
MDA Ancillary Rack



User's Manual
Doc. 2AA-00896-0000

ABOUT THE COMPANY

Telecore, Inc. is a telecommunications research and development company. The company's unique vision supports both fundamental research and commercialization activities within one organization, funded by both private resources and programs. The company will achieve its long-term mission -- to be one of the world's telecommunications leaders -- by building on its track record of outstanding technical successes.

Telecore's products will produce a fundamental change in communications, in much the same way that the integrated circuit revolutionized data processing. Telecore's blend of world-class researchers and product developers place it at the forefront of the telecommunications industry.

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READ THIS FIRST

Safety Information

Caution
ELECTRICAL SHOCK HAZARD. This equipment is to be serviced by trained personnel only.
DANGER HAZARDOUS VOLTAGES INSIDE. Voltage or current hazard sufficient to cause shock.
The manufacturer requires that the unit be grounded. Ground the unit by attaching a ground wire between a known earth ground and the ground stud, E1, of the unit prior to plugging in the unit. Grounding the unit helps protect against damage caused by static voltage buildup and removes the risk of electric shock.
Never use an extension cord that does not have an earth ground connection. Never use an adapter that does not have an earth ground connection. If necessary, always use a suitable ground adapter. If possible, ground that extra wire on the ground adapter. Never use extension cords with non-polarized plugs or ones with broken off ground pins. Never break off the ground pin on electric equipment.
Always plug the power cord into the MDA Ancillary Rack first. Only after plugging the power cord into the MDA Rack, plug the three-pronged AC plug into an AC outlet and power up the unit.
To disconnect the cord, always pull it out by grasping the plug. Never pull it out by the cord.
To avoid the risk of electrical shock, do not remove the cover. There are no user serviceable parts inside. Refer servicing to qualified service personnel. Additionally, opening the unit's cover, changing or modifying the equipment by the user (unless expressly approved by the manufacturer) shall void the warranty.
Use only the power supply cord supplied with the product. The MDA Ancillary Rack is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. Match the wide blade of plug to wide slot of the outlet and fully insert.
Warning: To prevent fire or shock hazard, do not expose the unit to rain, moisture or corrosive gases.
Utilize safety precautions when installing the MDA Ancillary Rack. Follow the power installation directions carefully. The MDA like other home electronics contains hazardous voltages, do not attempt to open the MDA to service the unit. There are no user serviceable parts inside the MDA. If a failure occurs, please return through your RMA supply chain.
Operate the unit with the specified voltage. Using the wrong voltage risks fire and electrical shock.
At the first sign of smoke, an unusual smell or other problems indicating breakdown, disconnect external power cords. Should any solid or liquid fall into the unit, disconnect the AC power cord and have unit professionally checked before operating the unit again. Continued use risks fire and electrical shock.
Ventilation openings must not be blocked or covered. Air intake and exhaust openings are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating.

Note: Actual units may differ slightly in appearance from what is shown in this user's guide.

Product Description

MDA Ancillary Racks are 19-inch Rack Mountable assemblies that provide mechanical housing for up to ten MDA units or KIV-7 devices (KIV-7 devices require Telecore's optional power adapter 2AA-00477-00, one per KIV-7). The MDA Ancillary Racks were designed specifically to provide adequate intake and exhaust air to meet the requirements of the MDA units. The MDA rack units are designed for installation into any standard 19-inch racks that meet RS-410 design requirements. Units are stackable to support from 2 up to 10 units. Pre-configured MDA Ancillary Racks are available in sizes that accommodate 2 up to 10 MDAs. Smaller units can be expanded in the field with Telecore expansion kit 2AA-00831-00. The chassis described herein is a 19-inch rack mountable unit with associated cables, which accommodates 2 MDAs. One (1) AC to DC power adaptor is provided with each unit and will support up to 10 MDAs.

Specifications

Physical Characteristics

The basic dimensions for the 2 Pack MDA Ancillary Rack are shown in Figure 1 and Figure 2. Dimensions, power consumption, and approximate unloaded weights for the complete family of MDA Ancillary Rack units are provided in Table 1.

