

Notice No.: (SP) 11-079E  
22nd February, 2012

SEIKO EPSON CORPORATION  
MICRODEVICE Operation Div. TDBU  
EPSON TOYOCOM CORPORATION

## Specific RA Site Transfer Notice & Terminal Plating Change

Dear Valued Customer:

Thank you for choosing EPSON TOYOCOM CORPORATION for your product. EPSON TOYOCOM maintains a continuous effort to improve the production and delivery performance of its product.

We will transfer the production site of the following RA Models and this will change the terminal plating from SnAg to Sn (Pure SN).

The details are described as follows:

**Products Affected:** RA-4565SA (Product number: Q41A465510001~ Q41A465510003)  
RA-4574SA (Product number: Q41A474510001, Q41A474510002)  
RA-8565SA (Product number: Q41A865510001, Q41A865510002)  
RA-8581SA (Product number: Q41A881510001)

### Change item:

#### Current

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	yes	no	N/A	N/A
Assembly	N/A	N/A	yes	no
Terminal plating	N/A	N/A	SnAg	N/A

#### New

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	no	yes	N/A	N/A
Assembly	N/A	N/A	no	yes
Terminal plating	N/A	N/A	N/A	Sn100

ETMY: EPSON TOYOCOM MALAYSIA SDN. BHD.  
Lot 1, Jalan Persiaran Industri, Taman Perindustrian Sri Damansara,  
Sungai Buloh, 52200 Kuala Lumpur, Malaysia

AOI : AOI ELECTRONICS CO., LTD.  
455-1, Kohzai Minamimachi, Takamatsu, Kagawa, 761-8014 Japan  
[http://www.aoi-electronics.co.jp/aoi\\_e\\_com\\_company.html](http://www.aoi-electronics.co.jp/aoi_e_com_company.html)

KATOH: KATOH co, Ltd.  
6392 Kamiyoshida, Fujiyoshida-shi, Yamanashi, 403-0005 Japan  
<http://www.kdg.co.jp/katoh/index.html>

The each product have different material changes. Please refer the detail on the separate sheets.

3. Schedule

Sample: May 2012

Reliability data: May 2012

Shipping: MP will start in December 2012; shipping will start from January 2013  
We will ship after your approval. Please approve by the end of November 2012.

4. Other:

If you have any concerns and/or requests, please contact your regional EPSON TOYOCOM CORP. Timing Device sales office.

Sincerely yours,

Epson Toyocom Corporation  
Business Planning Department

## Detail explanation of changes: RA-4565SA

### Current

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	yes	no	N/A	N/A
Assembly	N/A	N/A	yes	no
Terminal plating	N/A	N/A	SnAg	N/A

### New

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	no	yes	N/A	N/A
Assembly	N/A	N/A	no	yes
Terminal plating	N/A	N/A	N/A	Sn100

## Assembling site/material changes details.

	Current		New		Change y/n	
	AOI Electronics		KATOH			
	Material/Type	Vender	Material/Type	Vender		
IC	-		-		no	-
Internal X'tal	C-002Type	Ina ※ 1	C-002Type	ETMY ※ 2	yes	Site change
Lead frame	42Alloy	SMM ※ 4	42Alloy	NSK ※ 5	yes	Vender EOL ※ 3
Bonding wire	Au(Pd included)		Au(Pd included)		no	-
DA adhesive	Sb free, Ag paste (epoxy resin)	SMB ※ 6	Sb free, Ag paste (epoxy resin)	SMM ※ 4	yes	Vender change
Mold plastic	EME-G600	SMB ※ 6	EME-G600	SMB ※ 6	no	-
Terminal plating	SnAg		Sn100%		yes	Material change

※ Product number will be changed

※ Tiebar location (cutoff remains) position change (Ref. page 2)

※ 1 SEIKO EPSON CORPORATION Ina Plant

※ 2 ETMY:EPSON TOYOCOM MALAYSIA SDN., BHD.

