MEIA Series

a division of WINCHESTER ELECTRONICS

MEIA™ Series Cable Assemblies and Connectors

- Threaded coupling version of EIA interface
- kW power handling capability equivalent to EIA, greater than 7-16 and LC interfaces
- 30% smaller, 40% lighter than similar EIA connector
- Easy to install vs mechanical flange and bolt attachment

Next Generation RF Power Transmission

TRU Corporation offers the latest innovation in high power connector design with the MEIA™ series interface. The MEIA™ interface provides equivalent kW power handling compared to similar EIA connector line sizes but provides a 30% smaller and 40% lighter form factor with a high efficiency, threaded coupling mechanism. This threaded coupling eliminates issues inherently found in mechanically aligning and fastening a flanged EIA interface with individual bolts.

The MEIA™ series is available with our flexible TRU-560 and TRU-500 cables to create an unmatched combination of high power and flexibility to suit your challenging applications. MEIA™ series, high power panel mount receptacles can be customized to the optimal launch geometry for your equipment to ensure performance and safety. MEIA™ to EIA adapters are available to allow transformation of your existing EIA connections to the more efficient MEIA™ interface coupling.

TRU Corporation's long heritage in high power design has made us a premier supplier in high power markets including critical safety applications in the industrial equipment segment. Our experienced technical staff is available to personally answer all your technical questions.

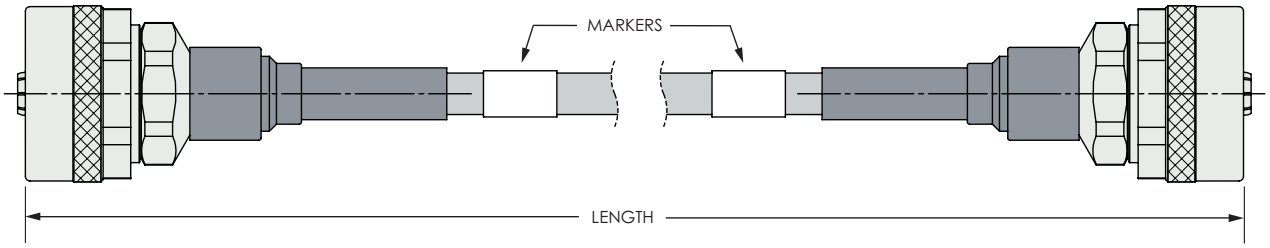
Visit our website to find additional support and product information: trucorporation.com

MEIA Series

Specifying High Power RF Cable Assemblies

Standard Cable Assembly Length Tolerances

Lengths ≤ 50 in (1,270 mm), tolerance = +/- 0.50 in (12,7 mm)
Lengths > 50 in (1,270 mm), tolerance = +/- 1% of length



MEIA-1625 interface shown.

Ordering Specifications

TRU-XXX XX XX-XXX

- Length as defined below. Ex: 125 is 12.5 feet*
  Add "M" as suffix for metric. Ex: 305M is 30,5 meters†
- Connector 2
- Connector 1
- Cable type

Note on Length

* Specify length in 0.5 foot increments
† Specify length in 0,1 meter increments

Cable Codes	Description
56B	TRU-560
50B	TRU-500

Connector Codes**	Description
31	MEIA-1625 straight (m)
29	MEIA-875 straight (m)
16	EIA 1-5/8 straight (m)
15	EIA 7/8 straight (m)

** Designate the lower number connector code **first** in the part number specification sequence.
Example: TRU-XXX2931-XXX

Comparison of MEIA-1625 to a comparable EIA 1-5/8 connector. MEIA™ is more than 30% smaller and 40% lighter, with a more efficient threaded coupling interface. MEIA™ line sizes are the same as EIA line sizes and can handle equivalent power.

