

## Overview

The purpose of this notification is to describe the changes to the 20 Pin Plastic Small Outline ESOIC-WB packages for the MIL-STD-1553 family of devices.

## Description

Devices currently being assembled in the 20 Pin Plastic Small Outline ESOIC-WB Package from CEI, Thailand will be immediately transferred to Greatek Electronics in Taiwan and SPEL Semiconductor in India. Holt Integrated Circuits has been notified that their current assembly supplier CEI has been severely impacted due to flooding in Thailand and will sustain significant delays in returning to full assembly and manufacturing capability.

The 20L-SOIC package assembly is fully qualified at both Greatek and SPEL (See Qualification Data in Table 2). Both assembly subcontractors are ISO /TS 16949, ISO 14001, and ISO 9001 certified and are Holt Integrated Circuits approved suppliers.

This PCN change type is to Form only. There is no change to Function, Quality or Reliability.

Greatek and SPEL assembles devices in the 20L SOIC-WB Package which are compliant to JEDEC package drawing MS-013. This change affects Form as indicated below:

Assembly Site	CEI-Thailand	Greatek - Taiwan	SPEL – India
Package Type	ESOIC-WB	ESOIC-WB	ESOIC-WB
JEDEC	MS-013	MS-013	MS-013
Package Body	300 mils	300 mils	300 mils
Lead Count	20	20	20
Mold Compound	Sumitomo EME 6600CGL	Sumitomo G600F	Sumitomo G600
Dap Size	252 mils x 252 mils	225 mils x 310 mils	225 mils x 310 mils
Die Coat	Q14939	NA	NA
Die Attach	Ablebond 84-3J	CRM-1151	Ablestik 8006NS
Heat Sink	Slug 205 mils x 290 mils	Exposed Pad 205 mils x 290 mils	Exposed Pad 205 mils x 290 mils
Bond Wire Material	Gold	Gold	Gold
Bond Wire Diameter	1.20 mils	1.20 mils	1.20 mils
Lead Frame Material	Cu w/Ag spot	Cu w/Ag spot	Cu w/Ag spot
Lead Finish	Solder Plate: 80/20 Sn/Pb	Solder Dip: 80/20 Sn/Pb	Solder Plate: 85/15 Sn/Pb
Lead Finish (Pb free devices)	100% matte Sn (RoHS compliant)	100% matte Sn (RoHS compliant)	100% matte Sn (RoHS compliant)
Flammability Rating	UL94 V-0 and IEC Standard 695-2-2	UL94 V-0 and IEC Standard 695-2-2	UL94 V-0 and IEC Standard 695-2-2
Moisture Sensitivity Level	Level 1	Level 1	Level 1
Reflow Temperature	260 °C	260 °C	260 °C

## Reason

The 20 Pin Plastic Small Outline ESOIC-WB are being added at both Greatek and SPEL to ensure guaranteed supply of the 20 ESOIC-WB package configuration products.

## Products Affected

All parts listed are affected by this change. This includes devices in both the standard and Pb-free packages and devices in all grades; industrial, extended temperature and extended temperature with burn-in.

**Table 1: Products Affected**

HI-1565PSI	HI-1566PSI	HI-1567PSI	HI-1568PSI	HI-1570PSI	HI-1573PSI	HI-1574PSI	HI-1579PSI	HI-1581PSI
HI-1565PST	HI-1566PST	HI-1567PST	HI-1568PST	HI-1570PST	HI-1573PST	HI-1574PST	HI-1579PST	HI-1581PST
HI-1565PSM	HI-1566PSM	HI-1567PSM	HI-1568PSM	HI-1570PSM	HI-1573PSM	HI-1574PSM	HI-1579PSM	HI-1581PSM
HI-1565PSIF	HI-1566PSIF	HI-1567PSIF	HI-1568PSIF	HI-1570PSIF	HI-1573PSIF	HI-1574PSIF	HI-1579PSIF	HI-1581PSIF
HI-1565PSTF	HI-1566PSTF	HI-1567PSTF	HI-1568PSTF	HI-1570PSTF	HI-1573PSTF	HI-1574PSTF	HI-1579PSTF	HI-1581PSTF
HI-1565PSMF	HI-1566PSMF	HI-1567PSMF	HI-1568PSMF	HI-1570PSMF	HI-1573PSMF	HI-1574PSMF	HI-1579PSMF	HI-1581PSMF

## Traceability

A Date Code and Country of Origin facilitates package traceability. Parts from Table 1 can be shipped with a Date Code of 1201 or later, beginning February 1, 2012.

## Qualification Data

Reliability Test	Requirement	Results	Results
		QR-1201 Rev 1.0 20L SOIC-WB (GTK)	QR-1202 Rev 1.0 20L SOIC-WB (SPEL)
Precondition (PC)	MSL 1	11/0	11/0
PC + HAST	96 hrs	22/0	22/0
PC + PCT	168 hrs	22/0	22/0
PC + Temp Cycle	200 cycles	22/0	22/0
PC + HTS	1000 hrs	22/0	22/0

## Response

**Note:** In accordance with JESD46-C, this change is deemed accepted by the customer if no acknowledgement is received within 30 days from this notice.

No response is required. For additional information or questions, please contact:

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## Additional Documentation

Below is a list of documents that are associated with this notice:

## Revision History

The following table shows the revision history for this document.

Date	Version	Revision Description
1/20/12	1.0	Initial Release

Appendix A

