



KPSU

Ku/Ka Band Power Supply Unit

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A Sanmina Company

Satcom Power Supply and Ethernet Switching for Commercial Aircraft

The KPSU (KU/KA Power Supply Unit) designed and manufactured by SCI Technology is the only commercially available power supply compliant to the new ARINC-792 SATCOM standard. The KPSU provides two outputs, nominally 52 VDC, of up to 2,000 W of power to the Outside Antenna Equipment (OAE), and provides Ethernet

ARINC-792 KPSU (Low-Profile)



Front View - Connections



Rear View - On-Board Cooling



Rear View - Forced-Air Cooling (Option)

Ku/Ka-band Power Supply Unit (KPSU)

- ARINC-792 Compliant
- Mounts in aircraft "overhead" space
 - Mounting compliant with ARINC-836
- Provides:
 - Power to Outside Antenna Equipment (OAE)
 - Ethernet connectivity between OAE/MODMAN
 - Configurable and actionable aircraft discrete inputs/outputs

Electrical Specifications

- Input Power per RTCA/DO-160G 3-Phase 115 VAC @ up to 2200 W
- Two Outputs of Nominal 52 VDC Conditioned Power to the OAE
 - Output 1 (RX):
 - 52 VDC @ 20 A minimum, Power: 1040 W
 - Output 2 (TX):
 - 52 VDC @ 20 A minimum, Power: 1040 W
- Output Rise Time: 100 ms nominal
- Combined Output Voltage Ripple/Noise: 0.4 V Maximum p-p
- Line & Load Regulation: 0.4 V Maximum
- Efficiency: > 88% when driving > 1000 W
- Output Current Limit: Short Circuit protected at > 44 A
- Output over Voltage Protection: > 60 VDC

- Start-up time: less than 1 second
- Output power hold-up for 100 ms
- Over temperature Protection: +90° C with automatic recovery
- Integrated 3-port 10/100 Base-T Ethernet switch
- Discrete inputs: Open/Ground referenced from 28 VDC
- Discrete outputs: Open/Ground drivers referenced to signal ground
- AC & DC "Power Good" Output Status Discretes
- Power factor correction > 97%

Mechanical Specifications

- ARINC-836 Form-Factor (3.5 in height)
- Electrical Interfaces over MIL-DTL-38999 Series 3 Connectors per ARINC-792
- Input Isolation: 2150 VDC
- Output Isolation: 1000 VDC to chassis
- Options for forced-air cooled or internal fans

Environmental Specifications

- RTCA/DO-160G Environmental Testing per ARINC-792
- RTCA/DO-160G EMI Testing per ARINC-792