

# AEROSPACE DEVICES INC.







Irvine CA, 92614 USA (949) 795-2889

Website: https://aerospacedevice.com







## SKYDOCK PRO USB C 100-WATT CHARGING PORT SKD-505-00 SINGLE & SKD-505-01 DUAL

### STARLINK POWER SUPPLY WITH MINI USB C TO DC CHARGING CABLE

#### RUGGEDIZE DESIGN, GO-GREEN, REDUCING E-WASTE HARSH ENVIRONMENT

The SkyDock Pro Single USB C Chargers, are capable of providing up to 100W per port to meet STARLINK MINI USB C TO DC BARREL JACK CABLE charging demands, The Output voltage is determined by the devices Protocol Request for Power to be Charged. The SkyDock Pro USB Type C Chargers, capable of providing up to 100W, with a maximum of 5A @20VDC Per Port. The output voltage is determined by the combination of this charger and the sink device (device to be charged). The supported voltage outputs are 5, 9, 15, & 20VDC. The main port's can provide 100W of power to meet today's challenging charging demands, a available in our SKD-505-00 & -01 USB-C Charger's that can provide 100W.meet Highest Performance, Efficiency, and offer the lowest installed cost. Added USB C Feature, Reduce E-Waste and to empower consumers to make more

sustainable choices contribute to preventing up to 22 million pounds of e-waste each year.

Aerospace & Defense Review Annual Award for USB Port Chargers Design & Manufactures: "2024 USB Charging Plug & Devices Company of the Year"! Features:

Aerospace Devices has established the reputation for developing tomorrow's products, to meet our customers currents requirements today.

#### **MOUNTING AND BRACKET OPTIONS:**

#### Pricing includes Universal or Straight Bracket, We offer

Under Seat / Roll Bar Mounts options for Custom Mounting Brackets, Face Plate Covers, bezels, as well as plating & surface finishing. Our In-house design team can supply 3D Printed Models to save time and reduce costs.

#### **CERTIFICATIONS AND APPROVALS:**

Design Data

Model Eligibility

Letter of Assist, Support Engineering Data for Airborne Parts Manufacturing Approval.

QTP, UUT & QTR

ISO9001 Certification, AS9100 Manufacturing Facility.

Installation Manuals

#### **OEM APPROVED MANUFACTURE:**

Bombardier / Lear Aircraft: Approved Manufacture

Embraer S.A: Approved Manufacture,

Dassault Falcon Jet: SKD – FJ Approved and installed on Mfg. Airframes.

SKYDOCK PRO USB C 100-WATT SKD-100 SINGLE PORT.

STC Approval and Design Data STC: SA13-50 A/C Installation: Embraer ERJ170-200 TSO PENDING

SKYDOCK PRO USB C 100-WATT SKD-200

STC Approval and Design Data STC: SA13-50 A/C Installation: Embraer ERJ170-200 TSO PENDING

#### "INPUT POWER MATING CONNECTOR & BACKSHELL ORDER ONE EACH PER SINGLE OR DUAL PORT"

Mfg. Nor Comp Inc. Series: 680S Series | Input Power Connector PN# 680S5W5203L201 Mfg. Nor Comp Inc. Series: 680S Series | Connector Back shell: PN# 979-015-030R121

**CONTACT INFO:** 

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- Efficiency 93%
- USB-C QC 3.0/4.0 Compatible.
- Integrated 24V DC Protection on Protected HVD+, HVD-, HVCC1, HVCC2 Outputs
- Over Voltage Input Protection
- **Under Voltage Input Protection**
- Over Current Voltage Output Protection
- Resettable Fuse Input Protection
- 5V Default Output for Non-Quick Charge Compatible Devices

SkyDock Pro Universal & In-Seat Mounting included

Certified for Fixed Wing, Flight Deck & Rotor-craft.

