NOVA INTEGRATION SOLUTIONS

# 3000 CLASS

## Convection Cooled ATR Chassis

# MODEL 3065

## Military Grade
## 1 Tall Long ATR
## 6U/6Slot Backplane

Model 3065 is one of NOVA's convection-cooled, top-loading ATR chassis. Manufactured from machined aluminum alloy #6061-T6, this chassis provides superior strength and EMI/EMC mitigation through a proprietary overlapping seams design.

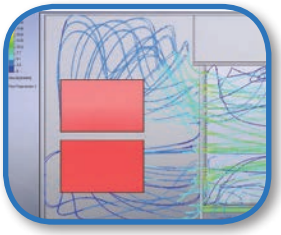
Aggressive system cooling is provided from a rear mounted and customizable fan tray which forces air through side air intakes to the rear fan tray. The result of this cooling system is handling of power loads well over 400W @ 50°C ambient operating temperature and at 10,000 ft altitude. A fan controller or System Environmental Monitor are optional.

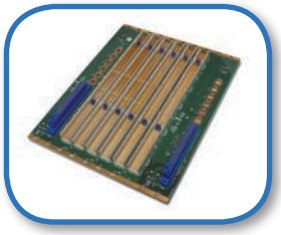
Designed for Eurocard passive backplanes and 6U x 160mm IEEE 1101.1/.10 plug-in boards, the 3065 accommodates up to a 10-slot backplane. The internal subrack is manufactured from NIS' single-piece billet for added strength.

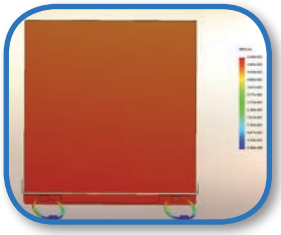
The 3065's default power supply options include plug in style 18-32 VDC or 90-264VAC input power, with 500W output supporting 3.3VDC, 5VDC, 12VDC and -12VDC voltages. VPX power and 440Hz input options are available.

Customers may select from numerous D38999 Series-III copper or fiber optic, MIL-STD-26482 or other bulkhead circular types available in the marketplace for use with a customizable removable I/O panel. Where needed, NIS will design a cost effective I/O printed circuit board to reduce cabling between the face plate and the backplane.

This model has successfully flown on the P3-Orion aircraft in various configurations.







- **A proprietary, overlapping machined panel design results in zero torsional flex and superior sealing for FOD and EMI**
- **1-Long Convection-cooled ATR chassis**
- **6U x 160mm Top loading system**
- **Up to 10-slot on 1" pitch or 12-slot on 0.8" pitch VPX, VME64x, cPCI or custom backplane**
- **AC or DC input with multiple power options**
- **Input transients and voltage hold up per MIL-STD-1275/704E (optional)**
- **Shock & vibration as per MIL-STD-810F; EMI/EMC per MIL-STD-461F**
- **MIL-C-5541E chemfilm with a black hard anodized or painted exterior surface**
- **Customizable front I/O panel**
- **ARINC shock mounting configuration shown**
- **Thermal and sturctural simulations have been completed validating all designs**
- **Custom options or modifications available**

AS 9100
BUREAU VERITAS
Certification
Certificate No: US008267-1

Metromatics

# 3000 CLASS
# MODEL 3065

## Environmental Characteristics

| | |
|---|---|
| HIgh temperature, operating | +55°C per MIL-STD-810F, Method 501.4, Procedure I & II |
| Low temperature, operating | 0°C standard, -40°C optional per MIL-STD-810F, Method 502.4, Procedure I & II |
| High temperature, non-operating | +85°C per MIL-STD-810F, Method 501.4, Procedure I & II |
| Low temperature, non-operating | -40°C per MIL-STD-810F, Method 502.4, Procedure I & II |
| Thermal shock | Designed to meet MIL-STD-810F, Method 503.4, Procedure I |
| Humidity | 0% to 95%, non-condensing per MIL-STD-810F, Method 507.4, Procedure III |
| Altitude, operating | -1,500 ft. to 40,000 ft. per MIL-STD-810F, Method 500.4, Procedure I, II & III |
| Altitude, non-operating | -1,500 ft. to 65,000 ft. |
| Vibration | Designed to meet MIL-STD-810F, Method 514.5, Procedure I |
| Shock | 20G, 20ms per MIL-STD-810F, Method 516.5, Procedure I & VI |
| Shock | 20G, 11ms per MIL-STD-810F, Method 516.5, Procedure I & IV |
| EMI/EMC | Designed to meet MIL-STD-461F, Method CE101, CE102, CE106, CS101, CS114, RE101, RE102, RS102, RS103 |
| Electromagnetic environment | Designed to meet MIL-STD-464A |
| ESD | MIL-STD-1686A |
| Rain | Designed to meet MIL-STD-810F, Method 506.4, Procedure II |
| Salt fog | Designed to meet MIL-STD-810F, Method 509.4, Procedure I |
| Sand & dust | Designed to meet MIL-STD-810F, Method 510.4, Procedure I & II |

## Physical Characteristics

| | |
|---|---|
| Dimensions | 1 Long ARINC Size (custom) 19.5" L x 10.71" W x 10" H |
| Weight | 35 lbs. (configuration dependent) |
| Mounting | Hard mount tabletop and shock tray |


