



Product/Process Change Notice - PCN 20_0165 Rev. -

Analog Devices, Inc. Three Technology Way Norwood, Massachusetts 02062-9106

This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title: Assembly Transfer of Select PBGA Products to ASE Chungli (AET)

Publication Date: 26-Aug-2020

Effectivity Date: 28-Nov-2020 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release.

Description Of Change:

Assembly site for selected (23x23) and (27x27) PBGA parts are moving from STATS ChipPAC Singapore (STA) to ASE Chungli Taiwan (AET).

Change in Mold compound from Sumitomo G770 to Hitachi CEL-9750.

Existing qualified BOM in SK3 will be used.

Reason For Change:

STATS ChipPAC, Singapore (STA) issued a discontinuance notice to ADI to close their wirebonded products assembly by Dec 31, 2020.

ADI's assembly subcontractors manufacture our products using Analog Devices specified manufacturing flows, materials, process controls and monitors. This assures that our customers receive the same level of quality and reliability on products they receive from different manufacturing locations.

Impact of the change (positive or negative) on fit, form, function & reliability:

No impact on form, fit and function or reliability.

Product Identification *(this section will describe how to identify the changed material)*

Parts assembled at AET will be identified by Assembly Lot number and Date Code.

Summary of Supporting Information:

Qualification will be performed per Industry Standard Test Methods. See attached Qualification Plan.

Supporting Documents

Attachment 1: Type: Qualification Plan

ADI_PCN_20_0165_Rev_-_001120_Qual Plan Summary for 23x23 BGA at ASECL Taiwan RevB.pdf

Attachment 2: Type: Qualification Plan

ADI_PCN_20_0165_Rev_-_001122_Qual Plan Summary for 27x27 BGA at ASECL Taiwan RevB.pdf

Attachment 3: Type: Detailed Change Description

ADI_PCN_20_0165_Rev_-_Material Set_STA to AET PBGA Transfer.pdf

Attachment 4: Type: Package Outline Drawing

ADI_PCN_20_0165_Rev_-_STA to AET PBGA Transfer Package Outline Drawing Summary.pdf

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

Americas:

PCN_Americas@analog.com

Europe:

PCN_Europe@analog.com

Japan:

PCN_Japan@analog.com

Rest of Asia:

PCN_ROA@analog.com

Appendix A - Affected ADI Models				
Added Parts On This Revision - Product Family / Model Number (9)				
ADSP-21060L / ADSP-21060LABZ-160	ADSP-21061L / ADSP-21061LKBZ-160	ADSP-21160M / ADSP-21160MKBZ-80	ADSP-21160N / ADSP-21160NCBZ-100	ADSP-BF561 / ADSP-BF561SBBZ500
ADSP-BF561 / ADSP-BF561SBBZ600	ADSP-BF561 / ADSP-BF561SKBZ600	ADSP-TS101S / ADSP-TS101SAB1Z000	ADSP-TS101S / ADSP-TS101SAB1Z100	

Appendix B - Revision History			
Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	26-Aug-2020	28-Nov-2020	Initial Release.

Analog Devices, Inc.

DocId:8127 Parent DocId:None Layout Rev:7

**Assembly Transfer of Select BGA Products
to ASECL Taiwan**

**Qualification Plan Summary for
23x23 BGA at ASECL Taiwan**

TEST	SPECIFICATION	SAMPLE SIZE	EXPECTED COMPLETION DATE
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 32	Nov 2020
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	3 x 11	Nov 2020
Temperature Humidity Bias (THB)*	JEDEC <i>JESD22-A101</i>	3 x 32	Nov 2020
High Temperature Storage (HTS)	JEDEC <i>JESD22-A103</i>	1 x 32	Nov 2020
Unbiased Highly Accelerated Stress Test (UHASt)*	JEDEC <i>JESD22-A102</i>	3 x 32	Nov 2020

* Preconditioned per JEDEC/IPC J-STD-020.

