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東京都新宿区西新宿 6 丁目 24 番 1 号

西新宿三井ビルディング

報告書番号：PCN#20080228000B

2009 年 4 月 10 日

お客様各位

日本テキサス・インスツルメンツ株式会社
営業・技術本部 品質保証部 カスタムドキュメント
マネージャ 牧 達郎 (牧)

TI-Tucson 製造製品 前処理サイト変更のご案内(認定済 1229 製品への追加認定 104 製品の連絡)

(第三版 PCN20080228000A 2008 年 12 月 12 日発行)

(第二版 PCN20080228000 2008 年 11 月 6 日発行、初版 PCN20080228000 2008 年 5 月 19 日発行)

拝啓 貴社益々ご清栄の事とお喜び申し上げます。平素は弊社製品のご愛顧を賜り、厚く御礼申し上げます。さて、標題の件につきまして下記にご連絡させていただきます。ご査収の程、宜しくお願い申し上げます。

敬具

－ 記 －

通知タイプ	☐ Initial notice (Plan)	☒ Final notice
変更概要	Design/Specification	☐ Design ☐ Electrical ☐ Mechanical
	☒ Wafer Fab	☒ Site ☒ Process ☒ Material
	Wafer Bump	☐ Site ☐ Process ☐ Material
	Assembly	☐ Site ☐ Process ☐ Material
	Test	☐ Site ☐ Process
	Others	☐ Packing/Shipping/Labeling ☐ -
変更内容	下記変更について認定済 1229製品への追加認定 104製品の連絡になります。 TI-Tucson製造製品 前処理サイト変更 現行：TFAB(TI-Tucson) 変更後：SFAB(TI-Sherman) 及びHFAB(TI-Houston)	
対象製品	対象製品リスト参照	
変更時期	2 月上旬の出荷より実施しています。 追加認定品は 7 月中旬の出荷より予定しています。 (サンプルは、対象製品中 一部製品についてのみ実施します。)	
品質認定試験	☐ 計画	☒ 終了
製品表示	☐ 変更無し	☒ 変更あり
備考	－	

尚、変更時期につきましては、在庫状況により異なりますので、担当営業にお問い合わせ下さい。
また、ご不明な点、ご質問等がございましたら、担当営業或いは pcn_tij@list.ti.com にお問い合わせ下さい。

以上

変更内容

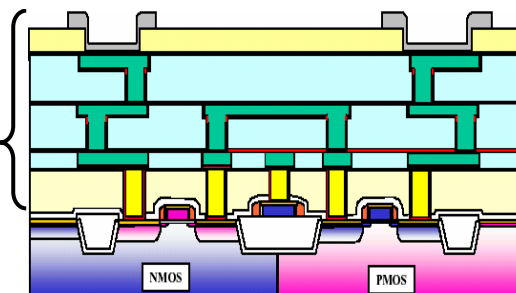
内容: 今回のお知らせは、下記変更について認定済1229製品への追加認定104製品の連絡になります。弊社 HPA(ハイパフォーマンスアナログ) TI-Tucson(TFAB:前処理工程)製造製品について、現行 数種のプロセスにて製造しています。これら製品の供給維持確保の為に、TI-Tucson(前処理工程)に替わり、同種の関連したプロセスを量産している前処理サイトとして TI-Sherman(SFAB:前処理工程)及び TI-Houston(HFAB:前処理工程)サイトでの製造に移行し認定しました。この移行のプロセス及びサイトについて下表を参照下さい。尚、今回の変更で、製品についての互換性(寸法/公差), 外観, 動作特性, 品質, 信頼性への影響はありません。

Process		Change from		Change to	Comment
Technology	Sub_process	Site		Site	
		Mfg	Qualified	Mfg	
Bipolar	Frontend	HFAB	-	HFAB	No change
	Backend	TFAB	-	SFAB	to TI-Sherman
Bipolar_Wzener	Frontend	TFAB(4' w/f)	HFAB(6' w/f)	HFAB	to Qualified HFAB
	Backend	TFAB(4' w/f)	TFAB(6' w/f)	SFAB	to TI-Sherman
CBC10	Frontend	HFAB	-	HFAB	No change
	Backend	TFAB	-	SFAB	to TI-Sherman

Site: HFAB(TI - Houston), TFAB(TI - Tucson), SFAB(TI - Sherman)
Sub_process:
Front end (薄膜抵抗体/メタル配線工程前)
Backend (薄膜抵抗体/メタル配線工程以降)

Backend: (薄膜抵抗体/メタル配線工程以降)

各素子を電氣的につなぐ金属配線工程を指します。



Frontend: (薄膜抵抗体/メタル配線工程前)

トランジスタ・キャパシタ・抵抗などの素子を形成する製造工程。素子の基本特性は、この工程でまります。



理由: 製品安定供給確保の為

製品表示

今回の変更に伴い、出荷時の出荷ラベルに記載しておりますチップの CS0(Chip Site Origin:原産地(20L の箇所))及び CCO(Chip Country Origin:原産国(21L の箇所))の表示が下表の様になります。

Item	Current	Additional
CSO(Chip Site Origin:20L)	BUR	HOU (HFAB)
CCO(Chip Country Origin:21L)	USA	USA



図 1. 出荷ラベル表示箇所について

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対象製品リスト

対象製品名 (Bipolar Process 製品)

□: 認定終了品 ■: 追加認定品 薄字/右詰: 認定作業中

4213AM	INA137UA/2K5	MPY634KPG4	OPA241UA	PCM55HP/1K
4213BM	INA137UA/2K5G4	MPY634KU	OPA241UA/2K5	PCM55HP/1KG6
4213SM	INA137UAG4	MPY634KU/1K	OPA241UA/2K5G4	PCM55HP-1
AT1NA138WP	INA138NA/250	MPY634KU/1KE4	OPA241UAG4	PCM55HP-1/1K
DAC811AH	INA138NA/250G4	MPY634KUE4	OPA2441DRG4SV	PCM55HP-1/1KG6
DAC811BH	INA138NA/3K	OPA1013CN8	OPA2441DRSV	PCM55HP-1G6
DAC811JP	INA138NA/3KG4	OPA1013CN8E4	OPA244NA/250	PCM55HP-3
DAC811JPG4	INA138NA/3KQ1	OPA1013CN8G4	OPA244NA/250G4	PCM55HP-3G6
DAC811JU	INA138QPWRG4Q1	OPA1013DN8	OPA244NA/3K	PCM55HPG6
DAC811JU/1K	INA138QPWRQ1	OPA1013DN8E4	OPA244NA/3KG4	PCM55JP
DAC811JU/1KE4	INA139NA/250	OPA1013DN8G4	OPA244PA	PCM56P
DAC811JUG4	INA139NA/250G4	OPA130PA	OPA244PAG4	PCM56P-8
DAC811KP	INA139NA/3K	OPA130UA	OPA244UA	PCM56P-8G4
DAC811KPG4	INA139NA/3KG4	OPA130UA/2K5	OPA244UA/2K5	PCM56P-9
DAC811KU	INA139NA/3KQ1	OPA130UA/2K5E4	OPA244UA/2K5E4	PCM56P-9G4
DAC811KU-1	INA139QPWRG4MO	OPA130UAE4	OPA244UAE4	PCM56PG4
DAC811KU-1/1K	INA139QPWRG4Q1	OPA131U	OPA251PA	PCM56P-J
DAC811KU-1/1KE4	INA139QPWRG4SV	OPA131UA	OPA251PAG4	PCM56P-JG4
DAC811KU-1E4	INA139QPWRMO	OPA131UA/2K5	OPA251UA	PCM56P-JS
DRV101F/500	INA139QPWRQ1	OPA131UA/2K5E4	OPA251UA/2K5	PCM56P-JS-1
DRV101FKTWT	INA139QPWRSV	OPA131UAE4	OPA251UA/2K5G4	PCM56P-JS-1G4
DRV101FKTWTG3	INA141U	OPA131UG4	OPA251UAG4	PCM56P-JSG4
DRV101T	INA141U/2K5	OPA131UJ	OPA2541AM	PCM56P-K
DRV101TG3	INA141U/2K5E4	OPA131UJ/2K5	OPA2541BM	PCM56P-KG4
DRV102F/500	INA141UA	OPA131UJ/2K5E4	OPA2541SM	PCM56P-L
DRV102FKTWT	INA141UA/2K5	OPA131UJE4	OPA2541SMQ	PCM56P-L-1
DRV102FKTWTG3	INA141UA/2K5E4	OPA132A1DRMR	OPA2544T	PCM56P-L-2
DRV102T	INA141UAE4	OPA132A1DRMT	OPA2544TG3	PCM56P-LG4
DRV102TG3	INA141UAG4	OPA132U	OPA2604AP	PCM56U
DRV134PA	INA141UG4	OPA132U/2K5	OPA2604APG4	PCM56U/1K
DRV134PAG4	INA143U	OPA132U/2K5G4	OPA2604AU	PCM56U/1KG4
DRV134UA	INA143U/2K5	OPA132UA	OPA2604AU/2K5	PCM56U-1
DRV134UA/1K	INA143U/2K5E4	OPA132UA/2K5	OPA2604AU/2K5E4	PCM56U-2
DRV134UA/1KE4	INA143UA	OPA132UA/2K5E4	OPA2604AUE4	PCM56UG4
DRV134UAE4	INA143UA/2K5	OPA132UA/2K5G4	OPA2604AUG4	PCM78AP-I
DRV135UA	INA143UA/2K5E4	OPA132UAE4	OPA26041DRAN	PGA103U
DRV135UA/2K5	INA143UAG4	OPA132UAG4	OPA26041DRG4AN	PGA103UE4
DRV135UA/2K5E4	INA143UG4	OPA132UG4	OPA26041DRQ1	PGA103UR
DRV135UAG4	INA145UA	OPA134PA	OPA277A1DRJR	PGA202KP
HPA00217A1DRBR	INA145UA/2K5	OPA134PAE4	OPA277A1DRJT	PGA202KPG4
HPA00218A1DGKR	INA145UA/2K5E4	OPA134PAG4	OPA277A1DRMR	PGA203KP
INA101AG	INA145UAE4	OPA134UA	OPA277A1DRMRG4	PGA203KPG4
INA101AM	INA146UA	OPA134UA/2K5	OPA277A1DRMT	PGA204AP
INA101AM9	INA146UA/2K5	OPA134UA/2K5E4	OPA277A1DRMTG4	PGA204APG4
INA101CM	INA146UA/2K5E4	OPA134UA/2K5G4	OPA277P	PGA204AU
INA101HP	INA146UAE4	OPA134UAE4	OPA277PA	PGA204AU/1K
INA101HPG4	INA148UA	OPA134UAG4	OPA277PAG4	PGA204AU/1KE4
INA101KU	INA148UA/2K5	OPA137N/250	OPA277PG4	PGA204AUE4
INA101KU/1K	INA148UA/2K5G4	OPA137N/250E4	OPA277U	PGA204AUG4
INA101KU/1KE4	INA148UAG4	OPA137N/3K	OPA277U/2K5	PGA204BP
INA101KUE4	INA154U	OPA137N/3KE4	OPA277U/2K5G4	PGA204BPG4
INA101SM	INA154U/2K5	OPA137NA/250	OPA277UA	PGA204BU
INA103KP	INA154U/2K5E4	OPA137NA/250E4	OPA277UA/2K5	PGA204BU/1K
INA103KPG4	INA154UA	OPA137NA/3K	OPA277UA/2K5E4	PGA204BU/1KE4
INA103KU	INA154UAG4	OPA137NA/3KE4	OPA277UA/2K5G4	PGA204BUE4
INA103KU/1K	INA154UG4	OPA137P	OPA277UAE4	PGA205AP
INA103KU/1KE4	INA157U	OPA137PA	OPA277UAG4	PGA205APG4
INA103KUG4	INA157U/2K5	OPA137U	OPA277UG4	PGA205AU
INA105AM	INA157U/2K5E4	OPA137UA	OPA27GP	PGA205AU/1K
INA105BM	INA157UA	OPA137UA/2K5	OPA27GP4	PGA205AU/1KG4
INA105KP	INA157UA/2K5	OPA137UA/2K5G4	OPA27GU	PGA205AUG4
INA105KPG4	INA157UA/2K5G4	OPA137UAG4	OPA27GU/2K5	PGA205BP