Metromatics

For further information or pricing, please contact us:

Melbourne 03 9872 4592 Sydney 02 9460 4355
Brisbane 07 3868 4255 Adelaide 08 8343 8516

sales@metromatics.com.au
www.metromatics.com.au


## Electrical Characteristics

| | |
|---|---|
| Input power (standard) | 90-264VAC @ 47-440 Hz |
| Input power (optional) | 18-32 VDC<br>Custom options available |
| Voltage hold up (optional) | 50ms per MIL-STD-704A |

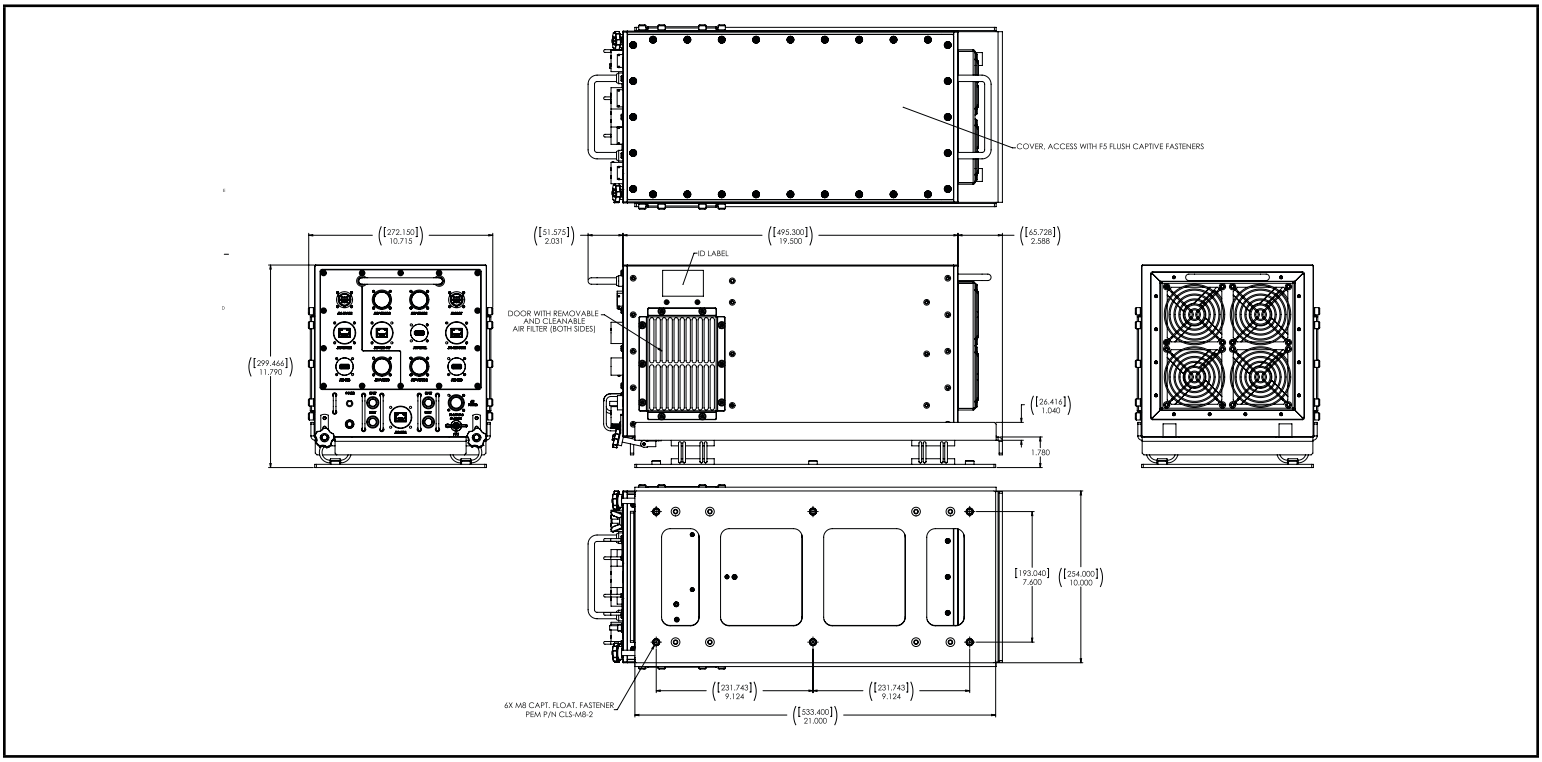
## Common Specifications

| | |
|---|---|
| Chassis body | Machined aluminum alloy #6061-T6 |
| Cooling | 400W+ at 10,000 ft. altitude at +50°C ambient temperature |
| User controls | Circuit breaker (MIL-grade)<br>Customer definable and configuration dependant |

## Ordering Table

| | |
|---|---|
| 95-3065-06061-00x | Model 3065, 6U cPCI, 6 Slot, 28VDC power input |
| 95-3065-06066-00x | Model 3065, 6U cPCI, 6 slot, 110VAC @ 47-440Hz |
| 95-3065-01071-00x | Model 3065, 6U VPX, 7 Slot, 28VDC power input |
| 95-3065-04086-00x | Model 3065, 6U VME64x, 8 slot, 110VAC @ 47-440Hz |
| Contact factory for additional configurations and options | |

## Outline Drawing

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