



Cypress Semiconductor Corporation, 198 Champion Court, San Jose, CA 95134. Tel: (408) 943-2600

PRODUCT INFORMATION NOTIFICATION

PIN: PIN195002

Date: December 12, 2019

Subject: Qualification of Kostat Tray in Cypress Thailand for 16-Lead SOIC Package

To: PCN Coordinator
PCN Coordinator
FUTURE
PCN.System@Future.ca

Change Type: Minor

Description of Change:

Cypress announces the qualification of Kostat KS-84052 tray to be used as in-process and shipping tray for 16-Lead SOIC package finished at Cypress Thailand (Cypress Semiconductor Thailand (Limited), 229 Moo 4 Chaeng Watthana Road, Pak Kret, Nonthaburi, 11120 Thailand). The Kostat tray is the same as the current tray with regards to critical dimensions that may affect application. It is also designed to be stackable with the current tray.

Description	Current Tray	New Tray	Remarks
Supplier	Daewon	Kostat	
Part Number	12J-16LD-319	KS-84052	
Overall Tray Length	322.6 ± 0.25 mm	322.6 ± 0.25 mm	Same
Tray Length (Exclude End Tab)	315.0 ± 0.25 mm	315.0 ± 0.25 mm	Same
Tray Width	135.9 ± 0.25 mm	135.9 ± 0.25 mm	Same
Overall Tray Height	7.62 ± 0.13 mm	7.62 ± 0.13 mm	Same
Stacking Height	6.35 ± 0.13 mm	6.35 ± 0.13 mm	Same
1 st Pocket Position (X)	9.15 ± 0.13 mm	9.15 ± 0.13 mm	Same
1 st Pocket Position (Y)	9.00 ± 0.13 mm	9.00 ± 0.13 mm	Same
Pocket Pitch (X)	12.90 ± 0.13 mm	12.90 ± 0.13 mm	Same
Pocket Pitch (Y)	13.10 ± 0.13 mm	13.10 ± 0.13 mm	Same
Top Pocket Length	10.35 ± 0.08 mm	10.35 ± 0.08 mm	Same
Top Pocket Width	11.00 ± 0.13 mm	11.00 ± 0.13 mm	Same
Top Pocket Pedestal Width	7.40 ± 0.08 mm	7.40 ± 0.08 mm	Same
Bottom Pocket Length	10.35 ± 0.08 mm	10.35 ± 0.08 mm	Same
Bottom Pocket Width	7.40 ± 0.08 mm	7.40 ± 0.08 mm	Same
Pocket Depth	2.40 ± 0.10 mm	2.40 ± 0.10 mm	Same
Number of Pockets	10 X 24 = 240	10 X 24 = 240	Same
Tray Color	Black	Black	Same
Tray Working Temperature	150°C Max	150°C Max	Same
Tray Design	JEDEC	JEDEC	Same

There are no changes to ordering part numbers. Product datasheets remain the same and can be downloaded from the Cypress Website (www.cypress.com).

Benefit of Change:

This change is part of Cypress' continuous improvement to enable an alternative tray source for 16-Lead SOIC package and eliminate any future tray delivery issue.

Part Numbers Affected: 171

See the attached 'Affected Parts List' file for a list of all part numbers affected by this change. Note that any new parts that are introduced after the publication of this PIN will include all changes outlined in this PIN.

Qualification Status:

This change has been qualified through a series of tests documented in the Qualification Test Plan QTP#193906. This qualification report can be found as an attachment to this PCN or by visiting www.cypress.com and typing the QTP number in the keyword search window.

Approximate Implementation Date:

This change will be effective with the date of this notification. Existing tray will be depleted before the implementation of the new tray. During the transition period, the affected part numbers will be supplied with either the current tray or new tray. No tray mixing will be allowed in one lot.

Anticipated Impact:

Products shipped with the new tray are completely compatible with existing product from form, fit, functional, parametric, and quality performance perspectives.

