Peregrine Semiconductor Corp.
9380 Carroll Park Drive, San Diego, CA. 92121

Customer Waiver Request

Waiver Number: CW120345
Date Issued: 3/1/2012
Product(s) Affected: PE42440
Quantity or Lot/Date Codes Waiver Applies to: Applies to all part number identified PE42440MLIBB-Z
Expiration Date (If Applicable): N/A

Contact: Rick Sanford
Title: Director, Sales Operations
Phone: 858-731-9461
Fax: 858-731-9499
Email: rsanford@psemi.com

Non-Conformance:

- ☐ Wafer Fabrication Process
- ☐ Electrical Performance
- ☐ Visual Non-Conformance
- ☐ Assembly Process
- ☐ Shipping/Labeling
- ☒ Non-Standard Manufacturing Flow
- ☐ Material
- ☐ Other

Description on Non-Conformance:

PE42440 product manufactured and tested at Hana Semiconductor Co., Ltd. (Ayutthaya, Thailand) will be manufactured at Unisem Berhad (Ipoh, Malaysia) and tested at Peregrine Semiconductor Corp. (San Diego, California, USA). This part will ship as the PE42440MLBB-Z.

Details of the package BOM differences are on the following page.

Justification:

The Hana facility at Ayutthaya has been temporarily shut down due to flooding.

Customer Approval:

☐ Waiver Accepted ☐ Waiver Denied	**Name:**	
	Title:	
	Company:	
	Date:	
	Signature:	
Customer Comments:		