**Assembly Transfer of Select BGA Products
to ASECL Taiwan**

**Qualification Plan Summary for
27x27 BGA at ASECL Taiwan**

TEST	SPECIFICATION	SAMPLE SIZE	EXPECTED COMPLETION DATE
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 32	Nov 2020
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	3 x 11	Nov 2020
Temperature Humidity Bias (THB)*	JEDEC <i>JESD22-A101</i>	3 x 32	Nov 2020
High Temperature Storage (HTS)	JEDEC <i>JESD22-A103</i>	1 x 32	Nov 2020
Unbiased Highly Accelerated Stress Test (UHASt)*	JEDEC <i>JESD22-A118</i>	3 x 32	Nov 2020

* Preconditioned per JEDEC/IPC J-STD-020.

BOM Change Summary

► ADSP-21060L, ADSP-21061L and ADSP-21160M

Assembly Site	STATS Singapore - STA (From)	ASE Taiwan – AET (To)
Wire	Au / 1.2 mil	Au / 1.2 mil
Die Attach	Ablestik 2000 conductive	AB-2100 Conductive
Mold Compound	Sumitomo G770	Hitachi CEL-9750
Ball Size	0.75	0.75
Ball Composition	96.5Sn_3.0Ag_0.5Cu	96.5Sn_3.0Ag_0.5Cu

BOM Change Summary

► ADSP-21160N

Assembly Site	STATS Singapore - STA (From)	ASE Taiwan – AET (To)
Wire	Au / 1.0 mil	Au / 1.0 mil
Die Attach	Ablestik 2000 conductive	AB-2100 Conductive
Mold Compound	Sumitomo G770	Hitachi CEL-9750
Ball Size	0.75	0.75
Ball Composition	96.5Sn_3.0Ag_0.5Cu	96.5Sn_3.0Ag_0.5Cu

BOM Change Summary

► ADSP-BF561

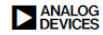
Assembly Site	STATS Singapore - STA (From)	ASE Taiwan – AET (To)
Wire	Au / 1.0 mil	Au / 1.0 mil
Die Attach	Ablestik 2000 conductive	AB-2100 Conductive
Mold Compound	Sumitomo G770	Hitachi CEL-9750
Ball Size	0.6	0.6
Ball Composition	96.5Sn_3.0Ag_0.5Cu	96.5Sn_3.0Ag_0.5Cu