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INA105KU	INA157UAG4	OPA137UE4	OPA27GU/2K5E4	PGA205BPG4
INA105KU/2K5	INA157UG4	OPA177FP	OPA27GUE4	PGA205BU
INA105KU/2K5E4	INA163UA	OPA177FPE4	OPA27GUG4	PGA205BUG4
INA105KUE4	INA163UA/2K5	OPA177FPG4	OPA27WP	REF1004C-1. 2
INA106KP	INA163UA/2K5E4	OPA177GP	OPA321AIDRM	REF1004C-1. 2/2K5
INA106KPG4	INA163UA/2K5G4	OPA177GPE4	OPA37GP	REF1004C-1. 2/2K5E4
INA106U	INA163UAE4	OPA177GPG4	OPA37GPG4	REF1004C-1. 2E4
INA106U/2K5	INA166UA	OPA177GS	OPA37GU	REF1004C-2. 5
INA106U/2K5G4	INA166UA/2K5	OPA177GS/2K5	OPA37GU/2K5	REF1004C-2. 5/2K5
INA106UE4	INA166UA/2K5G4	OPA177GS/2K5E4	OPA37GU/2K5G4	REF1004C-2. 5/2K5E4
INA110KP	INA166UAG4	OPA177GSE4	OPA37GUE4	REF1004C-2. 5E4
INA110KPG4	INA168NA/250	OPA177GSG4	OPA4130UA	REF1004I-1. 2
INA110KU	INA168NA/250G4	OPA2130UA	OPA4130UA/2K5	REF1004I-1. 2/2K5
INA110KUG4	INA168NA/3K	OPA2130UA/2K5	OPA4130UA/2K5E4	REF1004I-1. 2/2K5E4
INA110SG	INA168NA/3KG4	OPA2130UA/2K5E4	OPA4130UAE4	REF1004I-1. 2E4
INA111AP	INA168QPWRG4Q1	OPA2130UAE4	OPA4131NA	REF1004I-2. 5
INA111APG4	INA168QPWRQ1	OPA2131UA	OPA4131NAG4	REF1004I-2. 5/2K5
INA111AU	INA169NA/250	OPA2131UA/2K5	OPA4131NJ	REF1004I-2. 5/2K5E4
INA111AU/1K	INA169NA/250G4	OPA2131UA/2K5E4	OPA4131NJG4	REF1004I-2. 5E4
INA111AU/1KE4	INA169NA/3K	OPA2131UA/2K5G4	OPA4131PA	REG1117
INA111AU/1KG4	INA169NA/3KG4	OPA2131UAE4	OPA4131PAG4	REG1117/2K5
INA111AUE4	INA169NA/3KQ1	OPA2131UAG4	OPA4131PJ	REG1117/2K5G4
INA111BP	INA169QPWRG4Q1	OPA2131UJ/2K5	OPA4131PJG4	REG1117-2. 85
INA111BPG4	INA169QPWRQ1	OPA2131UJ/2K5G4	OPA4131UA	REG1117-2. 85/2K5
INA111BU	INA170EA/250	OPA2132AIDRM	OPA4131UA/1K	REG1117-2. 85/2K5G4
INA111BUE4	INA170EA/250G4	OPA2132AIDRMT	OPA4131UA/1KG4	REG1117-2. 85G4
INA114AP	INA170EA/2K5	OPA2132P	OPA4131UAG4	REG1117-3. 3
INA114APG4	INA170EA/2K5G4	OPA2132PA	OPA4132UA	REG1117-3. 3/2K5
INA114AU	INA170QPWRQ1	OPA2132U	OPA4132UA/2K5	REG1117-3. 3/2K5G4
INA114AU/1K	INA2126E/250	OPA2132U/2K5	OPA4132UA/2K5E4	REG1117-3. 3G4
INA114AU/1KE4	INA2126E/250G4	OPA2132U/2K5E4	OPA4132UA/2K5G4	REG1117-5
INA114AUE4	INA2126E/2K5	OPA2132UA	OPA4132UAE4	REG1117-5/2K5
INA114AUG4	INA2126E/2K5G4	OPA2132UA/2K5	OPA4132UAG4	REG1117-5/2K5G4
INA114BP	INA2126EA/250	OPA2132UA/2K5E4	OPA4134UA	REG1117-5G4
INA114BPG4	INA2126EA/250G4	OPA2132UAE4	OPA4134UA/2K5	REG1117A
INA114BU	INA2126EA/2K5	OPA2132UAG4	OPA4134UA/2K5E4	REG1117A/2K5
INA114BU/1K	INA2126EA/2K5G4	OPA2132UE4	OPA4134UAE4	REG1117A/2K5G4
INA114BU/1KE4	INA2126P	OPA2134PA	OPA4137P	REG1117A-1. 8
INA114BUE4	INA2126PA	OPA2134PAE4	OPA4137PA	REG1117A-1. 8/2K5
INA115AU	INA2126PAG4	OPA2134PAG4	OPA4137PAE4	REG1117A-1. 8/2K5G4
INA115AU/1K	INA2126PG4	OPA2134UA	OPA4137PAG4	REG1117A-1. 8G4
INA115AU/1KE4	INA2126U	OPA2134UA/2K5	OPA4137PE4	REG1117A-2. 5
INA115AUG4	INA2126UA	OPA2134UA/2K5E4	OPA4137U	REG1117A-2. 5/2K5
INA115BU	INA2126UA/2K5	OPA2134UA/2K5G4	OPA4137U/2K5	REG1117A-2. 5/2K5G4
INA115BU/1K	INA2126UA/2K5E4	OPA2134UAE4	OPA4137U/2K5E4	REG1117A-2. 5G4
INA115BUG4	INA2126UAE4	OPA2134UAG4	OPA4137UA	REG1117AG4
INA117AM	INA2126UAG4	OPA2137E/250	OPA4137UA/2K5	REG1117F-3. 3/500
INA117AM9	INA2126UE4	OPA2137E/250G4	OPA4137UAE4	REG1117F-3. 3/500G3
INA117BM	INA2128U	OPA2137E/2K5	OPA4137UAG4	REG1117F-3. 3KTTT
INA117KU	INA2128U/1K	OPA2137E/2K5G4	OPA4137UE4	REG1117F33KTTTG3
INA117KU/2K5	INA2128U/1KE4	OPA2137E/AG4	OPA4227PA	REG1117FA/500
INA117KU/2K5G4	INA2128UA	OPA2137EA	OPA4227PAG4	REG1117FA/500G3
INA117KU-2	INA2128UA/1K	OPA2137EA/250	OPA4227UA	REG1117FA-1. 8/500
INA117KU-2G4	INA2128UA/1KG4	OPA2137EA/250G4	OPA4227UA/2K5	REG1117FA-1. 8KTTT
INA117KUG4	INA2128UAG4	OPA2137EA/2K5	OPA4227UA/2K5G4	REG1117FA1. 8KTTTG3
INA117P	INA2128UG4	OPA2137EA/2K5G4	OPA4227UAG4	REG1117FA-18/500G3
INA117PG4	INA2132U	OPA2137P	OPA4228PA	REG1117FA-2. 5/500
INA117SM	INA2132U/2K5	OPA2137PA	OPA4228PAG4	REG1117FA-2. 5KTTT
INA117SMQ	INA2132U/2K5E4	OPA2137U	OPA4228UA	REG1117FA2. 5KTTTG3
INA121P	INA2132UA	OPA2137U/2K5	OPA4228UA/2K5	REG1117FA-25/500G3
INA121PA	INA2132UA/2K5	OPA2137U/2K5E4	OPA4228UAE4	REG1117FA-5. 0/500
INA121PAG4	INA2132UA/2K5G4	OPA2137UA	OPA4241PA	REG1117FA5. 0/500G3
INA121PG4	INA2132UAE4	OPA2137UA/2K5	OPA4241PAG4	REG1117FA-5. 0KTTT
INA121U	INA2132UAG4	OPA2137UAE4	OPA4241UA	REG1117FA-5. 0KTTTG
INA121U/2K5	INA2132UE4	OPA2137UE4	OPA4241UA/2K5	REG1117FAKTTT
INA121U/2K5G4	INA2132UG4	OPA2227AIDRM	OPA4241UA/2K5G4	REG1117FAKTTTG3

