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Product Change Notification - CYER-19JIVU491

Date: 15 Oct 2010

Product Category: RF and Security; Analog (Linear & Mixed Signal) AND Interface; Touch Sensing Technologies; Analog (Thermal, Power Management & Microcontrollers

Device Family: 

Notification subject: CCB 958: Qualification of the 14L & 16L SOIC (.150) at GTK (GRTK) assembly site.

Notification text:

PCN Status:
Final notification

Microchip Part#s Affected:
See attachments of Affected Part Numbers Labeled as...
PCN_CYER-19JIVU491_Affected_CPN.xls
PCN_CYER-19JIVU491_Affected_CPN.pdf

Description of Change:
Qualification of the 14L & 16L SOIC (.150) at GTK (GRTK) assembly site.

Impacts to Data Sheet:
None

Reason for Change:
To improve on-time delivery performance

Change Implementation Status:
In Progress

Estimated First Ship Date:
October 29, 2010 (1044)

NOTE: Please be advised that during the transition period customers may receive pre and post char due to existing inventory of the pre changed parts.

Markings to Distinguish Revised from Unrevised Devices: (e.g.: Date Code, Device Marking, Ship Cc Marking)
Traceability code

Attachment(s): [PCN_CYER-19JIVU491_Affected_CPN.pdf](#)
[PCN_CYER-19JIVU491_Affected_CPN.xls](#)
[PCN_CYER-19JIVU491_Qual Report.pdf](#)

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MICROCHIP

**QUALIFICATION REPORT
RELIABILITY LABORATORY**

PCN#: CYER-19JIVU491

Date
September 30, 2010

Qualification of 16L SOIC package at GTK Assembly Site. The 14L SOIC package will qualify by similarity.

Distribution

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MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose	Qualification of 16L SOIC package at GTK Assembly Site. The 14L SOIC package will qualify by similarity.
CN	BC101484
QUAL ID	Q10076
MP CODE	VQAA27D7XA00
Part No.	RE46C119
Bonding No.	BDE-001160 Rev. 01
CCB No.	958
<u>Package</u>	
Type	16L SOIC
Package size	150 mils
Die thickness	15 mils
Die size	78.60 x 84.90 mils
<u>Lead Frame</u>	
Paddle size	95 x 110 mils
Material	C194 / Fu Sheng (Taiwan)
Surface	Bare Cu
Process	Stamped
Lead Lock	No
Part Number	11-0216N-004
<u>Die attach material</u>	
Epoxy	CRM 1076DJ-G / Sumitomo (Japan)
Wire	Au wire / Sumitomo (Japan)
Mold Compound	G600F / Sumitomo (Taiwan)
Plating Composition	Matte Tin



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Trace Code
GTK-111500002	XFGM910363287.300	1028PC7
GTK-111500003	XFGM910363287.300	1028PC8
GTK-111500004	XFGM910363287.300	1028PC9

Result

Pass Fail _____

16L SOIC (.150") assembled by GTK pass reliability test per QCI-39000.
This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020C standard.

Prepared By: _____) Date: September 30, 2010 (Reliability Engineer)

(Mr.Udom Suksansakul)

Approved By: _____) Date: September 30, 2010 (Reliability Manager)

(Mr. Surasit Phurikhup)

