelectronic services and component, die and wafer solutions. With the broadest authorized access to die & wafer suppliers, an extensive portfolio of hi-rel power, RF, optoelectronics, memory, data bus, logic, and SMD/5962 qualified products, and the most comprehensive advanced packaging, assembly, modification, upscreening, and test capabilities, Micross is uniquely positioned to provide unparalleled high-reliability solutions, from bare die, to fully packaged devices including hermetic ICs/MCMs, PEMS, ASICs, FPGAs, and PCBs, to complete program life-cycle sustainment. For more than 45 years, Micross has been a trusted source for the aerospace, defense, space, medical, energy, communications, and industrial markets.



### Need Information?

- Quote Request: [micross.com/quotes](http://micross.com/quotes)
- General Requests: [micross.com/info](http://micross.com/info)
- Technical Support: [micross.com/tech-support](http://micross.com/tech-support)