

Customer Solutions Team Design Recommendations

White Paper

June 2016



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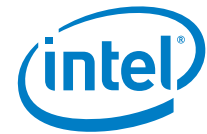
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Revision History

Document Number	Revision Number	Description	Revision Date
010515	1.1	<ul style="list-style-type: none">• Initial release	May 2015
010515	1.2	<ul style="list-style-type: none">• Tool and Technologies references changed to Customer Solutions Team	June 2016



1 Design Recommendations

Our schematic and layout review processes use automation to interpret what is found in the customer board file.

Note: Some file formats will cause errors either uploading or downloading from SharePoints. Please zip all files to be submitted for a design review.

To enable our automation, please:

- Use reference designator prefixes that help identify the component type.
Some examples:
 - C1 uses "C" prefix to indicate Capacitor
 - R1 uses "R" prefix to indicate Resistor
 - L1 uses "L" prefix to indicate Inductor
 - FB1 uses "FB" prefix to indicate Ferrite Bead
 - Q1 uses "Q" prefix to indicate Transistor or FET
 - TP1 uses "TP" to indicate Test Point
 - D1 uses "D" to indicate Diode
- Run any Design Rule Checks that your board design software will support before submitting your design to us for review.
 - For schematics, we recommend checking for one pin net names.
 - For layouts, we recommend flooding all area fills (needed for the field solver for calculating impedance) checking for un-routed traces, and checking for shorts between net names (overlapping trace segments can occur if traces were routed with Checking turned off).
- Provide the necessary information:
 - A board file in a format compatible with our process (see Board File Format Support).
 - A searchable PDF schematic that exactly matches the board file revision and reference designator assignments.
 - If Permissions to Restrict Editing are used to disable Changes, please enable Copying of Text, Images and other content. This will ensure the watermark is preserved, while allowing us to search the schematic manually by copying net names and pasting them in the Search window. Please see Acrobat Help _ SecuringPDFswithpasswordsAllowSearch.pdf document in the home area of this SharePoint for details.
 - For layout reviews, please include a stack up drawing / spreadsheet – preferably from your board fabrication vendor – with layer thicknesses, permittivity and dielectric constants. We need this to calibrate our field solver for calculating impedance.



Design Recommendations

- Let us know as much information as you can about which Intel platform / customer reference board or form factor reference design your product resembles.
- Please give us feedback and feel free to ask questions!