MEIA Specifications

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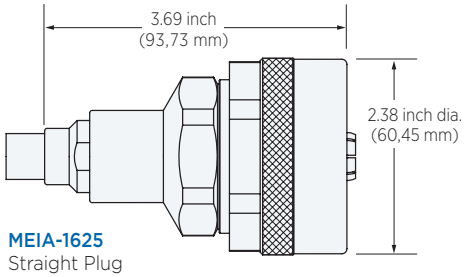
Requirement		MEIA-1625 (same line size as EIA 1-5/8)	MEIA-875 (same line size as EIA 7/8)
Electrical			
Frequency (maximum)		3 GHz	6 GHz
Impedance (Ohms - nominal)		50	50
Voltage Rating (Vrms)		5,100	2,800
Dielectric Withstanding Voltage (Vrms)		10,400	5,800
Power Rating (kW)*	10 MHz	50.00	18.00
*Sea level, 40°C, matched load, interface only	50 MHz	23.00	8.00
	100 MHz	17.00	5.60
	500 MHz	7.00	2.50
	1,000 MHz	4.80	1.80
	2,000 MHz	3.50	1.30
	3,000 MHz	2.90	1.10
	4,000 MHz		1.00
	5,000 MHz		0.90
	6,000 MHz		0.82
Mechanical			
Mating Cycles (minimum)		> 500	> 500
Mating Torque (nominal)		165 in-lbs (18.6 Nm)	70 in-lbs (7.9 Nm)
Environmental			
Operating Temperature		-65°C to +165°C	
Vibration		MIL-STD-202 method 204	
Shock		MIL-STD-202 method 213	
Moisture Resistance		MIL-STD-202 method 106	
Corrosion		MIL-STD-202 method 101	
Materials/Finish			
Body		Brass, nickel plated	
Contacts (inner) Female		Brass, silver plated	
Male		Beryllium copper, silver plated	
Insulators		Teflon	
Gaskets and Seals		Silicone rubber	

1000 MHz = 1 GHz *Sea level, 40°C, matched load

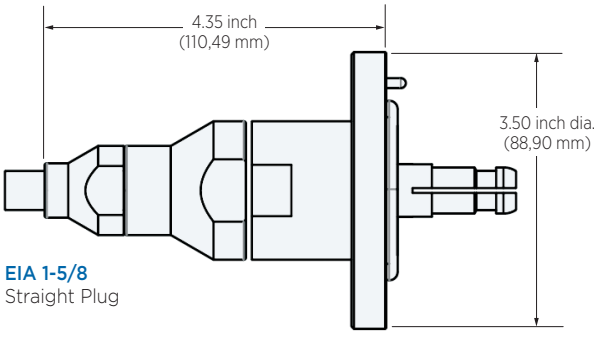
Specifications subject to change without notice. For additional specifications or other products, visit us online or call us at 1-800-262-9878.

MEIA Series

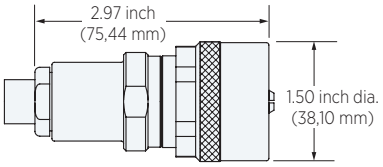
Cable Connectors



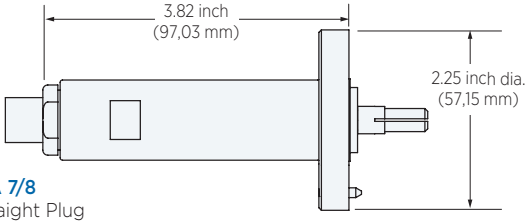
MEIA-1625
Straight Plug



EIA 1-5/8
Straight Plug



MEIA-875
Straight Plug

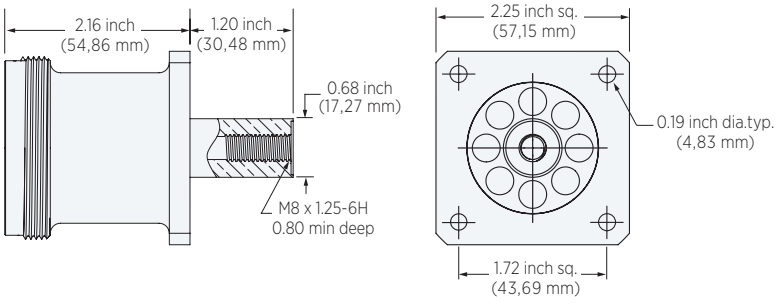


EIA 7/8
Straight Plug

Panel Mount Receptacles

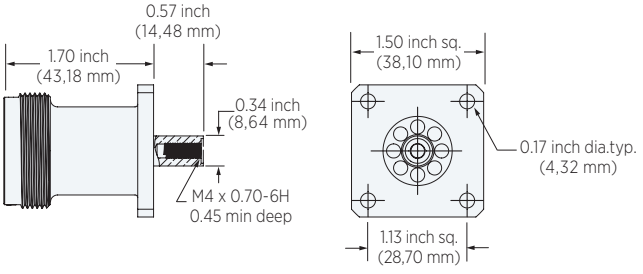
MEIA-1625 flange mount jack receptacle
internal threaded backend contact

