

LANL 126Y-267912

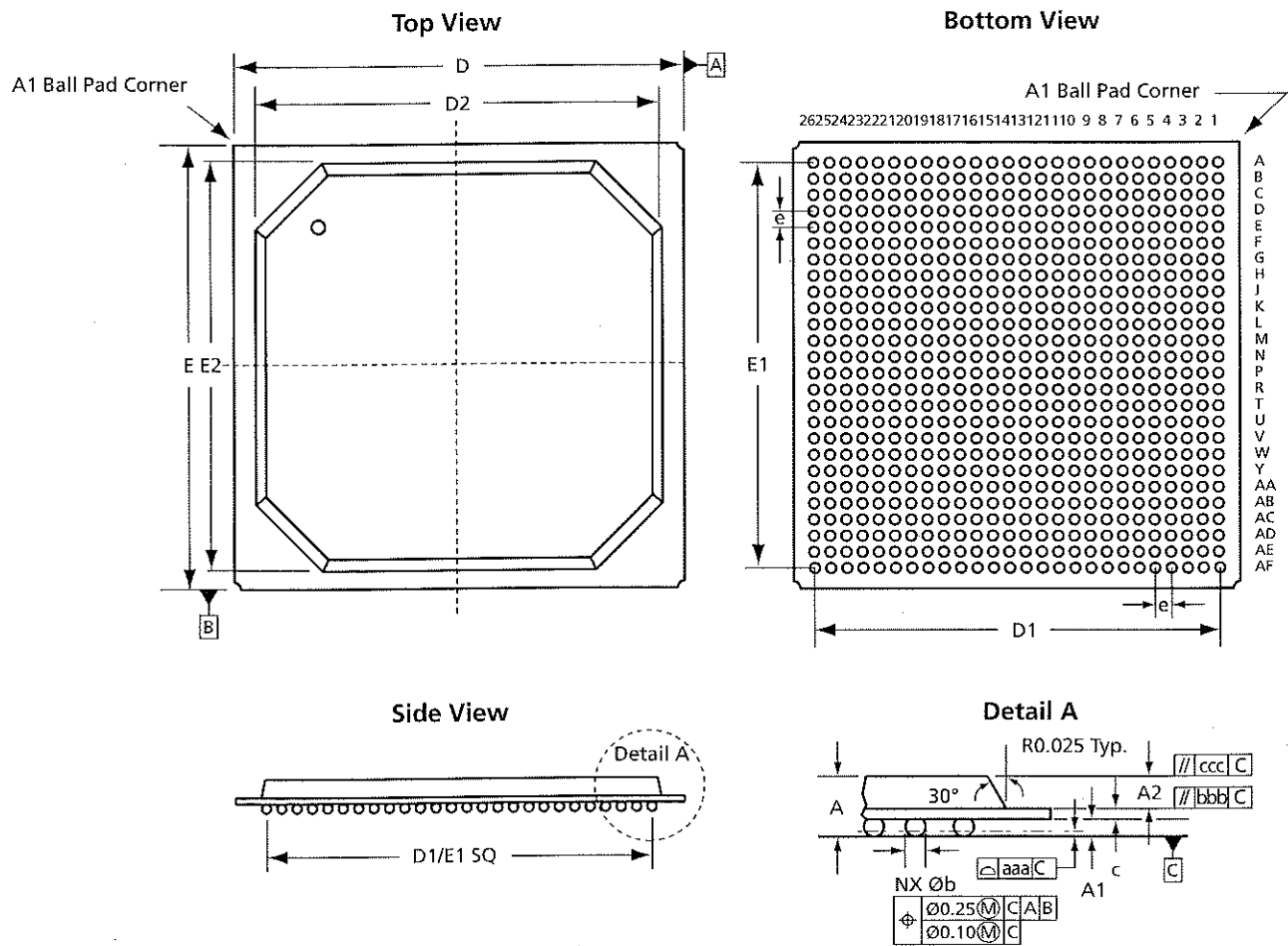
LAYOUT REVIEW

SENT FOR REVIEW AND FEEDBACK ON 08/28/08

- **PG-2 FOOTPRINTS (U1-U5)**
 - ALL BGA footprints are 1mm pitch
- **PG-3 VIEW-1**
- **PG-4 VIEW-2**
- **PG-5 BOARD DIMENSIONS**
- **PG-6 STACK UP NOTES**

Fine Pitch Plastic Ball Grid Array

676-Pin FG



Note: Dimensions are in millimeters. Please see the "Fine Pitch Plastic Ball Grid Array Dimensions" on page 60 for the dimensions.

