



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: A1008-04 Product Affected: 82P20516DBFG, 82P20516DBFG8 82P2916BFG, 82P2916BFG8 Date Effective: 27-Nov-2010	DATE: 27-Aug-2010	MEANS OF DISTINGUISHING CHANGED DEVICES: <input checked="" type="checkbox"/> Product Mark <input type="checkbox"/> Back Mark <input type="checkbox"/> Date Code <input type="checkbox"/> Other Change in substrate vendor is traceable through assembly lot code
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Contact: Mary Vesey Title: Director, Product Assurance Phone #: (408) 284-4565 Fax #: (408) 284-1450 E-mail: Mary.Vesey@com	Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples: Samples are available now.
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

DESCRIPTION AND PURPOSE OF CHANGE:

<input type="checkbox"/> Die Technology <input type="checkbox"/> Wafer Fabrication Process <input type="checkbox"/> Assembly Process <input type="checkbox"/> Equipment <input type="checkbox"/> Material <input type="checkbox"/> Testing <input type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input checked="" type="checkbox"/> Other - Alternate Substrate Vendor	<p>This notification is to advise our customers that IDT is adding UMTC as an alternate substrate vendor for 82P20516DBFG & 82P2916BFG built in 19mm x 19mm FPBGA-484 package. There is similar substrate material, same number of layers or assembly materials.</p> <p>Refer to attachments for additional details.</p> <ol style="list-style-type: none"> 1. Comparison between the existing and alternate substrate materials 2. UMTC Qualification Data
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

RELIABILITY/QUALIFICATION SUMMARY:
Refer to qualification report shown in attachment.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: _____	<input type="checkbox"/> <i>Approval for shipments prior to effective date.</i>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax# : _____

CUSTOMER COMMENTS:

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: _____ DATE: _____



PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : A1008-04

PCN Type: Alternate Substrate Vendor
Data Sheet Change: None
 No change in moisture sensitivity level (MSL)

Detail Of Change:

This notification is to advise our customers that IDT is adding UMTC as an alternate substrate vendor for 82P20516DBFG & 82P2916BFG built in 19mm x 19mm FPBGA-484 package. UMTC has been a qualified substrate vendor for IDT BGA packages. IDT has been shipping BGA products with UMTC substrate in such package as CABGA-324.

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

Description	MCT (Existing Vendor)	UMTC (Alternate Vendor)
Manufacturing Location	Singapore	Taiwan
Core Material	CCL-HL832NB	CCL-HL832NX-A
# of Layers	4	4
Soldermask Material	Taiyo AUS-308	Taiyo AUS-308
SolderMask Thickness	20 um (min)	20 um (min)
Substrate Thickness	360 +/-40um	360 +/-40um
SR Opening	400+/- 50um	400+/- 50um
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	SMD	SMD
Glass Transition Temp	215 °C	230 °C
Modulus Elasticity (BT Base Material)	25 GPa	28 GPa
CTE (BT Base Material)	14 - 15 ppm/°C (X,Y <Tg)	14 - 15 ppm/°C (X,Y <Tg)



PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : A1008-04

UMTC Qualification Test Plans and Results:

		UMTC	UMTC
Package Type		BCG324	BFG324
Qualification Plan #		P07-03-02	P09-08-05
Product		89H12N3AZC	VPP1552Z
Manufacturer / Location		SPIL, Taiwan	SPIL, Taiwan
Assembly/ Package Information	Conditions	Rej / ss	Rej / ss
Physical Dimension	JESD22-B100	0/30	0/30
Ball Shear Test	Shear strength > 5.7 grams	0/5	0/5
Wire Pull Test	Bond pull strength > 3.0 grams	0/5	0/5
X-Ray	Pkg & D/A voids, Wire sweep	0/45	0/45
External Visual	JESD22-B101	0/25	0/25
Moisture Classification	J-STD-020C (Level 3 260C)	0/90	0/50
Highly Accelerated Stress Test	JESD22-A118 Unbiased, 130°C/85%, 100 hrs	0/45	0/25
High Temp Storage Bake	JESD22-A103-B 150°C, 1000 hrs	0/77	0/25
Solder Ball Shear Test	Shear Strength > 450 grams	0/5	0/5
Temperature Cycle	JESD22-A104-B Cond. B -55°C to 125°C, 1000 cycle	0/45	0/25