

ARINC 404/600 modular trays

CUSTOM AND SUPPORT  
PACKAGE OPTIONS  
THAT MEET YOUR  
**EXACTING NEEDS**

Fast, responsive service  
on high-quality products



**Collins Aerospace**



# RUGGED HARDWARE FOR SECURE OPERATION

Collins Aerospace specializes in standard ARINC 404 and 600 mounting trays, as well as custom tray designs, providing the flexibility you need to accommodate system requirements. Our trays are available individually or as part of an Avionics Support Package kit with an ARINC rack connector, MilSPEC connectors, pins, sockets and backshells, tray mounting rails and connector mounting hardware.

With separate product teams dedicated to cables and trays, we make sure you always receive a fast response, short lead time and high-quality product.

## TECHNICAL SPECIFICATIONS

Our ARINC 404 and 600 equipment trays are designed to accommodate standard mounting hole shelf locations per ARINC or original equipment manufacturer (OEM) specifications. Front hold-down locations and other dimensions are also per ARINC specifications.

### TRAY WIDTH

MCU	2	3	4	5	6	7	8	10	12
ATR	1/4	3/8	1/2	–	3/4	–	1	–	1-1/2
# Mounting holes	2	3	3	3	3	4	5	5	7
Distance between mounting holes	1.312"	1.312"	1.968"	2.264"	3.280"	2.624"	Inner: 2.264" Outer: 1.968"	Inner: 3.280" Outer: 2.624"	Inner: 2.264" Outer: 1.968"

### TRAY LENGTH

	OVERALL LENGTH	MOUNTING HOLE SPACING
Long tray shell	20.08" (510.03 mm)	18.01" (457.45 mm)
Short tray shell	14.95" (379.73 mm)	12.875" (327.03 mm)

## MECHANICAL ENGINEERING

Our custom-designed mechanical trays are engineered according to specific applications per OEM installation manuals or other guidelines. Designs can be tested, qualified and FAA certified as required, including:

- 3D solid modeling using SolidWorks, CADKey, AutoCAD
- Structural analysis
- Environmental qualification testing
- Custom designs: Low profile, military, specialty, ruggedized, racking units for ARINC 404/600, RTCA-DO160, MIL-STD-810, Boeing or Airbus standards

## LRU COOLING REQUIREMENTS

For line replaceable units (LRUs) with cooling requirements, our trays support convective airflow, aircraft forced-air cooling and forced-air cooling with a fan.

- Convective airflow:  
An LRU without external forced-air cooling may require a tray shell with an oval cutout to optimize airflow to cool the LRU.
- Forced-air cooling:  
*Metering plates and seals* – Air inlet holes in the metering plate allow for airflow regulation. Metering plate seals and baffle plugs (plug bumpers) are supplied with each tray assembly for insertion by the customer to direct airflow as required. For

assemblies requiring a fan, we also provide an open metering plate or seal retainer for maximum airflow.

*Fan assemblies and filters* – Our equipment trays are designed with options for rear-, side- or bottom-mounted fans and meet ARINC 600 Level (1) or Level (2) cooling requirements. Our fan filter provides high efficiency and low resistance without reducing fan velocity or airflow. The assembly is flame retardant per 8110-3 FAR 25.853 Appendix "F" Part 1(a) (v) and meets ARINC 600-12 ITM 3.5.4.4 Coolant Air Quality requirements. Filter elements are replaceable.

*Air plenum chambers* – Trays that need a fan also require a plenum. Our plenums are fastened with corrosion-resistant locking clinch nuts and screws. MIL-A-46146 RTV adhesive/sealant is applied to form an airtight seal.

