



Sanmina-SCI Corporation

2700 North First Street
San Jose, California 95134
Tel 408 964 3500

{Date}

{Supplier Name}

{Company Name}

{Address 1}

{City, State, Zip Code}

Re: Supplier Requirements for RoHS Compliance

Dear Valued Sanmina-SCI Supplier,

This letter is to inform our supply partners of Sanmina-SCI's supplier requirements for RoHS compliance.

One of the major components of Sanmina-SCI's environmental compliance initiative is establishing clear guidelines and requirements to the global supply chain. Sanmina-SCI is fully committed to continuing its business relationship with suppliers who are competitive and RoHS-compliant. Sanmina-SCI encourages its current suppliers to identify areas in which their operations do not conform to Sanmina-SCI requirements and to establish recovery plans immediately. As a part of the Sanmina-SCI regulatory compliance strategy, suppliers are required to:

- Meet Sanmina-SCI environmental guidelines
- Comply with all applicable legal and regulatory requirements, including international Environmental Health & Safety (EHS) related laws
- Provide accurate, timely and appropriate disclosures and/or reporting related to these requirements

As part of the continuing effort to ensure alignment between Sanmina-SCI's environmental compliance objectives and those of our suppliers, this letter and its attachment provide specific technical and operational minimum requirements for compliance with Sanmina-SCI RoHS practices. The attached requirements document (RoHS F004) will be maintained and is included by reference in Sanmina-SCI purchase orders.

Please review these requirements and take all appropriate action to support our collective RoHS obligations. If there are any questions regarding the content of this letter or the attachment, please contact your Sanmina-SCI Global Supplier Manager (GSM) or one of the undersigned.

Sincerely,

John Yapp
Vice President
Global Supply Chain Management
Sanmina-SCI Corporation



Minimum Specifications and Requirements for Supplier RoHS Compliance

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Minimum Specifications and Requirements for Supplier RoHS Compliance

1.0 INTRODUCTION

One of the major components of the Sanmina-SCI environmental compliance initiative has been the establishment of clear guidelines and requirement to the global supply chain for RoHS compliance. A comprehensive survey of the supply chain has been conducted to define gaps and also gauge compliance status. Sanmina-SCI has been providing guidelines and compliance requirements to the supply base with full commitment to continue its business relationship with RoHS-compliant companies while encouraging its suppliers to identify areas in which their operations do not conform to Sanmina-SCI requirements. As a part of the Sanmina-SCI regulatory compliance strategy, suppliers are required to:

- Meet Sanmina-SCI environmental guidelines
- Comply with all applicable legal and regulatory requirements, including international Environmental Health & Safety (EHS) related laws
- Provide accurate, timely and appropriate disclosures and/or reporting related to these requirements

As part of the continuing effort to ensure alignment between Sanmina-SCI's environmental compliance objectives and its suppliers, this document provides specific technical and operational requirements to the supply base.

2.0 PURPOSE

- 2.1 This document provides minimum specifications and requirements for suppliers to comply with RoHS procurement requirements of Sanmina-SCI Corporation.
- 2.2 The document outlines specific material content disclosure for RoHS compliance including recommended testing and qualification standards and procedures.

3.0 SCOPE

- 3.1 This procedure applies to procurement of electronic components as well as procurement of other types of components including but not limited to cables, sheet metal, plastics, composites, solders, soldering chemicals, adhesives, polymers, etc.

4.0 DEFINITIONS

Minimum Specifications and Requirements for Supplier RoHS Compliance

- 4.1 RoHS: Restrictions on Use of Certain Hazardous Substances
- 4.2 WEEE: Waste from Electronic and Electrical Equipment
- 4.3 EU: European Union
- 4.4 Sanmina-SCI RoHS Core Team: A cross-functional corporate team (IT, GSM, Technology, Corporate Quality, Legal, HR, etc.) responsible for global implementation of ROHS.
- 4.5 Homogeneous material: The smallest functional or usable entity in an electronic system structure from which a concentration by weight or ppm measurement is performed. It is also defined as a substance or a mixture of substances with uniform composition. Examples of a homogeneous material are a solder joint, a lead finish, or a flip chip bump.
- 4.6 PCoC: Sanmina-SCI Corporation – Manufacturer's Part Number RoHS Certificate of Compliance (form # RoHS-F001)
- 4.7 iNEMI: International and North America Electronics Manufacturing Initiative
- 4.8 Lead: The element lead with a chemical name Pb
- 4.9 OSP: Organic Solderability Preservative
- 4.10 PCB: Printed circuit board
- 4.11 PPM: Parts Per Million
- 4.12 Polymer: A large molecule made by linking smaller molecules ("monomers") together. Any of numerous natural or synthetic compounds of unusually high molecular weight consisting of repeated linked units, each a relatively light and simple molecule.
- 4.13 MPN: Manufacturer Part Number
- 4.14 ECO/PCN: Engineering Change Order / Process Change Notice

