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Technical Instruction – **Trusted Suppliers**

Scope

This technical bulletin discusses manufacturer viability and security issues with low-cost components.

Background

When purchasing components for use within a SCADA monitoring system, low-cost parts may have questionable aspects hidden within construction or software requirements that the integrator must be aware of. The accuracy and reliability of a quality part typically come at a premium and the lure of low prices can be tempting, however there are other factors to consider when purchasing low-cost equipment. What level of responsiveness and support does the supplier provide? Does the supplier have a sustainable business model? What benefit does a warranty provide if the manufacturer is no longer in business? In today's political environment, most importantly is the item manufactured by a hostile foreign power?

As Stuxnet revealed to the world in 2010, even air gapped SCADA systems are not immune from attack (see: <https://www.sciencedirect.com/topics/computer-science/stuxnet>). Many modern systems need an internet connection to be practical, which opens additional attack vectors. System integrators must exercise all due diligence and provide a sufficient level of control to ensure they are not contributing to the problem. For example, while an RS485 to Ethernet adapter has a specific function, this device is a mini computer with a web server capable of running unaudited malicious code. Because of this risk, the integrator must ensure the adapter is purchased from a trusted supplier.

Suspiciously low-priced products are a red flag that the component in question may be suspect and that additional research of the supplier must be conducted prior to purchase. Even if an item is made in a trusted country, informed purchasers must also consider where the item's parts were made. This is true for all components within a fully integrated system. The use of suspect parts can have a negative effect across all aspects of the system. Research the supplier of every system component utilized while verifying security certificates, place of manufacture, and other technical documentation that provides evidence of a safe, supported component.

Products from IMT Solar are clearly labeled as being manufactured in Germany, with the most important components such as cases, PCB boards, sensor cell laminates, cables and much more using only Made in Germany and Europe products. During the very strict quality assurance process at IMT, the manufacturing process as well as most components are inspected for 100% of the parts of third-party suppliers.

Support

For additional information please contact IMT Solar at (716) 276-8466, info@imtsolar.com, or visit us at www.imtsolar.com.