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INA121UA	INA2133U	OPA2227AIDRMT	OPA4241UAG4	REG1117G4
INA121UA/2K5	INA2133U/2K5E4	OPA2227P	OPA4243EA/250	REG1118-2.85
INA121UA/2K5E4	INA2133UA	OPA2227PA	OPA4243EA/250E4	REG1118-2.85/2K5
INA121UAE4	INA2133UA/2K5E4	OPA2227PAG4	OPA4243EA/2K5	REG1118-2.85/2K5G4
INA121UG4	INA2133UAE4	OPA2227PG4	OPA4243EA/2K5E4	REG1118-2.85G4
INA122P	INA2133UAG4	OPA2227U	OPA4244EA/250	SN000200412007DRE4
INA122PA	INA2133UE4	OPA2227U/2K5	OPA4244EA/250E4	SN000200412008
INA122PAG4	INA2133UG4	OPA2227U/2K5G4	OPA4244EA/2K5	SN000200412074DRE4
INA122PG4	INA2134PA	OPA2227UA	OPA4244EA/2K5E4	SN00200412009DWRE4
INA122U	INA2134PAG4	OPA2227UA/2K5	OPA4251PA	SN0200412010DVARE4
INA122U/2K5	INA2134UA	OPA2227UA/2K5E4	OPA4251PAG4	SN0406068DR
INA122U/2K5E4	INA2134UA/2K5	OPA2227UAE4	OPA4251UA	SN0412012DVARE4
INA122UA	INA2134UA/2K5E4	OPA2227UAG4	OPA4251UA/2K5	SN0708100P
INA122UA/2K5	INA2134UA/2K5G4	OPA2227UE4	OPA4251UA/2K5G4	SN0708100PG4
INA122UA/2K5G4	INA2134UAE4	OPA2227UG4	OPA4251UAG4	SN0708100U
INA122UAG4	INA2137PA	OPA2228P	OPA4277PA	SN200501036DRE4
INA122UE4	INA2137PAG4	OPA2228PA	OPA4277PAG4	SN200501037DRE4
INA125D	INA2137UA	OPA2228PAG4	OPA4277UA	SN200501038DRE4
INA125P	INA2137UA/2K5	OPA2228PG4	OPA4277UA/2K5	SN200501101DGKRE4
INA125PA	INA2137UA/2K5E4	OPA2228U	OPA4277UA/2K5E4	SN200501102DRE4
INA125PAG4	INA2137UAE4	OPA2228U/2K5	OPA4277UAE4	SN200512021KC
INA125PG4	INA2141U	OPA2228U/2K5E4	OPA4277UAG4	SN200512021KCG3
INA125U	INA2141UA	OPA2228UA	OPA445ADDA	SN200611044
INA125U/2K5	INA2141UA/1K	OPA2228UA/2K5	OPA445ADDAG4	SN412006DRE4
INA125U/2K5E4	INA2141UA/1KE4	OPA2228UA/2K5E4	OPA445ADDAR	SN412008DRE4
INA125UA	INA2141UAE4	OPA2228UA/2K5G4	OPA445ADDARG4	SN412013DRE4
INA125UA/2K5	INA2141UE4	OPA2228UAE4	OPA445AP	SN412014DRE4
INA125UA/2K5E4	INA2143U	OPA2228UE4	OPA445APG4	SN412016DRE4
INA125UAG4	INA2143UA	OPA2237EA	OPA445AU	SN412017DWRE4
INA125UE4	INA2143UAE4	OPA2237EA/250	OPA445AU/2K5	SN412018DRE4
INA126E	INA2143UAG4	OPA2237EA/250G4	OPA445AU/2K5E4	SN412020DRE4
INA126E/250	INA2143UE4	OPA2237EA/2K5	OPA445AUG4	SN412042DRE4
INA126E/250G4	INA2143UG4	OPA2237EA/2K5E4	OPA445BM	SN0PA548FKTWREP
INA126E/2K5	INA217A1DWR	OPA2237EA/2K5G4	OPA445BM-19	SN0PA548T-1EP
INA126E/2K5G4	INA217A1DWRE4	OPA2237UA	OPA452FA/500	UAF42AP
INA126EA	INA217A1DWT	OPA2237UA/2K5	OPA452FA/500G3	UAF42APG4
INA126EA/250	INA217A1DWTE4	OPA2237UA/2K5E4	OPA452FAKTWT	UAF42AU
INA126EA/250G4	INA217A1P	OPA2237UA/2K5G4	OPA452FAKTWTG3	UAF42AUE4
INA126EA/2K5	INA217A1PG4	OPA2237UAE4	OPA452TA	VFC320BP
INA126EA/2K5G4	ISO102	OPA2241PA	OPA452TA-1	VFC320BPG4
INA126P	ISO102B	OPA2241PAG4	OPA452TA-1G3	VFC320CP
INA126PA	ISO106	OPA2241UA	OPA452TAG3	VFC320CPG4
INA126PAG4	ISO106B	OPA2241UA/2K5	OPA453FAKTWT	VFC32KP
INA126PG4	ISO120BG	OPA2241UA/2K5G4	OPA453TA	VFC32KPG4
INA126U	ISO120G	OPA2241UAG4	OPA453TA-1	VFC32KU
INA126U/2K5	ISO120SG	OPA2244EA/250	OPA453TA-1G3	VFC32KU/2K5
INA126U/2K5G4	ISO121BG	OPA2244EA/250E4	OPA453TAG3	VFC32KU/2K5G4
INA126UA	ISO121G	OPA2244EA/250G4	OPA541AD	VFC32KUE4
INA126UA/2K5	ISO122JP	OPA2244EA/2K5	OPA541AM	XTR101AG
INA126UA/2K5E4	ISO122JPE4	OPA2244EA/2K5E4	OPA541AP	XTR101AP
INA126UAG4	ISO122JU	OPA2244EA/2K5G4	OPA541APG3	XTR101APG4
INA126UG4	ISO122JU/1K	OPA2244EA-1/2K5	OPA541BM	XTR101AU
INA128P	ISO122JU/1KE4	OPA2244EA-1/2K5G4	OPA541SM	XTR101AU/1K
INA128PA	ISO122JUE4	OPA2244PA	OPA544F/500	XTR101AU/1KG4
INA128PAG4	ISO122P	OPA2244PAG4	OPA544F/500G3	XTR101AUG4
INA128PG4	ISO122PE4	OPA2244UA	OPA544FKTTT	XTR101BG
INA128U	ISO122U	OPA2244UA/2K5	OPA544FKTTTG3	XTR105P
INA128U/2K5	ISO122U/1K	OPA2244UA/2K5G4	OPA544T	XTR105PA
INA128U/2K5G4	ISO122U/1KE4	OPA2244UAG4	OPA544TG3	XTR105PAG4
INA128U-2	ISO122UE4	OPA2251PA	OPA547F/500	XTR105PG4
INA128U-2/2K5	ISO124P	OPA2251PAG4	OPA547F/500G3	XTR105U
INA128U-2/2K5G4	ISO124U	OPA2251UA	OPA547FKTWT	XTR105UA
INA128U-2G4	ISO124U/1K	OPA2251UA/2K5	OPA547FKTWTG3	XTR105UA/2K5
INA128UA	ISO124U/1KE4	OPA2251UA/2K5G4	OPA547T	XTR105UA/2K5E4
INA128UA/2K5	ISO124UE4	OPA2251UAG4	OPA547T-1	XTR105UAG4
INA128UA/2K5E4	ISO175P	OPA2277AIDRJ	OPA547T-1G3	XTR105UG4