Cypress also recommends that customers take this opportunity to review these changes against current application notes, system design considerations and customer environment conditions to assess impact (if any) to their application.

Method of Identification:

Cypress maintains traceability of product to wafer level, including wafer fabrication location, through the lot number marked on the package.

Response Required:

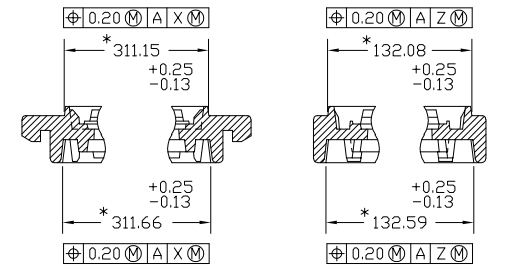
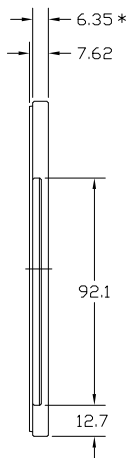
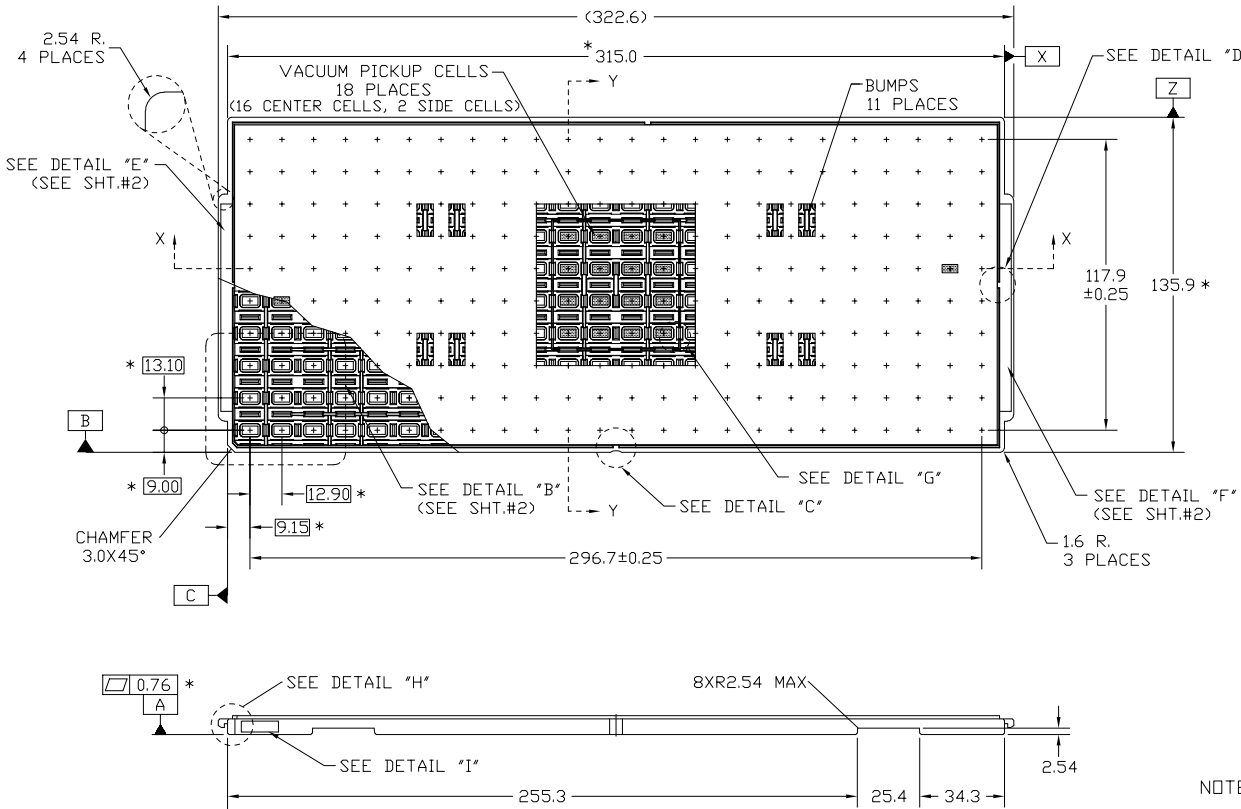
This is an information only announcement. No response is required.