Supported Devices				
A500K270*	APA600	AX500	A3PE1500/M1A3PE1500	AFS1500/M1AFS1500
	APA750	AX1000		

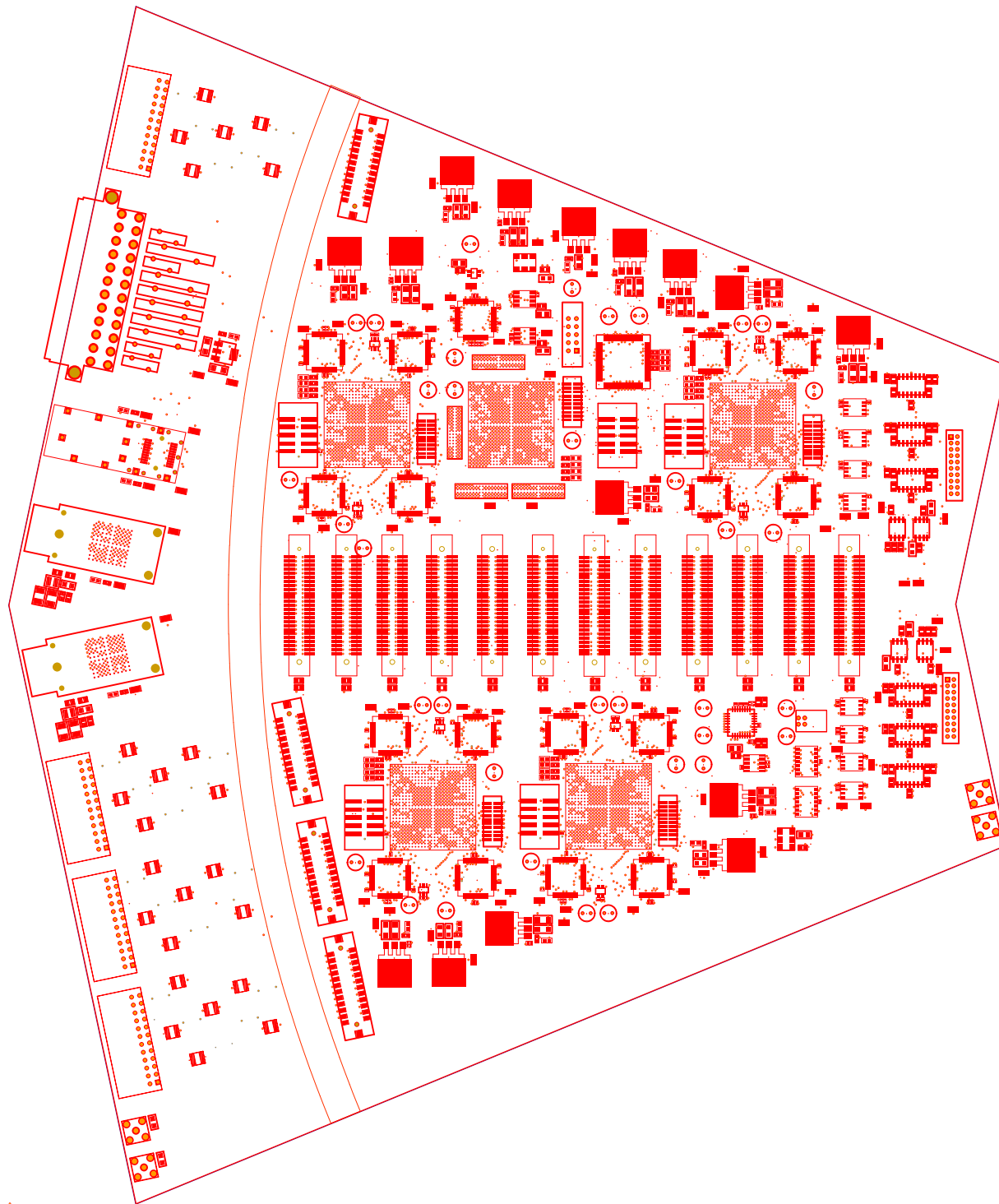
Note: *This product is obsolete.