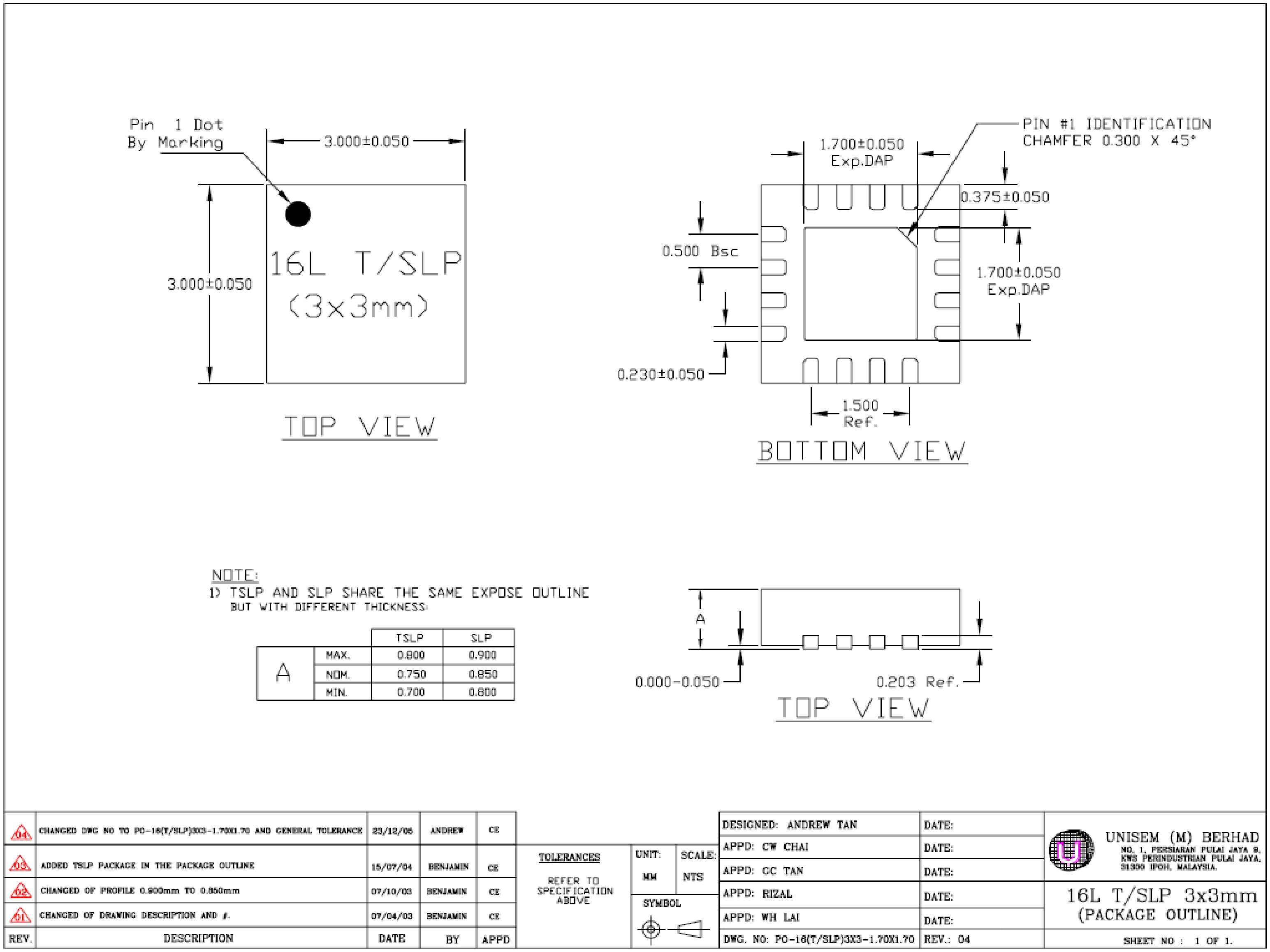
Customer Waiver Request

Unisem vs. Hana BOM comparison for 16L 3x3 QFN

Vendor	Unisem	Hana
Package Name	16L-TSLP	16L-TSLP
Style	TSLP or TQFN	TSLP or TQFN
Peregrine BOM #	19-0128	19-0133
Lead Count	16	16
Exposed Pad Size (mm)	1.70x1.70	1.70x1.70
Die Attach Paddle Size (mm)	1.90x1.90	1.90x1.90
Lead Frame Material	Cu base with Pad Ring Ag	Cu with NiPdAu plating
Lead Plating	Sn	NiPdAu
Die Attach Epoxy	CRM1076DJ	400195: Ablestick Abletherm 8600
Mold Compound	Sumitomo G770HCD	450176: Hitachi CEL9220HF
MSL	1	1

Customer Waiver Request

Unisem Package Drawing



NOTE:
1) TSLP AND SLP SHARE THE SAME EXPOSE OUTLINE
BUT WITH DIFFERENT THICKNESS.

		TSLP	SLP
A	MAX.	0.800	0.900
	NOM.	0.750	0.850
	MIN.	0.700	0.800

REV.	DESCRIPTION	DATE	BY	APPD
04	CHANGED DWG NO TO PO-16(T/SLP)3X3-1.70X1.70 AND GENERAL TOLERANCE	23/12/05	ANDREW	CE
03	ADDED TSLP PACKAGE IN THE PACKAGE OUTLINE	15/07/04	BENJAMIN	CE
02	CHANGED OF PROFILE 0.900mm TO 0.850mm	07/10/03	BENJAMIN	CE
01	CHANGED OF DRAWING DESCRIPTION AND #.	07/04/03	BENJAMIN	CE

TOLERANCES
REFER TO SPECIFICATION ABOVE

UNIT: MM
SCALE: NTS
SYMBOL

DESIGNED: ANDREW TAN	DATE:
APPD: CW CHAI	DATE:
APPD: GC TAN	DATE:
APPD: RIZAL	DATE:
APPD: WH LAI	DATE:
DWG. NO: PO-16(T/SLP)3X3-1.70X1.70	REV.: 04