For additional information regarding this change, contact your local sales representative or contact the PCN Administrator at pcn_adm@cypress.com.

Sincerely,

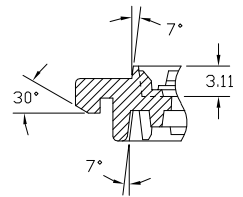
Cypress PCN Administration

REVISIONS						
PAGE	ZONE	REV	ECN	DESCRIPTION	DATE	APPROVED
ALL	ALL	*E	6733136	UPDATE DRAWING TEMPLATE TO CYPRESS' FORMAT AND REMOVED OPTION 2 TRAY AND REVISED SPEC TITLE.	11/18/19	LKSU

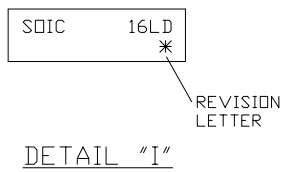


SECTION "X-X" SECTION "Y-Y"

TRAY STACKING DETAIL
SCALE : 3/1



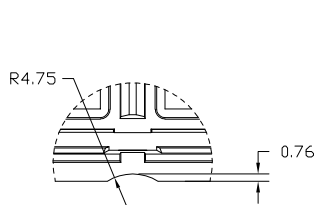
DETAIL "H"
SCALE : 4/1



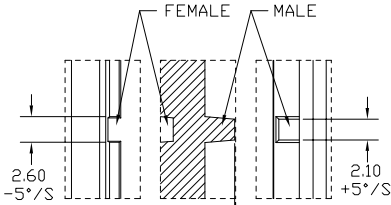
DETAIL "I"

NOTES: (UNLESS OTHERWISE SPECIFIED)

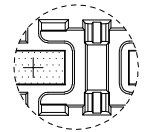
1. REFERENCE SPEC <F03-017>.
2. MATERIAL TO BE DISSIPATIVE, REFER TO SPEC <F16-055.8>.
3. * DENOTES CRITICAL DIMENSIONS.
4. ALL DIMENSIONS ARE IN MILLIMETERS.
5. LOW TEMP. INTRINSIC COLOR TRAY MADE FROM THE FOLLOWING MATERIALS: ABS, PS OR EQUIVALENT SHALL BE USED FOR INTERNAL PROCESS ONLY.