Part Number	Finish
TRU-12496	Nickel



MEIA-875 flange mount jack receptacle
internal threaded backend contact

Part Number	Finish
TRU-12590	Nickel



MEIA Series

Coaxial Cable Reference Chart

Cable Diameter (nominal)	0.56 inch (14,2 mm)	0.49 inch (12,4 mm)
Cable Part Number	TRU-560	TRU-500
Center Conductor (stranded/solid)	7 strand	7 strand
Cable Dielectric (construction/material)	Tape-E/PTFE	Tape-E/PTFE
Shields (number)	2	2
Shields (type)	silver plated copper flat and round	silver plated copper flat and round
Cable Jacket (material/color)	PVC blue	FEP blue
Cable Operating Temperature (°C)	-55 to +105	-55 to +200
Cable Minimum Bend Radius (static)	1.70 inch (43,2 mm)	1.50 inch (38,1 mm)
Cable Minimum Bend Radius (dynamic)	2.80 inch (71,1 mm)	2.45 inch (62,2 mm)
Frequency (maximum)	6 GHz	6 GHz
Impedance (Ohms - nominal)	50	50
Capacitance pF/ft (pF/m)	26.8 (87,9)	26.8 (87,9)
Shielding Effectiveness (dB)	> -75	> -75
Velocity of Propogation (% nominal)	77	77
Weight lbs/ft (Kg/m)	0.240 (0,357)	0.230 (0,342)
Voltage	12 kV	12 kV

Power Rating (kW)*

	TRU-560	TRU-500
50 MHz	40.00	40.00
100 MHz	28.50	28.50
200 MHz	19.00	19.00
400 MHz	13.50	13.50
500 MHz	12.50	12.50
1,000 MHz	8.30	8.30
2,000 MHz	5.10	5.10
3,000 MHz	4.40	4.40
4,000 MHz	3.50	3.50
5,000 MHz	3.20	3.20
6,000 MHz	3.00	3.00

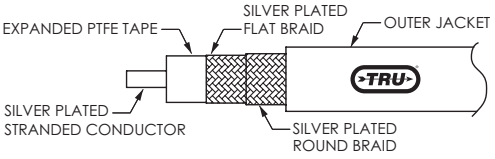
*Sea level, 40°C, matched load 1000 MHz = 1 GHz

Attenuation (dB/100 ft typical)*

	TRU-560	TRU-500
50 MHz	0.75	0.75
100 MHz	1.05	1.05
200 MHz	1.50	1.50
400 MHz	2.13	2.13
500 MHz	2.40	2.40
1,000 MHz	3.40	3.40
2,000 MHz	5.00	5.00
3,000 MHz	6.30	6.30
4,000 MHz	7.45	7.45
5,000 MHz	8.55	8.55
6,000 MHz	9.50	9.50