BOM Change Summary

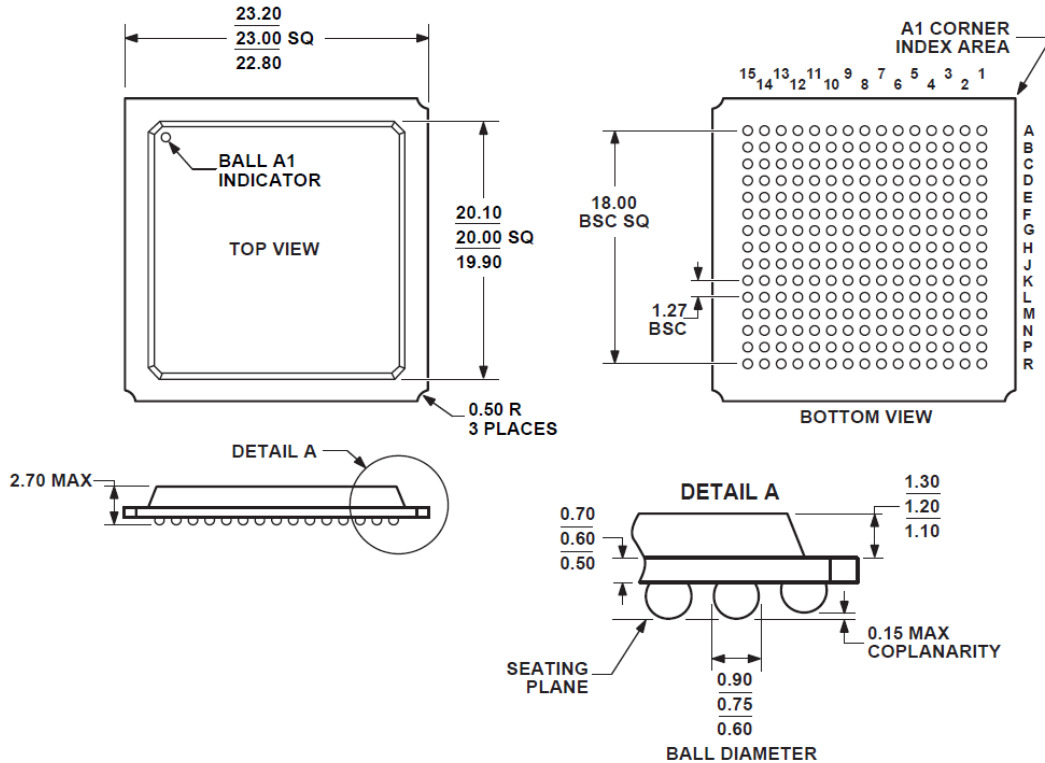
► ADSP-TS101S

Assembly Site	STATS Singapore - STA (From)	ASE Taiwan – AET (To)
Wire	Au / 1.2 mil	Au / 1.2 mil
Die Attach	Ablestik 2000 conductive	AB-2100 Conductive
Mold Compound	Sumitomo G770	Hitachi CEL-9750
Ball Size	0.6	0.6
Ball Composition	96.5Sn_3.0Ag_0.5Cu	96.5Sn_3.0Ag_0.5Cu

Package Outline Drawing Summary B-225



225-Ball Plastic Ball Grid Array [PBGA]
(B-225-2)
Dimensions shown in millimeters

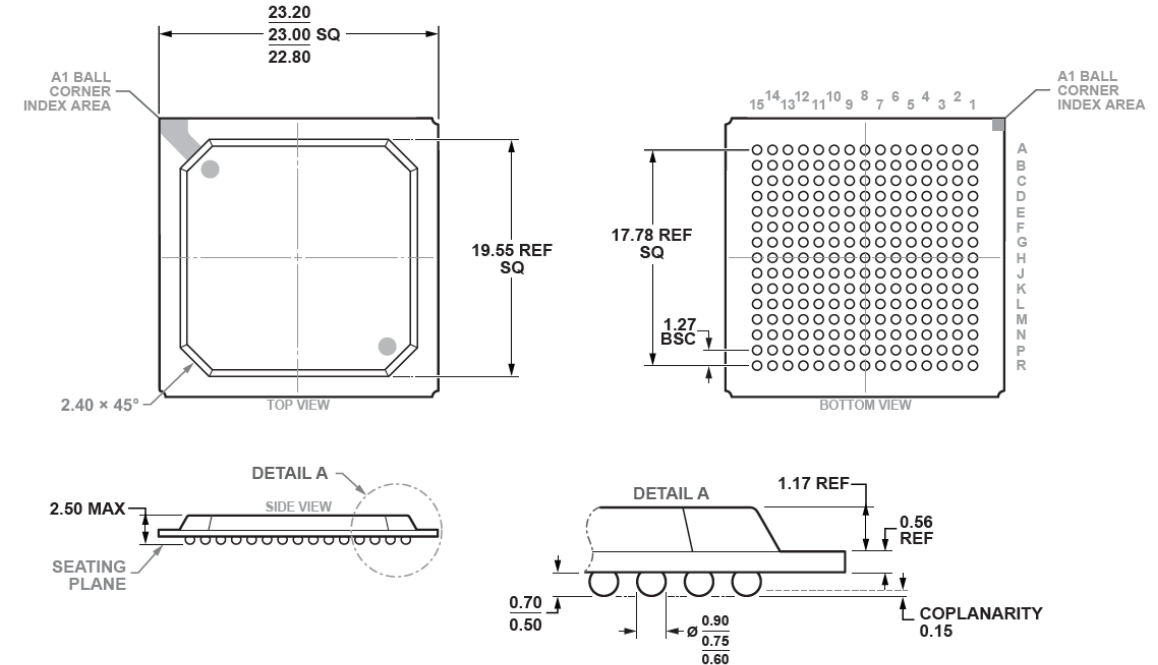


COMPLIANT TO JEDEC STANDARDS MS-034-AAJ-2

PBGA – B-225-2 (STA)
2.70mm Max Height



225-Ball Plastic Ball Grid Array [PBGA]
(B-225-3)
Dimensions shown in millimeters



