



<b>Title of Change:</b>	Update to PB23502Z - Add Appendix section to provide supporting documentation for this change and updated the full list of products affected by this change.	
<b>Effective date:</b>	05 Nov 2020	
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <a href="mailto:Sonya.Yip@onsemi.com">Sonya.Yip@onsemi.com</a>	
<b>Type of notification:</b>	This Product Bulletin is for notification purposes only. ON Semiconductor will proceed with implementation of this change upon publication of this Product Bulletin.	
<b>Change Category:</b>	Assembly Change	
<b>Change Sub-Category(s):</b>	Alternative supplier for package substrates	
<b>Sites Affected:</b>		
<b>ON Semiconductor Sites</b>	<b>External Foundry/Subcon Sites</b>	
None	Kingpak, Taiwan	

**Description and Purpose:**

PB23502Z is being reissued as the full list of OPNs have been updated to reflect products affected. Another section "Appendix" was added to provide supporting documentation for this change.

ON Semiconductor Intelligent Sensing Group is adding a package substrate source for our iBGA offering from KingPak.

This substrate is identical in design, materials and construction to the existing substrate and will be sourced from UMTC.

UMTC is an approved supplier of substrates to ON Semiconductor and is a qualified supplier for automotive.

The change does not influence the integrity of the final product.

**Appendix****Package Substrate Supplier Change****Purpose of change:**

ON Semiconductor assembles imager products at our supplier Kingpak in Taiwan. A new BGA substrate supplier Unimicron (UMTC) is being qualified to replace the existing supplier Eastern, at Kingpak. Eastern is exiting this business by 2021.

**Impact of Changes:**

Ensure supply continuity.

No change to Form/Fit/Function/Quality/Reliability/Assembly site and process

**Products Families Involved. See below for a full list of OPNs.**

ON SEMI PART #	DESCRIPTION	PB Number	PB Date
AR0132*	1/3" 1.2 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
ASX340AT*	1/4" 0.3 MEGAPIXEL VGA SENSOR	PB23502Z	8/08/2020
AR0140*	1/4" 1 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
MT9V023*	1/3" WIDE VGA IMAGE SENSOR	PB23502Z	8/08/2020



**Categorization of Changes Using ZVEI**

Change	ZVEI Change option	ZVEI Change Description	Reason for using this change option	Reason for not using other possibly applicable options	Change acceptance criteria per ZVEI for used change option
Substrate Supplier change from Eastern to UMTC	SEM-PA-16	Change of suppliers for direct materials used in assembly process.	Description fits the proposed change. There is no change in substrate design, material composition, Form, Fit or Function. The only change is the supplier for substrate.	Other possible change category is SEM-PA-09. This change includes change in substrate design and/or routing; both of which are NOT changing.	No specific test required for SEM-PA-16 (see attached document)

**Acceptance Criteria for Change**

Changes	ZVEI Change option	ZVEI Change Description	Change acceptance criteria per ZVEI	Additional acceptance criteria applied by ON Semiconductor	Comments
Substrate Supplier change from Eastern to UMTC.	SEM-PA-16	Change of suppliers for direct materials used in assembly process.	No specific test required for SEM-PA-16.	Biased and Unbiased HAST, Temp Cycling, HTSL, HTOL, WBS, WBP, Solder Ball Shear, Lead Free, <u>Solderability</u> , Physical Dimensions, Electrical Distribution.	Tests chosen to ensure comparable reliability to current substrate.

There is no change to the part numbers for the products involved in this change or to ON Semiconductor's specification.