※ 3 [http://www.smm.co.jp/E/uploaded\\_files/120130e.pdf](http://www.smm.co.jp/E/uploaded_files/120130e.pdf)

※ 4 SMM: SUMUITOMO METAL MINING CO., LTD.

※ 5 NSK: NICHIDEN SEIMITSU KOGYO Co., Ltd

※ 6 SMB: SUMUITOMO BAKELITE CO., LTD.

## Detail explanation of changes: RA-4574SA

### Current

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	yes	no	N/A	N/A
Assembly	N/A	N/A	yes	no
Terminal plating	N/A	N/A	SnAg	N/A

### New

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	no	yes	N/A	N/A
Assembly	N/A	N/A	no	yes
Terminal plating	N/A	N/A	N/A	Sn100

## Assembling site/material changes details.

	Current		New		Change y/n	
	AOI Electronics		KATOH			
	Material/Type	Vender	Material/Type	Vender		
IC	-		-		no	-
Internal X'tal	C-002Type	Ina ※ 1	C-002Type	ETMY ※ 2	yes	Site change
Lead frame	42Alloy	SMM ※ 4	42Alloy	NSK ※ 5	yes	Vender EOL ※ 3
Bonding wire	Au(4N)	SMM ※ 4	Au(4N)	NMC ※ 7	yes	Vender EOL ※ 3
DA adhesive	Sb free, Ag paste (epoxy resin)	SMB ※ 6	Sb free, Ag paste (epoxy resin)	SMM ※ 4	yes	Vender change
Mold plastic	EME-G600	SMB ※ 6	EME-G600	SMB ※ 6	no	-
Terminal plating	SnAg		Sn100%		yes	Material change

※ Product number will be changed

※ Tiebar location (cutoff remains) position change (Ref. page 2)

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※ 6 SMB: SUMUITOMO BAKELITE CO., LTD.

※ 7 NMC: NIPPON MICROMETAL CORPORATION

## Detail explanation of changes: RA-8565SA

### Current

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	yes	no	N/A	N/A
Assembly	N/A	N/A	yes	no
Terminal plating	N/A	N/A	SnAg	N/A

### New

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	no	yes	N/A	N/A
Assembly	N/A	N/A	no	yes
Terminal plating	N/A	N/A	N/A	Sn100

## Assembling site/material changes details.

	Current		New		Change y/n	
	AOI Electronics		KATOH			
	Material/Type	Vender	Material/Type	Vender		
IC	-		-		no	-
Internal X'tal	C-002Type	Ina ※ 1	C-002Type	ETMY ※ 2	yes	Site change
Lead frame	42Alloy	SMM ※ 4	42Alloy	NSK ※ 5	yes	Vender EOL ※ 3
Bonding wire	Au(Pd included)		Au(Pd included)		no	-
DA adhesive	Sb free, Ag paste (epoxy resin)	SMB ※ 6	Sb free, Ag paste (epoxy resin)	SMM ※ 4	yes	Vender change
Mold plastic	EME-7030	SMB ※ 6	EME-G600	SMB ※ 6	yes	Halide free
Terminal plating	SnAg		Sn100%		yes	Material change

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## Detail explanation of changes: RA-8581SA

### Current

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	yes	no	N/A	N/A
Assembly	N/A	N/A	yes	no
Terminal plating	N/A	N/A	SnAg	N/A

### New

	Ina Plant	ETMY	AOI	KATOH
Cylinder crystal	no	yes	N/A	N/A
Assembly	N/A	N/A	no	yes
Terminal plating	N/A	N/A	N/A	Sn100