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INA128UA/2K5G4	LOG101AID	OPA2277AIDRJT	OPA547TG3	XTR106D
INA128UAE4	LOG101AIDE4	OPA2277AIDRMR	OPA547TG4	XTR106P
INA128UAG4	LOG101AIDR	OPA2277AIDRMRG4	OPA548F/500	XTR106PA
INA128UG4	LOG101AIDRE4	OPA2277AIDRMT	OPA548F/500G3	XTR106PAG4
INA129P	LOG102AID	OPA2277AIDRMTG4	OPA548FKTWT	XTR106PG4
INA129PA	LOG102AIDG4	OPA2277P	OPA548FKTWTG3	XTR106U
INA129PAG4	LOG102AIDR	OPA2277PA	OPA548T	XTR106U/2K5
INA129PG4	LOG102AIDRG4	OPA2277PAG4	OPA548T-1	XTR106U/2K5E4
INA129U	LOG104AID	OPA2277PG4	OPA548T-1G3	XTR106UA
INA129U/2K5	LOG104AIDE4	OPA2277U	OPA548TG3	XTR106UA/2K5
INA129U/2K5G4	LOG104AIDG4	OPA2277U/2K5	OPA548TG4	XTR106UA/2K5E4
INA129U-1/2K5	LOG104AIDR	OPA2277U/2K5G4	OPA549S	XTR106UAG4
INA129UA	LOG104AIDRE4	OPA2277UA	OPA549SG3	XTR106UE4
INA129UA/2K5	LOG112AID	OPA2277UA/2K5	OPA549T	XTR110AG
INA129UA/2K5E4	LOG112AIDE4	OPA2277UA/2K5E4	OPA549TG3	XTR110BG
INA129UA/2K5G4	LOG112AIDR	OPA2277UAE4	OPA551FA/500	XTR110KP
INA129UAE4	LOG112AIDRE4	OPA2277UAG4	OPA551FA/500G3	XTR110KPG4
INA129UG4	LOG2112AIDW	OPA2277UG4	OPA551FA/500G4	XTR110KU
INA131AP	LOG2112AIDWE4	OPA227AIDRMR	OPA551FAKTWT	XTR110KU/1K
INA131AP-1	LOG2112AIDWR	OPA227AIDRMT	OPA551FAKTWTG3	XTR110KU/1KG4
INA131AP-1G4	LOG2112AIDWRE4	OPA227P	OPA551PA	XTR110KUG4
INA131APG4	MLA00380DR	OPA227PA	OPA551PAG4	XTR112U
INA131BP	MP11NA101-W	OPA227PAG4	OPA551UA	XTR112UA
INA131BPG4	MP11NA105-W	OPA227PG4	OPA551UA/2K5	XTR112UAE4
INA132U	MP11NA111-W	OPA227U	OPA551UA/2K5E4	XTR112UE4
INA132U/2K5	MP11NA117-W	OPA227U/2K5	OPA551UA/2K5G4	XTR114U
INA132U/2K5E4	MP11NA122-W	OPA227U/2K5E4	OPA551UAE4	XTR114UA
INA132UA	MP11NA2134-W	OPA227UA	OPA552FA/500	XTR114UAE4
INA132UA/2K5	MP10PA137-W	OPA227UA/2K5	OPA552FA/500G3	XTR114UE4
INA132UA/2K5E4	MP10PA177-W	OPA227UA/2K5G4	OPA552FAKTWT	XTR115U
INA132UA/2K5G4	MP10PA2227-W	OPA227UAG4	OPA552FAKTWTG3	XTR115U/2K5
INA132UAE4	MP10PA2277-W	OPA227UE4	OPA552PA	XTR115U/2K5E4
INA132UAG4	MP10PA244-W	OPA228P	OPA552PAG4	XTR115UA
INA132UG4	MP10PA277-W	OPA228PA	OPA552UA	XTR115UA/2K5
INA133U	MP10PA4132-W	OPA228PAG4	OPA552UA/2K5	XTR115UA/2K5E4
INA133U/2K5	MP10PA4227-W	OPA228PG4	OPA552UA/2K5E4	XTR115UAE4
INA133U/2K5E4	MP10PA4277-W	OPA228U	OPA552UAG4	XTR115UG4
INA133UA	MP10PA445-W	OPA228UA	OPA604AP	XTR116U
INA133UA/2K5	MP10PA541-W	OPA228UA/2K5	OPA604APG4	XTR116U/2K5
INA133UA/2K5E4	MP10PA544-W	OPA228UA/2K5E4	OPA604AU	XTR116U/2K5G4
INA133UAE4	MP10PA547-W	OPA228UAG4	OPA604AU/2K5	XTR116UA
INA133UE4	MP10PA548-W	OPA228UG4	OPA604AU/2K5G4	XTR116UA/2K5
INA134PA	MP10PA549-W	OPA237NA/250	OPA604AUE4	XTR116UA/2K5E4
INA134PAG4	MP10PA551-W	OPA237NA/250E4	OPA77GP	XTR116UAE4
INA134UA	MP1PGA203-W	OPA237NA/3K	OPT101P	XTR116UG4
INA134UA/2K5	MP1VFC32-W	OPA237NA/3KE4	OPT101PG4	XTR117AIDGKR
INA134UA/2K5E4	MP1XTR101A-W	OPA237NA/3KG4	OPT101P-J	XTR117AIDGKRG4
INA134UA/2K5G4	MPY100AG	OPA237UA	PCM54HP	XTR117AIDGKT
INA134UAE4	MPY100BG	OPA237UA/2K5	PCM54HP-1	XTR117AIDGKTG4
INA134UAG4	MPY100CG	OPA237UA/2K5G4	PCM54JP	XTR117AIDRBR
INA137PA	MPY100SG	OPA237UAG4	PCM54KP-1	XTR117AIDRBRG4
INA137PAG4	MPY534WP	OPA241PA	PCM54KP-2	XTR117AIDRBT
INA137UA	MPY634KP	OPA241PAG4	PCM55HP	XTR117AIDRBTG4