PACKAGE QUALIFICATION REPORT

Qual Report : Q10076

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
<u>MSL</u>								
MSL Level 1/260°C	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020C)	S12/14/16 (PDC)	135	08/07/10	08/16/10	0/135	Pass	
<u>Precondition</u>								
Electrical Test	Electrical Test :+25°C System: EST300	S12/14/16 (PDC)	693(0)	07/31/10	08/06/10	693		Good Devices
Bake	Bake 150°C, 24 hrs System: CHINEE	PI-92014B		08/07/10	08/08/10	693		
Moisture Soak	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH	PI-91173B		08/08/10	08/16/10	693		
Convection-Reflow	3x Convection-Reflow 260°C max System: Vitronics Soltec MR1243	PI-91160B		08/16/10	08/16/10	693		
Electrical Test	Electrical Test :+25°C System: EST300	S12/14/16 (PDC)		08/16/10	08/19/10	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification	PI-91020B		08/23/10	09/04/10	231		Parts had been pre-conditioned at 260°C
		QCI-33003	30(0)	09/04/10	09/04/10	0/30		
	Electrical Test: +25°C System: EST300	S12/14/16 (PDC)	231(0)	09/04/10	09/08/10	0/231	Pass	77 units / lot
Temp Cycle	Bond Strength: Bond Shear (8.10 grams) Wire Pull (> 3 grams)	QCI-91022	15 (0)	09/08/10	09/08/10	0/15	Pass	Wire pull & bond shear after Temp Cycle
			15 (0)	09/08/10	09/08/10	0/15	Pass	
Pressure Cooker	Stress Condition: +121°C, 100% RH, 15 PSI, 96 hrs. System: HIRAYAMA TPC-422R	PI-92013B		08/23/10	08/27/10	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: EST300	S12/14/16 (PDC)	231(0)	08/27/10	09/01/10	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	PI-92010B		08/23/10	09/05/10	231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: EST300	S12/14/16 (PDC)	231(0)	09/05/10	09/08/10	0/231	Pass	77 units / lot
Solderability Temp 215°C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	QCI-31003	22 (0)	08/09/10 08/10/10 08/10/10	08/10/10 08/10/10 08/10/10	22 22 0/22	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	QCI-31003	22 (0)	08/09/10 08/10/10 08/10/10	08/10/10 08/10/10 08/10/10	22 22 0/22	Pass	
Physical Dimensions	Physical Dimension, 30 units from 1 lot	QCI-30017	30(0) Units	-	-	0/30	Pass	Physical Dimension
Lead Integrity	45 Leads from a minimum of 5 units, 1 lot. System: Strain	QCI-31004	45(0) Leads	08/24/10	08/24/10	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Microchip Spec	Qty. (Acc.)	Date in	Date Out	Def/SS.	Result	Remarks
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: CHINEE	PI-92014B		08/07/10	08/30/10	45		45 units
	Electrical Test: +25°C System: EST300	S12/14/16 (PDC)	45(0)	08/30/10	09/01/10	0/45	Pass	
Bond Strength Data Assembly	Bond Shear (8.10 grams)	QCI-91022	30 (0) bonds	-	-	0/30	Pass	Wire pull & bond shear data assembly
	Wire Pull (> 3 grams)		30 (0) wires	-	-	0/30	Pass	

PCN_CYER-19JIVU491
CATALOG_PART_NBR
91001BS16TF
HA1504-I/SL
HA1504T-I/SL
HA1508-I/SL
HA1508-I/SL023
HA1508T-I/SL
HA1508T-I/SL023
HA2038-I/SL
HA2038T-I/SL
HA2089-I/SL
HA2089T-I/SL
HA2089T-I/SL040
HA2089T-I/SL043
HA2089T-I/SL054
HA2089T-I/SL057
HA2089T-I/SL077
HA5501-I/SL
HA5501T-I/SL
HA9698-I/SL044
HCS370/SL
HCS370-I/SL
HCS370T/SL
HCS370T-I/SL
HCS370T-I/SL076
HCS515/SL
HCS515-I/SL
HCS515-I/SLA56
HCS515T/SL
HCS515T-I/SL
HCS515T-I/SL022
HCS515T-I/SL024
MCP2022-330E/SL
MCP2022-500E/SL
MCP2022T-330E/SL
MCP2022T-500E/SL
MCP2030A-I/SL
MCP2030AT-I/SL
MCP2030-I/SL
MCP2030T-I/SL
MCP2036-I/SL
MCP2036T-I/SL
MCP2120-I/SL
MCP2120-I/SLG
MCP2120T-I/SL
MCP2120T-I/SLG
MCP25020-E/SL
MCP25020-I/SL
MCP25020T-E/SL
MCP25020T-I/SL
MCP25025-I/SL

