micross
one source. one solution.®

EAR Series
for High Power RF Amplifiers

Product Brief

EARB

EARC

EART

Micross EAR converters offer state of the art performance and is ideal as centralized power supply for RF amplifiers. The EAR includes all features needed for cold redundant operation and can be tailored to specific spacecraft bus and equipment requirements.

RAD-HARD, ITAR FREE
100 kRad and 60 MeV

FEATURES

Electrical Performance

- Centralized EPC for RF Transmitters
- Designed for Cold Redundant RF-Systems
- Output OR-ing and Output Over-Voltage Protection
- User Adjustable Voltage for Output 1
- Output ON/OFF Sequencing
- WC EOL Output Voltage Accuracy: ± 2% Including Line and Load
- Load Step Transient Response: ± 5% for a 50% to 100% Load Step

Mechanical

PCB Outline Excl. Connectors	Mass
EARB: 155mm x 65mm x 22.5mm	< 250g
EARC: 155mm x 84mm x 25mm	< 285g
EART: 155mm x 84mm x 25mm	< 285g

Output CE:

V1 and V2: < 10.0mVrms (50Hz to 50MHz)

V3 and V4: <1.0mVrms (50Hz to 50MHz)

CS Rejection Input to Outputs:

V1 and V2: > 40dB

V3 and V4: > 85dB

Output Configurations

Output 1: +2.5V to +30V	20A / 140W max
Output 2: +2.5V to +15V	1A / 5W max
Output 3: -2.5V to -15V	1.2A / 10W max

BENEFITS

Standard Form-Factors, Tailored to Spec

- Fully Customizable to Match Satellite Platform and Payload Requirements
- Outputs Can Be Configured to Customer Specifications
- One High Efficiency Main Output + Two Low Noise Auxiliary Outputs
- On-Board EMC Filters Ensures Compliance Without Additional Filtering
- Input to Output Power Efficiency of up to 92%
- Design Data Package & Product Control Documentation Available

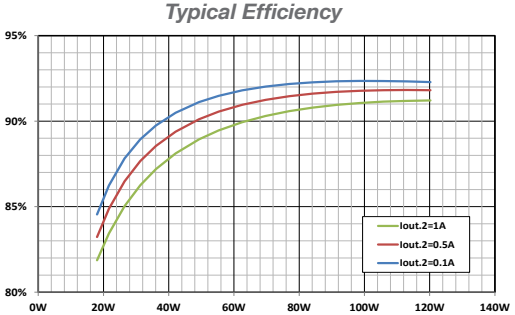
Design Expertise

Our team helps review and specify payload specifics 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

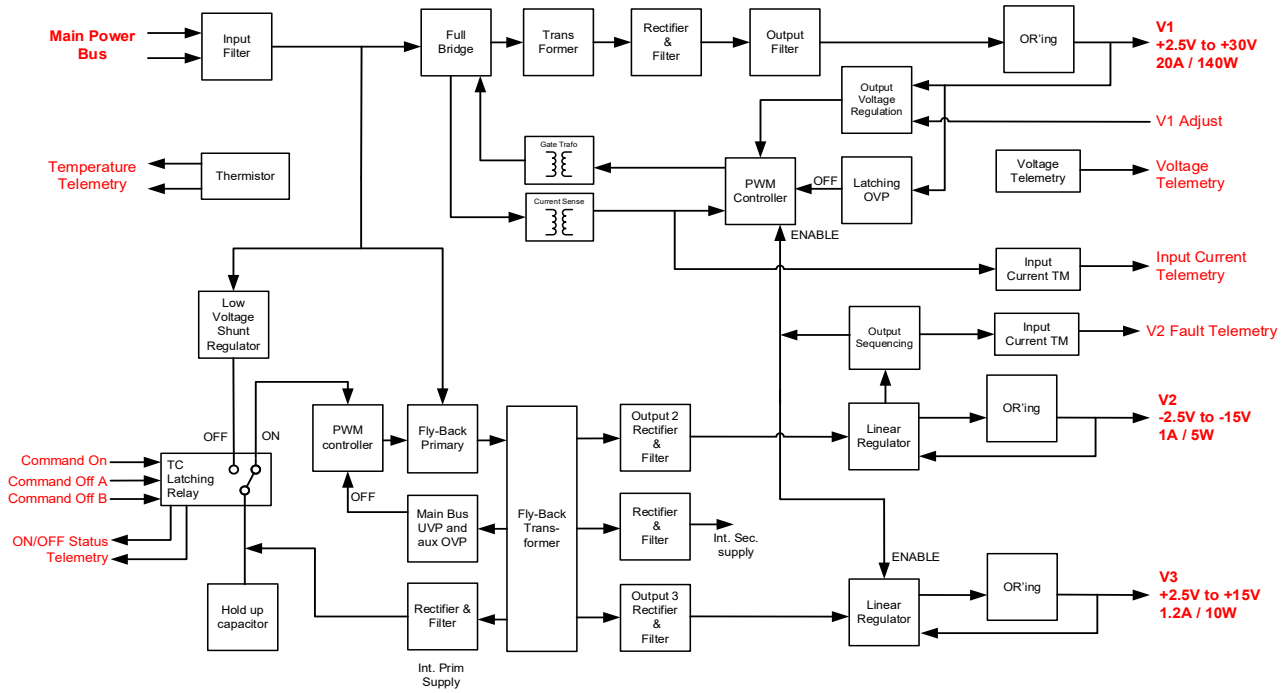
Typical Efficiency



Efficiency vs. Load on Output 1, Parametric with Load on Output 2

EAR Series

GENERIC BLOCK SCHEMATIC



Flight Qualified and Export Approved Configurations					
Series	Part #	Input Voltage	V1	V2	V3
EARB	12103	98V - 101V	5.2V / 7.50A	-5.2V / 0.12A	15.0V / 0.10A
	12142	98 - 101V	5.4V / 10.00A	-5.4V / 0.35A	15.0V / 0.10A
	12155	25V - 32.8V	6.0V / 4.00A	-5.0V / 0.20A	
	12158	31.5V - 52V	8.0V / 1.00A	-5.0V / 0.20A	
	12162	31.5V - 52V	8.0V / 4.55A	-5.0V / 0.25A	
EARC	12143	32V - 37V	7.0V / 20.50A	-5.0V / 0.15A	5.0V / 0.55A
EART	12116	98V - 101V	6.0V / 5.00A	-15.0V / 0.20A	15.0V / 0.70A
	12125	33V - 37.5V	20.0V / 5.50A	-5.0V / 0.15A	9.0V / 0.85A
	12133	98V - 101V	8.7V / 15.00A	-7.0V / 1.00A	
	12136	98V - 102V	8.5V / 15.00A	-7.0V / 1.00A	
	12137	25V - 32.4V	6.0V / 10.00A	-5.0V / 0.15A	15.0V / 1.20A
	12150	96V - 103V	8.5V / 15.00A	-7.0V / 1.00A	
	12171	33V - 39V	8.3V / 12.00A	-6.7V / 1.00A	
	12183	98V - 101V	8.7V / 15.00A	-7.0V / 1.00A	
	12199	22V - 34V	8.3V / 12.50A	-6.7V / 0.40A	
	12201	22V - 34V	18.0V / 1.10A	5.2V / 1.20A	
	12203	22V - 34V	23.0V / 4.20A	-6.0V / 0.10A	5.0V / 1.20A
	12209	48.8V - 52V	5.0V / 5.75A	-15.0V / 0.26A	15.0V / 0.75A

ECCN: 9A515.y.1

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