**Families Used in this Qualification:**

ON SEMI PART #	DESCRIPTION	PB Number	PB Date
AR0132*	1/3" 1.2 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
ASX340AT*	1/4" 0.3 MEGAPIXEL VGA SENSOR	PB23502Z	8/08/2020
AR0140*	1/4" 1 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
MT9V023*	1/3" WIDE VGA IMAGE SENSOR	PB23502Z	8/08/2020

**List of Affected Standard Parts:**

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

AR0132AT6C00XPEA0-CL-DRBR	AR0132AT6C00XPEA0-CL-TPBR	AR0132AT6C00XPEA0-VA-DRBR
AR0134CSSC00SUEA0-TRBR	AR0134CSSM00SUEA0-TRBR	AR0134CSSM25SUEA0-TPBR
AR0134CSSM25SUEA0-TRBR	AR0135AT2M00XUEA0-TRBR	AR0135CS2C19SUEA0-DPBR
MT9M021IA3XTMZ-DPBR	MT9M021IA3XTMZ-DRBR	MT9M021IA3XTMZ-TPBR
ASX340AT3C00XPED0-TPBR	ASX340CS2C00SPED0-DPBR1	ASX340CS2C00SPED0-TRBR
ASX342ATSC00XPED0-TP	ASX342ATSC00XPED0-TR	ASX350AT3C00XPEA0-DR1



ASX350CS3C00SPEA0-DP	MT9V127IA3XTC-DR1	AR0134CSSC00SPCA0-TRBR
AR0134CSSM00SPCA0-TPBR	AR0134CSSM00SPCA0-TRBR	MT9J001I12STCV-DP
MT9J003I12STCU-DR	MT9J003I12STCV2-DP	MT9J003I12STCV2-TB-DP
MT9J003I12STCV2-TB-TP	MT9J003I12STCV2-TP	AR0130CSSC00SPCA0-DPBR1
AR0130CSSC00SPCA0-DPBR2	AR0130CSSC00SPCA0-DPBR	AR0130CSSC00SPCA0-DRBR1
AR0130CSSC00SPCA0-DRBR	AR0130CSSM00SPCA0-DPBR1	AR0130CSSM00SPCA0-DPBR
AR0130CSSM00SPCA0-DRBR1	AR0130CSSM00SPCA0-DRBR2	AR0130CSSM00SPCA0-DRBR
MT9J003I12STMU-DP	MT9J003I12STMV-DP	MT9J003I12STMV-TB-DP
AR0132AT6C00XPEA0-CL-TRBR	AR0132AT6M00XPEA0-TPBR	AR0132AT6R00XPEA0-DRBR1
AR0132AT6R00XPEA0-TB-DPBR	AR0134CSSC00SUEA0-DPBR	AR0134CSSC00SUEA0-DRBR
AR0134CSSM00SUEA0-TPBR	AR0135AT2M00XUEA0-VL-TPBR	AR0135AT2M25XUEA0-DRBR1
AR0135AT2M25XUEA0-TRBR	AR0135CS2C19SUEA0-DPBR1	AR0135CS2M00SUEA0-TPBR
AR0135CS2M00SUEA0-TRBR	AR0135CS2M25SUEA0-DRBR	AR0135CS2M25SUEA0-TRBR
MT9M021IA3XTC-DPBR	MT9M021IA3XTM-DRBR	MT9M024IA3XTC-DPBR
ARX550AT2C00XPEA0-DRBR	AR0144ATSM20XUEA0-TPBR	AR0144ATSM20XUEA0-TRBR
IVEC-0144ATSM56XUV0X-94	MT9V111IA7ATC-DR1	MT9V111IA7ATC-TR
ASX340AT2C00XPED0-DRBR1	ASX350AT3C00XPEA0-DP1	ASX350AT3C00XPEA0-DP
MT9V127IA3XTC-DP	MT9V128IA3XTC-DP1	MT9V128IA3XTC-DP
MT9V128IA3XTC-DR1	MT9V128IA3XTC-DR	MT9V128IA3XTC-TP
MT9V128IA3XTC-TR	AR1820HSSC00SHEA0-DP1	AR1820HSSC00SHEA0-DR
AR1820HSSC12SHEA0-DP1	AR1820HSSC12SHEA0-DR	AR0134CSSM00SPCA0-DPBR
AR0134CSSM25SPCA0-TPBR	MT9M031I12STC-DPBR	MT9M031I12STM-DPBR
MT9M031I12STM-DRBR1	MT9M034I12STC-DPBR1	MT9M034I12STC-DRBR1
MT9M034I12STM-DPBR1	AR0331SRSC00SHCA0-DPBR	AR0331SRSC00SHCA0-DRBR1
AR0132AT6C00XPEA0-CL-DPBR	AR0132AT6C00XPEA0-DPBR	AR0132AT6C00XPEA0-DRBR1
AR0132AT6C00XPEA0-DRBR	AR0132AT6C00XPEA0-RB-TPBR	AR0132AT6C00XPEA0-TPBR
AR0132AT6C00XPEA0-TRBR	AR0132AT6C00XPEA0-VA-DPBR	AR0132AT6G00XPEA0-AA-DRBR
AR0132AT6M00XPEA0-DPBR	AR0132AT6M00XPEA0-DRBR1	AR0132AT6M00XPEA0-DRBR
AR0132AT6R00XPEA0-DPBR1	AR0132AT6R00XPEA0-DPBR	AR0132AT6R00XPEA0-DRBR
AR0132AT6R00XPEA0-TPBR	AR0132AT6R00XPEA0-TRBR	AR0134CSSC00SUEA0-DPBR1
AR0134CSSC00SUEA0-TPBR	AR0134CSSM00SUEA0-DPBR1	AR0134CSSM00SUEA0-DPBR
AR0134CSSM00SUEA0-DRBR	AR0134CSSM25SUEA0-DRBR1	AR0134CSSM25SUEA0-DRBR
AR0135AT2M00XUEA0-DPBR1	AR0135AT2M00XUEA0-DPBR	AR0135AT2M00XUEA0-DRBR1
AR0135AT2M00XUEA0-DRBR	AR0135AT2M00XUEA0-TPBR	AR0135AT2M25XUEA0-DPBR1
AR0135AT2M25XUEA0-DPBR	AR0135AT2M25XUEA0-DRBR	AR0135AT2M25XUEA0-TPBR
AR0135CS2C00SUEA0-DPBR1	AR0135CS2C00SUEA0-DPBR	AR0135CS2C00SUEA0-DRBR1
AR0135CS2C00SUEA0-DRBR	AR0135CS2C19SUEA0-DRBR1	AR0135CS2C19SUEA0-DRBR



