



## RPS-79E-2

Dual Airborne Power Supply

### Features

- 28 to 12 VDC MIL-Type DC/DC Converter and Regulator permits 16 to 40 VDC operation of a camera system

### General Description

The RPS-79E-2 is a junction box and power supply in one package. This unit facilitates the use of SEKAI ruggedized cameras and accessories. It has been designed to withstand the rugged environment of civilian and military aircraft and vehicles. The RPS-79E-2 contains DC/DC power converters that allow 28VDC vehicle power to be used to power two cameras.

### Electrical Characteristics:

**DC/DC Converter:** Military style converter and filter network.

- A. Power input:** 28 VDC
- B. Power output:** 12 VDC, 30 W
- C. Conversion efficiency:** min 80%
- D. Output Specifications:**

Voltage Accuracy:	±1.0%, max
Line Regulation (LL-HL):	±0.2%, max
Load Regulation (NL-FL):	±0.2%, max
Ripple and Noise (10MHz):	100mV, P-P, max
Temperature Drift:	±0.05% / °C, max
Short Circuit Current Limit:	75% Iout, max
Short Circuit Protection:	Indefinite
Short Circuit Restart:	Automatic

### Mechanical Specifications

Size:	3.16W x 1.83H x 1.97D inch
Weight:	13.2 oz (375 g)
Case Material:	Metal
Power Connector:	D38999/20WA98PN
Power Mating Connector:	D38999/26WA98SN
Power Connector Pins:	A. +28VDC B. 28VDC Return (Ground) C. Chassis D. Not Used
Video Connector:	D38999/20WA35SN
Video Mating Connector:	D38999/26WA35PN
Video Connector Pins:	1 - +12VDC Out Return 2 - +12VDC Out 3 - Video Signal In Return 4 - Video Signal In 5 - Mirror (Gnd), configurable 6 - N/C



### Environmental Specifications\*

Test Standard:

Storage Temperature  
Operating Temperature  
Temperature Variation  
Altitude (Operating)  
Humidity  
Shock (Operational)  
Shock (Crash Safety)  
Vibration (Performance)  
Explosive Atmosphere  
Waterproofing  
Fluids Susceptibility

Sand and Dust  
Fungus Resistance  
Salt Fog  
Magnetic Effect  
Power Input  
Voltage Spike  
Audio Frequencies  
Induced Susceptibility  
RF Susceptibility  
RF Emissions  
ESD

RTCA DO-160F applicable limits, procedures & categories:  
-55°C to +85°C (4.5.1, 4.5.3, E2)  
-55oC to +85oC (4.5.2, 4.5.4, E2)  
-55°C to +85°C, 10°C/min (5.3.1, A)  
70,000 ft (4.6.1, E2)  
95% RH >65°C, 10 cycles, 6.3.2, B  
6 g's @ 11ms, 6.3.2, B  
20 g's @ 11ms, 7.3, B  
Curve F (3.34 Grms), 1 Hr, 8.8.3, U2  
+85°C, 9.4.2, E  
Condensing, 10.3.1, W  
Spray Test, Outer Surfaces, 11.4.1, F (common fluids)  
Dust Test, 12.4, S | Sand Test, 12.5, S  
Analysis, Materials List, 13.5, F  
Normal test, 48 Hrs, Outer, 14.3.6.6, S  
+1° Deviation @ 1m, 15.3, A  
Normal 16.6.1, A – Abnormal 16.6.2, A  
±56V, 17.4, B  
10 – 150kHz, 18.3.1, R  
19.3.1~19.3.4, ZC  
20.4, Y & 20.5, Y  
21.4, L & 21.5, L  
15KV, 10 pulses, ±polarity, 25.5, A

\* Target values / tests, not yet tested. Consult with Sekai for the latest status. Specifications are subject to change without notice.

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