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- 4.15 Backward Compatible: Lead free component that can be manufactured or assembled in a lead bearing environment without any detrimental functional and reliability effects.
- 4.16 Forward Compatible: Component that can be manufactured or assembled in both lead bearing and lead-free environment without any detrimental functional and reliability effects.
- 4.17 BGA: Ball Grid Array
- 4.18 RoHS-5: A partial level of RoHS compliance that is permissible for some applications per the exemptions under the RoHS directive. The customer application provides the ultimate determination of RoHS-5 applicability. For supplier purposes in this document, RoHS-5 should be considered appropriate for a part that meets all the RoHS requirements with exception for one of the lead-in-solder exemptions per the RoHS directive.
- 4.19 China RoHS: Management Methods for Controlling Pollution by Electronic Information Products (Ministry of Information Industry Order #39). Jointly promulgated by Ministry of Information Industry, National Development and Reform Commission, Ministry of Commerce, General Administration of Customs, General Administration of Industry and Commerce, General Administration of Quality Supervision, Inspection and Quarantine, and State Environmental Protection Administration on February 28, 2006, and effective on March 1, 2007.

5.0 GENERAL REQUIREMENTS

- 5.1 Suppliers must be in a position to ship RoHS-compliant materials and products in regular production to satisfy Sanmina-SCI purchase orders.
- 5.2 Suppliers shall provide notice to appropriate SANM GSM of lead-free/RoHS compliant materials availability:
 - 5.2.1 Sanmina-SCI Corporation – Supplier Part Number RoHS Certificate of Compliance (PCoC - Form # RoHS-F001) documenting, at a minimum, the RoHS compliance status for each MPN. Multiple MPNs may be provided with each RoHS-F001). Additional data requested in that form, including material composition (as noted in section 7.4), is desirable but not mandatory at this point in time.



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- 5.2.2 Compatibility assurance with lead-based processing if requested by Sanmina-SCI.
- 5.3 Provide continued availability of pre-RoHS parts for special applications (excluded and exempted products and/or repair activities).
- 5.4 Provide full traceability of RoHS-compliant components and products, including:
 - 5.4.1 Manufacturer Part Number (MPN) changes to reflect the transition to lead-free/RoHS compliance.
 - 5.4.2 Component (symbols, markings, etc.) identification signifying RoHS Compliance per JESD97 and/or IPC-1066 as applicable.
 - 5.4.3 Packaging (tape, tube, reel, etc.) identification signifying RoHS Compliance per JESD97.
- 5.5 Provide warranted compatibility and equivalence of non-RoHS and RoHS-compliant components.
- 5.6 Provide reasonable sample quantities on an as-required basis at supplier expense for Sanmina-SCI evaluation.
- 5.7 Ensure quality and reliability of RoHS-compliant components that are equal-to or better-than pre-RoHS.
- 5.8 Ensure supplier process integrity to prevent contamination between pre-RoHS and RoHS compliant components.
- 5.9 Provide:
 - 5.9.1 RoHS-compliant part number (P/N) alternatives (MPN conversion matrix/parts listings).
 - 5.9.2 Revisions to supplier roadmaps and schedules for RoHS compliance.
 - 5.9.3 Product transition notifications (ECO/PCN) prior to the release of RoHS-compliant components

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- 5.9.4 Product transition timetables, including ECO/PCN for “end-of-production” and “last-time-buy”.