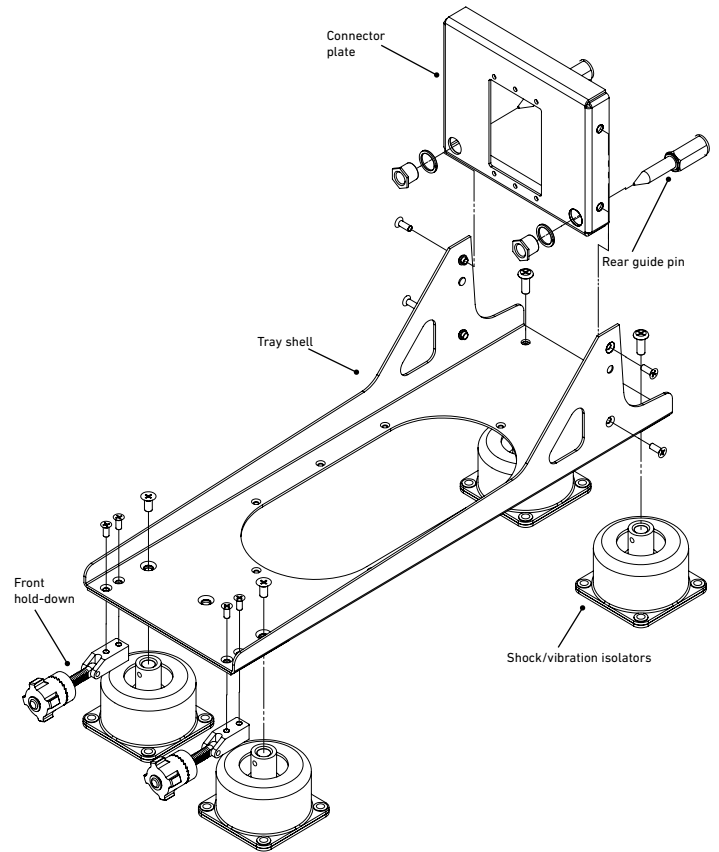
## MATERIAL SPECIFICATIONS

- Aluminum alloy: 5052, 6061 or 2024
- Stainless steel, 300 Series, 17-4 PH standard
- Silicone, SC-1021V Red 56 durometer
- Finish
  - Gold chem-film per MIL-DTL-5541, Type 1, Class 1A
  - Clear Chem-Film per MIL-DTL-5541, Type 2, Class 3
  - Other finishes available by request
- Part marking
  - Per MIL-STD-130