AR0135CS2M00SUEA0-DPBR1	AR0135CS2M00SUEA0-DPBR2	AR0135CS2M00SUEA0-DPBR
AR0135CS2M00SUEA0-DRBR1	AR0135CS2M00SUEA0-DRBR	AR0135CS2M25SUEA0-DPBR1
AR0135CS2M25SUEA0-DPBR	AR0135CS2M25SUEA0-DRBR1	AR0135CS2M25SUEA0-TPBR
AR0136AT3C00XUEA0-DPBR	AR0136AT3C00XUEA0-DRBR	MT9M021IA3XTC-DPBR1
MT9M021IA3XTC-DRBR	MT9M021IA3XTM-DPBR1	MT9M021IA3XTM-DPBR
MT9M021IA3XTM-DRBR1	MT9M024IA3XTC-DRBR	MT9M024IA3XTM-DPBR
MT9M024IA3XTM-DRBR	ARX550AT2C00XPEA0-TRBR	AR0144ATSM20XUEA0-DPBR
AR0144ATSM20XUEA0-DRBR	AR0144ATSM20XUEA0-SP-TPBR	MT9V111IA7ATC-DR
ASX340AT2C00XPED0-DPBR1	ASX340AT2C00XPED0-DPBR2	ASX340AT2C00XPED0-DPBR
ASX340AT2C00XPED0-DRBR	ASX340AT2C00XPED0-KY-DRBR	ASX340AT2C00XPED0-TPBR
ASX340AT2C00XPED0-TRBR	ASX340AT3C00XPED0-DPBR	ASX340AT3C00XPED0-DRBR
ASX340AT3C00XPED0-KP-DPBR	ASX340CS2C00SPED0-DPBR	ASX340CS2C00SPED0-DRBR1
ASX340CS2C00SPED0-DRBR	ASX340CS2C00SPED0-TPBR	ASX342ATSC00XPED0-DP
ASX342ATSC00XPED0-DR	ASX350AT3C00XPEA0-DR	ASX350AT3C00XPEA0-TP
ASX350CS3C00SPEA0-DR	MT9V126IA3XTC-DP1	MT9V126IA3XTC-DP
MT9V126IA3XTC-DR1	MT9V126IA3XTC-DR	MT9V126IA3XTC-TP
MT9V126IA3XTC-TR	MT9V127IA3XTC-DP1	MT9V127IA3XTC-DR
AR1820HSSC12SHEA0-DP	AR1820HSSC12SHEA0-DR1	AR0134CSSC00SPCA0-DPBR
AR0134CSSC00SPCA0-DRBR	AR0134CSSC00SPCA0-TPBR	AR0134CSSM00SPCA0-DPBR1
AR0134CSSM00SPCA0-DPBR2	AR0134CSSM00SPCA0-DRBR	MT9M031I12STC-DPBR1
MT9M031I12STC-DRBR	MT9M031I12STM-DRBR	MT9M034I12STC-DPBR
MT9M034I12STC-DRBR	MT9M034I12STM-DPBR	MT9M034I12STM-DRBR
AR0331SRSC00SUCA0-DPBR1	AR0331SRSC00SUCA0-DPBR	AR0331SRSC00SUCA0-DRBR1
AR0331SRSC00SUCA0-DRBR	AR0331SRSC00SHCA0-DRBR	MT9J003I12STCU-DP

