

## FEATURES

- Forced air, top load conduction-cooled enclosure with a 6U, 20-slot, dip brazed card cage with folded fin stock
- Welded outer construction
- x2 high powered extreme environmental fans to handle the extended temperature range
- Front air intake, rear exhaust with sealed card cage to protect against foreign matter
- Custom backplane using RF feed through connectors
- Integrated RF wiring
- Will accept multiple 400 W conduction-cooled power supplies
- Front I/O panel
- All external removable hardware is captive style
- Chassis finish per MIL-DTL-64159
- Rugged, hinged chassis slides designed for chassis rotation while in shelter
- Filtered power input via 38999 connector
- 24 VDC input (38999 connector)
- Capable of housing, 6U x 160 x .8" pitch function cards
- Captive hardware used on all external removable hardware
- Chassis finish per MIL-DTL-64159



# CHASSIS SOLUTION 78-730

TOP LOAD ATR FORCED AIR  
CONDUCTION-COOLED  
ENCLOSURE



## MARKET

United States Military

## APPLICATION

Ground Based Radar

## CHALLENGE

The United States Military is engineering a next ground based radar system to provide soldiers the capability to detect, classify, track and determine the location of enemy in direct fire such as mortars, artillery and rockets. This top load forced air conduction-cooled enclosure is an integral sub-system responsible for digital signal processing.

- x2 extreme environmental fans to handle the extended temperature range
- 24 VDC input (38999 connector)
- x2 conduction-cooled 400 W power supplies
  - Meets MIL-STD-704F, normal range
  - EMI MIL-STD-461E CE102, CS101
- Front, silk screened I/O panel containing:
  - x2 38999 connectors with 80 connections
  - x1 38999 connector for RF
  - Type N connectors
- Custom, 20-slot backplane

## CONCERNS

- Designing a complete solution which fits into an allocated space
- RF feed through tolerance challenges
- Thermal solution

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## TECHNOLOGY OVERVIEW

PHYSICAL	
Height	12.00" (304.80 mm)
Width	13.00" (330.20 mm)
Length	20.48" (520.19 mm)
ENVIRONMENTAL	
Temperature	<ul style="list-style-type: none"><li>Operating: -32 to +52° C</li><li>Non-operating: -35 to +65° C</li></ul>
Humidity	Operated or stored in environments of 96% humidity
Shock and Vibration	<ul style="list-style-type: none"><li>Operating: 10-4 g2/Hz out to 10 kHz</li><li>Transport vibe: MIL-STD-810F, Method 514.5 for Categories 4, 6, 11, 17, 18, and 21 using Procedures I, III, and IV</li></ul>
Airflow	The chassis is designed to hold a rail temperature of +65° C with 20 modules populated at 30 W module average
CONSTRUCTION	
Outer Enclosure	Welded sheet metal
Card Cage	Dip brazed with channeled folded fin stock

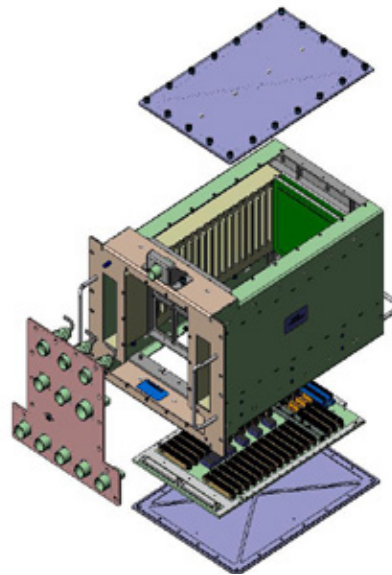


Figure 1: Back Iso 1

## WARRANTY

This product has a one year warranty.

## CONTACT INFORMATION

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