6.0 CHANGE CONTROL

- 6.1 As per JESD48-A, any discontinuation of component products shall be published and Sanmina-SCI shall be provided reasonable advance written notice submitted via email to pcn.eol@sanmina-sci.com following End of Life/Product Change Notices Procedure ([SOP-3-PE0002-B](#)).
- 6.2 All manufacturers who provide notification that they will be producing RoHS-compliant or lead-free products shall also include a product roadmap indicating the planned changes, and timeframes for availability of both current replacement versions.
- 6.3 As per JESD46-B, revisions to an existing component or material that will result in that part becoming “RoHS” and/or a “lead-free” compliant version shall be documented by advance written notice submitted via email to pcn.eol@sanmina-sci.com following [SOP-3-PE0002-B](#), End of Life/Product Change Notices Procedure.
- 6.4 With the exception of BGA devices, components that have previously been commercially available (prior to July 1, 2004) as “RoHS” and/or “lead-free” compliant version, DO NOT require the issuance of a new manufacturer part number (MPN). However, the part identification requirements stated in section 5.4 shall be met.
- 6.5 “RoHS” and/or “lead-free” compliant components must have a unique MPN that distinguishes them from a “non-compliant” (or leaded) version of that component.
- 6.6 All “RoHS” and/or “lead-free” compliant BGA packages, regardless of the date of release, must have a unique MPN that distinguishes them from a “non-compliant” (or leaded) version of that component.
- 6.7 The addition of a prefix or suffix to an existing MPN will be acceptable, and considered an MPN change if the additional characters are required to place orders and receive RoHS-compliant items. (e.g., the additional characters are included in the part nomenclature and must be used to specify “RoHS-compliant” component.)



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- 6.8 Sample devices and qualification data shall be available prior to the release of the PCN and/or introduction of the new product.

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7.0 PART IDENTIFICATION

7.1 For shipment level identification, supplier shall clearly identify the RoHS compliancy of all products on the PACKING SLIP as follows:

7.1.1 **“RoHS-compliant”** for product fully compliant to EU Directive 2002/95/EC.

7.1.2 **“RoHS_5”** for product compliant to 2002/95/EC using one of the lead-in-solder exemptions.

7.1.3 **“RoHS-compliant – Other Exemptions”**: In cases where the parts are RoHS-compliant but utilize an exemption or exemptions beyond those described as “RoHS 5” above, the supplier shall indicate “RoHS-compliant - Other Exemptions” and shall detail the exemption(s) on the packing slip.

7.1.4 **“Not Compliant to RoHS”** for product that is not compliant to EU Directive 2002/95/EC.

7.2 As per JESD97 and/or IPC-1066 as applicable, all components shall have the outer packaging, carton, boxes and/or inner package material (tray, tube, and reel) marked with traceable information that indicates the compliance aspects, such as the ‘No lead, Cadmium, Mercury’, etc.

7.3 The identification shall also appear on the component itself where there is room for such a marking.

7.4 The maximum allowable limit of the six hazardous materials that are currently banned by the EU environmental initiative in %wt is provided in the following table. These definitions and maximum allowable limitations are provided as reference for Sanmina-SCI’s requirements for RoHS compliance and will be deemed revised as legislative requirements evolve.

Table 1: Maximum Allowable Limit of Six Hazardous Materials in %wt	
Material	Allowable Amount
Lead (Pb)	0.1% by weight at raw homogeneous materials level
Cadmium (Cd)	< 0.01% by weight at raw homogeneous materials level
Mercury (Hg)	0.1% by weight at raw homogeneous materials level (1000 ppm or less; not intentionally added)
Hexavalent Chromium (Cr ⁶⁺)	< 0.1% by weight at raw homogeneous materials level
Polybrominated Biphenyls (PBB)	0.1% by weight at raw homogeneous materials level
Polybrominated Diphenyl Ethers	0.1% by weight at raw homogeneous materials level

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(PBDE)	
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8.0 SOLDERING TEMPERATURE

- 8.1 As per JEDEC-020, all components shall be able to withstand the temperatures stated in the most current version of the document. This document only covers active components - it does not address PCBs.
- 8.2 Device peak reflow temperature compliance for lead bearing and lead free components shall be in compliance with the specification provided in Table 2 for eutectic tin lead and Table 3 for lead-free soldering, per JEDEC-020 standards.

