Recommended Procedure for STP Cable Grounding on Moxa's Industrial Ethernet Switches

Moxa Technical Support Team <u>support@moxa.com</u>

When using shielded cables to connect two Ethernet devices, a ground loop may occur if the shielding on the cables generates an additional grounding connection path. This can cause ground current to flow through to the Ethernet ports and damage the devices. If it is necessary to use shielded cables, we recommend using a metallic RJ45 connector on one end and a non-metallic connector on the other end. Alternatively, a patch panel can be used in between the two devices to prevent ground loops from occurring.

For connections over short distances (e.g., between two devices installed in the same cabinet), both ends of the shielded cable can be referenced to the same grounding point. Therefore, in this case, it is acceptable to use a shielded cable with metallic RJ45 connectors on both devices.

If you have any questions, please contact Moxa's technical support.

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About Moxa

Moxa is a leading manufacturer of industrial networking, computing, and automation solutions. With over 25 years of industry experience, Moxa has connected more than 40 million devices worldwide and has a distribution and service network that reaches customers in more than 70 countries. Moxa delivers lasting business value by empowering industry with reliable networks and sincere service for automation systems. Information about Moxa's solutions is available at <u>www.moxa.com</u>.

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