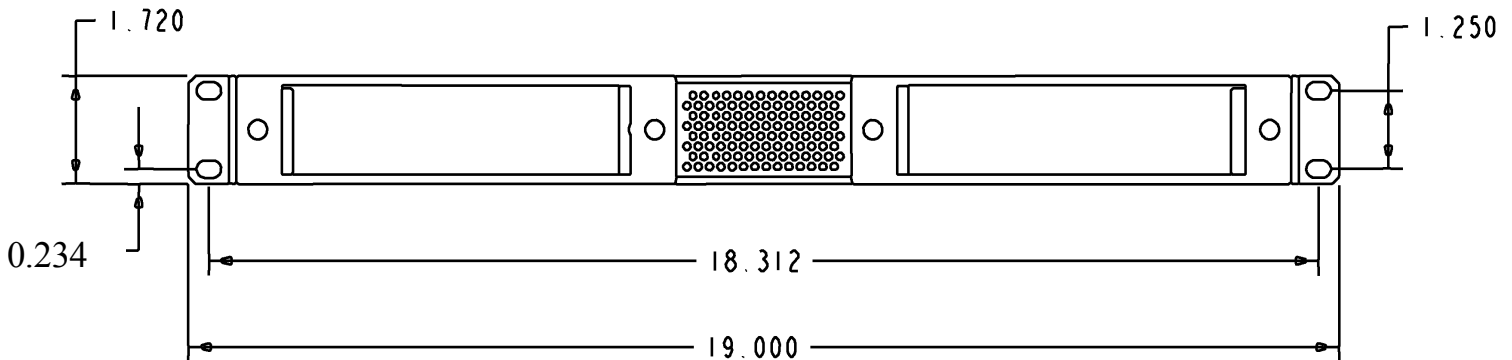


Figure 1: 2 Pack MDA Ancillary Rack Physical Dimensions (Front View)

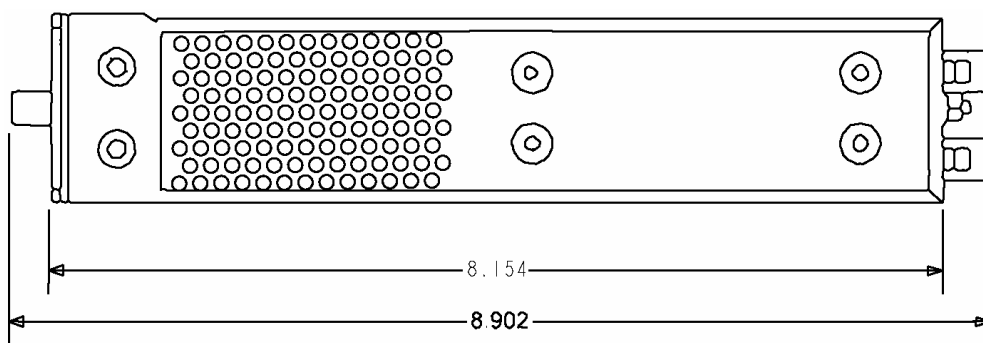


Figure 2: 2 Pack MDA Ancillary Rack Physical Dimensions (Side View)

Table 1: MDA Ancillary Rack Dimensions, Power Consumption, and Approximate Weights

Dash Number	Description or Configuration				
	Quantity of Expansion Kit(s)	Fan power (MAX)	Height (MAX)	Approximate Weight (MAX)	MDA capacity
2AA-00800-00	0	2.4W	1.75 in	2.5 lbs	2
2AA-00801-00	1	4.8W	3.5 in	5 lbs	4
2AA-00802-00	2	7.2W	5.25 in	7.5 lbs	6
2AA-00803-00	3	9.6W	7.0 in	10 lbs	8
2AA-00804-00	4	12W	8.75 in	12.5 lbs	10

The base configuration 2AA-00800-00 does not use an expansion kit. Additional units use expansion kit(s) 2AA-00831-00 as noted above, which are included in the (pre-configured) dash number configuration. For users who wish to expand their MDA Ancillary Rack on site, the necessary number of expansion kits are listed above.

MDA Ancillary Rack Front Panel and Installation of MDAs

The MDA Ancillary Rack front panel includes two mounting plates with thumb-screws. The mounting plates are removed to install the MDAs, and then replaced and tightened down to secure the MDA in place. Figure 1 is a graphic representation of the MDA Ancillary Rack front panel with the mounting plates installed.

Temperature and Humidity

Operating Temperature 0 to 50°C, storage –20 to 85°C.

Operating and Storage humidity, 15% to 95% RH non-condensing.

MDA Ancillary Rack Rear Panel

Figure 3 provides a graphic illustration of the rear panel of the MDA Ancillary Rack. Connector J1 is used to connect the external fan power supply, which is provided with each MDA Ancillary Rack unit. When stacking MDA Ancillary units using the optional expansion kit, the power jumper cable is connected to J2 of the top unit and J1 of the bottom unit. Table 2 summarizes the rear panel connector types and functions.

