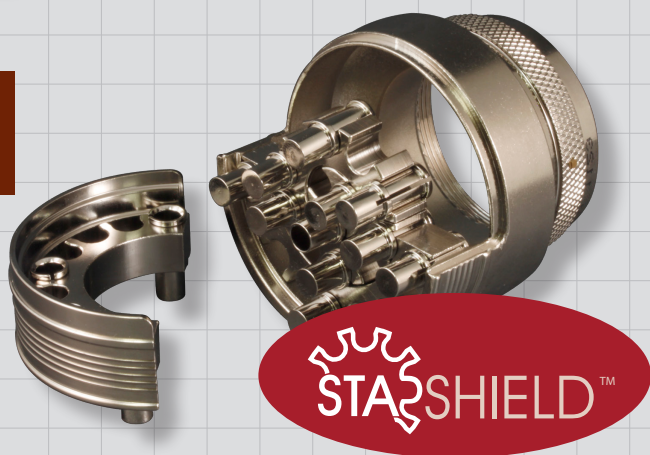




Introduction to StarShield™ Shield Termination Backshells

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Product Features

- The unique StarShield™ configuration completely eliminates “standing antenna” problems common with pigtail shield termination systems.
- The backshell utilizes familiar heat shrink termination (HST) sleeve technology for fast and reliable termination of shielding—even with dissimilar wire types and gauges.
- The StarShield™ system is available in a standard configuration featuring a threaded compression nut and a tapered split-ring that fits snugly into a conical backshell or a lightweight split banding version.
- Available fittings include EMI shield termination and shrink-boot backshells.

“Zero Length” Individual Shield Termination Backshells

The Glenair Series 470-013 StarShield™ “Zero Length” Individual Shield Termination Backshell offers optimal grounding of EMI/EMP braided shielding. The unique StarShield™ configuration completely eliminates the need for the termination of additional shield drain wires or pigtails. The backshell utilizes familiar solder sleeve technology for fast and reliable termination of shielding—even with dissimilar wire types and gauges. The internal configuration of the StarShield™ features a tapered split-ring that fits snugly into the conically machined backshell. Tightening the coupling nut in place effects 360° grounding of all conductive surfaces. Standard designs include banding and shrink-boot versions.

Test Description	StarShield™ Performance Requirements	Procedure
Magnetic Permeability	Relative permeability less than 2.0 for aluminum and 5.0 for stainless steel.	EIA-364.54
DC resistance	Resistance was measured between connector/fixture, and ferrule or a point near the end of the cable shield. Cable shield resistance was subtracted when measuring to a point near the end of the cable shield. The DC resistance did not exceed 5 milliohms after conditioning.	EIA-364.6
Durability	Backshells subjected to 10 cycles of assembly and disassembly (not including HST device). Showed no evidence of damage detrimental to performance.	GPS470013
Temperature Cycling	Condition IV, 5 cycles, except steps 2 and 4 were 2 minutes maximum duration. The temperature of step 1 was -65°C and temperature of step 3 was +200°C for nickel-plated Backshells with nickel-plated copper braids, +175°C for cadmium plated Backshells or silver-plated braids, or +150°C for tin-plated copper braids. After conditioning, Backshells met the subsequent performance requirements and showed no evidence of damage detrimental to performance.	EIA-364.32, condition IV and GPS470013
Temperature Aging	Backshells were subjected to maximum operating temperatures for a period of 1,000 hours. After conditioning, Backshells met the subsequent performance requirements and showed no evidence of damage detrimental to performance.	GPS470013
Coupling Thread Strength	After testing, backshell showed no evidence of damage detrimental to performance.	SAE AS85049 category 3A
Vibration	Backshell was torqued to a suitable test fixture representative of an actual connector. Cable bundle was clamped or otherwise secured at 10.0 +/- .5 inches from the test fixture. After testing, Backshell showed no evidence of loosening or damage detrimental to performance with no discontinuities >1g5.	EIA-364.28 Condition VI, letter J 8 hrs/axis, monitored
Shock	The pulse was approximate half sine wave of 300 G ± 15 percent magnitude with duration of 3 ± 1 milliseconds. The wire bundle was clamped or otherwise secured at 10.0 +/- .5 inches from the test fixture. After testing, Backshell showed no evidence of loosening or damage detrimental to performance with no discontinuities >1g5.	EIA-364.27
Bending Moment	After testing, backshell showed no evidence of loosening or damage detrimental to performance.	AS85049, category 3A (heavy duty)
Cable Pull-out	A minimum of one ferrule per backshell was tested and wired with 4 shielded twisted pairs. DC resistance was monitored during the test. DC resistance during the test did not exceed 7 milliohms.	EIA364.38, condition E (25lbs)
Salt-Spray (Corrosion)	The samples were suspended from the top of the chamber using waxed twine or string, glass rods or glass cord. StarShield™ backshells showed no signs of basis metal exposure which may affect performance as defined in AIR4789	EIA364.26 test condition letter A (96hrs) and test condition letter C (500hrs)
Fluid Immersion	One sample per fluid. StarShield™ backshell and HST devices showed no signs of swelling, cracking or other evidence of damage detrimental to performance.	EIA-364.10
Shielding effectiveness	One representative medium size StarShield™ backshell was fitted to a brass or copper fixture, wired with copper tubes and tested in accordance with VG95373-41. Shielding effectiveness was greater than 98 dB at 30 MHz and 90 dB at 100 MHz	VG95373-41

Dimensions in inches (millimeters) and are subject to change without notice.

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GLENAIR, INC. • 1211 AIR WAY • GLENDALE, CA 91201-2497 • 818-247-6000 • FAX 818-500-9912

www.glenair.com

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E-Mail: sales@glenair.com