



MAS

The MAS series converters offer state-of-the-art performance and are ideal as electronic power conditioner (EPC) for low noise RF applications, such as LNA, MRO and Up/Down converters. The MAS-series offer a combined output power of 15W and can be tailored to specific spacecraft bus and equipment requirements.

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

## FEATURES

### Electrical Performance

- Low Power EPC for RF Applications
- Designed for Noise Sensitive RF-Systems
- Output Voltage Telemetry
- Input Current Telemetry
- Output ON/OFF Sequencing
- WC EOL Output Voltage Accuracy:  $\pm 2\%$  incl. Line and Load
- Load Step Transient Response:  $\pm 5\%$  for a 50% to 100% Load Step

### Mechanical

PCB: 85mm x 50.8mm x 18mm <72g

### Output CE:

All Outputs: < 1mVrms (50Hz to 50MHz)

### CS Rejection Input to Outputs:

All Outputs: > 90dB

### Output Configurations

The MAS-series can be tailored to most satellite platforms and the outputs can be configured to customer specific payload requirements.

Output 1: +2.5V to +15V	Max 1.5A / 9W
Output 2: +2.5V to +15V	Max 1A / 5W
Output 3: -2.5V to -15V	Max 0.2A / 1W

## BENEFITS

- Fully Customizable to Match Satellite Platform & Payload Requirements
- Three Low Noise Outputs with Individual Linear Regulators
- ON/OFF Telecommand Interface
- On-Board EMC Filters Ensures Compliance without Additional Filtering
- Input to Output Power Efficiency of Up to 71%
- Design Data Package & Product Control Documentation Available

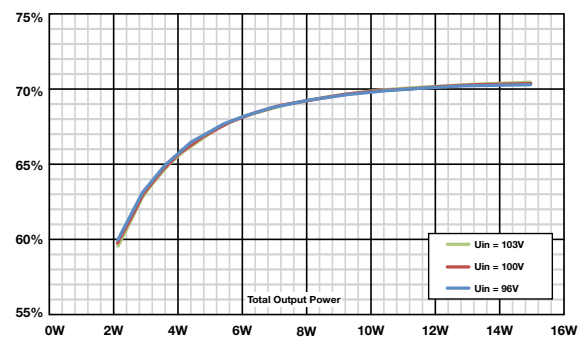
### Design Expertise

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

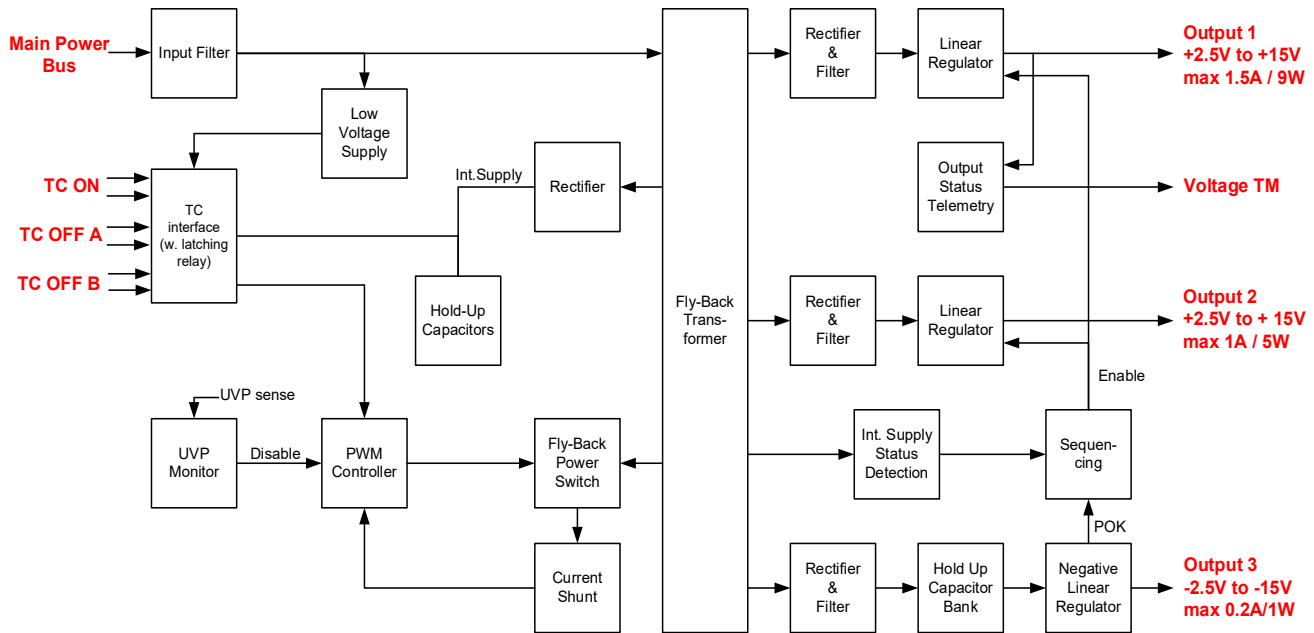
Typical Efficiency



Efficiency vs. Total Output Power, Parametric with Input Voltage

# MAS Series

## GENERIC BLOCK SCHEMATIC



Flight Qualified and Export Approved Configurations				
Part #	Input Voltage	V1	V2	V3
12042	97V - 103V	+6.0V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12048	49.1V - 50.5V	+5.0V / 1.50A	+15.0V / 0.05A	-5.0V / 0.02A
12056	46.5V - 52V	+6.6V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12058	46.5V - 52V	+8.0V / 0.70A	+12.0V / 0.05A	-5.0V / 0.02A
12059	46.5V - 52V	+6.0V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12069	54.5V - 74V	+6.0V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12070	97V - 103V	+8.0V / 0.70A	+12.0V / 0.05A	-5.0V / 0.02A
12071	97V - 103V	+6.0V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12080	33V - 39V	+6.6V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12084	33V - 39V	+6.0V / 1.50A	+12.0V / 0.02A	-5.0V / 0.05A
12105	24V - 34V	+6.0V / 1.50A	+12.0V / 0.05A	-5.0V / 0.02A
12120	96V - 103V	5.0V / 1.23A	+8.0V / 0.35A	-5.0V / 0.14A
12126	33V - 39V	10.5V / 0.53A	+5.5V / 0.30A	Not Fitted
12160	98V - 101V	+10.5V / 0.35A	+5.5V / 0.15A	Not Fitted

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.



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