DETAIL "C"
SCALE : 4/1



SLIP-LOCK DETAILS
DETAIL "D"
SCALE : 4/1

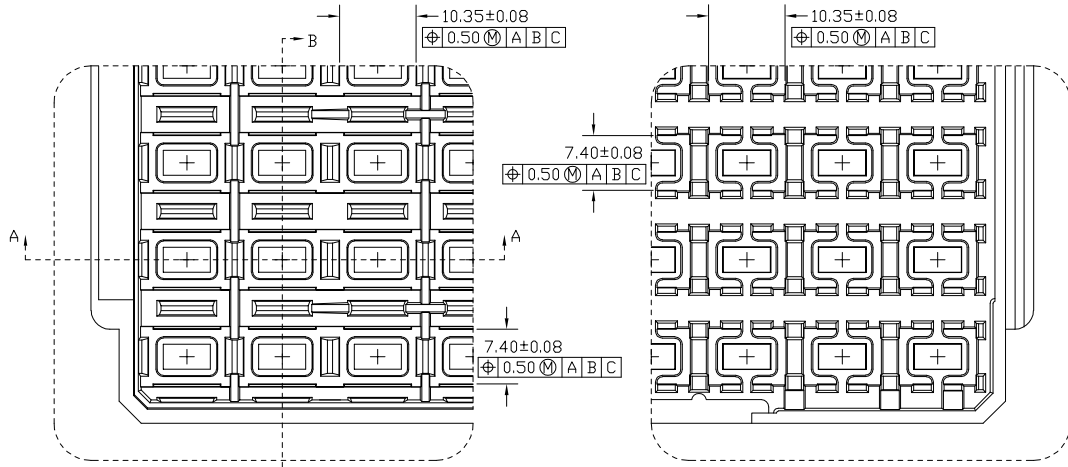


BOTTOM VIEW
DETAIL "G"
SCALE : 4/1

DESCRIPTION	MATERIAL	COLOR	TEMP °C	PART NO.
BAKEABLE	MPPPO	BLACK	150 °C	12J-16LD-319
NON-BAKEABLE	ABS+CF	RED	60 °C	12J-16LD-3261

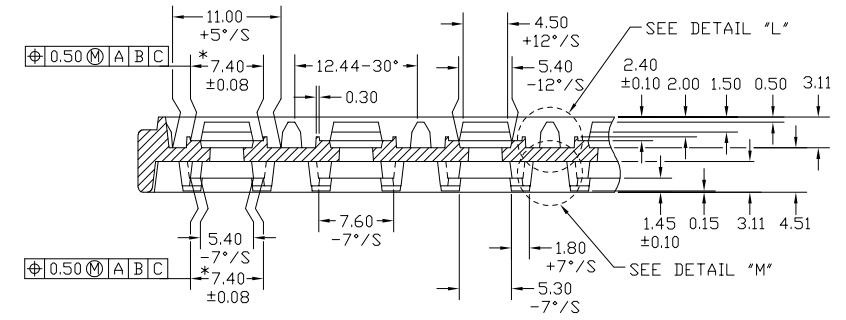
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS STANDARD TOLERANCES ON: DECIMALS .X ± 0.25 .XX ± 0.13 .XXX ± 0.13 ANGLES ± 0.5°	DESIGNED BY DEFAULT TEXT	DATE DEFAULT TEXT	CYPRESS Company Confidential				
	DRAWN BY KWIE	DATE 11/18/19					
	CHECKED BY DEFAULT TEXT	DATE DEFAULT TEXT					
	APPROVED BY LKSU	DATE 11/18/19					
MATERIAL SEE TABLE	APPROVED BY NY1	DATE 11/18/19	TITLE TRAY FOR SO3016 (DAEWON)				
FINISH SEE TABLE	APPROVED BY DEFAULT TEXT	DATE DEFAULT TEXT	<table border="1"> <tr> <td>SIZE A</td> <td>PART NO. N/A</td> <td>DWG NO F04-0029364</td> <td>REV *E</td> </tr> </table>	SIZE A	PART NO. N/A	DWG NO F04-0029364	REV *E
SIZE A	PART NO. N/A	DWG NO F04-0029364	REV *E				

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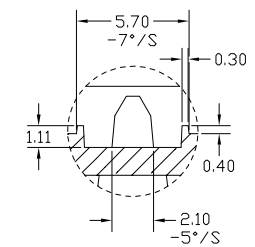


TOP VIEW
DETAIL "B"
SCALE : 3/1
(FROM SHT.#1)

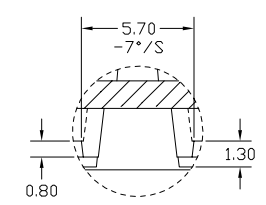
BOTTOM VIEW
DETAIL "B"
SCALE : 3/1
(FROM SHT.#1)