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対象製品名 (Bipolar_WZener Process 製品)				
□:認定終了品 ■:追加認定品 薄字/右詰:認定作業中				
DAC707JP	DAC712UL	DAC715ULG4	DAC813JU/1K	REF02BUG4
DAC707KP	DAC712UL/1K	DAC716P	DAC813JU/1KG4	REF102AP
DAC707KP-3	DAC712UL/1KG4	DAC716PB	DAC813JUG4	REF102APG4
DAC707KP-5	DAC712ULG4	DAC716PBG4	DAC813KP	REF102AU
DAC707KP-6	DAC714H-1	DAC716PG4	DAC813KPG4	REF102AU/2K5
DAC712P	DAC714P	DAC716PK	DAC813KU	REF102AU/2K5G4
DAC712PB	DAC714PG4	DAC716PKG4	DAC813KU/1K	REF102AUG4
DAC712PBG4	DAC714U	DAC716U	DAC813KU/1KG4	REF102BP
DAC712PG4	DAC714U/1K	DAC716U/1K	DAC813KUG4	REF102BPG4
DAC712PK	DAC714U/1KG4	DAC716U/1KG4	MP1REF102-W	REF102BU
DAC712PKG4	DAC714U-1	DAC716UB	MP1VFC110A-W	REF102BU/2K5
DAC712PL	DAC714U-1/1K	DAC716UB/1K	RCV420JP	REF102BU/2K5G4
DAC712PLG4	DAC714UG4	DAC716UB/1KG4	RCV420JPG4	REF102BUG4
DAC712U	DAC715P	DAC716UBG4	RCV420KP	REF102CP
DAC712U/1K	DAC715PB	DAC716UG4	RCV420KPG4	REF102CPG4
DAC712U-1	DAC715PBG4	DAC716UK	REF02AP	REF102CU
DAC712U-1/1K	DAC715PG4	DAC716UK/1K	REF02APG4	REF102CU/2K5
DAC712U-1/1KG4	DAC715PK	DAC716UK/1KG4	REF02AU	REF102CU/2K5G4
DAC712U-1G4	DAC715PKG4	DAC716UKG4	REF02AU/2K5	REF102CUG4
DAC712UB	DAC715PL	DAC725JP	REF02AU/2K5E4	SN412019DRE4
DAC712UB/1K	DAC715PLG4	DAC725KP	REF02AUE4	VFC110AP
DAC712UB/1KG4	DAC715U	DAC813AU	REF02AUG4	VFC110AP-2
DAC712UBG4	DAC715UB	DAC813AU/1K	REF02BP	VFC110AP-2G4
DAC712UG4	DAC715UBG4	DAC813AU/1KG4	REF02BPG4	VFC110APG4
DAC712UK	DAC715UG4	DAC813AUG4	REF02BU	
DAC712UK/1K	DAC715UK	DAC813JP	REF02BU/2K5	
DAC712UK/1KG4	DAC715UKG4	DAC813JPG4	REF02BU/2K5E4	
DAC712UKG4	DAC715UL	DAC813JU	REF02BUE4	

対象製品名 (CBC10 Process 製品)				
薄字/右詰:認定作業中				
BUF6021D	OPA26911D	OPA38751DBQR	OPA6921D	OPA8611DBVRG4
BUF6021DBVR	OPA26911DG4	OPA38751DBQRG4	OPA6921DBVR	OPA8611DBVT
BUF6021DBVT	OPA26911DR	OPA46841D	OPA6921DBVRG4	OPA8611DBVTG4
BUF6021DR	OPA26911DRG4	OPA46841DBQ	OPA6921DBVT	OPA8611DG4
MPA46091PFBR	OPA26941D	OPA46841DBQR	OPA6921DBVTG4	OPA8611DR
MPA46091PFBG4	OPA26941DG4	OPA46841DBQT	OPA6921DG4	OPA8611DRG4
MPA46091PFBT	OPA26941DR	OPA46841DG4	OPA6921DR	OPA8751D
MPA46091PFBTG4	OPA26941DRG4	OPA46841DR	OPA6921DRG4	OPA8751DG4
MPA46101PFBR	OPA26951D	OPA46841DRG4	OPA6931D	OPA8751DGKR
MPA46101PFBT	OPA26951DR	OPA46841PWR	OPA6931DBVR	OPA8751DGKRG4
OPA26131D	OPA26951RGTR	OPA46841PWRG4	OPA6931DBVRG4	OPA8751DGKT
OPA26131DG4	OPA26951RGTT	OPA46841PWT	OPA6931DBVT	OPA8751DGKTG4
OPA26131DR	OPA2822E	OPA46841PWTG4	OPA6931DBVTG4	OPA8751DR
OPA26131DRG4	OPA2822E/250	OPA48201D	OPA6931DG4	OPA8751DRG4
OPA26131DTJ	OPA2822E/250G4	OPA48201DG4	OPA6931DR	OPA8901D
OPA26131DTJG3	OPA2822E/2K5	OPA48201DR	OPA6931DRG4	OPA8901DBVR
OPA26131DTJR	OPA2822E/2K5G4	OPA48201DRG4	OPA6941D	OPA8901DBVRG4
OPA26131DTJRG3	OPA2822U	OPA48201PWR	OPA6941DBVR	OPA8901DBVT
OPA26141D	OPA2822U/2K5	OPA48201PWRG4	OPA6941DBVRG4	OPA8901DBVTG4
OPA26141DG4	OPA2822U/2K5G4	OPA48201PWT	OPA6941DBVT	OPA8901DG4
OPA26141DR	OPA2822UG4	OPA48201PWTG4	OPA6941DBVTG4	OPA8901DR
OPA26141DRG4	OPA28301D	OPA48301PW	OPA6941DG4	OPA8901DRG4
OPA26141DTJ	OPA28301DG4	OPA48301PWG4	OPA6941DR	PGA8221PW
OPA26141DTJG3	OPA28301DGKR	OPA48301PWR	OPA6941DRG4	PGA8501RHD
OPA26141DTJR	OPA28301DGKRG4	OPA48301PWRG4	OPA6951D	SN0307110DBVR
OPA26141DTJRG3	OPA28301DGKT	OPA48721D	OPA6951DBVR	SN0307110DBVRG4
OPA2652E/250	OPA28301DGKTG4	OPA48721DG4	OPA6951DBVRG4	SN0307110DBVT
OPA2652E/250G4	OPA28301DR	OPA48721DR	OPA6951DBVT	SN0307110DBVTG4
OPA2652E/3K	OPA28301DRG4	OPA48721DRG4	OPA6951DBVTG4	SN04040551D
OPA2652E/3KG4	OPA28321D	OPA6151D	OPA6951DG4	SN04040551DG4