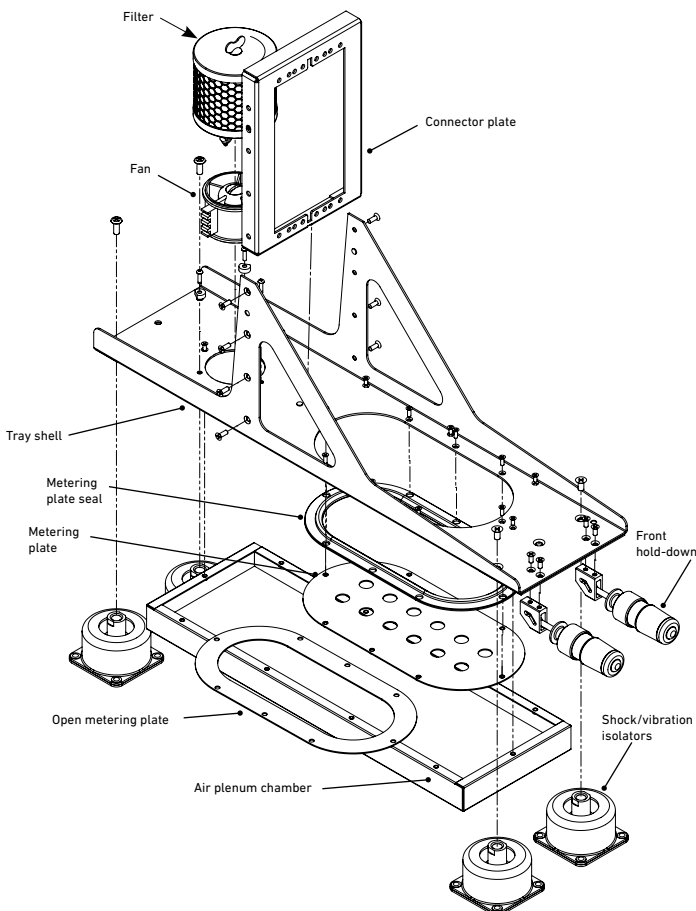
## ARINC 404 assemblies

TRAY STYLE (ATR)	W = INSIDE WIDTH (MM)	H = INSIDE HEIGHT (MM)	ARINC 404 CONNECTOR SERIES
1/4	2.39" (60.75)	4.36"/6.88" (110.75/174.75)	DPXA, DPXB, DPX2, DPX3
3/8	3.69" (93.72)	4.36"/6.88" (110.75/174.75)	DPXA, DPXB, DPX2, DPX3
1/2	5.01" (127.30)	4.36"/6.88" (110.75/174.75)	DPXA, DPXB, DPX2, DPX3, DPX4
3/4	7.63" (193.29)	4.36"/6.94" (110.75/176.35)	DPXA, DPXB, DPX2, DPX3, DPX4
1	10.26" (259.33)	4.36"/6.94" (110.75/176.35)	DPXA, DPXB, DPX2, DPX3, DPX4
1-1/2	15.40" (391.28)	4.36"/6.94" (110.75/176.35)	DPXA, DPXB, DPX2, DPX3, DPX4



## ARINC 600 assemblies

TRAY STYLE (MCU)	W = INSIDE WIDTH (MM)	H = INSIDE HEIGHT (MM)	ARINC 600 CONNECTOR SERIES
1	1.10" (27.94)	7.30" (185.42)	Size 1
2	2.39" (60.75)	7.30" (185.42)	Size 1, 2
3	3.69" (93.72)	7.30" (185.42)	Size 1, 2
4	5.01" (127.30)	7.30" (185.42)	Size 1, 2, 3
5	6.31" (160.27)	7.30" (185.42)	Size 1, 2, 3
6	7.61" (193.29)	7.36" (186.9)	Size 1, 2, 3
7	8.91" (226.31)	7.36" (186.9)	Size 1, 2, 3
8	10.21" (259.33)	7.36" (186.9)	Size 1, 2, 3
10	12.81" (325.37)	7.36" (186.9)	Size 1, 2, 3
12	15.41" (391.41)	7.36" (186.9)	Size 1, 2, 3







## MECHANICAL COMPONENTS

### Shock/vibration isolators

With many shock and vibration isolator styles available, we can cross-reference part numbers to ensure prompt delivery. Isolator features include:

- Effective vibration isolation in all axes
- Compact design
- Standardized sizes and products for most applications
- Customization to meet specific requirements
- Supports static loads from 1 to 80 pounds
- Engineering support beginning with selection analysis



#### GUIDE PINS

GUIDE BLOCK (MT1-6002)	GUIDE BLOCK (MT1-6062)	PANEL MOUNTED (MT1-5003)
Heavy duty block design	Heavy duty block design	Rear panel required
Spring-loaded guide feature	Optional stainless steel material	Spring-loaded guide feature
	Solid pin design	

#### HOLDDOWNS

TORQUE-LIMITING HOLD-DOWN (MT1-5005)	SELF-LOCKING HOLD-DOWN (MT1-5001)	THUMBSCREW HOLD-DOWN (MT1-5028)	MODIFIED THUMBSCREW HOLDDOWN (MT1-5047)
Designed to ARINC 600 specifications to prevent over-torquing	Adjustable torque	Smaller profile	Smaller profile
Insertion and extraction features	Standard M85731 body	Non-ratcheting wave spring locking mechanism	Non-ratcheting wave spring locking mechanism
Flame retardant plastic	Riveted construction	Riveted construction	Lock wire installation holes

# ACCESSORIES

Our product line includes hooks and handles; rack connectors are sold outright or as part of Avionics Support Package kits.