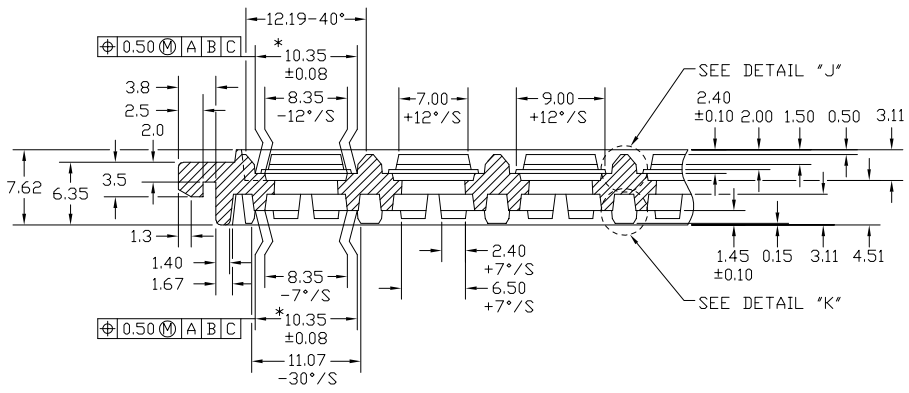
SECTION "B-B"
SCALE : 4/1



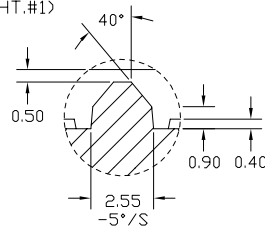
DETAIL "L"
SCALE : 8/1



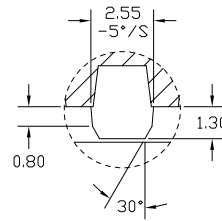
DETAIL "M"
SCALE : 8/1



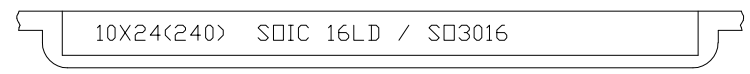
SECTION "A-A"
SCALE : 4/1



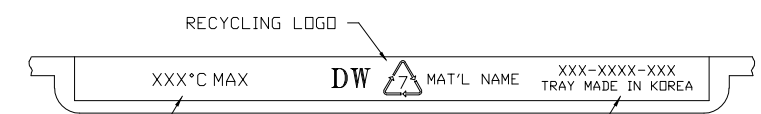
DETAIL "J"
SCALE : 10/1



DETAIL "K"
SCALE : 10/1



DETAIL "E"
(FROM SHT.#1)



DETAIL "F"
(FROM SHT.#1)

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CYPRESS Company Confidential			
TITLE TRAY FOR SO3016 (DAEWON)			
SIZE A	PART NO. N/A	DWG NO F04-0029364	REV *E
SCALED TO FIT	ENG'G REV ENG-00	SHEET 2 OF 2	

Cypress Semiconductor Reliability Qualification Report

QTP# 193906 Version **

Qualification of SOIC016 Shipping Tray from KOSTAT

Qualification of SOIC016 Shipping Tray from KOSTAT

FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT
reliability@cypress.com or via a CYLINK CRM CASE

Prepared By:
Eng Keat Ng
Reliability Engineer

Reviewed By:
Yusaku Ohta
Reliability Manager

Approved By:
David Hoffman
Reliability Director

I. Summary of Stress Test Results

Stress Test	Stress Condition	Package Type	Sample Size	Num. of Lots	Num. of Fails	Failure Rate %	Comments
Data From Qualification 193906:							
Warpage	N/A	SO3016 ¹	11	1	0	0.00	Passed
Drop Test	N/A	SO3016 ¹	1	1	0	0.00	Passed
CADFIT Analysis	N/A	SO3016 ¹	1	1	0	0.00	Passed
functional Test	N/A	SO3016 ¹	11	1	0	0.00	Passed
Surface resistivity	N/A	SO3016 ¹	11	1	0	0.00	Passed
Substance Check	N/A	SO3016 ¹	1	1	0	0.00	Passed
Dimensional Measurement	N/A	SO3016 ¹	11	1	0	0.00	Passed
Fit & Form Visual Inspection	N/A	SO3016 ¹	25	1	0	0.00	Passed
First Article Inspection	N/A	SO3016 ¹	1	1	0	0.00	Passed

