

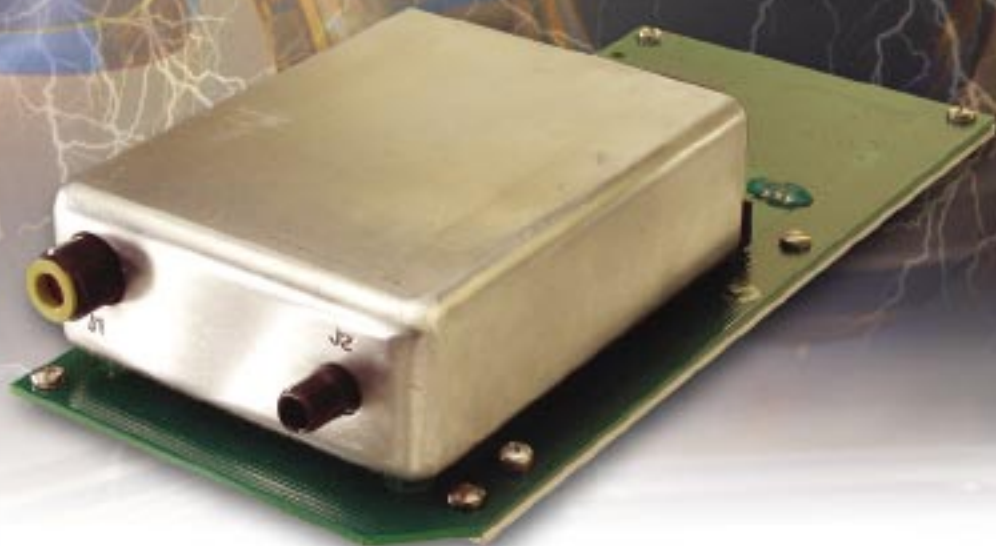
High Voltage Power Solutions

Avionics High Voltage Power Supply

SMI-20-04

Avionics High Voltage Power Supply

- ◆ 20kV @ 600uA
- ◆ Multiple outputs
- ◆ 700V p-p dynamic focus amplifier
- ◆ Tightly regulated, low ripple outputs
- ◆ TTL-compatible remote on/off
- ◆ Voltage monitors for anode, focus, G2
- ◆ Remote adjustment for focus and G2
- ◆ Extreme environmental durability
- ◆ Tested per DO-160C requirements
- ◆ Ideal for:
 - Avionics
 - CRT displays
 - Severe environment applications



Rantec's SMI-20-04 high voltage power supplies are ideal for use in avionics applications, designed and tested per DO-160C requirements. Model SMI-20-04 High Voltage Power Supply provides regulated, low ripple anode, focus and grid DC voltages as well as an internal dynamic focus amplifier, all from multiple low-voltage DC sources. The focus and G2 outputs are remotely adjustable, and voltage monitor outputs are provided for the anode, focus and G2 outputs. The SMI-20-04's internal dynamic focus amplifier supplies 700V peak-to-peak modulation from 3.11V input. The 60-80 Hz pulsed waveform has a 7% to 80% de-focus control duty cycle. Also provided is a TTL-compatible remote shutdown. The flexible SMI-20-04 design can be tailored to meet your particular input and output voltages, or can be equipped with other optional features.

For over 30 years, Rantec has been a leading designer and manufacturer of power conversion products such as high voltage power supplies, low voltage power supplies, DC/DC converters, and power systems products. Rantec's products serve the medical, analytical, industrial, aviation, defense, and communications industries.

Rantec Power Teaming Engineers Offer Technical Assistance to:

Evaluate Power System Requirements
Develop Power System Architecture
Reduce Time to Market



Rantec Power Systems Inc.