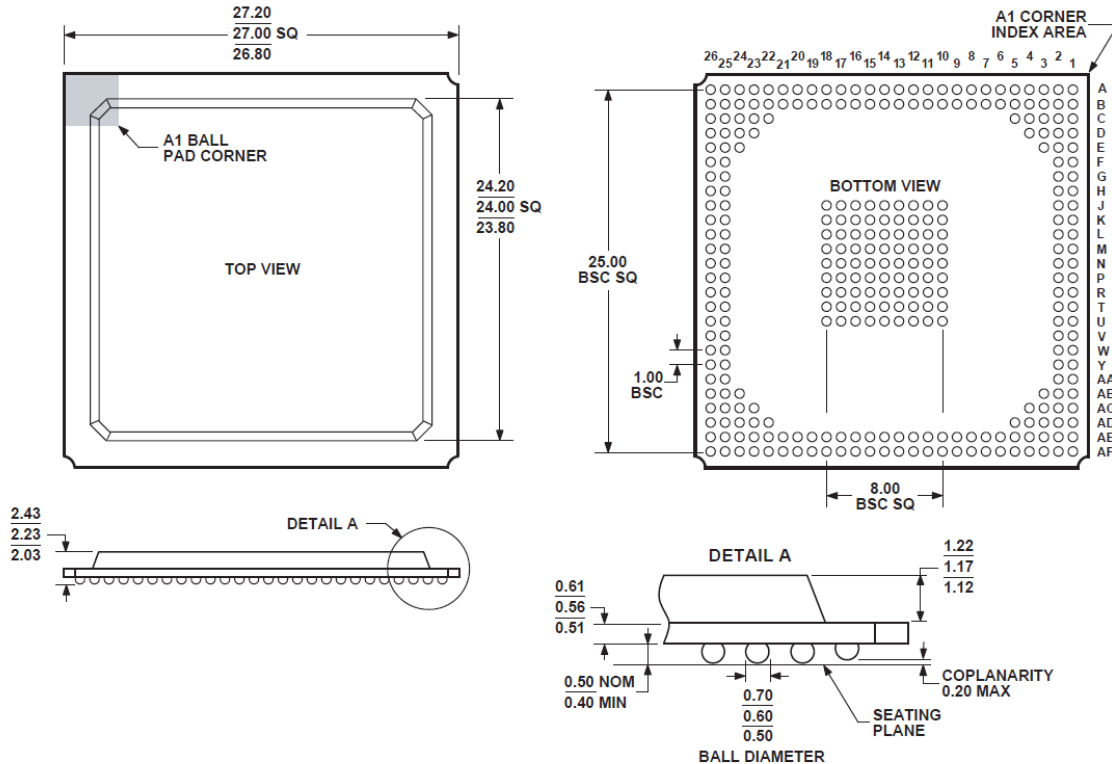
COMPLIANT TO JEDEC STANDARDS MO-034-BAJ-2 WITH EXCEPTION TO BALL COUNT.