- Over Temperature Shutdown
- Static Protection
- Input Spike Protection
- Dual Output Connectors USB-C and USB-A
- Input Voltage Range of 5VDC-34VDC 5 AMP In-Rush
- Input Current Range of 50mA Standby to 1.8A max
- USB-C Output Voltage Ranges 5V/3A, 9V/3A, 12V/25
- Output Power Max 100 Watts USB-C
- Max Power 100W
- Peak Efficiency: 92% to-93
- Single Size: 1.770 W X 0.825 H X 3.85 L
- Weight: 5.0 oz (Estimated Weight)
- Dual Size: 1.95 W X 1.29 H X 3.85 L
- Weight: 6.8 oz {Estimated Weight With Universal Bracket }
- **Environmental:**
- Temperature Range: Operating -40C to +105C
- Decompression: 50,000ft High Humidity Operational Environment
- Stress Tested to 20g acceleration & 11m Sec 6g acceleration curve
- DO160G QTP & QTR available upon request.
- Charge one or two devices simultaneously at maximum power
- Thermal Shutdown Temperature & Thermal Shutdown Hysteresis
- Input Current Limit Threshold & Output Runaway Limit Threshold, CS **Negative Limit Threshold**
- Output Over-current Detection Threshold & Output DC Current Shutdown Detection Threshold



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## SKD-505-00 SINGLE & SKD-505-01 DUAL SKYDOCK PRO USB C 100-WATT CHARGING PORT

Ruggedize Design, GO-GREEN, REDUCING E-WASTE Harsh environment

### **CONTINUED SPECIFICATIONS, DATA, FEATURES**

- Reduced inrush current with Soft-Start and output is not engaged until unit starts-up. Input filtering also reduces inrush current. Safe dissipation of inrush energy
- Self-protected from transient voltages exceeding these limits in circuit under normal operation.
- Efficiency 93%
- Input Voltage (allows opera[on in on / off conditions. 14 VDC-34 VDC 5 AMP most efficient input power is 28VDC.
- Common USB-PD VBUS voltage outputs up to 5.0A when in 20V mode & 3A in other output voltage configurations
- EMI interference avoidance and Input Power Conditioning
- Forced-PWN at Light or No-Load conditions for reduced EMI through USB cable.
- Board Layout Design and Enclosure Design reduces EMI.
- Only one port per controller no syncing.
- Thermal Shutdown
- Integrated USB-PD VBUS Features Over-Current Protection Limits
- Under-Voltage Protection Limit, VBUS Over-Voltage Protection Limits, Digital Voltage Scaling (DVS) for smooth, predictable voltage transitions
- Integrated USB VBUS Discharge, Watchdog timer for guaranteed safe operation, Output Voltage Adjustment for Cable Voltage Drop on Captive-Cable Applications
- Devices provide a single-port Type-C compliant USB Power Delivery PHY for an external TCPM.
- Type-C, USB-PD and TCPC specifications.
- USB Type-C Revision 1.3
- USB Power Delivery Revision 2.0, and Revision 3.0 Version 1.2
- USB Inter-Block Specification Revision 2.0 Version 1.1
- Implements Type-C Configuration Channel (CC) interface and USB-PD Physical layer functions to a Type-C Port Manager (TCPM) that handles PD Policy management.
- Type-C Cable plug orientation detection
- Type-C Detection supporting default, 1.5A or 3.0A current capabilities.
- SAR ADC for VBUS Voltage Monitoring
- Integrated Over-Current Protection common voltage rail in the application.
- Integrated Protection for Cable Shield-Short-to-Battery faults preventing cable, passenger, and device damage.
- Fast detection of cable shield over-current
- Fast turn-off of external protection switch
- Supports USB BC1.2 Charging Downstream Port (CDP) Dedicated Charging Port (DCP), and High-Speed Pass through Modes
- 100W USB-PD Controller and Protector, USB D+/D- Protection and Host Charger Emulator
- Integrated HVDP/HVDM Apple® and Samsung® Charge Detection Termination Resistors
  Compatible with USB On-The-Go Specification, Oppo® and OnePlus® devices. Apple® Mafi R33 Over-current Compatible
- Integrated Robust High-Voltage Protection for the USB-PD or TCPM controller from events at the receptacle or captive cable:
- Automatic Fault Detection and Retry, Short-to-Battery and Short-to-Bus
- ESD Protection on USB HVD+, HVD-, HVCC1, HVCC2 and SHLD\_SNS pins
- Short circuit, power surges, overload and over temperature





**Under Seat** 





#### **Mounting Bracket Bracket Mount**

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