*20°C, matched load

Cable Construction

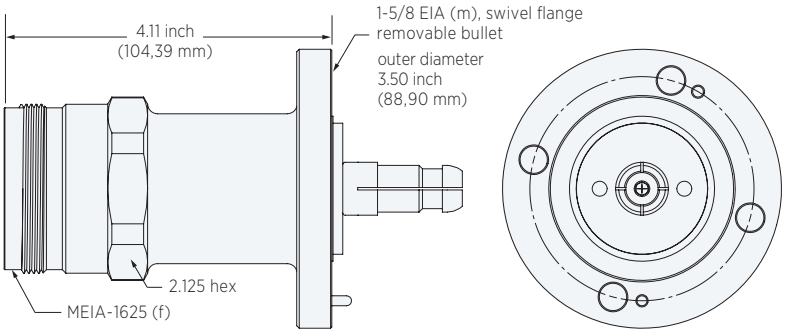


MEIA Series

Adapters

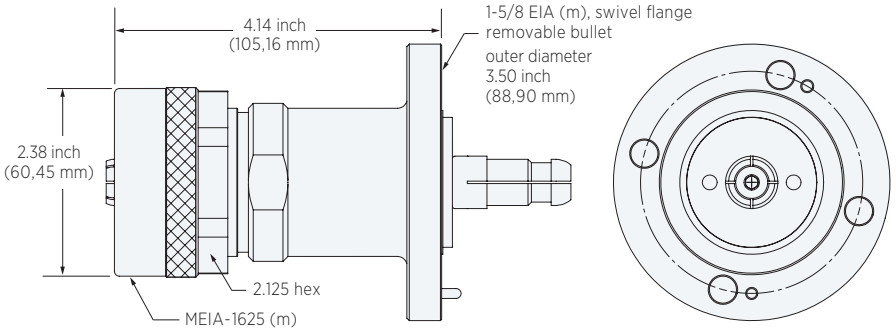
1-5/8 EIA (m) to MEIA-1625 (f) adapter

Part Number	Finish
TRU-12494	Nickel



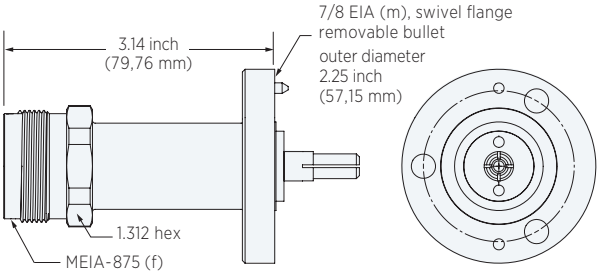
1-5/8 EIA (m) to MEIA-1625 (m) adapter

Part Number	Finish
TRU-12495	Nickel



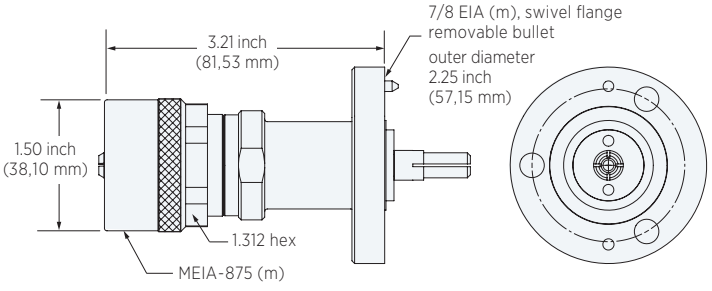
7/8 EIA (m) to MEIA-875 (f) adapter

Part Number	Finish
TRU-12532	Nickel

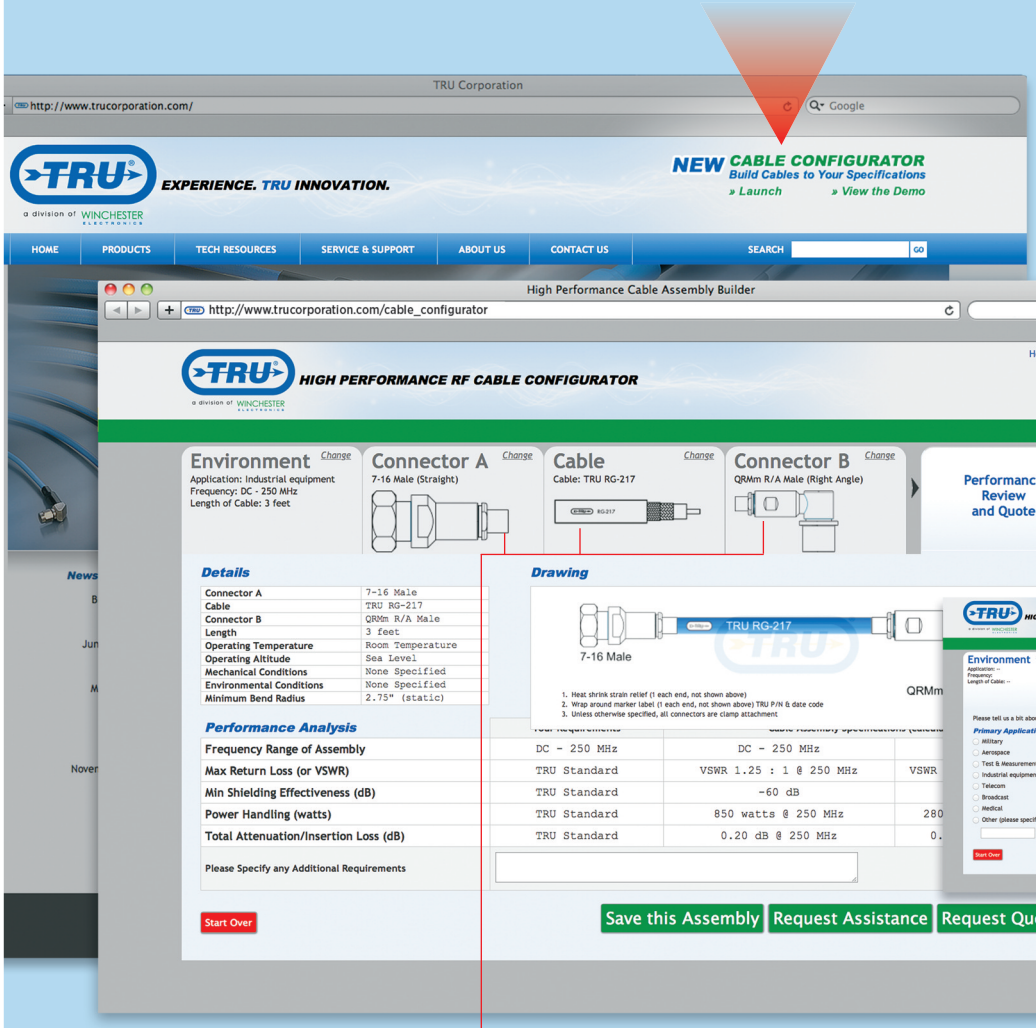


7/8 EIA (m) to MEIA-875 (m) adapter

Part Number	Finish
TRU-12533	Nickel



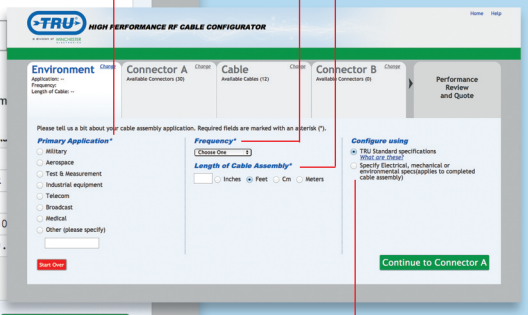
Find your cable assembly solution everywhere you are



SIMPLE NAVIGATION

With the new TRU online **Cable Configurator** you can build the right cable assembly for your specific requirements.

The **Cable Configurator** takes you through a series of filtered fields where you specify your **Primary Application**, **Length** and **Frequency**.



Choose either **TRU Standard** specs or specify your own **electrical**, **mechanical** or **environmental** specs.

From there you specify **connector** and **cable** types.

It's an easy to follow, prompted process that results in a completed review from which you can **Request Assistance** from an applications engineer or **Request a Quote**.