PBGA – B-225-3 (AET)
2.50mm Max Height

Package Outline Drawing Summary B-297



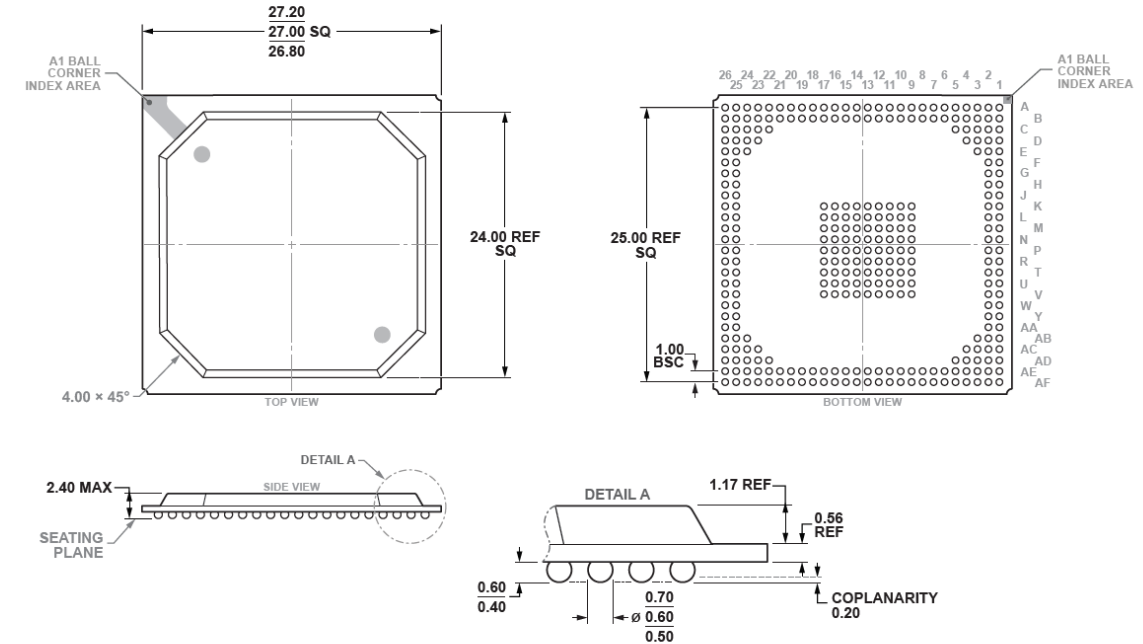
297-Ball Plastic Ball Grid Array [PBGA]
(B-297)
Dimensions shown in millimeters



PBGA – B-297 (STA)
2.43mm Max Height



297-Ball Plastic Ball Grid Array [PBGA]
(B-297-1)
Dimensions shown in millimeters

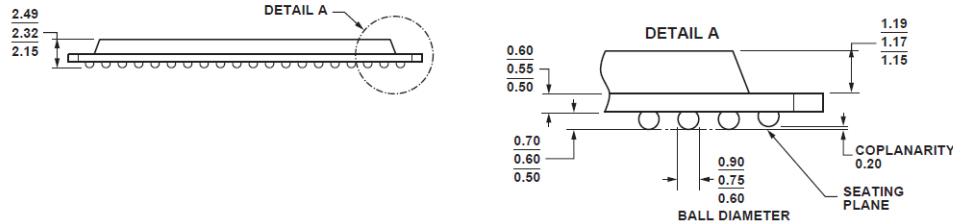
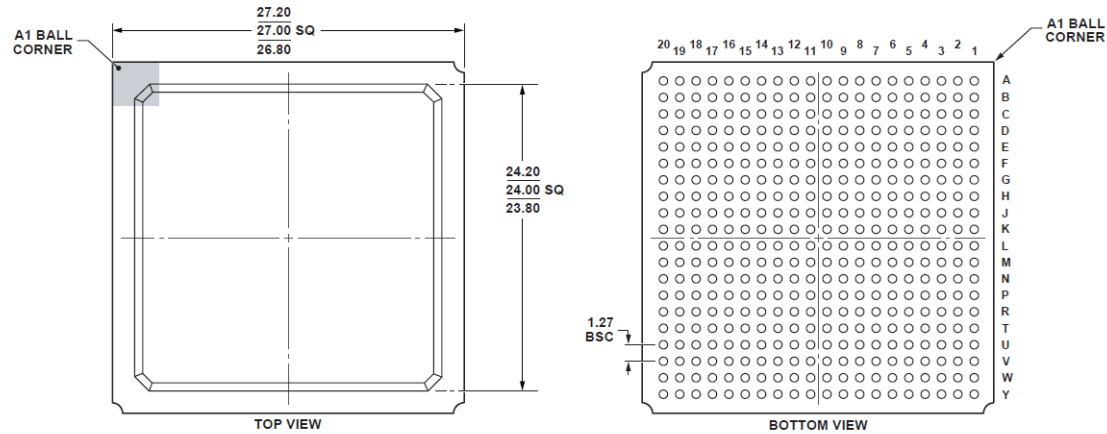