## Assembling site/material changes details.

	Current		New		Change y/n	
	AOI Electronics		KATOH			
	Material/Type	Vender	Material/Type	Vender		
IC	-		-		no	-
Internal X'tal	C-002Type	Ina ※ 1	C-002Type	ETMY ※ 2	yes	Site change
Lead frame	42Alloy	SMM ※ 4	42Alloy	NSK ※ 5	yes	Vender EOL ※ 3
Bonding wire	Au(4N)	SMM ※ 4	Au(4N)	NMC ※ 7	yes	Vender EOL ※ 3
DA adhesive	Sb free, Ag paste (epoxy resin)	SMB ※ 6	Sb free, Ag paste (epoxy resin)	SMM ※ 4	yes	Vender change
Mold plastic	EME-G600	SMB ※ 6	EME-G600	SMB ※ 6	no	-
Terminal plating	SnAg		Sn100%		yes	Material change

※ Product number will be changed

※ Tiebar location (cutoff remains) position change (Ref. page 2)

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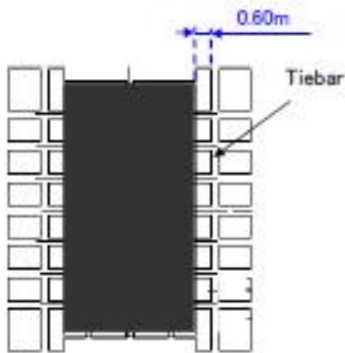
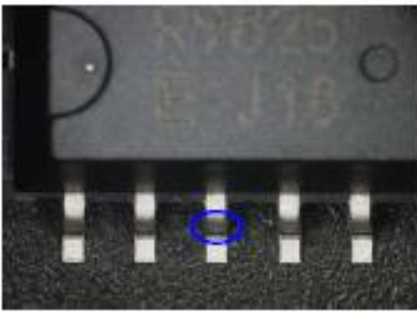
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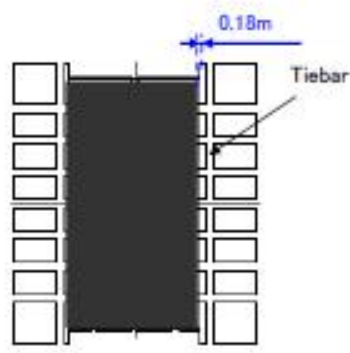
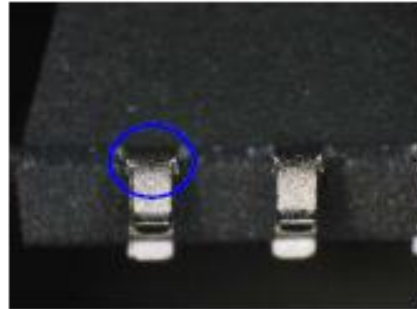
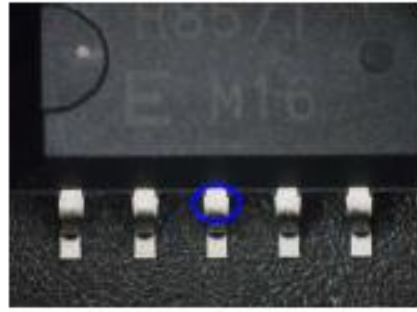
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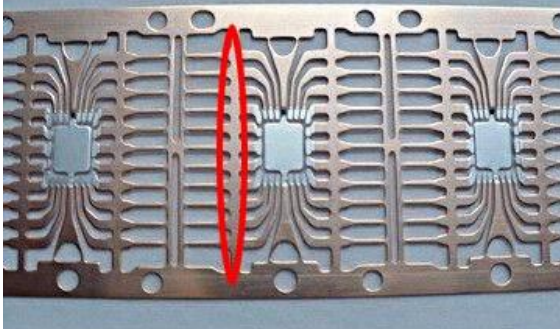
AOI



KATOH



Tiebar: The crossbar that prevents the outer lead terminal will be twisted. Will be cutoff for the last time.



Please refer the left photo about the Tiebar. This photo is not an actual lead-frame of our product. There is no footprint change due to this change.