



AKM Semiconductor, Inc.

Product Change Notice

Document ID : AKMSPK170921C
Product affected : See page 2 (TSSOP-16 Package)
Date of notification : 9/21/2017 (Revised on 12/28/2017)
Type of change : Assembly site
Reason for change : Closure of current assembly line

Description of change:

Asahi Kasei Microdevices Corp. (AKM) will transfer assembly process for the products which are currently assembled by one of our package vendors, Kato Electric Yamanashi plant due to its assembly line closure. Detailed information on schedule and new assembly site are attached to this notice. There is no change with customer ordering part number.

Affected Product and Schedule of New Part

See page 2

Comparison of current and new part

See page 3 to 9

AKM will consider this notice fully noticed and approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice.

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Affected Product and Schedule of New Part (Revised on 12/28/2017)

Group	Part Number	Package	Current Assembly Site	New Assembly Site	Last Time Buy	Sample Availability of New Part	Full Qualification of New Part	Customer Approval of New Part	Mass Production Start of New	Closure of Current Assembly
A	AK2301	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK2510AVT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
B	AK4382AVT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
B	AK4384VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
B	AK4386ET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4386VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
C	AK4387ET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4388ET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4388VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4389VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4552VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4554VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK4555VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK5357VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
C	AK5358AET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK5359ET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK5381ET	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK5381VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK5386VT	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19
A	AK8142P	TSSOP-16	KATOH Electric Co., Ltd. Yamanashi factory	KATOH Electric Co., Ltd. Rifu factory	N/A *LTB not necessary if new part approved by 9/30/2018	3/31/2018	6/30/2018	by 9/30/2018	October-18	March-19

Comparison Chart (TSSOP-16)

Changes are highlighted in yellow.

