



RoHS/Lead-free Compliance

Spectrum Control, Inc. General Plan for Compliance

Spectrum Control has established a plan to have all commercial products available with RoHS/Lead-free compliant material prior to June of 2005. All components have been redesigned to meet the stricter requirements of the European Community Directive 2002/95/EC calling for a “restriction of the use of certain hazardous substances in electrical and electronic equipment.” The six substances specifically addressed are lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium Cr (VI), polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

Construction Design Matrix

Product	Housing Plating	Internal Comp.	Internal reflow	Polymers	Term plating	Dip(y/n)	Notes
Discrete-Surface Mount	Silver	Pb-free	250C	N/A	Ag	n	1, 2, 4
Discrete-Bolt-in	Silver	Pb-free	250C	250C	Ag	y	1, 2, 3, 5
Discrete-Bolt-in Disc	Silver	Pb-free	250C	250C	Ag	y	1, 2, 3, 5
Discrete-Eyelet	Silver	Pb-free	250C	250C	Ag	y	1, 2, 3, 5
Filter Plate	Sn	Pb-free	250C	250C	Au or Ag	n	1, 2, 6
Filter Terminal Block	Silver	Pb-free	250C	250C	Sn	n	1, 2
Filter Connector	Nickel	Pb-free	250C	250C	Au or Sn	n	1, 2, 7
Chip Connector	Nickel	Pb-free	250C	250C	Au or Sn	n	1, 2, 7
Filter Box/Microwave	Sn-Zn	Pb-free	217C	250C	Sn	n	1, 2
Antenna	Silver	Pb-free	250C	N/A	Ag	n	1, 2
BPS Microwave	Silver	Pb-free	250C	N/A	Ag or Au	n	1, 2
Capacitor Arrays	Silver	Exempt	250C	N/A	Ag	y	1, 2, 3, 8

Notes:

- 1) Pb-Free must be noted on purchase order to ensure supply of lead-free part.
- 2) Some part numbers may change if conflict between customers occur for PB and PB free requirements. See 2nd page of this guide for specific part number changes.
- 3) Dip coating is hot fused tin.
- 4) Surface mount components tested for damp heat withstand and pass.
- 5) Discrete filters tested for solderability testing per Mil-STD-202 and pass with Hot tin fused coating.
- 6) Filter Array Profile withstand testing performed with .057+/.01/-0.003 thick X 5 sq. in. Aluminum Test Coupon.
- 7) D-Sub Connectors tested for plastic deformation conformance and pass dimensional stability at 250°C
- 8) Capacitor arrays have high temp solder attaching the lead frames, since greater than 85% PB, they are exempt.
- 9) Mil QPL parts are exempt from this directive.

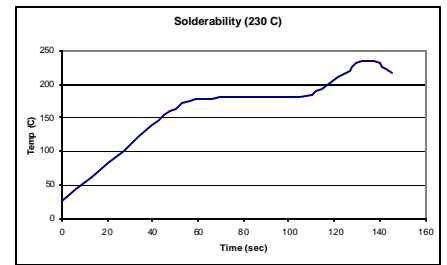
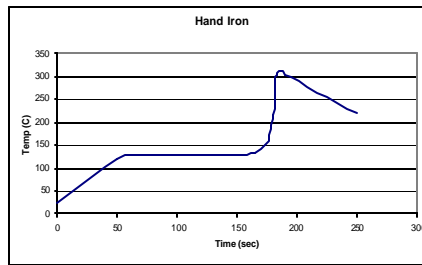
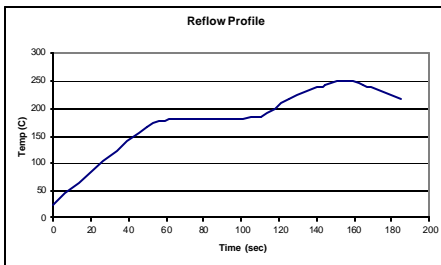
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Part Number Changes

Spectrum Control has created part numbering revisions to simplify the identification and selection of RoHS compliant materials.

All RoHS compliant parts will be identifiable and traceable by the date code and marking on the part.

Product	Part Number Change
Discrete Surface Mount (SSM, PSM)	Add an "F" after the 1st 4 digits (ex. SSM1F)
Discrete Bolt-in	Add an "F" before the first dash (ex 51F-, 54F-, SCIF-)
Discrete Bolt-in Disc	Add an "F" before the first dash (ex 51F-, 54F-, SCIF-)
Discrete Eyelet	Add an "F" before the first dash (ex 51F-, 54F-, SCIF-)
Filter Plate	Replace dash after 1st two digits with "F" (ex 52F)
Filter Terminal Block	Replace dash after 1st two digits with "F" (ex 52F)
Filter Connector (except combo)	Replace dash after 1st two digits with "F" (ex 56F)
Filter Combo-D Connector	Insert "F" after "56"; GBL6 and GBL9 shortened to GL6 and GL9
Filter Box/Microwave	new part number
Power Entry Modules	no change, identified by date code
Single Line Feed-Thru Power Filter	Replace dash after first two digits with "F"
Antenna	new part number
BPS Microwave	new part number
Capacitor arrays	new part number



Recommended Installation Guidelines

Spectrum Control has established guidelines for the general processes used to install various components into a higher level system. The three general installation processes are convection reflow oven (reflow), wave solder/solder dip (Dip) and hand soldering with a soldering iron (Iron). Refer to profile graphs for recommended solder profiles.



For Additional Information

CONTACT:

Spectrum Control, Inc.
 8031 Avonia Rd.
 Fairview, PA 16415
 Phone: (814) 474-4300
 Fax: (814) 474-4301
 Email: spectrum@spectrumcontrol.com
 Website: www.spectrumcontrol.com