

Partner Content March 25, 2021

How Smiths Interconnect keeps the medical world connected



Reliable connectivity is essential in medical devices for protecting the wellbeing of patients. Part of the globally recognised Smiths Group, Smiths Interconnect provides electronic components, fibre optics and radio frequency products that connect, protect and control critical healthcare applications. The company's advanced connectivity solutions ensure signal integrity and reliability for medical devices and are used in medical and patient monitoring systems, imaging systems and disposables.

Smiths Interconnect technology brands supporting the medical industry include EMC, Hypertac, IDI, Lorch, and RF Labs, each one synonymous with exceptional performance. Supplying expertly designed products under these brand names, Smiths Interconnect also supports the medical sector with excellent consultancy and expert advice, making for reliable end-to-end solutions.

Companies Intelligence

IDI Inc

Smiths Group Plc

EMC Public Co Ltd

Eclipta LLC

Hypertac SpA

[View all](#)

“You can find Smiths Interconnect’s technology being used on any application or device that requires a safe, reliable connection, time after time, such as imaging systems – like MRI, CT, X-Ray, or EP Mapping systems – radio frequency generators, and patient monitors,” says Daniel Ratzlaff, global product line manager at Smiths Interconnect. “Any device that sees a high cycle life or harsh environment, such as devices that are worn by the patient or used in the field, would benefit from our technology. It would also be beneficial to any device where long service life is required.”

 **rboloid contact technology**

Ideal for harsh environments and safety critical applications, the company's products deploy high-performance hyperboloid contacts to provide premium connectivity. Ratzlaff claims that the company's use of Hypertac® Hyperboloid technology is one thing that sets Smiths Interconnect apart from its competition.

“The Hypertac technology provides a highly reliable, low-mating-force connection, while delivering industry-leading cycle life and electrical performance. The inherent electrical and mechanical characteristics of the Hypertac® Hyperboloid technology contact ensure unrivalled performance in terms of reliability, number of mating cycles, low contact force and minimal contact resistance. The shape of the contact sleeve is formed by hyperbolically arranged contact wires, which align themselves elastically as contact lines around the pin, providing a number of linear contact paths,” he explains.

Medical connectors designed to withstand autoclaves

Widely used in healthcare settings, autoclave sterilisation involves subjecting devices to pressurised steam for 15-20 minutes. Every part of such a medical device must be able to withstand high temperatures of up to 135°C, without deforming or damaging. Therefore, when it comes to the device's plastic connectors, high-quality, autoclavable materials are essential to ensure longevity and patient safety.

“Our connectors come in materials specifically chosen to survive the harsh conditions of the medical field, including high impact and autoclave sterilisation,” Ratzlaff says.



Designed with high-strength polymer materials to survive up to 20 autoclave cycles, Smiths Interconnect recently launched its D Series Connector. An alternative to high-cost autoclavable connectors, the D Series represents a cost-effective solution that doesn't compromise on reliability.

The D Series is equipped with up to 25 hyperboloid contacts is suitable for use in patient monitors, electrophysiology catheters, MRIs, intervascular ultrasounds, defibrillators, infusion pumps and laboratory equipment.

Innovating cost-effective connectivity solutions for medical devices

Smiths Interconnect is constantly innovating and delivering new products. Speaking at the launch of a new range of products, Ratzlaff describes how they benefit the medical space: "Our Eclipta product embeds for the first time a contact technology previously used for the aerospace applications, which is designed to provide a reliable, easy-to-use solution for applications where value is critical. Our product provides the performance demanded while keeping the cost of ownership low, improving the cost and outcomes for the patient."

Eclipta's innovative design features a double-ended edge card contact system with a printed circuit board (PCB) contact on the disposable connector side. The medical connector's plug and play design minimises assembly time and provides effortless termination, removing the potential for contact damage.

For those interested in Smiths Interconnect's cost-effective innovations for medical devices, Ratzlaff insists

there is much more to come: “Customers should stay tuned. We have new offerings coming in the near future that will enhance and broaden our support for high-reliability medical applications.”

Share this article



The leading site for news and procurement in the medical device industry

[About us](#)

[Advertise with us](#)

[License our content](#)

[Contact us](#)

[Editorial approach](#)

[Newsletters](#)

[Our marketing solutions](#)

[Privacy policy](#)

[Terms and conditions](#)

[Sitemap](#)

Powered by 

© Verdict Media Limited 2023