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OPA2652U	OPA2832IDG4	OPA615IDG4	OPA695IDR	SN04040551DR
OPA2652U/2K5	OPA2832IDGKR	OPA615IDGSR	OPA695IDRG4	SN04040551DRG4
OPA2652U/2K5G4	OPA2832IDGKRG4	OPA615IDGSRG4	OPA698ID	SN200510075
OPA2652U-1/2K5	OPA2832IDGKT	OPA615IDGST	OPA698IDG4	SN200510075DR
OPA2652U-1/2K5G4	OPA2832IDGKTG4	OPA615IDGSTG4	OPA698IDR	SN200510075DRG4
OPA2652UG4	OPA2832IDR	OPA615IDR	OPA698IDRG4	SN200609046DGS
OPA2672IDGQR	OPA2832IDRG4	OPA615IDRG4	OPA699ID	SN200609046DGSR
OPA2672IDGQT	OPA2846ID	OPA653IDBVR	OPA699IDG4	SN200609046DGSRG4
OPA2672IRGVR	OPA2846IDG4	OPA653IDBVT	OPA699IDR	SN200612054DGSR
OPA2672IRGVT	OPA2846IDR	OPA653IDBR	OPA699IDRG4	SN200612054DGSRG4
OPA2673IDGQR	OPA2846IDRG4	OPA653IDRBT	OPA820ID	THS4537ID
OPA2673IDGQT	OPA2889ID	OPA656N/250	OPA820IDBVR	THS4537IDR
OPA2673IRGVR	OPA2889IDG4	OPA656N/250G4	OPA820IDBVRG4	VCA810AID
OPA2673IRGVT	OPA2889IDGSR	OPA656NB/250	OPA820IDBVT	VCA810AIDG4
OPA2674I-14D	OPA2889IDGSRG4	OPA656NB/250G4	OPA820IDBVTG4	VCA810AIDR
OPA2674I-14DG4	OPA2889IDGST	OPA656U	OPA820IDG4	VCA810AIDRG4
OPA2674I-14DR	OPA2889IDGSTG4	OPA656U/2K5	OPA820IDR	VCA810ID
OPA2674I-14DRG4	OPA2889IDR	OPA656U/2K5G4	OPA820IDRG4	VCA810IDG4
OPA2674ID	OPA2889IDRG4	OPA656UB	OPA830ID	VCA810IDR
OPA2674IDG4	OPA2890ID	OPA656UB/2K5	OPA830IDBVR	VCA810IDRG4
OPA2674IDR	OPA2890IDGSR	OPA656UBG4	OPA830IDBVRG4	VCA811AID
OPA2674IDRG4	OPA2890IDGST	OPA656UG4	OPA830IDBVT	VCA811AIDR
OPA2677E	OPA2890IDR	OPA657N/250	OPA830IDBVTG4	VCA811ID
OPA2677H	OPA3684ID	OPA657N/250G4	OPA830IDG4	VCA811IDR
OPA2677H/2K5	OPA3684IDBQR	OPA657NB/250	OPA830IDR	VCA820ID
OPA2677H/2K5G3	OPA3684IDBQRG4	OPA657NB/250G4	OPA830IDRG4	VCA820IDG4
OPA2677HG3	OPA3684IDBQT	OPA657NB/3K	OPA832ID	VCA820IDGSR
OPA2677IDDA	OPA3684IDBQTG4	OPA657NB/3KG4	OPA832IDBVR	VCA820IDGSRG4
OPA2677IDDR	OPA3684IDG4	OPA657U	OPA832IDBVRG4	VCA820IDGST
OPA2677IRGVR	OPA3684IDR	OPA657U/2K5	OPA832IDBVT	VCA820IDGSTG4
OPA2677IRGVRG4	OPA3684IDRG4	OPA657U/2K5G4	OPA832IDBVTG4	VCA820IDR
OPA2677IRGVT	OPA3690ID	OPA657UB	OPA832IDG4	VCA820IDRG4
OPA2677IRGVTG4	OPA3690IDBQ	OPA657UBG4	OPA832IDR	VCA821ID
OPA2677U	OPA3690IDBQR	OPA657UG4	OPA832IDRG4	VCA821IDGSR
OPA2677U/2K5	OPA3690IDBQRG4	OPA659IDBVR	OPA842ID	VCA821IDGST
OPA2677U/2K5G4	OPA3690IDBQT	OPA659IDBVT	OPA842IDBVR	VCA821IDR
OPA2677U-1	OPA3690IDBQTG4	OPA659IDRBR	OPA842IDBVRG4	VCA822ID
OPA2677U-1/2K5	OPA3690IDG4	OPA659IDRBT	OPA842IDBVT	VCA822IDG4
OPA2677UG4	OPA3690IDR	OPA673IDGKR	OPA842IDBVTG4	VCA822IDGSR
OPA2679IDGQR	OPA3690IDRG4	OPA673IDGKT	OPA842IDG4	VCA822IDGSRG4
OPA2679IDGQT	OPA3691ID	OPA683ID	OPA842IDR	VCA822IDGST
OPA2679IRGVR	OPA3691IDBQR	OPA683IDBVR	OPA842IDRG4	VCA822IDGSTG4
OPA2679IRGVT	OPA3691IDBQRG4	OPA683IDBVRG4	OPA843ID	VCA822IDR
OPA2683ID	OPA3691IDBQT	OPA683IDBVT	OPA843IDBVR	VCA822IDRG4
OPA2683IDCNR	OPA3691IDBQTG4	OPA683IDBVTG4	OPA843IDBVRG4	VCA824ID
OPA2683IDCNT	OPA3691IDG4	OPA683IDG4	OPA843IDBVT	VCA824IDGSR
OPA2683IDG4	OPA3691IDR	OPA683IDR	OPA843IDBVTG4	VCA824IDGST
OPA2683IDGSR	OPA3691IDRG4	OPA683IDRG4	OPA843IDG4	VCA824IDR
OPA2683IDGSRG4	OPA3692ID	OPA684ID	OPA843IDR	MP10PA4684-W
OPA2683IDGST	OPA3692IDBQR	OPA684IDBVR	OPA843IDRG4	MP10PA656-W
OPA2683IDGSTG4	OPA3692IDBQRG4	OPA684IDBVRG4	OPA846ID	MP10PA699-W
OPA2683IDR	OPA3692IDBQT	OPA684IDBVT	OPA846IDBVR	OPA4684MJD
OPA2683IDRG4	OPA3692IDBQTG4	OPA684IDBVTG4	OPA846IDBVRG4	OPA656MDREP
OPA2684ID	OPA3692IDG4	OPA684IDG4	OPA846IDBVT	OPA698MJD
OPA2684IDCNR	OPA3692IDR	OPA684IDR	OPA846IDBVTG4	OPA699MJD
OPA2684IDCNRG4	OPA3692IDRG4	OPA684IDRG4	OPA846IDG4	INA123AIDGKR
OPA2684IDCNT	OPA3693IDBQ	OPA690ID	OPA846IDR	INA123AIDGKT
OPA2684IDG4	OPA3693IDBQG4	OPA690IDBVR	OPA846IDRG4	INA123AIDR
OPA2684IDR	OPA3693IDBQR	OPA690IDBVRG4	OPA847ID	INA123AIDRBR
OPA2684IDRG4	OPA3693IDBQRG4	OPA690IDBVT	OPA847IDBVR	INA123AIDRBT
OPA2690I-14D	OPA3695IDBQ	OPA690IDBVTG4	OPA847IDBVRG4	INA123IDGKR
OPA2690I-14DG4	OPA3695IDBQR	OPA690IDG4	OPA847IDBVT	INA123IDGKT
OPA2690I-14DR	OPA3832ID	OPA690IDR	OPA847IDBVTG4	INA123IDRBR
OPA2690I-14DRG4	OPA3832IDG4	OPA690IDRG4	OPA847IDG4	INA123IDRBT
OPA2690ID	OPA3832IDR	OPA691ID	OPA847IDR	LOG114AIRGVR
OPA2690IDG4	OPA3832IDRG4	OPA691IDBVR	OPA847IDRG4	LOG114AIRGVRG4

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OPA2690IDR	OPA3832IPW	OPA691IDBVRG4	OPA860ID	LOG114AIRGVT
OPA2690IDRG4	OPA3832IPWG4	OPA691IDBVT	OPA860IDG4	LOG114AIRGVTG4
OPA2691I-14D	OPA3832IPWR	OPA691IDBVTG4	OPA860IDR	REF1112AIDBZR
OPA2691I-14DG4	OPA3832IPWRG4	OPA691IDG4	OPA860IDRG4	REF1112AIDBZRG4
OPA2691I-14DR	OPA3875IDBQ	OPA691IDR	OPA861ID	REF1112AIDBZT
OPA2691I-14DRG4	OPA3875IDBQG4	OPA691IDRG4	OPA861IDBVR	REF1112AIDBZTG4

信頼性試験結果

信頼性試験結果 (Bipolar Process 製品)

信頼性試験 - 試料構成詳細

Qual Device	DAC811KU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	647	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	TAI	Package/ Pin:	SOIC / 28
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.3 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-

信頼性試験結果

Reliability Test	Condition / Duration	Sample Size/ Fails
** Steady-state Life Test	125C, 1000Hrs	116/0
** Biased HAST	130C/85%RH, 96 Hrs	87/0
** Autoclave	121C, 96 Hrs	87/0
** Temp Cycle	-65/150C, 1000 Cyc	87/0
High Temp Storage	150C, 1000 Hrs	87/0
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V	12/0
ESD MM	50V	3/0
Electrical Char.	Over Temp	30/0
Bond Strength	76 ball bonds, min. 3 units	76/0
Ball Bond Shear	5 units, >76 balls, 0 fails	15/0
Die Shear	-	10/0
Moisture Sensitivity Level	JEDEC Level 3/ 260C +5/-0C	22/0
Manufacturability (Assembly)	Per mfg. Site specification	Pass
Manufacturability (Wafer Fab)	Per FAB site specification	Pass
MPY and Bin Summary	-	Pass
FTY and Bin Summary	-	Pass

** Samples used to populate these tests have been preconditioned per JEDEC MSL3/260C sequence.

信頼性試験結果 (Bipolar Process 製品)

信頼性試験 - 試料構成詳細

Qual Device	OPA4277UA	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 14
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-

信頼性試験結果

Reliability Test	Condition / Duration	Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V	12/0
ESD MM	50V	3/0
Electrical Char.	Over Temp	30/0
AC/DC Bench Test Char.	Device specific AC &/or DC Char	5/0
MPY and Bin Summary	-	Pass
FTY and Bin Summary	-	Pass
Moisture Sensitivity levels	JEDEC Level 3/260C +5/-0C	22/0

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	INA128U	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V		12/0
ESD MM	50V		3/0
Characterization	Over Temp		30/0
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	ISO122	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	HNT	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8390A	Mold Compound:	EME-6300H3L
Bond Wire:	1.3 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V		6/0
ESD MM	50V		3/0
Characterization	Over Temp		30/0
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass
Moisture Sensitivity levels	JEDEC Level 3/260C +5/-0C		22/0

信頼性試験結果 (Bipolar Process 製品)			
信頼性試験 - 試料構成詳細			
Qual Device	OPA177GS	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.3 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	
** Steady-state Life Test	125C, 1000Hrs	124/0	
** Biased HAST	130C/85%RH, 96 Hrs	87/0	
** Autoclave	121C, 96 Hrs	87/0	
** Temp Cycle	-65/150C, 1000 Cyc	87/0	
** High Temp Storage	150C, 1000 Hrs	87/0	
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V	12/0	
ESD MM	50V,100V	6/0	
Electrical Char.	Over Temp	30/0	
Bond Strength	76 ball bonds, min. 3 units	76/0	
Ball Bond Shear	5 units, >76 balls, 0 fails	76/0	
Die Shear	-	12/0	
Moisture Sensitivity Level	JEDEC Level 3/ 260C +5/-0C	22/0	
Manufacturability (Assembly)	Per mfg. Site specification	Pass	
Manufacturability (Wafer Fab)	Per FAB site specification	Pass	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	
** Samples used to populate these tests have been preconditioned per JEDEC MSL3/260C sequence.			

