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B	REV ESD REQUIREMENTS	5/28/08	1682	TLC	GMJ	TLC
A	PRODUCTION RELEASE	4/7/08	1648	GMJ	MAH	GMJ
REV	DESCRIPTION	DATE	ECN	DWN	CHK	ENGR

# SOURCE TECHNOLOGIES

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## Specification, Corporate Design, Manufacturing and Assembly Standards

SIZE	SCALE: NONE	DWG NO.	REV.
<b>A</b>	SHEET : 1 of 3	<b>103464</b>	<b>B</b>

## 1. Purpose

This specification defines general design standards for all products unless otherwise specified. This specification also defines standards on how these products will be manufactured and assembled.

## 2. Scope

This specification applies to all product designs and to all manufacturing and assembly processes (for both in-house assembly and outside contract manufacturing and assembly).

## 3. General Specifications

Parts are to be free of oil, wax, dust and other contaminants. No burrs, or sharp edges on corners.

## 4. General Cable, PCB Assembly, and Purchased Component Specifications

All soldering is to be in compliance with IPC-A-610 standards.

ESD sensitive assemblies, subassemblies and all PCB Assemblies will be shipped in ESD shielded (as opposed to ESD dissipative) packaging with appropriate ESD warning label closure. For ESD sensitive packaging which deviates from this requirement, a certificate shall accompany the first such shipment, detailing the method of ESD protection and referring to applicable industry standards as appropriate. Acceptability shall be communicated in written form by Source Technologies' Engineering Department prior to receipt of product. A new certificate shall be issued for each packaging change(s) that affect ESD protection.

Install crimp terminal receptacles and connectors according to terminal or connector manufacturer's written instructions.

Cable assemblies shall pass continuity and shorts testing before shipment.

Part numbers are not required on standard (off-the-shelf) cables.

On custom cables less than 6 inches in length, attach one durable and legible label showing part number and revision to the center of the cable.

On custom cables 6 inches and longer, attach a durable and legible label showing part number and revision within 1 to 2 inches of each end of the cable.

All wire, cable cord, sleeving and heat shrink tubing must be UL recognized. The UL recognition mark must be printed on each individual item or a certificate of conformity confirming UL recognition must be provided with the packaging of each order.

Trim all PCB leads and wire such that they will not puncture any heat shrink.

All sleeving must extend inside the clamps of any cable hood shells.

No PCB component substitutions will be allowed unless approved in writing by ST Engineering Department prior to production.

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## 5. General Assembly Specifications

Cables will not be pinched after assembly into the unit.

The following Phillips bit sizes and standard torque specifications will be used for screw assembly:

Screw Size		Phillips Bit Size	Standard Torque
Inch	Metric		
2-56 UNC	M2	1	2 in lbs, +/- ½ in lb
4-40 UNC		1	4 in lbs, +/- 1 in lb
	M3	1	5 in lbs, +/- 1 in lb
6-32 UNC		2	8 in lbs, +/- 1 in lb
8-32 UNC	M4	2	16 in lbs, +/- 2 in lbs
10-24 UNC		3	22 in lbs, +/- 3 in lbs
10-32 UNF	M5	3	27 in lbs, +/- 3 in lbs
¼-20 UNC	M6	3	32 in lbs, +/- 5 in lbs
¼-28 UNF		3	40 in lbs, +/- 5 in lbs

## 6. Restriction of Hazardous Substances (RoHS) Specifications

Unless otherwise specified, all parts and assemblies will comply to the specifications of the **EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.**

Unless otherwise specified, all shipping and packaging material will comply with the specifications of the **EU Directive on packaging and packaging waste.**

These restrictive substances will include (but not be limited to) the following materials in the amounts specified in the directive:

- Lead
- Mercury
- Hexavalent Chromium
- Cadmium
- PBB's
- PBDE's

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