

Industry Standards Specification Checklist

The following is a checklist of items that need to be included in Interconnect Industry Standards. The list includes items that should always be included in standards (Required), as well as areas of concern (Recommended).

Required Items

- Detailed max dims for the cable backshell/overmold
- Detail dims for connectors) with CTF dims identified
- Detailed card footprint
- Robust keying options
 - Misplugging force #
 - Min xxx keying options
 - "Unkeyed" = Universal keying
- Min retention requirements for radial/side/longitudinal load
 - Connector to card (must be higher than Plug to receptacle)
 - If additional hardware/chassis required to meet spec, hardware must be defined in spec
 - Plug to receptacle (Latch, TS, Friction Fit)

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Required Items cont.

- Cross-Mating
 - CTF dimensions, required to meet applicable mech specifications (eg: insertion/withdrawal forces) must be made publicly available for inclusion in the specification
- Materials required to be compliant with all applicable environmental regulations
- Thumbscrew thread definition (M3, 4-40, etc)
- Max voltage rating (required for import/export)
- Per pin contact current rating
- Environmental stress test requirements defined
 - EIA-364-1000 - Recommended
- Min connector wipe
- Recommended sheetmetal panel cutouts (for card connector and cable clearance)
- Insertion/Withdrawal forces
- Connector polarity (prevent plugging upside down)
- Plating type and thickness specified (Multiple Options Ok)
- Underplating and thickness specified (Multiple Options Ok)
 - 30u"Au over 50u"Ni, Au flash over 30u"PdNi over 50u"Ni - Recommended
 - RJ45 connectors: 50 u" Au over 50 u" Ni - Recommended
 - Power connectors: 100 u" Sn over 50u"Ni, 30u"Au over 50u"Ni - Recommended
- Flammability rating
 - 94V-1 or better - Recommended

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Required Items cont.

- Compatible with lead-free solder processes
- List of environmental standards with which product complies (eg: RoHS)
- Durability/plug cycle specified
- 3D CAD data (eg: Catia), required for mechanical asm and card layout, must be made available to customers
- Hipot test requirements defined
- High speed electrical test data available

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Recommended Items

- Min Cable Bend Radius
- Backshell and Latch/TS Insulation (Included in Dims)
- Protocol Symbol
- Min Bulk Wire strain relief
- Min Thumbscrew torque
- Min CL to CL connector spacing requirement (so cables always plug and unplug, clearance and Human Factors)
- Pre-attach board retention features
- Board polarization features
- Min EMC requirements(
Future Addition - Shielding effectiveness of backshell, backshell to card connector, card connector to chassis, bulk shield to backshell
- Positive latch indication requirement (visual, auditory, etc)
- Min ergonomic requirements (latch size, latch/TS access, ribbing on backshell/overmold, etc)
- Spring material listed
- Housing material specified
- All materials compliant with current global environmental regulations