1 Affected Part

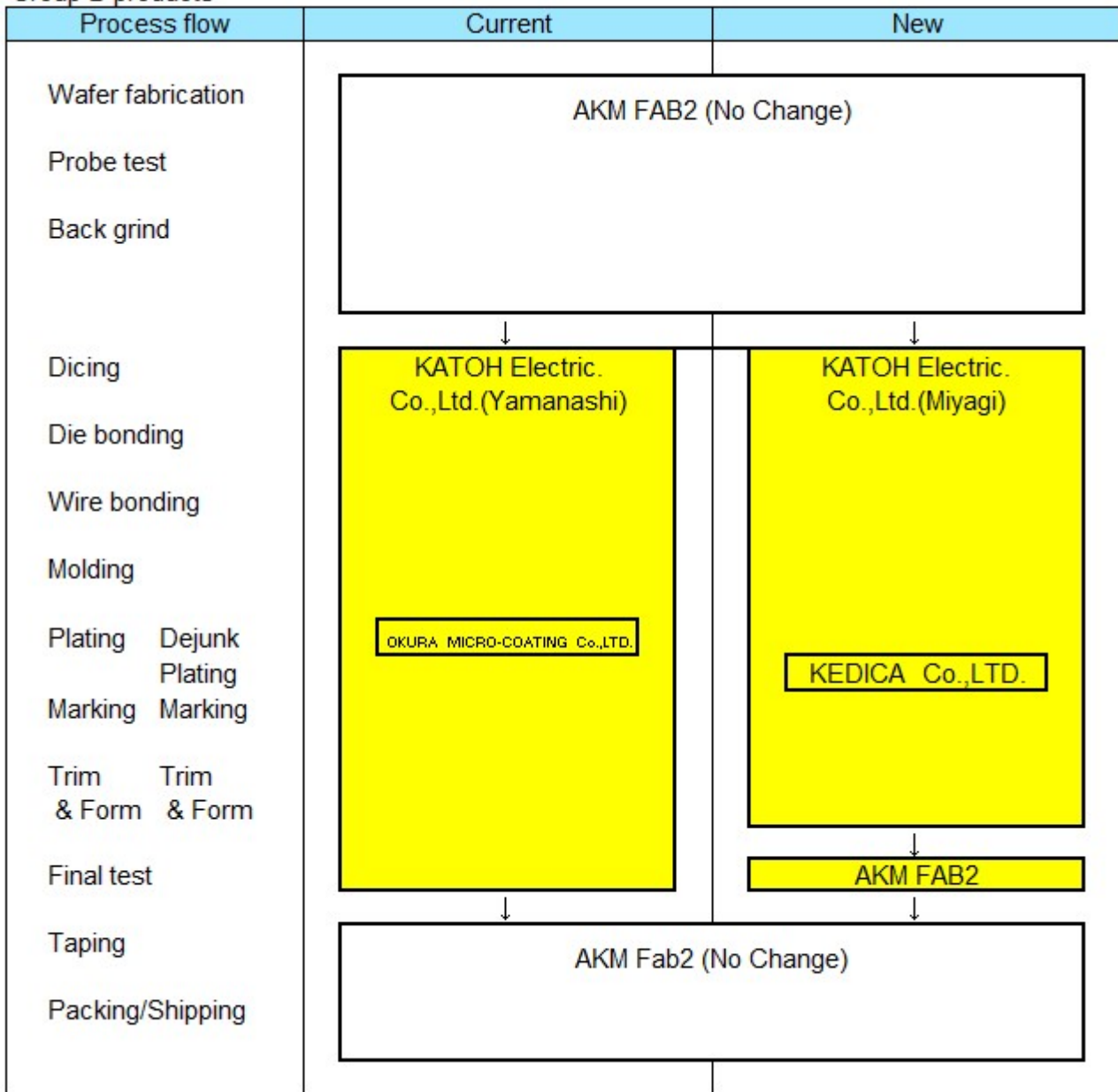
See page 2

2 Process flow (Revised on 12/28/18)

Group A products

Process flow	Current	New
Wafer fabrication	AKM FAB2 (No Change)	
Probe test		
Back grind		
Dicing	↓	↓
Die bonding	KATOH Electric. Co.,Ltd.(Yamanashi)	KATOH Electric. Co.,Ltd.(Miyagi)
Wire bonding		
Molding		
Plating	OKURA MICRO-COATING Co.,LTD.	KEDICA Co.,LTD.
Dejunk		
Plating		
Marking		
Marking		
Trim & Form	↓	↓
Trim & Form		
Final test	AKM FAB2 (No Change)	
Taping		
Shipping		