Japanese translation of the notification starts here.  
通知の日本語訳はここから始まります。

*Note: The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.*

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。



変更件名:	PB23502Z の更新 - 変更のサポート文書を提供するために付録セクションを追加し、変更により影響を受ける製品のリストを更新																						
発効日:	05 Nov 2020																						
連絡先情報:	現地のオン・セミコンダクター営業所または < <a href="mailto:Sonya.Yip@onsemi.com">Sonya.Yip@onsemi.com</a> > にお問い合わせください。																						
通知種別:	本製品速報は通知目的のみのものです。オン・セミコンダクターは本製品速報の発行により本変更を実行します。																						
変更カテゴリ:	組立の変更																						
変更サブカテゴリ:	パッケージ基板の代替サプライヤ																						
影響を受ける拠点:																							
オン・セミコンダクター拠点:			外部製造工場 / 下請業者拠点:																				
なし			Kingpak, Taiwan																				
<p><b>説明および目的:</b></p> <p>影響を受ける製品を網羅するために OPN の完全なリストが更新されたため、PB23502Z は再発行されます。この変更に対するサポート文書を提供するための「付録」セクションが追加されました。</p> <p>オン・セミコンダクター インテリジェント・センシング・グループは KingPak が提供する当社の iBGA 用のパッケージ基板の供給拠点を追加します。</p> <p>この基板は従来の基板と同一の設計、材料、および構成であり、UMTC から供給されることになります。</p> <p>UMTC はオン・セミコンダクターの承認を得た基板サプライヤであり、車載用の認定サプライヤです。</p> <p>この変更は最終製品の完全性に影響を与えません。</p> <p><b>付録</b></p> <p><b>パッケージ基板サプライヤ変更</b></p> <p><b>変更目的:</b></p> <p>オン・セミコンダクターは撮像装置製品を当社のサプライヤである台湾の Kingpak で組み立てています。新しい BGA 基板サプライヤである Unimicron (UMTC) が、既存のサプライヤである Kingpak の Eastern の代替として認定されます。Eastern はこのビジネスを 2021 年までに終了します。</p> <p><b>変更の影響:</b></p> <p>安定した供給を確保します。</p> <p>形状、適合、機能、品質、信頼性、組立拠点、プロセスには変更ありません。</p> <p><b>影響を受ける製品ファミリー。OPN の完全なリストについては、以下を参照してください。</b></p> <table border="1"> <thead> <tr> <th>ON SEMI PART #</th> <th>DESCRIPTION</th> <th>PB Number</th> <th>PB Date</th> </tr> </thead> <tbody> <tr> <td>ARO132*</td> <td>1/3" 1.2 MEGAPIXEL IMAGE SENSOR</td> <td>PB23502Z</td> <td>8/08/2020</td> </tr> <tr> <td>ASX340AT*</td> <td>1/4" 0.3 MEGAPIXEL VGA SENSOR</td> <td>PB23502Z</td> <td>8/08/2020</td> </tr> <tr> <td>ARO140*</td> <td>¼" 1 MEGAPIXEL IMAGE SENSOR</td> <td>PB23502Z</td> <td>8/08/2020</td> </tr> <tr> <td>MT9V023*</td> <td>1/3" WIDE VGA IMAGE SENSOR</td> <td>PB23502Z</td> <td>8/08/2020</td> </tr> </tbody> </table>				ON SEMI PART #	DESCRIPTION	PB Number	PB Date	ARO132*	1/3" 1.2 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020	ASX340AT*	1/4" 0.3 MEGAPIXEL VGA SENSOR	PB23502Z	8/08/2020	ARO140*	¼" 1 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020	MT9V023*	1/3" WIDE VGA IMAGE SENSOR	PB23502Z	8/08/2020
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## ZVEI による変更分類

