

<b>POWER CONVERSION PRODUCTS</b>	<b>Airborne Series</b>
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**Part No.: VTA99019-00**

**15Vin / 5Vout Power Supply**

**FEATURES**

- ❑ Up to 5 Watts Output Power
- ❑ RTCA DO-160C Environmental & Power Specifications
- ❑ MIL-STD-704A Power Transient Specifications
- ❑ High Input/Output Isolation
- ❑ 20 ms, Full Load O/P Hold-up Capability
- ❑ Continuous Short Circuit Protection
- ❑ Input Reverse Polarity Protection
- ❑ Thermal Protection

This Power Supply designed for low power, airborne applications, features a low profile package of 4.60” L x 3.13” W x 0.76” H or 0.46Watt/in<sup>3</sup>. It has excellent load regulation, input transient suppression, low output ripple as well as current limiting/thermal shutdown protection.

**Input Specifications:**

Steady State Voltage .....	12 to 45 Vdc
Surge Voltage .....	80 V for 50 ms
Inrush Current.....	0.8A maximum
Softstart .....	Auto restart < 10 ms after power failure
Isolation (input/output to chassis).....	> 10 mega-ohm @ 500 Vdc
Transient Protection (600V).....	RTCA DO-160C / MIL-STD-704A
Thermal Shutdown.....	> 125°C @ Case Temperature

**Output Specifications:**

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>DC Regulation</u>	<u>Ripple &amp; Noise</u>	<u>Maximum Power</u>
+ 5 VDC	1 A	± 3%	< 150 mVp-p	5W

**Output Specifications:**

Current Limit ..... 2.5 Amp. maximum  
 Output Hold-up Time ..... 20 ms at +20°C @ 1 Amp.  
 ..... 10 ms at -40°C @ 1 amp.

**Operational Features:**

Power Fail Detect ..... Active Low TTL signal for Vin < 11 VDC  
 Input Current Protection..... Auto-reset polyswitch type

**Physical Specifications:**

Weight ..... < 0.4 lbs or 180 gr  
 Case ..... Alluminum alloys  
 Finish..... Allodyne chemical film  
 Mounting Position..... Any orientation  
 Cooling Method ..... Conduction cooling via 3.13" x 4.6"  
 mounting surface  
 Connections ..... I/O: Solder tail feed-through pins

**Environmental Specifications:**

Shock..... Half sine wave, 40 g, 11 ms. (3 axis)  
 Vibration..... RTCA/DO-160D, Sect 8, Cat U  
 Temperature, Operating ..... -40 to +85°C  
 Temperature, Storage..... -55 to +90°C  
 Altitude..... RTCA DO-160C, Cat C2 +50,000 ft.  
 Humidity..... RTCA/DO-160C, Section 6, Category A  
 RF Susceptibility ..... RTCA/DO-160C, Section 20  
 RF Emissions..... RTCA/DO-160C, Section 21  
 Lightning Susceptibility ..... RTCA/DO-160C, Section 22

Predicted Reliability (MIL-HDBK-217)..... > 100,000 hours A<sub>RW</sub> @ 55°C

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