Notes / Justification: 1) Results from Qual 193906, , in 16 Lead SOIC (10.3 x 10.3 x 2.65mm)

Reliability Tests Performed per Specification Requirements

Stress	Condition	Specification Reference
CADFIT Analysis	N/A	Pass POD & End flash Criteria
Dimensional Measurement	N/A	POD Drawing-JESD22-B100B
Drop Test	N/A	As per Lead movement criteria
First Article Inspection	N/A	
Fit & Form Visual Inspection	N/A	Internal Specification
functional Test	N/A	Pass Manufacturability
Substance Check	N/A	European Union RoHS 2002/95/E REACH XVII
Surface resistivity	N/A	Meets Spec limits
Warpage	N/A	Internal Specification

II. Revision History

Document Number: 002-28892

Document Title: Qualification of SOIC016 Shipping Tray from KOSTAT

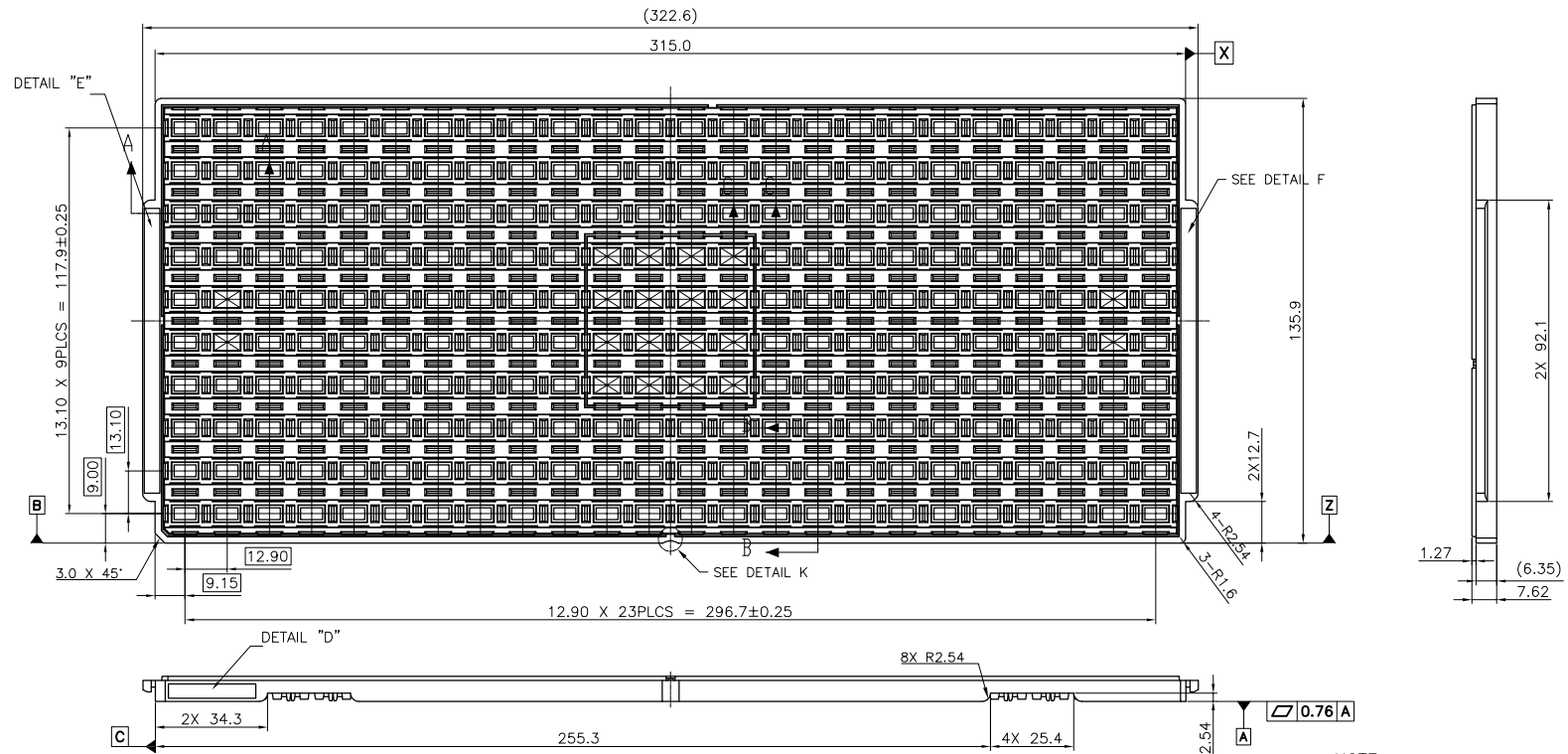
Rev.	Issue Date	ECN#	Originator	Description
**	11/6/2019	6725811	EKNG	Initial Release.