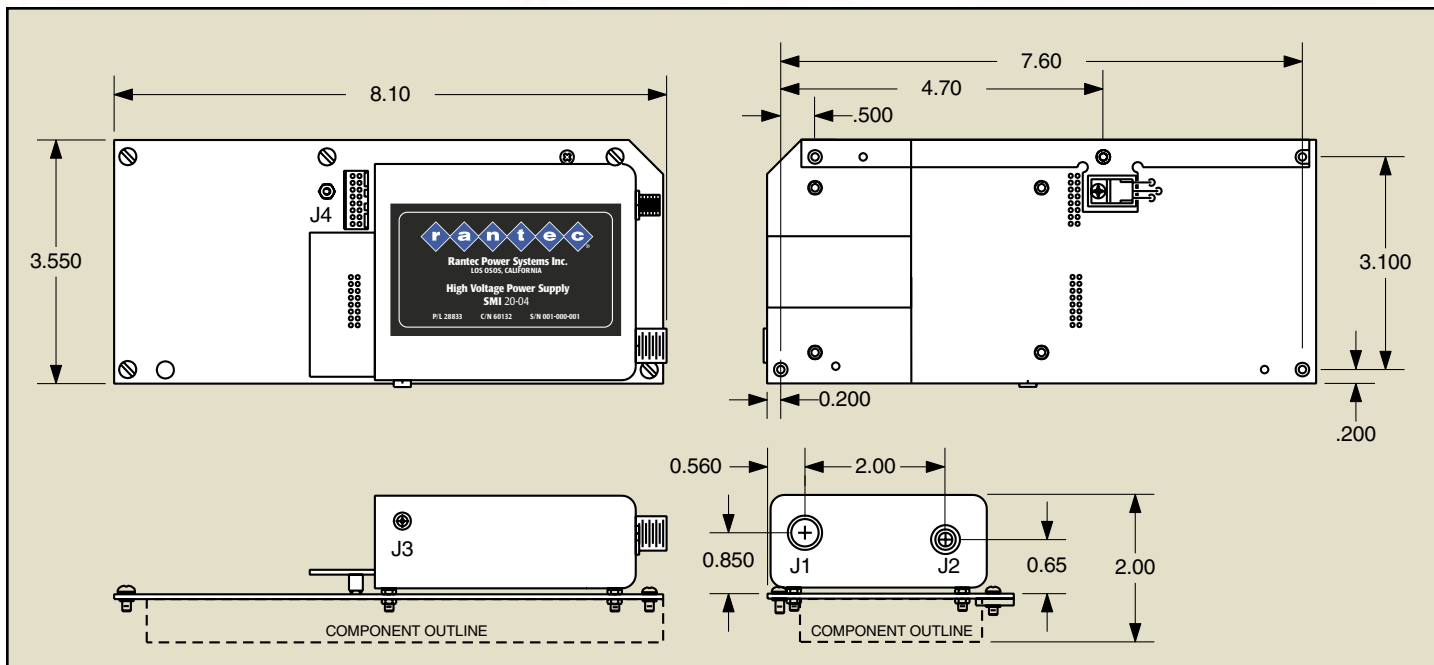
SMI-20-04

Avionics High Voltage Power Supply

ELECTRICAL		
DESIGNATION	VOLTAGE	CURRENT
INPUT		
Power Input	+95Vdc	
Auxiliary Input #1	±15Vdc	
Auxiliary Input #2	+5Vdc	
Focus Adjust Control Input	$V_{out} = 5000 + (209 * V_{fac})$	
G2 Adjust Control Input	$V_{out} = 75.475E+06 / (49.9K + Ext R)$	
Remote Shutdown Input	Low=on; high or open=off	
OUTPUTS		
Anode	20kV	600µA
Focus	5kV to 7kV	100µA
G2	0-850V	500µA
Anode Monitor Output	4000:1	
Focus Monitor Output	1329:1	
G2 Monitor Output	151:1	

MECHANICAL	
Weight	approx. 1lb..
ENVIRONMENTAL	
Operating Temperature (case)	-20°C to +100°C
Storage Temperature (ambient)	-55°C to +100°C
Altitude	to 55,000 feet

CONNECTORS			
HV OUTPUT			
J1: High Voltage Output - Anode		p/n 178-8994	
J2: High Voltage Output - Focus		10kV K6H1/21 Flange - base or equivalent	
J3: High Voltage Output - G2		p/n 178-7937	
LV INPUT			
J4: Low Voltage Input		DuPont Connector p/n 69168-116 or equivalent	
J4 - 1	+95VDC	J4 - 9	Focus Sample
J4 - 2	+95V Return	J4 - 10	Focus Control
J4 - 3	Anode Sample	J4 - 11	+15V
J4 - 4	G2 Sample	J4 - 12	-15V
J4 - 5	G2 Set High	J4 - 13	+5V
J4 - 6	G2 Set Low	J4 - 14	Signal Ground
J4 - 7	HV Enable	J4 - 15	HV Valid Monitor
J4 - 8	HV Off	J4 - 16	N/C



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