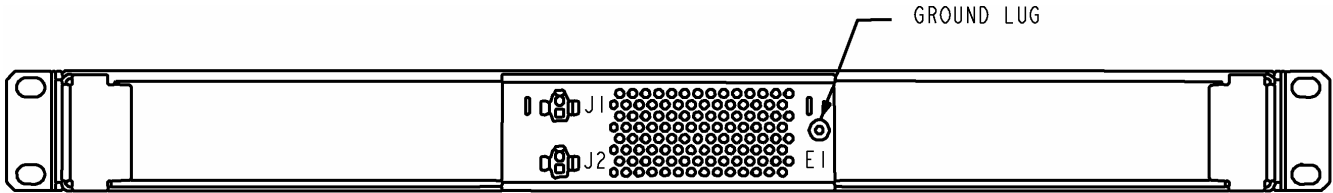


Figure 3: MDA Ancillary Rack Rear Panel

Table 2: MDA Ancillary Rack Cable and Connector Interfaces

CONNECTIONS ON MDA RACK			CABLES		
REF DES	DESCRIPTION	CONNECTOR	CONNECTOR	NOMINAL LENGTH	CABLE PART NUMBER
J1	DC Power	MOLEX Shell - 39-01-2026 Contact - 39-00-0082	MOLEX Shell - 39-01-3028 Contact - 39-00-0039	3 IN	Telecore part number 2AA-00829-00 MDA Rack unit to unit cable assy (J2 to J1)
J2	DC Power	MOLEX Shell - 39-01-2026 Contact - 39-00-0082	MOLEX Shell - 39-01-3028 Contact - 39-00-0039	3 IN	Telecore part number 2AA-00829-00 MDA Rack unit to unit cable assy (J2 to J1)
E1	Ground Lug	No. 4-40 stud	PV18-4RC	2 FT	Telecore part number 2AA-00484-00
	DC/DC Power Supply with AC Power Cable	DC/DC Power Supply, Telecore Part number 2AA-00830- 00 with 5 ft 6 in cable on DC output side.	AC power cord, NEMA 5-15 Plug to IEC-320 C13 receptacle, 6 ft.	11 FT 6IN total reach from AC inlet to DC output	AC Power Cord, Telecore part number 3CB-00000-0000

MDA Ancillary Rack Configurations

- 2AA-00800-00 TWO PACK RACK (as shown on the cover of this guide)
- 2AA-00801-00 FOUR PACK RACK
- 2AA-00802-00 SIX PACK RACK
- 2AA-00803-00 EIGHT PACK RACK
- 2AA-00804-00 THE TEN PACK RACK (as shown below in Figure 4)



Figure 4: Fully Populated MDA Ancillary Ten Pack Rack

Terms/Definitions

AC	Alternating current
C	Celsius
DSS	Digital Small Switch
KIV-7	Embeddable KG-84 communications security (COMSEC) module
MDA	Multifunction Digital Adapter
P/N	Part Number
RH	Relative Humidity
RMA	Return Materials Authorization
site	A place where DSS, MDAs, MDA Ancillary Racks and/or system equipment is installed
standby	The DSS calls processor and matrix currently backing up the master

Warranty Terms and Conditions

Telecore, Inc. provides a manufacturer's warranty that for a period of one year commencing on date of shipment: Goods are and will be free from defects in design, material, and workmanship; will conform to and perform in accordance with the Specifications, if any; that it will convey good and valid title to all Goods; and that all Goods are being provided free and clear of any and all liens and encumbrances. This warranty will survive inspection, acceptance, and payment. This warranty shall be null and void in the event the Buyer or any third party attempts repair of the Goods without Telecore, Inc. advanced written authorization, or in the event the Goods are misused, including termination of non-compliant third party equipment on Telecore's interfaces, or damaged by Buyer, or shipped to any country other than that originally specified in Buyer's Purchase Order. Goods under warranty may be returned directly to Telecore. Goods under warranty will be promptly repaired or replaced, at Telecore's option, upon return to Telecore's facility freight prepaid; provided, however, that Buyer has first obtained a return materials authorization number ("RMA Number") from Telecore authorizing such return. An RMA number may be requested from Telecore's website at www.telecore-inc.com. The RMA Number shall be placed on the exterior packaging of all returns. Goods to Buyer. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE HOWSOEVER ARISING. Goods out of warranty must be returned through the Raytheon supply chain.

Shipping Return Address

Equipment will be shipped to the following Supplier address as directed by the Supplier's Customer Service Department at the time the RMA number is assigned:

ADDRESS:

Telecore Inc
1800 North Glenville Dr.
Suite 116
Richardson, TX 75081-1953
ATTENTION: Customer Service