Table 2: Device Peak Reflow Temperature for Eutectic Tin-Lead Soldering		
Package Thickness	Volume mm ³ <350	Volume mm ³ ≥ 350
<2.5 mm	220 +0/-5°C	225 +0/-5°C
≥ 2.5 mm	225 +0/-5°C	225 +0/-5°C

Table 3: Device Peak Re-flow Temperature for Lead Free Soldering			
Package Thickness	Volume mm ³ < 350	Volume mm ³ 350 - 2000	Volume mm ³ > 2000
< 1.6 mm	260	260	260
1.6 mm - 2.5 mm	260	250	245
> 2.5 mm	250	245	245

- 8.3 PCB laminate material:
- 8.3.1 Shall have thermal properties compliant to the high temperature, at least 260°C, requirements of lead free soldering. Such PCB laminate materials include, but are not limited to, Polyclad 370HR Phenolic based or Phenolic cured, TUC TU722-7, Matsushita 1755, Nelco 4000-11, and Isola 410, Aromatic Phenolic Cured Novolac Type (No_Dicyandiamide).
- 8.3.2 Shall have superior delamination resistance as specified by Time to Delaminate (T_d) index with a minimum T_g of 160°C.
- 8.3.3 Shall pass UL Laminate Material test T-260 for 25 minutes at a minimum temperature of 260°C.

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- 8.4 The soldermask material shall be lead free soldering compliant. Such soldermask materials include, but are not limited to, Enthone DSR 3241 CRI which is considered Lead Free compatible.
- 8.5 For PCBs with OSP coating, the OSP material shall be lead free compliant. Such materials include, but are not limited to, Entek 106AX-HT type.
- 8.6 Wave soldered components shall be capable of surviving one pass through 260°C solder bath for 5 seconds. Solderability compliance shall be in accordance with J-STD-002.

9.0 COMPATIBILITY WITH Pb-FREE REWORK

- 9.1 Unless otherwise specified by the device manufacturer, a Pb-free component (classified per Table 4.2 of J-STD-033), shall be capable of being reworked at 260°C within 8 hours of removal from dry storage or bake, per J-STD-033.
- 9.1.1 To verify this capability for a component classified at a temperature below 260°C, a sample of the size per clause 5.1.2 of J-STD-033 shall be soaked per Level 6 conditions (see Table 5-1 of J-STD-020) using a time on label (TOL) of 8 hours, and reflowed at a peak temperature of 260°C.
- 9.1.2 All devices in the sample shall pass electrical test and have a damage response per 6.1 and 6.2 of J-STD-033 not greater than that observed for the same package at its rated MSL level. A component rated at 260 °C does not require this rework compatibility verification.

10.0 COMPONENT TERMINATION FINISHES

- 10.1 The following component termination or plating finishes are considered acceptable as they exhibit low propensity to Sn whisker growth for components as long as the specified processing conditions and compositions are met.
- 10.1.1 Non-Tin Plating:
- Sn-Ag-Cu solder coated or plated termination finishes are acceptable.
 - Ni/Pd/Au is the preferred system for component termination finish. This plating is considered less prone to whisker growth and offer acceptable wetting during reflow.

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- Gold lead finish is acceptable, with the provision that the amount of gold on the termination is accurately quantified. The concentration of gold in solder joints shall not exceed 3% by weight.
- Gold lead finishes are not allowed for use as a sliding contact with a mating tin-plated connector, due to the possibility of fretting corrosion.

10.1.2 Tin-based Plating

- Cu/Ni/Matte Sn termination finish is acceptable as long as the Ni plating thickness is more than 1.3 μm (microns) and the Sn thickness is $> 8.0 \mu\text{m}$. Sn may be either pure Sn or Sn with 1-3wt. % Bi.
- Matte Sn-Ag component finishes are generally acceptable as long as proper plating procedures are followed.

10.1.3 Solder dipped terminations for components $> 1.27 \text{ mm}$ pitch acceptable. Solder may be Sn or Sn (3-4wt. %) Ag 0.1wt. %Cu.

NOTE: Matte Sn is defined as having a grain size greater than or equal to 2 μm , a carbon content less than or equal to 0.05%, and a copper content of less than 0.5%.

11.0 OTHER TERMINATION OPTIONS

11.1 The following termination finish options have a high risk of Sn whisker growth and potential adverse effect on solder joint reliability. Sanmina-SCI does not consider these termination finish options to be optimal. As a result, special consideration must be taken before these termination finishes are used. Suppliers must request and obtain written approval from SANM ordering location(s) before providing parts with the following termination finishes. Such requests will be made at least ninety (90) days in advance of the supplier's projected first ship date.

11.1.1 Tin Plating Directly on Cu: In situations where tin is directly plated on Cu, in order to minimize the potential for whisker growth, the following steps must be followed.

- The Cu must be annealed for 60 minutes at 150°C.
- Plating shall take place in less than 24 hours after the annealing.
- Sn thickness should be at least 10 μm .