PBGA – B-297-1 (AET)
2.40mm Max Height

Package Outline Drawing Summary B-400



400-Ball Plastic Ball Grid Array [PBGA]
(B-400)
Dimensions shown in millimeters



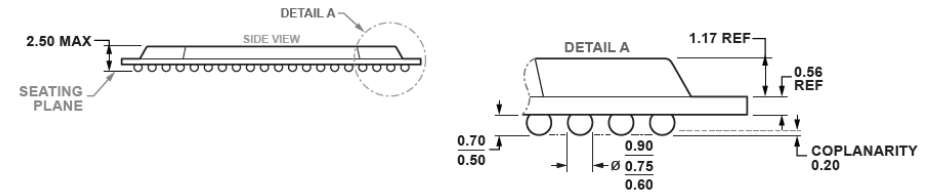
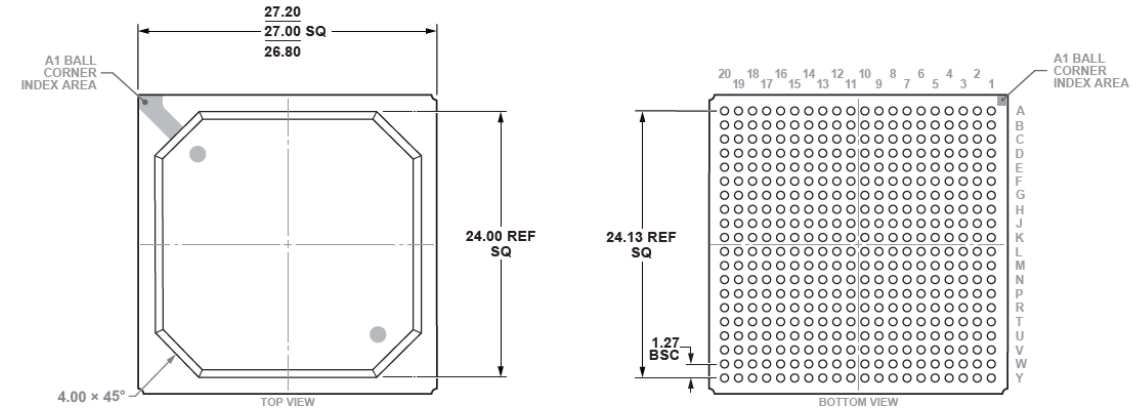
COMPLIANT TO JEDEC STANDARDS MS-034-BAL-2

07-05-2012-A

PBGA – B-400 (STA)
2.49mm Max Height



400-Ball Plastic Ball Grid Array [PBGA]
(B-400-2)
Dimensions shown in millimeters



