Outgassing Modification Codes

Is the Series 794 qualified and approved for space flight?

The new Series 794 connector is a high-speed VersaLink contact version of the space-approved Series 791 connector.

Do Series 794 connectors meet outgassing requirements?

Connectors must be vacuum baked to guarantee compliance with outgassing limits established by NASA and military space programs. The requirements are 1.0 % Total Mass Loss (TML) and 0.1% Collected Volatile Condensible Material (CVCM). ASTM E595 defines the test procedure.

What is vacuum bakeout?

Connectors are placed in a calibrated thermal vacuum oven/chamber for 24 hours at +125°C and a vacuum of 10-6 Torr.

Are Series 794 connectors non-magnetic?

Series 794 connectors meet the 2.0µ magnetic permeability requirement of EIA-364-54. Additional residual magnetism screening is available on request.

Series 794 connectors are available with upgraded screening and vacuum bakeout for high-reliability space programs. Find the appropriate code from the following table and add the code to the part number.
Example: 794-001BR-10VML-A-*429C*

SPACE GRADE MODIFICATION CODES

Modification Code	NASA Screening Level: Level 1 Highest Reliability	NASA Screening Level: Level 2 High Reliability	Vacuum Bakeout 24 hours +125°C
429		●	
429A		●	●
429B	●		
429C	●		●
186M			●

NASA SCREENING REQUIREMENTS (EEE-INST-002 TABLE 2C)

Inspection/Test	NASA Screening Level: Level 1 Highest Reliability	NASA Screening Level: Level 2 High Reliability
Visual Inspection	100% 10X magnification	100% 10X magnification
Mechanical Inspection	2 connectors 10X magnification	2 connectors 10X magnification
DWV/IR	2 connectors	2 connectors
Contact Separation Force (non-removable contacts)	2 connectors	Not required
Mating and Unmating Force	2 connectors	Not required

OUTGASSING PROPERTIES OF MATERIALS USED IN SERIES 79 CONNECTORS

Component	Material	TML %	TCVML %	Test Reference
Front and Rear Insulator, right angle PCB Trays	Liquid Crystal Polymer Vectra C130	0.03	0.0	NASA Test # GSC17478
Rear Grommet Interfacial Seal	Blended flourosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% flourosilicone per MIL-R-25988	0.48	0.14	Glenair testing conducted at NuSil Technology 02/27/2001
Front-To-Rear Insulator Bonding Material	Eccobond 104 A/B	0.52	0.08	Emerson & Cuming Data Sheet
Insulator-to-Rubber Bonding Material	DC3145 RTV, per MIL-A-46146	1.74	0.90	NASA Test GSFC0191
PCB Trays (Machined Ultem)	Polyetherimide, Ultem 2300	0.43	0.01	NASA Test GSC19820
White Epoxy Ink for Silkscreening	Markem 7224 White	0.49	0.03	NASA Test #GSC19899
Potting Compound, PC Tail Connectors	Hysol C9-4215	0.48	0.01	Glenair Test
Panel Gasket	Silver-filled Fruorosilicone, Cho-Seal 1287	0.63	0.03	NASA test GSC15165