## HANDLES

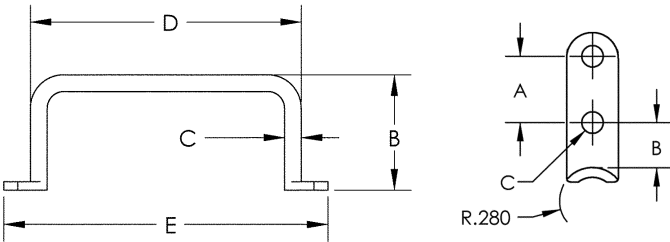
- Used to install or remove LRU
- Installed onto front plate

P/N	A	B	C	D	THREAD
MT1-HDL-4	1 ½	1 ⅝	¼	1 ¾	6-32 x ¾
MT1-HDL-4A	2 13/16	1 ½	5/16	3 ⅝	6-32 x 9/16
MT1-HDL-5	3	1 ½	5/16	3 5/16	8-32 x 9/16
MT1-HDL-6	4 ½	1 ½	5/16	4 13/16	8-32 x 9/16
MT1-HDL-7	6 ½	1 ½	5/16	6 13/16	10-32 x 9/16
MT1-HDL-8	9 ¼	2 ¼	5/16	9 9/16	10-32 x 9/16

P/N	A	B	C	D	E
MT1-HDL-2*	4 ½	1 19/32	¼	4 1/16	4 7/8

Material: brass, 410 series; Finish: nickel plated

\*Material: alum, 110 series; Finish: gold chem-film



## HOOKS

- Secures LRU to mounting tray
- Mounts onto front plate
- Hold-down latches onto j-hook

P/N	A	B	C	THREAD
MT1-HDH-1*	.562	-	.182	20 and below
MT1-HDH-2*	.562	-	.182	Above 20
MT1-HDH-3	.562	.375	.182	20 and below
MT1-HDH-3EP	.562	.500	.182	20 and below
MT1-HDH-3SP	.687	.265	.156	20 and below
MT1-HDH-3-228	1.50	.335	.156	20 and below
MT1-HDH-4	.562	.375	.182	Above 20
MT1-HDH-4EP	.562	.437	.182	Above 20
MT1-HDH-4EP	.687	.265	.182	Above 20