COMPLIANT TO JEDEC STANDARDS MO-034-BAL-2

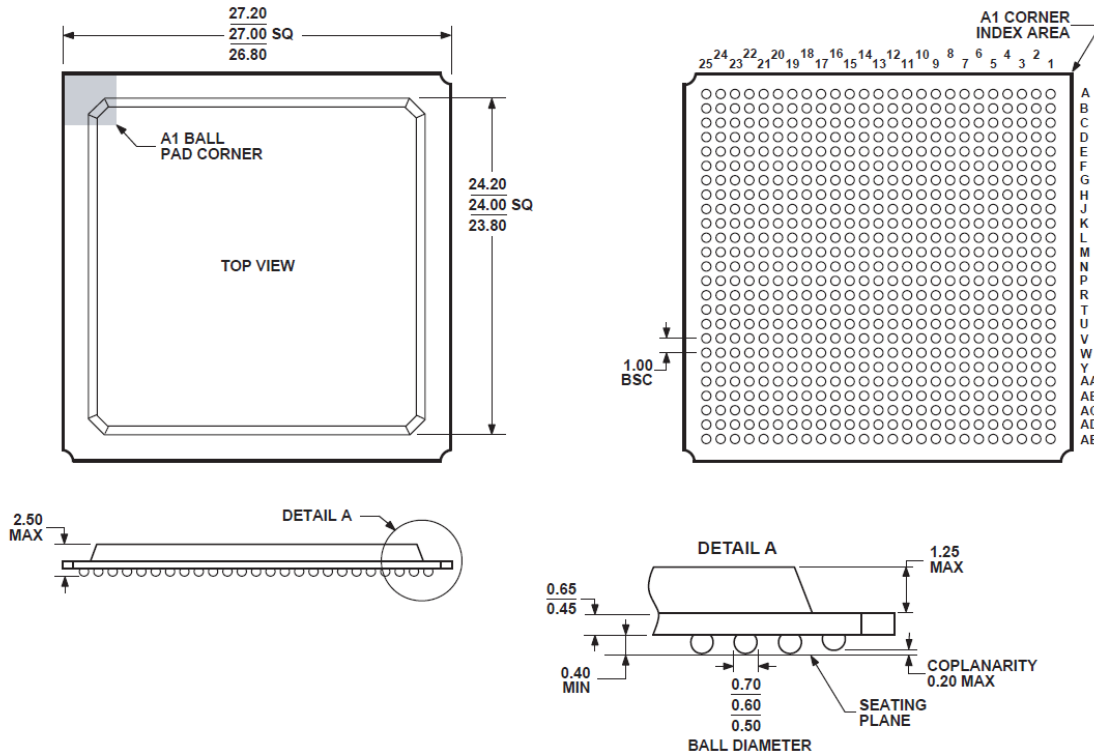
07-05-2020-A

PBGA – B-400-2 (AET)
2.50mm Max Height

Package Outline Drawing Summary B-625



625-Ball Plastic Ball Grid Array [PBGA]
(B-625)
Dimensions shown in millimeters

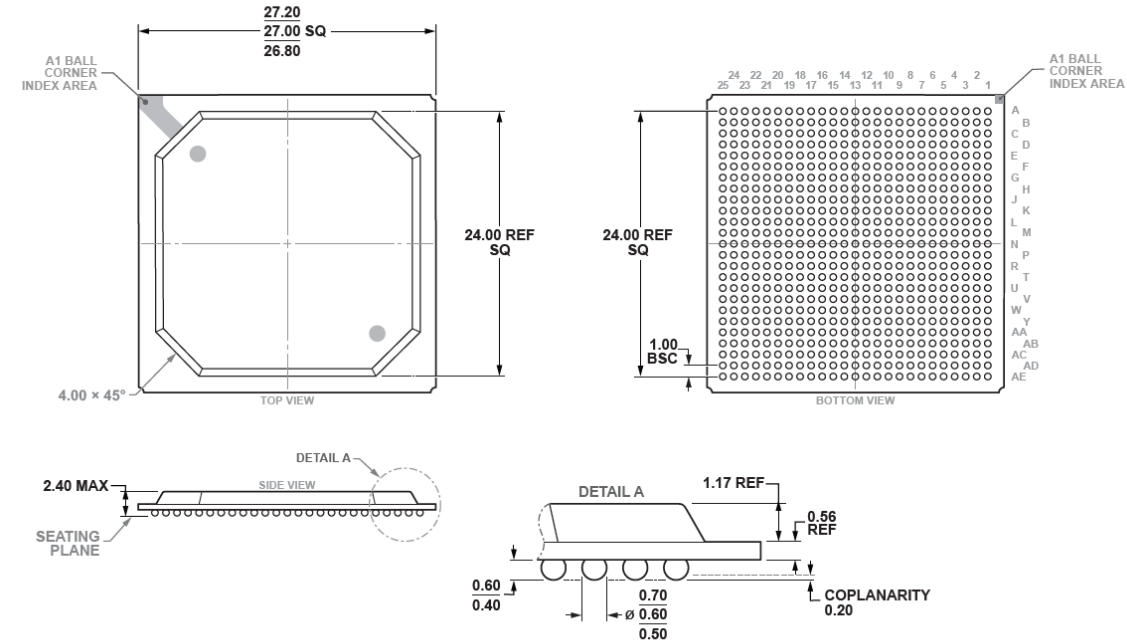


COMPLIANT TO JEDEC STANDARDS MS-034-AAL

PBGA – B-625 (STA)
2.50mm Max Height



625-Ball Plastic Ball Grid Array [PBGA]
(B-625-2)
Dimensions shown in millimeters



COMPLIANT TO JEDEC STANDARDS MO-034-AAL-2

PBGA – B-625-2 (AET)
2.40mm Max Height