Change	ZVEI Change option	ZVEI Change Description	Reason for using this change option	Reason for not using other possibly applicable options	Change acceptance criteria per ZVEI for used change option
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## 変更の受け入れ基準

Changes	ZVEI Change option	ZVEI Change Description	Change acceptance criteria per ZVEI	Additional acceptance criteria applied by ON Semiconductor	Comments
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この変更の影響を受ける製品の部品番号やセミ・コンダクターの仕様に変更はありません。

## この認定で使用されるファミリー

ON SEMI PART #	DESCRIPTION	PB Number	PB Date
AR0132*	1/3" 1.2 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
ASX340AT*	1/4" 0.3 MEGAPIXEL VGA SENSOR	PB23502Z	8/08/2020
AR0140*	¼" 1 MEGAPIXEL IMAGE SENSOR	PB23502Z	8/08/2020
MT9V023*	1/3" WIDE VGA IMAGE SENSOR	PB23502Z	8/08/2020

## 影響を受ける部品の一覧:

注: 標準の部品番号(既製品)のみが部品一覧に記載されます。本 PCN に影響を受けるカスタム 部品は、PCN メールのお客様の特定の PCN の付属文書、または PCN カスタマイズポータルに記載されています。

AR0132AT6C00XPEA0-CL-DRBR	AR0132AT6C00XPEA0-CL-TPBR	AR0132AT6C00XPEA0-VA-DRBR
AR0134C5SSC00SUEA0-TRBR	AR0134C5SSM00SUEA0-TRBR	AR0134C5SSM25SUEA0-TPBR
AR0134C5SSM25SUEA0-TRBR	AR0135AT2M00XUEA0-TRBR	AR0135C5C2C19SUEA0-DPBR
MT9M021IA3XTMZ-DPBR	MT9M021IA3XTMZ-DRBR	MT9M021IA3XTMZ-TPBR