ADAPTS FOR USE ON LAPTOPS AND MOBILE DEVICES

Build cables to your specifications

trucorporation.com/cable_configurator

WINCHESTER ELECTRONICS

CONNECTING INNOVATION TO APPLICATION®

Winchester Electronics, established in 1941, is a leader in the design, development, and deployment of interconnect technologies globally.

Why we do it: *We like to make things better TODAY*

How we do it: *We solve problems in real time*

What we do: *We make connectors and cable assemblies– we transmit light and energy*

Markets

- Data Infrastructure
- Medical
- Semiconductor
- Military/Aerospace
- Test & Measurement
- Broadcast
- Marine-Oil-Gas
- Rail Mass Transit

Products

- RF cable assemblies and connectors
- Industrial cable assemblies and connectors
- Hermetic interconnects
- Multi-pin connectors
- Engineered cable assemblies
- Fiber optic solutions

Capabilities

- Engineering design and development
- Flexible manufacturing—high mix/low volume
- 3-D modeling
- Field technical services
- Electrical, environmental, and mechanical qualification testing
- Field technical services
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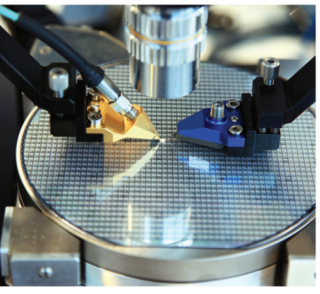

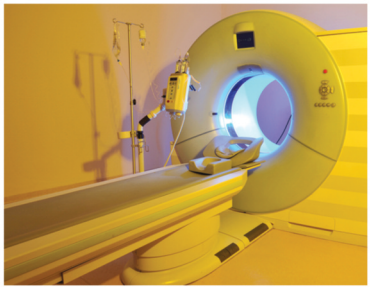

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