信頼性試験結果 (Bipolar Process 製品)			
信頼性試験 - 試料構成詳細			
Qual Device	OPA2277U	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
** Steady-state Life Test	125C, 1000Hrs		116/0
** Biased HAST	130C/85%RH, 96 Hrs		85/0
** Autoclave	121C, 96 Hrs		85/0
** Temp Cycle	-65/150C, 1000 Cyc		85/0
** High Temp Storage	150C, 1000 Hrs		85/0
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V		12/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
Bond Strength	76 ball bonds, min. 3 units		76/0
Ball Bond Shear	5 units, >76 balls, 0 fails		76/0
Die Shear	-		12/0
Moisture Sensitivity Level	JEDEC Level 3/ 260C +5/-0C		22/0
Manufacturability (Assembly)	Per mfg. Site specification		Pass
Manufacturability (Wafer Fab)	Per FAB site specification		Pass
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass
** Samples used to populate these tests have been preconditioned per JEDEC MSL3/260C sequence.			

信賴性試驗結果 (Bipolar Process 製品)			
信賴性試驗 – 試料構成詳細			
Qual Device	OPA2604AU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	634	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信賴性試驗結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
** Steady-state Life Test	125C, 1000Hrs		114/0
** Biased HAST	130C/85%RH, 96 Hrs		87/0
** Autoclave	121C, 96 Hrs		87/0
** Temp Cycle	-65/150C, 1000 Cyc		87/0
** High Temp Storage	150C, 1000 Hrs		87/0
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V		12/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
Bond Strength	76 ball bonds, min. 3 units		76/0
Ball Bond Shear	5 units, >76 balls, 0 fails		76/0
Die Shear	-		12/0
High Supply Integrity	24V supply @ Rm temp monitored 24 -168 hr.		20/0
Moisture Sensitivity Level	JEDEC Level 3/ 260C +5/-0C		24/0
Manufacturability (Assembly)	Per mfg. Site specification		Pass
Manufacturability (Wafer Fab)	Per FAB site specification		Pass
FTY and Bin Summary	-		Pass
** Samples used to populate these tests have been preconditioned per JEDEC MSL3/260C sequence.			

信頼性試験結果 (Bipolar Process 製品)			
信頼性試験 - 試料構成詳細			
Qual Device	OPA541AP	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	634	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	HNC	Package/ Pin:	PFM / 11
Mount Compound:	Abletherm 2600AT	Mold Compound:	EME-G605L
Bond Wire:	2 Mil Dia. Au	L/F Composition/ Finish	Cu / Matte SN
Moisture Sensitivity Level	N/A	-	-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	
Steady-state Life Test	125C, 1000Hrs	126/0	
Biased HAST	130C/85%RH, 96 Hrs	87/0	
Autoclave	121C, 96 Hrs	84/0	
Temp Cycle	-65/150C, 1000 Cyc	85/0	
High Temp Storage	150C, 1000 Hrs	87/0	
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V	12/0	
ESD MM	50V	3/0	
Electrical Char.	Over Temp	30/0	
AC/DC Bench Test Char.	Device specific AC &/or DC Char	5/0	
Manufacturability (Assembly)	Per mfg. Site specification	Pass	
Manufacturability (Wafer Fab)	Per FAB site specification	Pass	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPA548T	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	634	Metallization	AlCu.5
Passivation:	5kASi02/8kASiON	-	-
Assembly Site:	CRS	Package/ Pin:	TO-SOT / 7
Mount Compound:	ABLESTIK 2815A	Mold Compound:	CEL9220HF13
Bond Wire:	3 Mil Dia. Au	L/F Composition/ Finish	Cu / Matte SN
Moisture Sensitivity Level	N/A	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V, 1500V		9/0
ESD MM	50V		3/0
Characterization	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPT101P	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	636	Metallization	AlCu.5
Passivation:	5kASi02/8kASiON	-	-
Assembly Site:	HNT	Package/ Code/ Pin:	DIP / PDIP / 8
Mount Compound:	ABLESTICK 8390	Mold Compound:	MG97-8006A
Bond Wire:	1.25 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	N/A	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
Steady-state Life Test	125C, 1000Hrs		116/0
High Temp Storage	150C, 1000 Hrs		77/0
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V		12/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
Bond Strength	76 ball bonds, min. 3 units		76/0
Ball Bond Shear	5 units, >76 balls, 0 fails		76/0
Die Shear	-		15/0
Optical Characterization	5 wavelengths		5/0
Manufacturability (Assembly)	Per mfg. Site specification		Pass
Manufacturability (Wafer Fab)	Per FAB site specification		Pass
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	UAF42AP	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	5kASi02/8kASiON	-	-
Assembly Site:	CRS	Package/ Code/ Pin:	DIP / PDIP / 14
Mount Compound:	ABLESTICK 8290	Mold Compound:	HYSOL 9AS
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	N/A	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
Steady-state Life Test	125C, 1000Hrs		116/0
ESD HBM (3 units / level)	500V, 1000V		6/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	INA103KU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	634	Metallization	AlCu.5
Passivation:	PI-2562	-	-
Assembly Site:	TAI	Package/ Code/ Pin:	SOIC / DW / 16
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.15 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	Notes
Steady-state Life Test	125C, 1000Hrs	117/29	(1)
ESD HBM (3 units / level)	400V	6/0	
ESD MM	50V	3/0	
Electrical Char.	Over Temp	30/0	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	
Notes: (1) Shift in PSRR at 24v forcing condition after HTOL testing observed in both qualification and TFAB control group- not related to SFAB BE Transfer – Corrective action in progress.			

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPA2132U	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	PI-2562	-	-
Assembly Site:	MLA	Package/ Code/ Pin:	SOIC / D / 8
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	Notes
Electrical Char.	Over temp	30/0	
Bond Strength	76 ball bonds, min. 3 units	76/0	
**T/C	-65C/+150C, 1000 Cyc	87/24	(1)
Manufacturability (Assembly)	per mfg. Site specification	Pass	
**Biased HAST	130C/85%RH, 96 Hrs	85/3	(2)
**Autoclave	121C, 15 PSI, 96 Hrs	87/1	(2)
**High Temp. Storage Bake	125C, 1000 Hrs	87/0	
Ball Bond Shear	5 units, >76 balls, 0 fails	76/0	
Manufacturability (Wafer Fab)	Per FAB site	Pass	
FTY and Bin Summary	-	Pass	
AC/DC Bench Test Char.	Device specific AC &/or DC Char	10/0	
**Steady-state Life Test	125C, 1000 Hrs	121/3	(2)
MPY and Bin Summary	-	Pass	
Notes: ** Samples used to populate these tests must be preconditioned per the appropriate sequence. (1) Originally released at 500 Cycles (2) VOS downgrade shift observed in both qualification and TFAB control group - not related to SFAB BE Transfer – Corrective action in progress.			

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPA2227U	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	PI-2562		-
Assembly Site:	MLA	Package/ Code/ Pin:	SOIC / D / 8
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	2000V		3/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPA4130UA	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	PI-2562		-
Assembly Site:	MLA	Package/ Code/ Pin:	SOIC / D / 14
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	1500V		3/0
ESD MM	100V		3/0
Electrical Char.	Over Temp		10/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0

信頼性試験結果 (Bipolar Process 製品) 信頼性試験 – 試料構成詳細			
Qual Device	OPA4132UA	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	PI-2562		-
Assembly Site:	MLA	Package/ Code/ Pin:	SOIC / D / 14
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	2000V		3/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0

信頼性試験結果 (Bipolar Process 製品)			
信頼性試験 - 試料構成詳細			
Qual Device	OPA2237EA	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	635	Metallization	AlCu.5
Passivation:	NONE	-	-
Assembly Site:	CAR	Package/ Code/ Pin:	SOIC / DGK / 8
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
Electrical Char.	Over Temp		10/0
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Process 製品)			
信頼性試験 - 試料構成詳細			
Qual Device	OPA27GU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630	Metallization	AlCu.5
Passivation:	PI-2562	-	-
Assembly Site:	CAR	Package/ Code/ Pin:	SOIC / D / 8
Mount Compound:	ABLESTICK 8290	Mold Compound:	G700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
Electrical Char.	Over Temp		10/0
AC/DC Bench Test Char.	Device specific AC &/or DC Char		5/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar_Wzener(40v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device	REF102BU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630G	Metallization	AlCu.5
Passivation:	5kALTO	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	HITACHI EN4088Z	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L2/260C		
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
** Steady-state Life Test	125C, 1000Hrs		119/0
** High Temp Storage	150C, 1000 Hrs		80/0
ESD HBM (3 units / level)	500V		3/0
ESD MM	100V,200V,500V		9/0
Electrical Char.	Over Temp		15/0
Latch-Up (LU)	per JESD78		12/0
Long Term Stability	1000 Hrs REF102G (6in. qual lot & 4 inch I reference lot for comparison)		56/0
Manufacturability (Wafer Fab)	Per FAB site specification		Pass
** Samples used to populate these tests have been preconditioned per JEDEC MSL2/260C sequence.			

