

Integrated Device Technology, Inc. 6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PRODUCIA	TRUCESS C	HANG	E NOI	ICE (PCI	.N)
PCN #: A1210-01 DATE: 21-Dec-2012			MEANS OF DISTINGUISHING CHANGED DEVICES:		
Product Affected: 17.0mm x 17.0mm CABGA-256		■ Produc □ Back N □ Date C □ Other	A ark	•	ostrate supplier is ugh assembly lot code
Contact: Mary Vesey					
Title: Director, Product Assurance		Attachmen	t·	Yes	☐ No
Phone #: (408) 284-4565		Attachinen		103	
Fax #: (408) 284-1450		Samples:	Please conta	et vour local sal	les representative for
E-mail: Mary.Vesey@.com		Samples.		est & availabilit	_
	NCE.		r 1		<u>, </u>
DESCRIPTION AND PURPOSE OF CHA	NGE:				
□ Assembly Process □ Equipment □ Material □ Testing □ Manufacturing Site □ Assembly Process alternate substrate substrate substrate mat similar substrate mat Refer to attachments 1. Comparison between			to advise our customers that IDT has qualified Kinsus as the uppplier for 17.0mm x 17.0mm CABGA-256 package. There is sterial, same number of layers or assembly materials. It is for additional details. It is even the existing and the alternate substrate supplier reference, Kinsus Qualification Data		
RELIABILITY/QUALIFICATION SUM	MARY:				
Refer to qualification report shown in attach					
CUSTOMER ACKNOWLEDGMENT OF	RECEIPT:				
IDT records indicate that you require written to grant approval or request additional infor- it will be assumed that this change is accepta IDT reserves the right to ship either version on the earlier version has been depleted.	mation. If IDT does nable.	ot receive a	acknowledger	ment within 30 d	lays of this notice
Customer:	🗆	Appro	oval for shi	pments prior	to effective date.
Name/Date:	E-:	Mail Addre	ess:		
Title:	Ph	one# /Fax#	: <u> </u>		
CUSTOMER COMMENTS:					
IDT ACKNOWLEDGMENT OF RECEI	PT:				
RECD. BY:		DATE:			



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ATTACHMENT I - PCN # : A1210-01

PCN Type: Alternate Substrate Supplier

Data Sheet Change: None

No change in moisture sensitivity level (MSL)

Detail Of Change:

This notification is to advise our customers that IDT has qualified Kinsus as the alternate substrate suppplier for 17.0mm x 17.0mm CABGA-256 package. There is similar substrate material, same number of layers or assembly materials. Kinsus has been a qualified substrate supplier for IDT BGA packages. IDT has been shipping BGA products with Kinsus substrate in such package families as SBGA, FPBGA, PBGA, FCBGA including CVBGA-25 and CVBGA-100.

Refer to below table for comparison of the existing and the alternate substrate material.

Description	Eastern (Existing Supplier)	Kinsus (Alternate Supplier)	
Manufacturing Location	Taiwan	Taiwan	
Core Material	HL832NX	HL832NX-A	
# of Layers	4	4	
Soldermask Material	AUS308	AUS308	
SolderMask Thickness	20um (min)	20um (min)	
Substrate Thickness	560+/-40um	560+/-40um	
SR Opening	400um	400um	
Surface Finish	Ni/Au Plating	Ni/Au Plating	
Surface Finish Thickness	Ni: 5um Min / Au: 0.5um Min	Ni: 5um Min / Au: 0.5um Min	
Pad Type	BGA	BGA	
Glass Transition Temp	230 °C	230 °C	
Modulus Elasticity (BT Base Material)	28 Gpa	28 GPa	
CTE (BT Base Material)	14 ppm/°C (X,Y <tg)< td=""><td>14 ppm/°C (X,Y <tg)< td=""></tg)<></td></tg)<>	14 ppm/°C (X,Y <tg)< td=""></tg)<>	



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Qualification Test Plans and Results:

Qual Vehicle: 17.0mm x 17.0mm CABGA-256 (1 lot)

Test Description	Test Method	Test Results (SS / Rej)
Solder Ball Shear Test (1000 hrs)	JESD22-B117	5/0
Physical Dimensions	JESD22-B100	30/0
Ball Shear Test	JESD22-B116	5/0
Bond Pull Test	IDT Spec MAC-3010	5/0
X-Ray Examination	IDT Spec MAC-3012	45/0
External Visual Inspection	JESD22-B101	25/0
Internal Visual Inspection	MIL-STD883, Method 2010	5/0

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ATTACHMENT II - PCN #: A1210-01

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
70V5388S100BC	70V5388S133BC8	70V5388S166BCI	70V5388S200BC8
70V5388S100BC8	70V5388S166BC	70V5388S166BCI8	70V5388S200BCG
70V5388S133BC	70V5388S166BC8	70V5388S200BC	