MCP25025T-I/SL
MCP25050-E/SL
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MCP25050T-E/SL
MCP25050T-I/SL
MCP25055-I/SL
MCP25055T-I/SL
MCP3004-I/SL
MCP3004T-I/SL
MCP3008-I/SL
MCP3008T-I/SL
MCP3204-BI/SL
MCP3204-CI/SL
MCP3204-CI/SLG
MCP3204T-BI/SL
MCP3204T-CI/SL
MCP3204T-CI/SLG
MCP3208-BI/SL
MCP3208-BI/SLG
MCP3208-CI/SL
MCP3208T-BI/SL
MCP3208T-BI/SLG
MCP3208T-CI/SL
MCP3302-BI/SL
MCP3302-CI/SL
MCP3302T-BI/SL
MCP3302T-CI/SL
MCP3304-BI/SL
MCP3304-CI/SL
MCP3304T-BI/SL
MCP3304T-CI/SL
MCP3424-E/SL
MCP3424T-E/SL
MCP3428-E/SL
MCP3428T-E/SL
MCP42010-E/SL
MCP42010-E/SLG
MCP42010-I/SL
MCP42010T-E/SL
MCP42010T-I/SL
MCP42050-E/SL
MCP42050-I/SL
MCP42050-I/SLG
MCP42050T-E/SL
MCP42050T-I/SL
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MCP42100-I/SL
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MCP4231T-103E/SL
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MCP6024T-E/SL
MCP6024T-I/SL
MCP6034-E/SL
MCP6034T-E/SL
MCP6044-E/SL
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MCP604-I/SL

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MCP6074-E/SL
MCP6074T-E/SL
MCP609-I/SL
MCP609T-I/SL
MCP609T-I/SLG
MCP6144-E/SL
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MCP6144T-E/SL
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MCP619-I/SL
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MCP619T-I/SL
MCP619T-I/SLB21
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MCP6234T-E/SL
MCP6244-E/SL
MCP6244T-E/SL
MCP6274-E/SL
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MCP6274T-E/SL
MCP6274T-E/SLB21
MCP6284-E/SL
MCP6284-E/SLDAA
MCP6284T-E/SL
MCP6284T-E/SLDAA
MCP6294-E/SL
MCP6294T-E/SL
MCP6544-E/SL
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MCP6544T-E/SL
MCP6544T-I/SL
MCP6549-E/SL
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MCP6549T-I/SL
MCP6564-E/SL
MCP6564T-E/SL
MCP6569-E/SL
MCP6569T-E/SL
MCP6G04-E/SL
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MCP73861S-I/SL
MCP73861ST-I/SL
MCP73861T-I/SL
MCP73861T-I/SLG
MCP73861T-I/SLRB2
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MCP73862T-I/SL
MCP73862T-I/SLRB2
MCP73863-I/SL
MCP73863T-I/SL
MCP73864-I/SL
MCP73864T-I/SL
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MCV14A-I/SL020
MCV14A-I/SL022
MCV14A-I/SLC01
MCV14A-I/SLC02
MCV14AT-I/SL
MCV14AT-I/SL020
MCV14AT-I/SL021
MCV14AT-I/SL022
MCV14AT-I/SLC01
MCV14AT-I/SLC02
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PIC16C505T-20/SL
PIC16C505T-20E/SL
PIC16C505T-20I/SL
PIC16F505-E/SL
PIC16F505-I/SL
PIC16F505-I/SL023
PIC16F505-I/SL027
PIC16F505-I/SL028
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PIC16F688-E/SL
PIC16F688-I/SL
PIC16F688-I/SLC12
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PIC16LC505-04I/SL
PIC16LC505-04I/SLGD83
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PIC16LC505T-04I/SL
PIC16LC505T-04I/SL120
PIC16LC505T-04I/SL123
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RE46C109S16F
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