11.2 The following are unacceptable termination finishes and shall not be used on parts provided to SANM

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- 11.2.1 Bright tin over any base metal
- 11.2.2 Tin-copper alloy over any base metal
- 11.2.3 The eutectic Sn-Cu binary alloy which has a eutectic composition of Sn0.7wt. % Cu and eutectic temperature of 227°C. The solidification reactions consist of Cu precipitated in the form of hexagonal hollow rods of Cu_6Sn_5 intermetallic compound. Data that describes the characteristics of this alloy is limited. However, because of the high concentration of tin in this solder alloy, it may be prone to whisker growth and transformation to gray tin may occur. The effect of the presence of Cu in Sn-Cu system to the growth of Sn whiskers or β -tin to α -tin transformation is not clear at this time.
- 11.2.4 Tin plated over copper that has not undergone heat treatment.
- 11.2.5 Alloys of silver/palladium.
- 11.2.6 Tin-bismuth alloy for through-hole components and Tin-bismuth alloys for components which may exceed 138°C in use environment. Sn-Bi alloy has a eutectic composition of 42wt. %Sn-58wt. %Bi and a relatively low eutectic temperature of 139°C. The room temperature equilibrium phases are Bi and Sn with about 4 wt. % Bi in solid solution. Since tin has low solid solubility in Bi, the Bi phase is essentially pure Bi. However, the maximum solubility of Bi in Sn is about 21 wt. %. As the alloy cools, Bi precipitates in the Sn phase. At moderate cooling rates, the eutectic Bi-Sn microstructure is lamellar, with degenerate material at the boundaries of the eutectic grains. It has been reported that re-crystallization of the alloy produced an expansion of up to 0.0007 in/in. This expansion may result in embrittlement, which may be due to strain hardening caused by deformation that occurs to accommodate the expansion.

12.0 TESTING FOR WHISKERS

- 12.1 The supplier shall maintain on file and provide to Sanmina-SCI upon request the test procedures and standards used and/or followed, and results to ensure whisker-free coating on component terminations.



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- 12.2 Sanmina-SCI endorses and accepts the international National Electronics Manufacturer's Institute (iNEMI) User Group Tin Whisker Acceptance Test Requirements and Guidelines.

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- 12.3 In principle Sanmina-SCI does not accept whiskers of any kind. However, in specific circumstances and with the consent and approval of the end user or customer, whiskers less than 10 μ m in length may be acceptable on incoming components expected to undergo soldering processes. Suppliers must request and obtain written approval from Sanmina-SCI ordering location(s) before providing such product/parts. Such requests will be made at least ninety (90) days in advance of the supplier's projected first ship date.

13.0 PART QUALIFICATION

- 13.1 Components and/or assemblies shall be provided along with a qualification package. The following industry standards and procedures shall apply as applicable.
- 13.1.1 Methods and conditions as specified in AESD-A113; Qualification Standards.
 - 13.1.2 Handling, Packing, Shipping and Use per IPC J-STD-033A.
 - 13.1.3 Solderability testing per IPC/EIA J-STD-002A or J-STD-002B with no-clean and aqueous clean solder paste and wave solder flux included. The solderability qualification data must include Solder alloy used, termination metallurgy and thickness.
 - 13.1.4 Solder joint reliability testing per IPC-A-9701.
 - 13.1.5 Mechanical shock & vibration per AEC-Q100 - Rev E; Mil-Std 833.
 - 13.1.6 High temperature storage per AEC-Q100-Rev E/JESD22-A103-A.
 - 13.1.7 Tin whisker growth data and the testing method used.
 - 13.1.8 Moisture sensitivity level per IPC/JEDEC J-STD-020 with the following exceptions:
 - Component peak temperature ratings shall be at least 260°C per J-STD-020C.
 - Six heat cycles for area array packages and four heat cycles for other components shall be included in pre-conditioning. (The six heat cycle requirements to account for the potential maximum heat cycle an area array package may be exposed in manufacturing. Included are two

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reflows, wave soldering, component removal, re-balling, and re-attachment).

13.1.9 Component moisture sensitivity levels shall not exceed the current levels for non-RoHS-compliant parts. Wherever possible, testing shall include old vs. new part comparisons.

13.1.10 Identify forward and backward compatibility of product as applicable.

14.0 SHEET METALS AND ENCLOSURE COATINGS ON STEEL AND ALUMINUM

14.1 Chromium (III) conversion coatings such as zinc hot dip are acceptable and preferred options to replace Hexavalent Chromium conversion coatings commonly used on steel components and hardware.