Rated to 125000 PSI, passivate, MIL-C-172B

and ARINC 404/600. Material: SS 410; \*Material: SS304

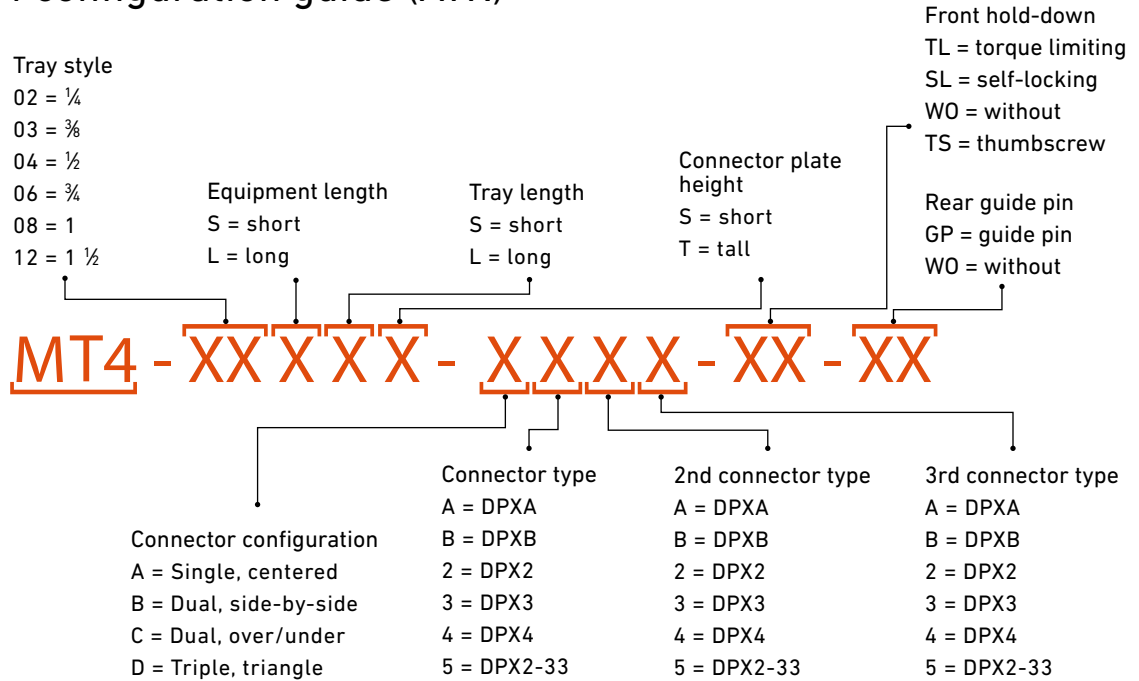
## RUGGEDIZED TRAYS

Collins Aerospace designs ruggedized trays to meet higher environmental testing conditions. These trays are ideal for environments with higher vibration and meet increased crash safety.

- Higher yield strength materials
- Increased bend radii throughout and doubler plate thickness
- Completely riveted construction
- Additional rear double with improved support features
- Improved connector plate features

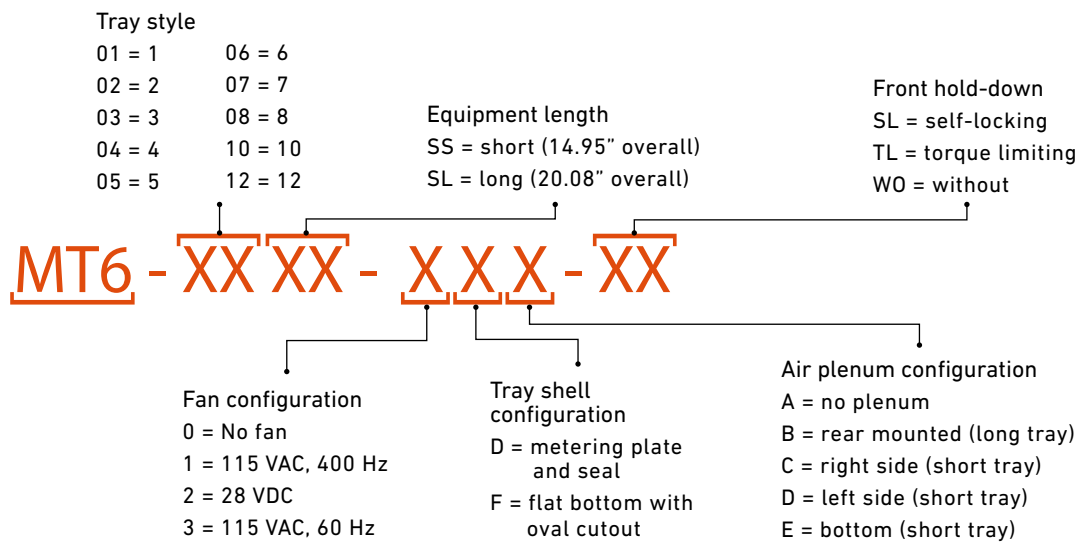
# ORDER GUIDES

## ARINC 404 configuration guide (ATR)



Contact us if fan or shock vibration isolators are required. We will generate a part number based on the configuration you select.

## ARINC 600 configuration guide (MCU)



Contact us if fan or shock vibration isolators are required. We will generate a part number based on the configuration you select.

To learn more, go to

→ [collinsaerospace.com/WiredSystemsIntegration](https://collinsaerospace.com/WiredSystemsIntegration)

**Collins Aerospace**

+1.262.679.6170

fax: +1.262.679.6175

LIS\_sales@beaerospace.com

collinsaerospace.com