Interpretation Number: 5-03/03 – Item 1(1BASE5 Isolation)
Topic: 1BASE5 Isolation
Relevant Clause: 12.10.1
Classification: Unambiguous

Interpretation Request

We have a doubt about a definition in chapter 12.10.1 802.3-2002 (Safety, Isolation): there, we can read: "Each PMA/MDI interface lead shall be isolated from frame ground". What is frame ground? Is the pcb GND the frame ground?

Should we test the isolation from ethernet pairs to GND?

Interpretation for IEEE std 802.3-2002

Your interpretation request referenced text in Clause 12. Clause 12 is not recommended for new installations. However, the term "frame ground" also appears in other clauses and based on this we provide the following response.

Frame ground is an equivalent term to the perhaps more common term Chassis Ground (See IEEE 100 Chassis). The connection of PCB GND to frame ground is beyond the scope of the standard.
Interpretation Number: 5-03/03 – Item 2 and 3 (1BASE5 Isolation)
Topic: 1BASE5 Isolation
Relevant Clause: 12.10.1
Classification: Not a request for Interpretation

Interpretation Request

In our PCBs and equipements there is only one GND, defined "protective bonding" for the IEC60950 safety standard. Is it compliant to 12.10.1 802.3-2002 request a discharge from the PMA/MDI interface lead to GND?

Interpretation for IEEE std 802.3-2002

This item of the request is being returned to you because it does not constitute a request for interpretation but rather a request for consultation advice. Generally, an interpretation request is submitted when the wording of a specific Clause or portion of the standard is ambiguous or incomplete. The request should state the two or more possible interpretations or the lack of completeness of the text.