ASX340AT3C00XPED0-TPBR	ASX340CS2C00SPED0-DPBR1	ASX340CS2C00SPED0-TRBR
ASX342ATSC00XPED0-TP	ASX342ATSC00XPED0-TR	ASX350AT3C00XPEA0-DR1
ASX350CS3C00SPEA0-DP	MT9V127IA3XTC-DR1	AR0134CSSC00SPCA0-TRBR
AR0134CSSM00SPCA0-TPBR	AR0134CSSM00SPCA0-TRBR	MT9J001I12STCV-DP
MT9J003I12STCU-DR	MT9J003I12STCV2-DP	MT9J003I12STCV2-TB-DP
MT9J003I12STCV2-TB-TP	MT9J003I12STCV2-TP	AR0130CSSC00SPCA0-DPBR1
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AR0130CSSC00SPCA0-DRBR	AR0130CSSM00SPCA0-DPBR1	AR0130CSSM00SPCA0-DPBR
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MT9J003I12STMU-DP	MT9J003I12STMV-DP	MT9J003I12STMV-TB-DP
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AR0132AT6C00XPEA0-DRBR1	AR0132AT6C00XPEA0-DRBR	AR0132AT6C00XPEA0-RB-TPBR
AR0132AT6C00XPEA0-TPBR	AR0132AT6C00XPEA0-TRBR	AR0132AT6C00XPEA0-VA-DPBR
AR0132AT6G00XPEA0-AA-DRBR	AR0132AT6M00XPEA0-DPBR	AR0132AT6M00XPEA0-DRBR1
AR0132AT6M00XPEA0-DRBR	AR0132AT6M00XPEA0-TPBR	AR0132AT6R00XPEA0-DPBR1
AR0132AT6R00XPEA0-DPBR	AR0132AT6R00XPEA0-DRBR1	AR0132AT6R00XPEA0-DRBR
AR0132AT6R00XPEA0-TB-DPBR	AR0132AT6R00XPEA0-TPBR	AR0132AT6R00XPEA0-TRBR
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AR0134CSSC00SUEA0-TPBR	AR0134CSSM00SUEA0-DPBR1	AR0134CSSM00SUEA0-DPBR
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AR0135AT2M00XUEA0-DRBR1	AR0135AT2M00XUEA0-DRBR	AR0135AT2M00XUEA0-TPBR
AR0135AT2M00XUEA0-VL-TPBR	AR0135AT2M25XUEA0-DPBR1	AR0135AT2M25XUEA0-DPBR
AR0135AT2M25XUEA0-DRBR1	AR0135AT2M25XUEA0-DRBR	AR0135AT2M25XUEA0-TPBR
AR0135AT2M25XUEA0-TRBR	AR0135CS2C00SUEA0-DPBR1	AR0135CS2C00SUEA0-DPBR
AR0135CS2C00SUEA0-DRBR1	AR0135CS2C00SUEA0-DRBR	AR0135CS2C19SUEA0-DPBR1
AR0135CS2C19SUEA0-DRBR1	AR0135CS2C19SUEA0-DRBR	AR0135CS2M00SUEA0-DPBR1
AR0135CS2M00SUEA0-DPBR2	AR0135CS2M00SUEA0-DPBR	AR0135CS2M00SUEA0-DRBR1
AR0135CS2M00SUEA0-DRBR	AR0135CS2M00SUEA0-TPBR	AR0135CS2M00SUEA0-TRBR
AR0135CS2M25SUEA0-DPBR1	AR0135CS2M25SUEA0-DPBR	AR0135CS2M25SUEA0-DRBR1
AR0135CS2M25SUEA0-DRBR	AR0135CS2M25SUEA0-TPBR	AR0135CS2M25SUEA0-TRBR
AR0136AT3C00XUEA0-DPBR	AR0136AT3C00XUEA0-DRBR	MT9M021IA3XTC-DPBR1
MT9M021IA3XTC-DPBR	MT9M021IA3XTC-DRBR	MT9M021IA3XTM-DPBR1
MT9M021IA3XTM-DPBR	MT9M021IA3XTM-DRBR1	MT9M021IA3XTM-DRBR
MT9M024IA3XTC-DPBR	MT9M024IA3XTC-DRBR	MT9M024IA3XTM-DPBR