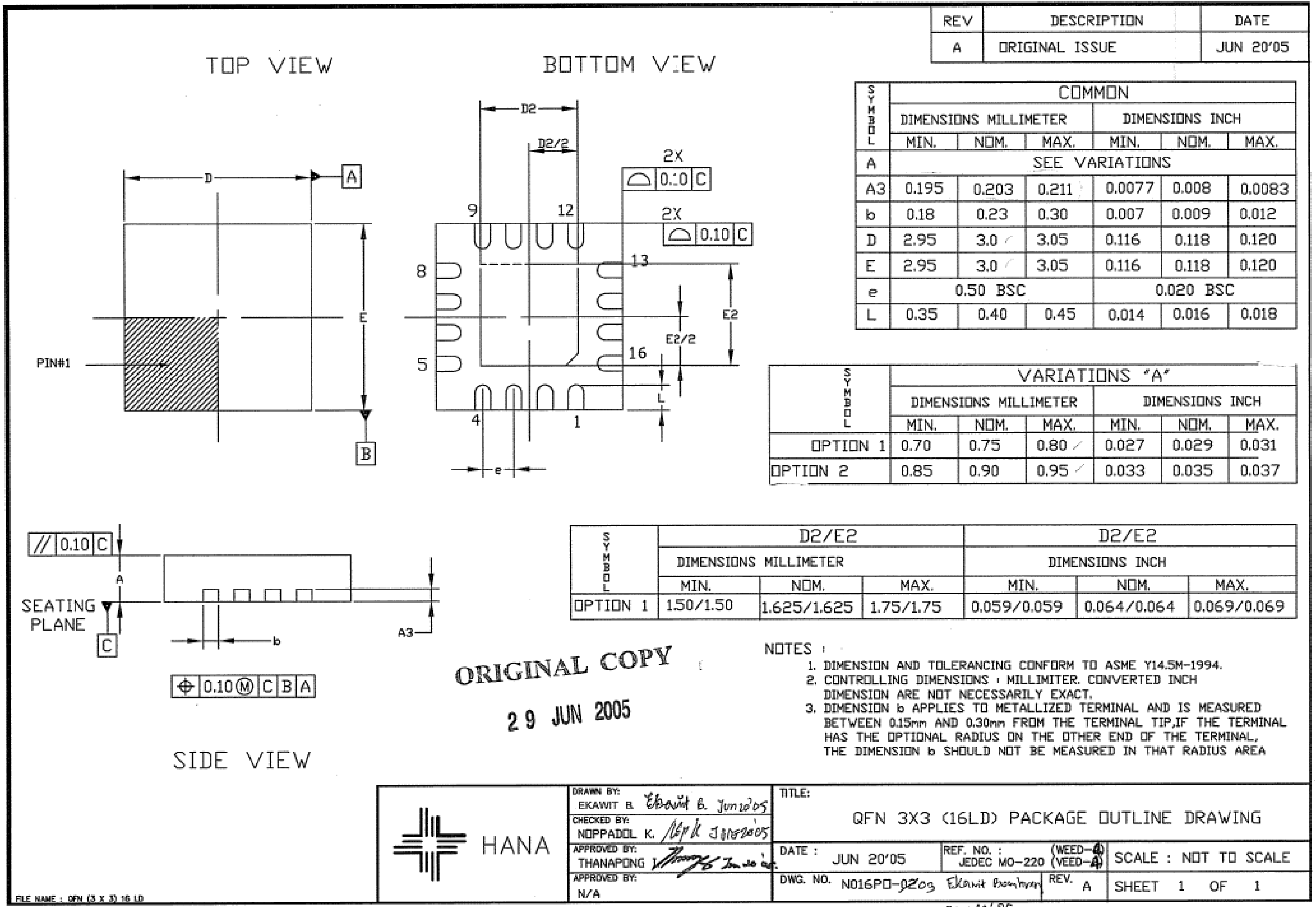
UNISEM (M) BERHAD
NO. 1, PERSIARAN PULAI JAYA 9,
KWS PERINDUSTRIAN PULAI JAYA,
31300 IPOH, MALAYSIA.

16L T/SLP 3x3mm
(PACKAGE OUTLINE)

SHEET NO : 1 OF 1.

Customer Waiver Request

Hana Package Drawing



REV	DESCRIPTION	DATE
A	ORIGINAL ISSUE	JUN 20'05

SYMBOL	COMMON					
	DIMENSIONS MILLIMETER			DIMENSIONS INCH		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	SEE VARIATIONS					
A3	0.195	0.203	0.211	0.0077	0.008	0.0083
b	0.18	0.23	0.30	0.007	0.009	0.012
D	2.95	3.0	3.05	0.116	0.118	0.120
E	2.95	3.0	3.05	0.116	0.118	0.120
e	0.50 BSC			0.020 BSC		
L	0.35	0.40	0.45	0.014	0.016	0.018

SYMBOL	VARIATIONS "A"					
	DIMENSIONS MILLIMETER			DIMENSIONS INCH		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
OPTION 1	0.70	0.75	0.80	0.027	0.029	0.031
OPTION 2	0.85	0.90	0.95	0.033	0.035	0.037

SYMBOL	D2/E2			D2/E2		
	DIMENSIONS MILLIMETER			DIMENSIONS INCH		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
OPTION 1	1.50/1.50	1.625/1.625	1.75/1.75	0.059/0.059	0.064/0.064	0.069/0.069

ORIGINAL COPY
29 JUN 2005

NOTES :

1. DIMENSION AND TOLERANCING CONFORM TO ASME Y14.5M-1994.
2. CONTROLLING DIMENSIONS : MILLIMITER. CONVERTED INCH DIMENSION ARE NOT NECESSARILY EXACT.
3. DIMENSION b APPLIES TO METALLIZED TERMINAL AND IS MEASURED BETWEEN 0.15mm AND 0.30mm FROM THE TERMINAL TIP,IF THE TERMINAL HAS THE OPTIONAL RADIUS ON THE OTHER END OF THE TERMINAL, THE DIMENSION b SHOULD NOT BE MEASURED IN THAT RADIUS AREA

HANA	DRAWN BY: EKAWIT B. Ekawit B. Jun 20'05	TITLE: QFN 3X3 (16LD) PACKAGE OUTLINE DRAWING		
	CHECKED BY: NOPPADOL K. J 20'2005			
	APPROVED BY: THANAPONG	DATE : JUN 20'05	REF. NO. : JEDEC MO-220 (WEED-4) (VEED-4)	SCALE : NOT TO SCALE
	APPROVED BY: N/A	DWG. NO. N016PO-0203 Ekawit	REV. A	SHEET 1 OF 1

FILE NAME : QFN (3 X 3) 16 LD