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REVISIONS						
PAGE	ZONE	REV	ECN	DESCRIPTION	DATE	APPROVED
ALL	ALL	**	6659092	NEW RELEASE	11/07/19	LKSU



NOTE:
 1. CONFORM WITH EIA-541
 2. TOTAL NUMBER OF POCKET: 10X24=240

SOIC 16LD / SO3016
 KS-84052 REV.00

DETAIL D
 SCALE 4:1

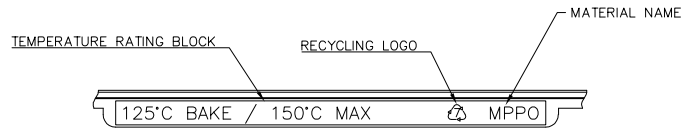
⊗ ⊗

DATE DETAIL
 SCALE 2:1

XX : Year
 (09,10,11,.....)
 X : Month
 (1,2,3,4,5,6,7,8,9,X,Y,Z)



DETAIL E
 SCALE 1.5:1



DETAIL F
 SCALE 1.5:1

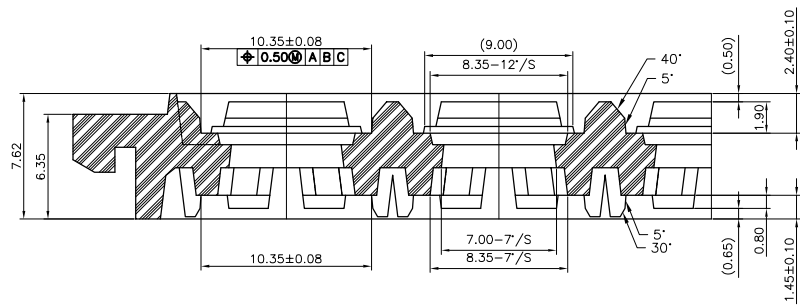
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS STANDARD TOLERANCES ON: DECIMALS .X ± 0.25 .XX ± 0.13 .XXXX + ANGLS ± 1°	DESIGNED BY DEFAULT TEXT	DATE DEFAULT TEXT
	DRAWN BY KWIE	DATE 11/07/19
	CHECKED BY DEFAULT TEXT	DATE DEFAULT TEXT
	APPROVED BY LKSU	DATE 11/07/19
MATERIAL MPPO	APPROVED BY NYI	DATE 11/07/19
FINISH BLACK	APPROVED BY DEFAULT TEXT	DATE DEFAULT TEXT