14.2 Electroplate using an acid zinc bath, according to ASTM B-633 SCI Type III, with clear trivalent chromate conversion coating, blue, bright is an acceptable replacement option for Hexavalent Chromium provided that the coatings withstand a minimum of 96-hour salt spray, as defined in ASTM B-166 with no additional dips or coatings. Alkaline electroplated zinc is not allowed due to zinc whiskers. Surface resistivity shall be a maximum of 0.1 ohms per square.

15.0 PRODUCT DATA SHEETS

15.1 Data sheets or declaration forms must clearly indicate the following and shall be provided to SANM upon request. Such data sheets and declaration shall be retained for a minimum of 4 year from the date of last product shipment.

15.1.1 Termination Solder Composition

15.1.2 Maximum Component Temperature Rating

15.1.3 Recommended Reflow Profile Limit

15.1.4 Absolute Reflow Profile Limit

15.1.5 Moisture Sensitivity Level (MSL) Rating



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- 15.1.6 Material Composition: Complete composition of component
- 15.1.7 Material Composition: In the event proprietary compositions exist, they shall be identified as “proprietary - miscellaneous”
- 15.1.8 Material Declaration: Declare substance of concerns to threshold levels (reference Joint Industry Guide published by EIA, EICTA and JGPSSI)
- 15.1.9 Part is compliant or non-compliant with RoHS directive.

16.0 EXEMPTIONS

16.1 Sanmina-SCI recognizes exemptions that are approved by the EU Technical Adoption Committee. It is the supplier’s responsibility to ensure that any changes in legally permissible exemptions are assessed and any resulting changes to RoHS compliance are communicated in writing to Sanmina-SCI via an updated PCoC (Sanmina-SCI form RoHS-F001) within 30 days of adoption. Sanmina-SCI’s requirements for RoHS compliance will be revised as legislative requirements evolve.

17.0 REFERENCES

17.1 The following are home pages (websites) for standards referenced within this document. Sanmina-SCI Suppliers are expected to monitor these sites for periodic updates and/or changes to the standards.

Website	Organization
http://www.ipc.org/	Association Connecting Electronics Industries (IPC)
http://www.jedec.org/	Semiconductor Engineering Standardization body of the EIA (JEDEC)
http://www.eia.org/	Electronic Industries Alliance (EIA)
http://www.aecouncil.com/index.html	Automotive Electronics Council (AEC)
http://www.inemi.org/index.html	International Electronics Manufacturing Initiative (iNEMI)
http://english.mofcom.gov.cn/aarticle/policyrelease/domesticpolicy/200605/20060502132549.html	China RoHS Directive – Chinese Ministry of Commerce website



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Website	Organization
http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_037/l_03720030213en00190023.pdf	EU RoHS directive
http://europa.eu.int/eur-lex/en/information/sitemap.html	European “green” legislation
http://www.ecobizport.com/Search.htm	Global Environmental laws and regulations:

17.2 Any changes contemplated by Suppliers as a result of the above must be communicated to Sanmina-SCI in accordance with this specification.

18.0 China RoHS

18.1 For products shipped to or within China, and the product and/or packaging materials are deemed to be within scope for China RoHS by the supplier, Sanmina-SCI, or one of Sanmina-SCI’s customers, suppliers are required to mark/label the product and/or packaging materials in accordance with China RoHS product and packaging marking/labeling requirements.

18.2 When Sanmina-SCI determines that the product and/or packaging materials are required to meet China RoHS marking/labeling requirements, Sanmina-SCI will transmit to the supplier the appropriate marking/labeling specifications for inclusion on the product and/or packaging materials.

18.3 When Sanmina-SCI’s customer determines that the product and/or packaging materials are required to meet China RoHS marking/labeling requirements, Sanmina-SCI will transmit to the supplier Sanmina-SCI’s customer’s marking/labeling specifications for inclusion on the product and/or packaging materials.

18.4 Where the supplier determines the appropriate China RoHS marking/labeling requirements for product and/or packaging materials, they shall submit marking/labeling samples to Sanmina-SCI for review/approval.

19.0 CONTENT CLARIFICATION

19.1 In the event of a conflict between the Sanmina-SCI requirements stated herein, and referenced industry standards and/or guidelines (JEDEC, EIA, IPC, etc.), clarification should be requested from the following:

General Business Issues:

Technical Issues:



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