Group B products



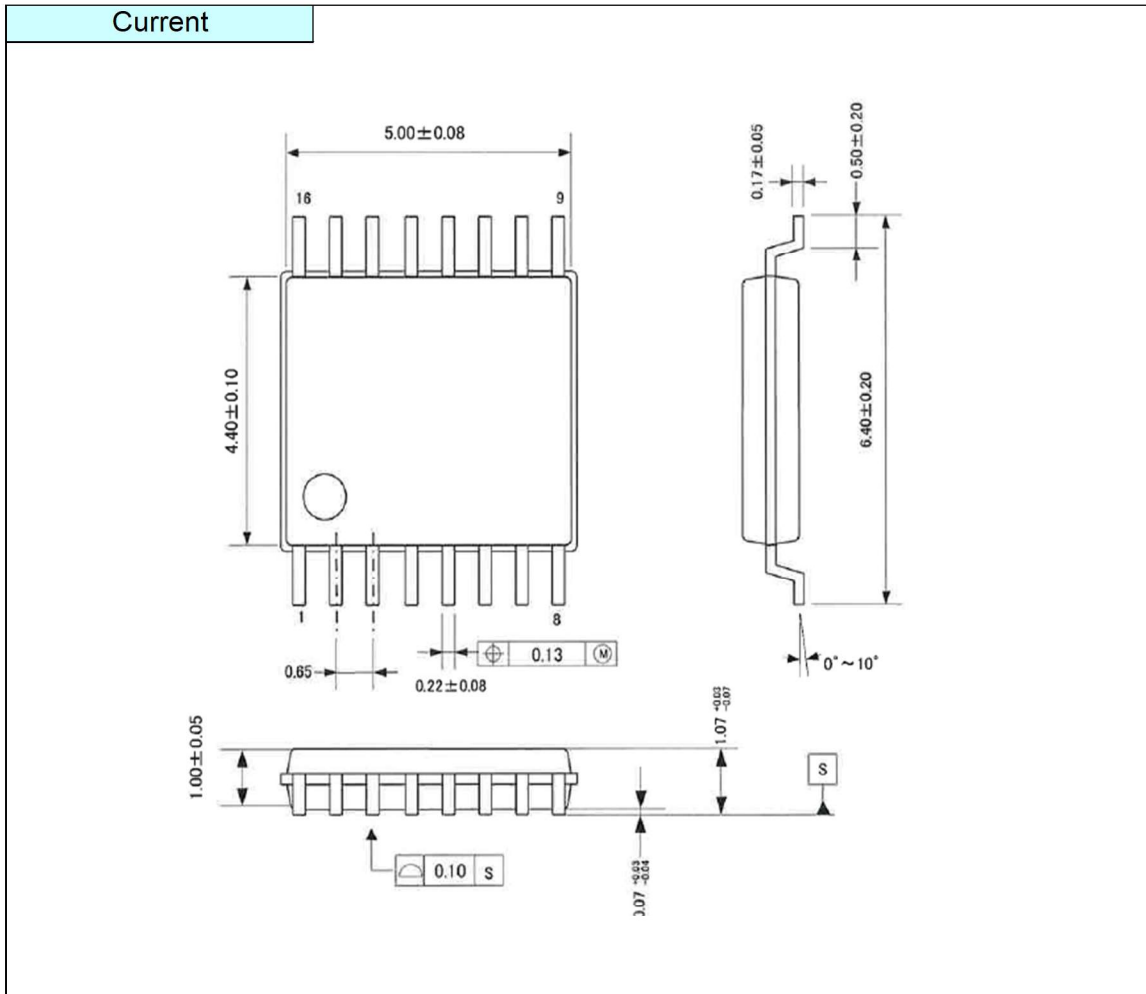
3 Specifications (Revised on 12/28/2017)

	Current	New
Package type	TSSOP	no change
Pin count	16	no change
Die information	Thickness : 280μm	Thickness : no change
Lead frame	Material : Cu	Material : no change
	Base material : C194	Base material : no change
	Die pad : 2.80 x 3.50 mm	Die pad : no change
Dia attach material	Type : Ag paste	Type : no change
	Supplier : Hitachi Chemical	Supplier : no change
Wire	Diameter : φ22.5um	Diameter : no change
	Purity : 4N	Purity : no change
Mold compound	Type : Epoxy resin	Type : no change
	Supplier : Hitachi Chemical	Supplier : Sumitomo Bakelite
	Halogen free : No	Halogen free : Yes
Plating	Composition : Sn-Bi (Bi: 2±1%)	Composition : Sn (Sn: 100%)
	Thickness : 5~15μm	Thickness : no change
Packing	T&R 1000pcs/Reel	no change

4 Laser Marking

	Current	New
Marking type	Type : Laser	Type : no change
Marking specification	Line 1 : AKM	Line 1 : no change
	Line 2 : (Device name)	Line 2 : no change
	Line 3 : (Datecode)	Line 3 : no change
	Digits of datecode : 5	Digits of datecode : no change
Index marking	Pin#1	no change
Marking layout *Example of AK5359ET		

