

POWELL ELECTRONICS

UNDERSTANDING AND MANAGING LEAD TIMES OF MIL-SPEC CONNECTORS

In recent years supply chain and procurement issues have risen to the top of the challenges a manufacturer must address, since even the best team cannot make a product without parts. Therefore, understanding and managing lead times is an important element of manufacturing processes today.



Pre-COVID, you could usually count on parts being delivered in four to six weeks, but today some of these lead times can now be anything from 26 weeks to more than a year, depending on the component. Mil-spec connectors are especially known to be in tight supply. This is due to current geopolitical tensions and trade restrictions, but also natural disasters have had significant impacts on global supply chains.

Extended delivery times (or worse, lack of component availability) can easily derail a project. Therefore, it is important to work together with trusted distribution partners and suppliers who can offer short lead times and who are less affected by component or material shortages. A distribution partner such as Powell Electronics, known for maintaining a large and diversified inventory for same-day shipments, can provide

valuable support for selecting components and managing flexible Bills of Materials (BoM). Powell's relationships with trusted franchise partners, such as Glenair – a company recognised for the rapid availability of its high-quality, mil-spec DLA-qualified connectors and accessories – further enhance this support. Unlike other manufacturers, Glenair is not impacted by off-shore manufacturing and shipping challenges as its connectors are produced domestically in the United States. Additionally, Glenair mitigates material shortages by maintaining a minimum stock of

one year's supply of raw materials, allowing it to

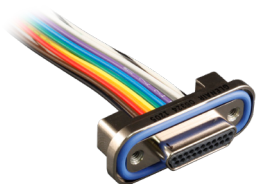


D38999 IV receptacle

effectively manage production capacity. Glenair's lead times typically range from immediate availability to a maximum of five weeks.

Some of the reliable and rugged connectors from Glenair, which are available from stock through Powell, include standard environmental-class MIL-DTL-38999 Series III connectors. These connectors are ideal for a broad range of harsh environmental land, sea, air, and space applications. They are available in cable plug or mounted jam nut/square flange receptacle shell styles. All standard material and finish classes are supported including W, F, T and G. Other RoHS-compliant finishes, including Glenair ZR (Black Zinc-Nickel), are also available. Contact arrangements per MIL-STD-1560 and all standard as well as normal and alternate polarisations are fully supported.

Glenair's MIL-DTL-38999 Series IV connectors are the ultimate solution for positive and reliable breech-locking connector performance in missile launch control and other severe vibration application like mining/gas-pressure blasting. The plug and receptacle connectors are available in shell sizes 11–25, with all Mil-Std 1560 insert arrangements as well as high-density and hybrid shielded contact arrangements. A key feature of the devices is their coupling nut/locking technology. This technology provides rock solid breech-lock mating augmented with both primary and secondary locking mechanisms.



Micro-D Pigtail Leads

MIL-DTL-32139 nano rectangular connectors are available in single or dual row prewired versions. Single row PCB

through-hole connectors are available in vertical mount or right angle format. M32139/01 and /02 insulated wire nano connectors feature highly

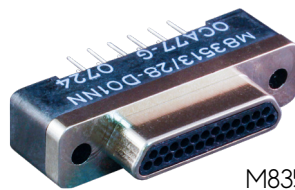
reliable gold alloy TwistPin contacts. All QPL nanominiature connectors offer premium performance and reliability for demanding and rugged applications like UAV's, satellites, missile systems and geophysical instruments .

Further technical details include a contact spacing of 0.025 inches, 1 amp current rating and DWV rating 250 volts AC.



M32139 Dual Row Receptacle with Fade

MIL-DTL-83513 connectors and hardware accessories for mil-aero applications requiring current QPL status can also be sourced from stock through Powell. Glenair's complete Micro-D product line includes M83513 Micro-D connectors with solder cup, pre-wired or PCB versions. All the devices use TwistPin contacts for high performance.



M83513

Glenair manufactured accessories available through Powell include AS85049 qualified backshells and connector

accessories, MIL-DTL-38999 qualified connector accessories, MIL-DTL-83723 qualified backshells and connector accessories and AS81511 qualified backshells and connector accessories.

Collaborating with a reputable and experienced distribution partner such as Powell, known for maintaining inventories of crucial and in-demand components, can effectively mitigate supply chain and procurement challenges. This partnership ensures that manufacturing processes remain uninterrupted and on schedule.