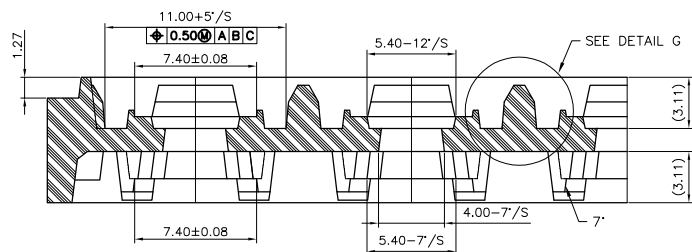
TITLE
 TRAY, SOIC16 10.30X7.50X2.65 MM (KOSTAT)

SIZE A	PART NO. TSO16	DWG NO 002-28229	REV **
SCALED TO FIT	ENG'G REV ENG-00	SHEET 1 OF 2	

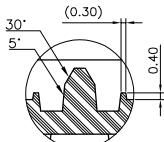
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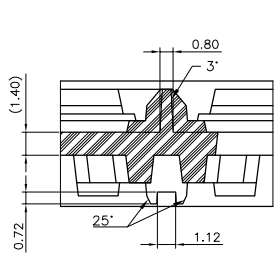
SECTION A-A
SCALE 5:1



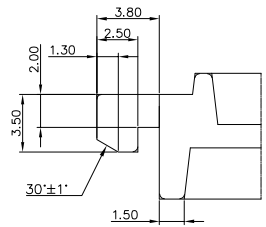
SECTION B-B
SCALE 5:1



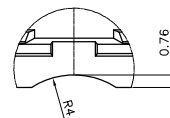
DETAIL G
SCALE 5:1



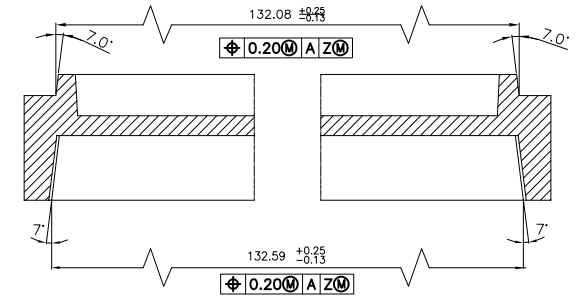
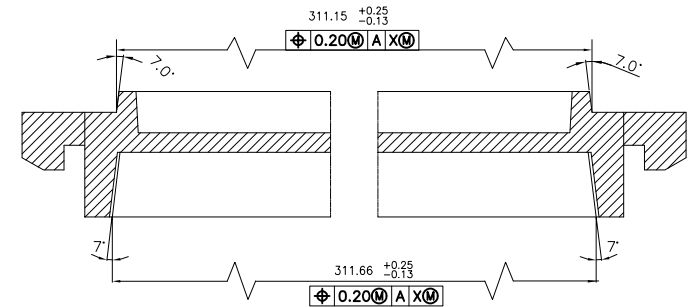
SECTION C-C
SCALE 5:1



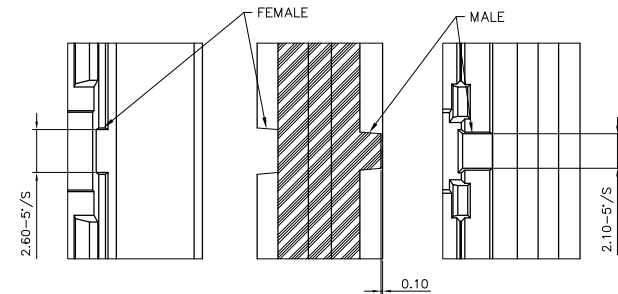
ENDTAB DETAILS
SCALE 5:1



DETAIL "K"
SCALE 5:1



TRAY STACKING
DETAIL SCALE 5:1



SLIPLOCK DETAILS
SCALE 5:1



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TITLE
TRAY, SOIC16 10.30X7.50X2.65 MM (KOSTAT)

SIZE A	PART NO. TSO16	DWG NO 002-28229	REV **
SCALED TO FIT		ENG'G REV ENG-00	SHEET 2 OF 2

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