5 Package Dimensions



New

No Change

Item		Current	New
PKG height	mm	1.07+0.03/-0.07	no change
Standoff	mm	0.07+0.03/-0.04	no change
Lead thickness	mm	0.17±0.05	no change
Lead width	mm	0.22±0.08	no change
PKG width(X)	mm	5.0±0.08	no change
PKG width(Y)	mm	4.4±0.10	no change
Lead pitch	mm	0.65	no change
Tip length of lead	mm	0.50±0.20	no change
Tolerance of lead position	mm	0.13	no change
Coplanarity	mm	0.1	no change

6 Recommended Solder Pad Dimensions

Current	New
<p>The diagram shows a top-down view of a solder pad layout. It features two rows of eight rectangular pads each, arranged symmetrically about a central vertical axis. The pads in the top row are positioned above a horizontal centerline, while the pads in the bottom row are positioned below it. The following dimensions are indicated: a pad width of 0.10, a pad length of 0.80, a distance of 3.20 from the centerline to the center of the top row, a total distance of 6.40 from the centerline to the center of the bottom row, a distance of 0.40 from the left edge of the bottom row to the centerline, a distance of 0.65 between the centers of adjacent pads in the bottom row, and a total width of 4.55 for the bottom row of pads.</p>	<p>No Change</p>

7 Assembly Site Address

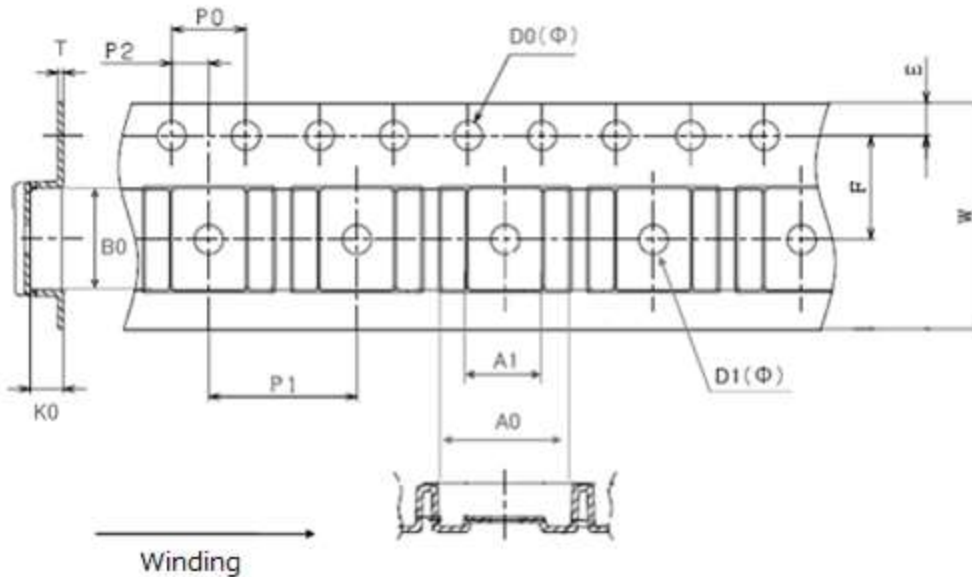
Current	Fujiyoshida-City, Yamanashi
New	Rifu-cho, Miyagi-gun, Miyagi

8 Emboss tape (Added on 12/28/2017)

Group A and B products: No change

Group C products: Changes are highlighted in pink

Current



A0	A1	B0	W	E	F	P0
6.9±0.1	4.0±0.2	5.4±0.1	12.0±0.2	1.75±0.1	5.50±0.05	4.0±0.1
P1	P2	D0	T	K0	D1	
8.0±0.1	2.00±0.05	1.5+0.1/-0	0.30±0.05	1.9±0.1	1.55±0.05	

New

A0	A1	B0	W	E	F	P0
6.85±0.1	4.0±0.2	5.4±0.1	12.0±0.2	1.75±0.1	5.50±0.05	4.0±0.1
P1	P2	D0	T	K0	D1	
8.0±0.1	2.00±0.05	1.5+0.1/-0	0.30±0.05	1.8±0.1	1.55±0.05	