信頼性試験結果 (Bipolar_Wzener(40v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device	REF02U	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630G	Metallization	AlCu.5
Passivation:	5kASiO2/8kASiON	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L2/260C		
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
Electrical Char.	Over Temp		15/0

信頼性試験結果 (Bipolar_Wzener(40v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device	RCV420KP	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	63x	Metallization	AlCu.5
Passivation:	5kALTO	-	-
Assembly Site:	CRS	Package/ Pin:	PDIP / 16
Mount Compound:	ABLESTIK 8290	Mold Compound:	G600C
Bond Wire:	1.3 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	N/A	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0

信頼性試験結果 (Bipolar_Wzener(40v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device	REF02BU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630	Metallization	AlCu.5
Passivation:	5kALTO	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	ABLESTIK 8290	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
Moisture Sensitivity Level	JEDEC L3/260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V		12/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0

信賴性試驗結果 (Bipolar_Wzener(40v)製品)			
信賴性試驗 - 試料構成詳細			
Qual Device	REF102BU	Wafer Fab Site:	HFAB/SFAB
Wafer Process:	630G	Metallization	AlCu.5
Passivation:	5kALTO	-	-
Assembly Site:	MLA	Package/ Pin:	SOIC / 8
Mount Compound:	HITACHI EN4088Z	Mold Compound:	EMEG700FG
Bond Wire:	1.2 Mil Dia. Au	L/F Composition/ Finish	Cu / NiPdAu
信賴性試驗結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
** Steady-state Life Test	125C, 1000Hrs		126/0
** Biased HAST	130C/85%RH, 96 Hrs		87/0
** Autoclave	121C, 96 Hrs		87/0
** Temp Cycle	-65/150C, 1000 Cyc		87/0
** High Temp Storage	150C, 1000 Hrs		87/0
ESD HBM (3 units / level)	500V, 1000V		6/0
ESD MM	50V		3/0
Moisture Sensitivity Level	JEDEC Level 3/ 260C +5/-0C		22/0
Electrical Char.	Over Temp (Side by Side for Cisco)		30/0
Bond Strength	76 ball bonds, min. 3 units		76/0
Ball Bond Shear	5 units, >76 balls, 0 fails		76/0
Die Shear	-		12/0
Manufacturability (Assembly)	Per mfg. Site specification		Pass
Manufacturability (Wafer Fab)	Per FAB site specification		Pass
** Samples used to populate these tests have been preconditioned per JEDEC MSL3/260C sequence.			

信頼性試験結果 (Bipolar Wzener(20v)製品)				
信頼性試験 - 試料構成詳細				
Qual Device:	DAC712UL	Wafer Process1:	653G	
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO	
Metallization:	AlCu0.5%	-	-	
Assembly Site:	TAI	Package Type/Code/Pins :	SOIC/DW/28	
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FGT	
Bond Wire:	1.3 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu	
MSL:	JEDEC,LEVEL3-260C	-	-	
信頼性試験結果				
Reliability Test	Condition / Duration	Sample Size/ Fails		
		Lot#1	Lot#2	Lot#3
**Steady-state Life Test	125C, 1000 Hrs	119/0	119/0	-
**Biased HAST	130C/85%RH, 96 Hrs	77/0	77/0	-
**Autoclave	121C, 96 Hrs.	77/0	77/0	-
High Temp Storage Bake	150C, 1000 Hrs.	77/0	77/0	-
Electrical Char	-40C to 85C	15/0	15/0	-
Bond Strength	76 ball bonds, min. 3 units	76/0	-	-
Die Shear	-	5/0	-	-
Manufacturability (Assembly)	per assembly site spec	Pass	-	-
Note: ** Test requires Moisture Preconditioning, JEDEC L-3/260C				

信頼性試験結果 (Bipolar Wzener(20v)製品)			
信頼性試験 – 試料構成詳細			
Qual Device:	DAC707KP	-	-
Die 1 Process:	643	Die 2 Process:	AMI-External
Die 1 Wafer Fab Site:	HFAB/SFAB	Die 2 Wafer Fab Site:	AMI
Die 1 Protective Coating:	5kALTO	Die 2 Protective Coating:	AMI-External
Die 1 Metallization:	AlCu.5%	Die 2 Metallization:	AMI-External
Assembly Site:	AP2	Package Type/Code/Pins:	PDIP/NTD/28
Mount Compound:	84-1 LMISR4	Mold Compound:	EME 6300H3L
Bond Wire:	1.0 Mil Dia. Au	Leadframe Finish, Base:	SnPb, Cu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V		6/0
ESD MM (3 units / level)	50V, 100V, 150V, 200V		12/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC712UB	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5	-	-
Assembly Site:	TAI	Package Type/Code/Pins :	SOIC/DW/28
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FG
Bond Wire:	1.31 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
MSL:	JEDEC LEVEL3-260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	
**Steady-state Life Test	125C,1000hrs	125/0	
**Biased HAST	130C/85%RH,96hrs	77/0	
**Autoclave	121C,96hrs	77/0	
**T/C	-65C/150C,1000cyc	77/0	
**High Temp. Storage Bake	150C ,1000 Hrs	77/0	
ESD HBM (3 units / level)	500V, 1000V, 1500V, 2000V	12/0	
ESD MM	50V, 100V, 150V	9/0	
Moisture Sensitivity Level	JEDEC L3/260C, 192 hrs,30C/60%RH	22/0	
Electrical Char.	Over Temp	30/0	
Bond Strength	76 ball bonds, min. 3 units	76/0	
Die Shear	-	10/0	
Ball Bond Shear	5 units, >76 balls, 0 fails	76/0	
Manufacturability (Assembly)	per mfg. Site specification	Pass	
Manufacturability (Wafer Fab)	Per FAB site spec	Pass	
In Line Sameness Test	-	Pass	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	
Note: ** Preconditioned per the appropriate sequence, JEDEC L-3/260C			

信頼性試験結果 (Bipolar Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC714U	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5%		-
Assembly Site:	TAI	Package Type/Code/Pins:	SOIC/DW/16
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FG
Bond Wire:	1.15 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
MSL:	JEDEC LEVEL3-260C		-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	

信頼性試験結果 (Bipolar Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC715UL	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5%		-
Assembly Site:	TAI	Package Type/Code/Pins:	SOIC/DW/28
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FGT
Bond Wire:	1.31 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
MSL:	JEDEC LEVEL3-260C		-
信頼性試験結果			
Reliability Test	Condition / Duration	Sample Size/ Fails	
MPY and Bin Summary	-	Pass	
FTY and Bin Summary	-	Pass	

信頼性試験結果 (Bipolar_Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC716UB	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5%	-	-
Assembly Site:	TAI	Package Type/Code/Pins:	SOIC/DW16
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FGT
Bond Wire:	1.15 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
MSL:	JEDEC LEVEL3-260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	1000V, 1500V, 2000V, 3000V		12/0
ESD MM	100V, 150V, 200V		9/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar_Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC725KP	-	-
Die 1/2 Wafer Process:	AMI-External	Die 3/4 Wafer Process:	643
Die 1/2 Wafer Fab Site:	AMI	Die 3/4 Wafer Fab Site:	HFAB/SFAB
Die 1/2 Protective Coating:	AMI-External	Die 3/4 Protective Coating:	5kALTO
Die 1/2 Metallization:	AMI-External	Die 3/4 Metallization:	AlCu.5%
Assembly Site:	AP2	Package Type/Code/Pins:	PDIP/NTD/28
Mount Compound:	84-1 LMIS R4	Mold Compound:	EME 6300H3L
Bond Wire:	1.0 Mil Dia. Au	Leadframe Finish, Base:	SnPb, Cu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V, 1000V		6/0
ESD MM	50V		3/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar_Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	DAC813KU	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5%	-	-
Assembly Site:	TAI	Package Type/Code/Pins:	SOIC/DW28
Mount Compound:	ABLESTIK 8290	Mold Compound:	Sumitomo G700FG
Bond Wire:	1.30 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
MSL:	JEDEC LEVEL3-260C	-	-
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	1000V, 1500V, 2000V		9/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass

信頼性試験結果 (Bipolar_Wzener(20v)製品)			
信頼性試験 - 試料構成詳細			
Qual Device:	VFC110AP	Wafer Process:	643
Wafer Fab Site:	HFAB/SFAB	Die Protective Coating:	5kALTO
Metallization:	AlCu.5%	-	-
Assembly Site:	CRS	Package Type/Code/Pins:	PDIP/N/14
Mount Compound:	ABLEBOND 8290	Mold Compound:	EME G600C
Bond Wire:	1.30 Mil Dia. Au	Leadframe Finish, Base:	NiPdAu, Cu
信頼性試験結果			
Reliability Test	Condition / Duration		Sample Size/ Fails
ESD HBM (3 units / level)	500V		3/0
ESD MM	50V		3/0
Electrical Char.	Over Temp		30/0
MPY and Bin Summary	-		Pass
FTY and Bin Summary	-		Pass