

Avionics Cooling Solutions

Increase Your Avionics Reliability

It is well known that reducing the temperature at which electronics components operate increases their life expectancy. The avionics you depend on for critical navigation and communication functions endure one of the harshest environments of any electronics...the avionics stack! Today's avionics are housed in smaller and smaller packages that retain heat. They are also subjected to chimney effect, where the heat from the bottom radios rise throughout the entire radio stack, increasing overall operating temperatures. Today's engineers are making greater use of surface mounted devices to reduce size and weight. And although these devices use less power, they can be more sensitive to heat. Fortunately, removing heat from your avionics is easy and inexpensive, making a cooling fan one of the best investments you can make when installing your new avionics. A cooling fan from SANDIA aerospace will give you the peace of mind knowing your avionics will continue to operate at peak performance.

The Choice Is Up To You

SANDIA aerospace offers a variety of cooling solutions to choose from. For most avionics stacks, a three port fan will provide all the cooling you need, two navigation units and a transponder. For more complex panel, try the five port fan. Used ports can be capped and reserved for use on later system upgrades

Know When You Lose Your Cool

For critical applications, SANDIA offers three cooling solutions that have a fault detection output that will notify you whenever the cooling unit drops below a preset level. This will allow you to obtain service on the unit as soon as practical, reducing any failure possibilities to your avionics.

Technical Specifications

Model	Operating Voltage	Current Draw	Size	Weight	Fault Detection	Certification
ACF 314	14 Vdc	960 mA nominal (1.7A startup)	5.18" x 5.18" x 2.1"	1.18 lb	No	FAA-PMA
ACF 328	28 Vdc	480 MA Nominal (.85A startup)	5.18" x 5.18" x 2.1"	1.18 lb	No	FAA-PMA
ACF 528	28 Vdc	480 mA nominal (.85A startup)	5.13" x 6.77" x 2.1"	1.18 lb	No	FAA-PMA
SAFE 328	22-31 Vdc	400 mA nominal (550 mA startup)	5.58" x 4.75" x 1.25"	.70 lb	Yes	FAA-PMA
SAFE 528	22-31 Vdc	400 mA nominal (550 mA startup)	5.13" x 6.77" x 2.1"	1.23 lb	Yes	FAA-PMA Pending
SAFE 128	22-31 Vdc	100 mA nominal (.250 mA startup)	2.36" x 2.87" x 1.44"	.25 lb	Yes	FAA-PMA



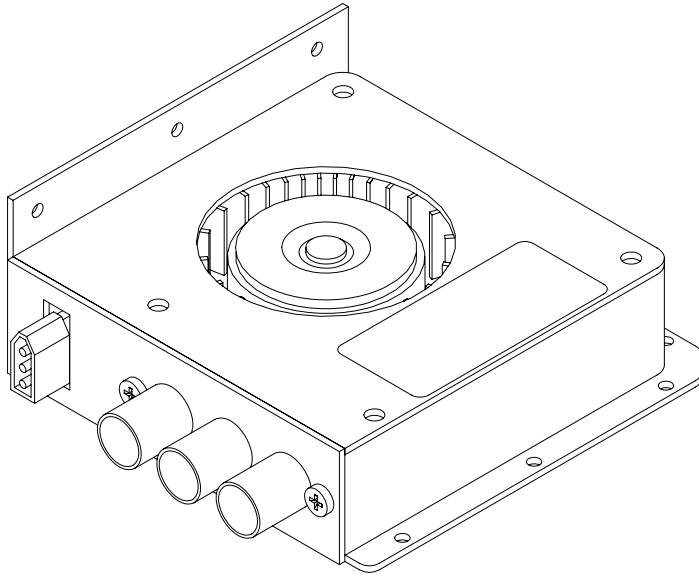
3700 Osuna Rd NE

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CF1012-1000



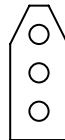
Size
Length 5.92"
Width 2.10"
Height 5.18"

DO-160C Env. Cat.
[A1D1]-CA(MN)XXXXXXZBABATZXXX

Electrical
Operating Voltage 28 - 14 VDC
Operating Current 500mA - 1 Amp
Initial Current Draw 800mA - 1.5 Amp

Environmental
Max. Operating Temp. -20°C to +55°C
Max. Operating Altitude 50,000 Ft.

28 VDC
A/C A+ - Pin 1
A/C GND - Pin 2
N/C - Pin 3



14 VDC
Pin 1 - N/C
Pin 2 - A/C GND
Pin 3 - A/C A+

Mating Connector and Contact Information

Description	Manufacturer	Series Number	Manu. Part Number	SANDIA Part Number
Connector Housing	Molex	1396	03-09-1032	305183
Crimp Contact	Molex	1381	02-09-1119	305182
Hand Crimper Tool	Molex	NA	*11-01-0084 or HTR1031E	NA
Extraction Tool	Molex	NA	*11-03-0006	NA
Insertion Tool	Molex	NA	*11-02-0003	NA

* Or Equivalent Tool