MT9M024IA3XTM-DRBR	ARX550AT2C00XPEAO-DRBR	ARX550AT2C00XPEAO-TRBR
AR0144ATSM20XUEAO-DPBR	AR0144ATSM20XUEAO-DRBR	AR0144ATSM20XUEAO-SP-TPBR
AR0144ATSM20XUEAO-TPBR	AR0144ATSM20XUEAO-TRBR	IVEC-0144ATSM56XUV0X-94
MT9V111IA7ATC-DR1	MT9V111IA7ATC-DR	MT9V111IA7ATC-TR
ASX340AT2C00XPED0-DPBR1	ASX340AT2C00XPED0-DPBR2	ASX340AT2C00XPED0-DPBR
ASX340AT2C00XPED0-DRBR1	ASX340AT2C00XPED0-DRBR	ASX340AT2C00XPED0-KY-DRBR
ASX340AT2C00XPED0-TPBR	ASX340AT2C00XPED0-TRBR	ASX340AT3C00XPED0-DPBR
ASX340AT3C00XPED0-DRBR	ASX340AT3C00XPED0-KP-DPBR	ASX340CS2C00SPED0-DPBR
ASX340CS2C00SPED0-DRBR1	ASX340CS2C00SPED0-DRBR	ASX340CS2C00SPED0-TPBR
ASX342ATSC00XPED0-DP	ASX342ATSC00XPED0-DR	ASX350AT3C00XPEAO-DP1
ASX350AT3C00XPEAO-DP	ASX350AT3C00XPEAO-DR	ASX350AT3C00XPEAO-TP
ASX350CS3C00SPEAO-DR	MT9V126IA3XTC-DP1	MT9V126IA3XTC-DP
MT9V126IA3XTC-DR1	MT9V126IA3XTC-DR	MT9V126IA3XTC-TP
MT9V126IA3XTC-TR	MT9V127IA3XTC-DP1	MT9V127IA3XTC-DP
MT9V127IA3XTC-DR	MT9V128IA3XTC-DP1	MT9V128IA3XTC-DP
MT9V128IA3XTC-DR1	MT9V128IA3XTC-DR	MT9V128IA3XTC-TP
MT9V128IA3XTC-TR	AR1820HSSC00SHEAO-DP1	AR1820HSSC00SHEAO-DR
AR1820HSSC12SHEAO-DP1	AR1820HSSC12SHEAO-DP	AR1820HSSC12SHEAO-DR1
AR1820HSSC12SHEAO-DR	AR0134CSSC00SPCAO-DPBR	AR0134CSSC00SPCAO-DRBR
AR0134CSSC00SPCAO-TPBR	AR0134CSSM00SPCAO-DPBR1	AR0134CSSM00SPCAO-DPBR2
AR0134CSSM00SPCAO-DPBR	AR0134CSSM00SPCAO-DRBR	AR0134CSSM25SPCAO-TPBR
MT9M031I12STC-DPBR1	MT9M031I12STC-DPBR	MT9M031I12STC-DRBR
MT9M031I12STM-DPBR	MT9M031I12STM-DRBR1	MT9M031I12STM-DRBR
MT9M034I12STC-DPBR1	MT9M034I12STC-DPBR	MT9M034I12STC-DRBR1
MT9M034I12STC-DRBR	MT9M034I12STM-DPBR1	MT9M034I12STM-DPBR
MT9M034I12STM-DRBR	AR0331SRSC00SUCAO-DPBR1	AR0331SRSC00SUCAO-DPBR
AR0331SRSC00SUCAO-DRBR1	AR0331SRSC00SUCAO-DRBR	AR0331SRSC00SHCAO-DPBR
AR0331SRSC00SHCAO-DRBR1	AR0331SRSC00SHCAO-DRBR	MT9J003I12STCU-DP