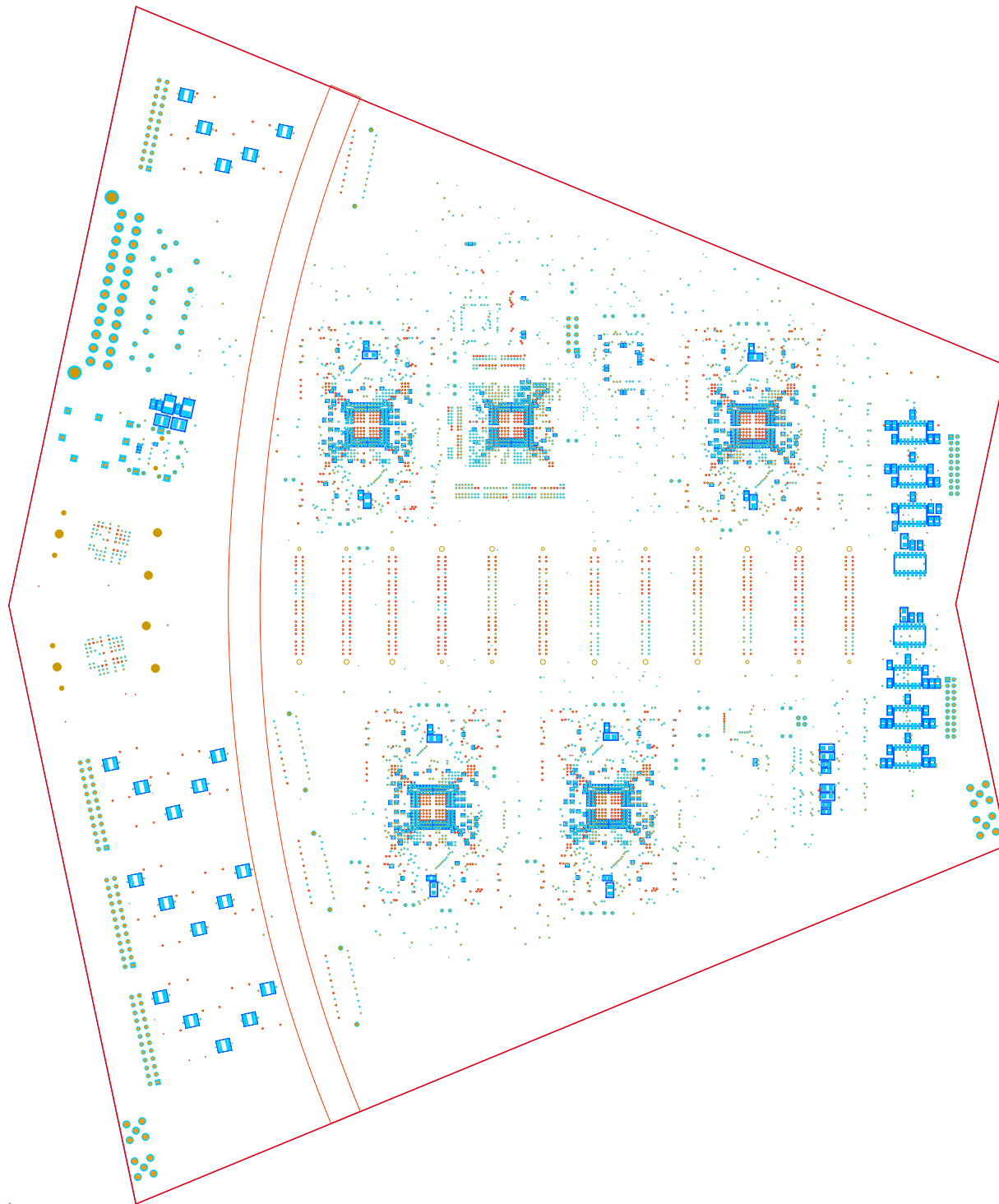


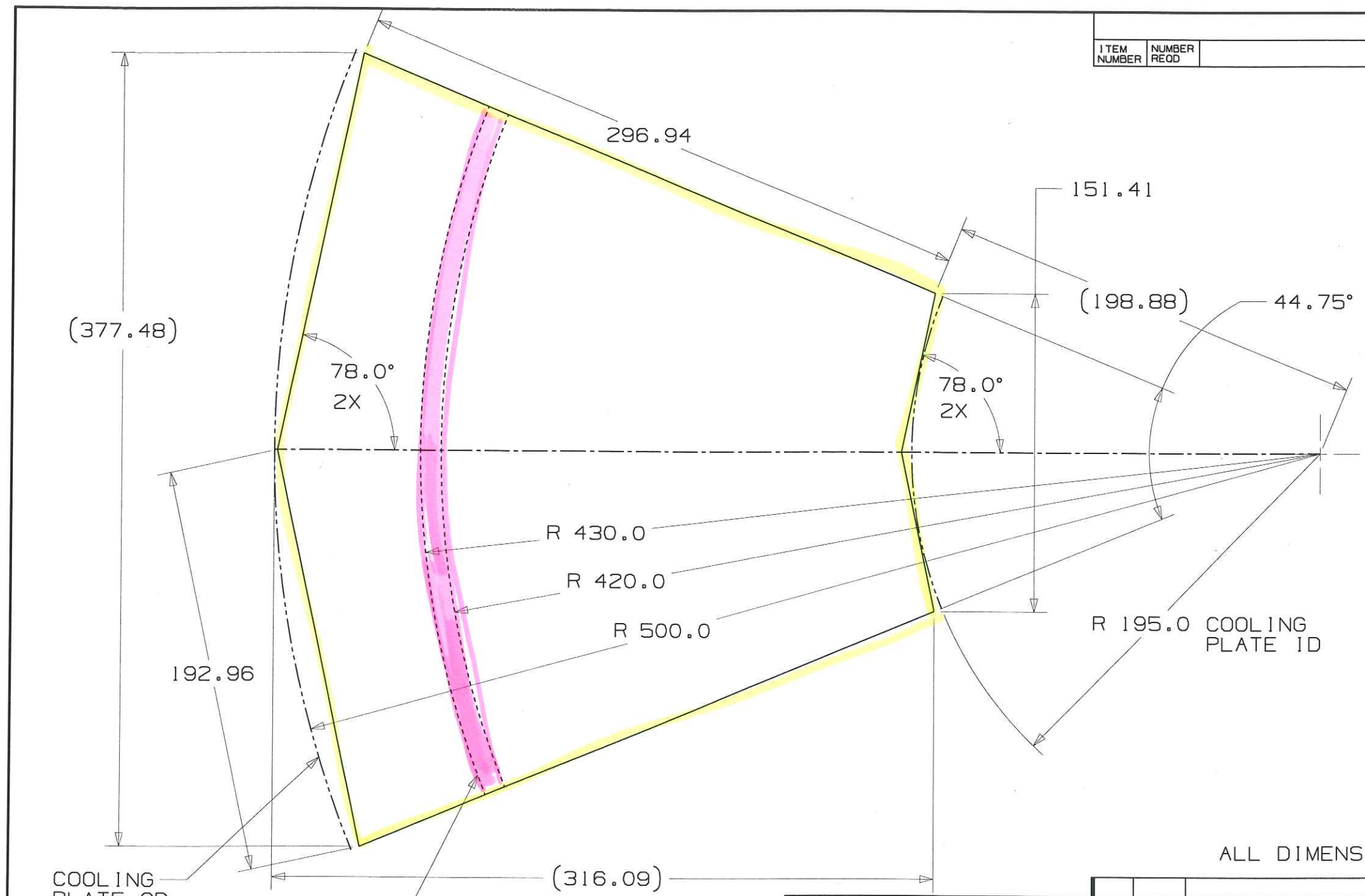
JEDEC Equivalent	FBGA 484 (page 55) (23x23 Fully Populated) MS-034 VAR AAJ-1			FBGA 676 (page 56) MS-034 VAR AAL-1			FBGA 896 (page 57) MS-034 VAR AAN-1			FBGA 1152 (page 58) MS-034 VAR AAR-1		
	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.
A	2.02	2.23	2.44	2.02	2.23	2.44	2.02	2.23	2.44	2.02	2.23	2.44
A1	0.40	0.50	0.60	0.40	0.50	0.60	0.40	0.50	0.60	0.40	0.50	0.60
A2	1.12	1.17	1.22	1.12	1.17	1.22	1.12	1.17	1.22	1.12	1.17	1.22
aaa	0.20			0.20			0.20			0.20		
b	0.50	0.63	0.70	0.50	0.63	0.70	0.50	0.63	0.70	0.50	0.63	0.70
bbb	0.25			0.25			0.25			0.25		
c	0.50	0.56	0.62	0.50	0.56	0.62	0.50	0.56	0.62	0.50	0.56	0.62
ccc	0.35			0.35			0.35			0.35		
D	22.80	23.00	23.20	26.80	27.00	27.20	30.80	31.00	31.20	34.80	35.00	35.20
D1	21.00 BSC			25.00 BSC			29.00 BSC			33.00 BSC		
D2	19.45	19.50	20.20	23.95	24.00	24.70	25.95	26.00	26.70	33.65	33.70	34.20
E	22.80	23.00	23.20	26.80	27.00	27.20	30.80	31.00	31.20	34.80	35.00	35.20
E1	21.00 BSC			25.00 BSC			29.00 BSC			33.00 BSC		
E2	19.45	19.50	20.20	23.95	24.00	24.70	25.95	26.00	26.70	33.65	33.70	34.20
e	1.00 typ.			1.00 typ.			1.00 typ.			1.00 typ.		

- Notes:**
1. All dimensions are in millimeters.
 2. BSC—Basic Spacing between Centers









ITEM NUMBER	NUMBER REQD	DESCRIPTION
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Stacy,
 The yellow is the board outline
 please rotate 90° clockwise
 if possible
 Please include the pink
 as a component keepout
 Thank you
 Mark

ALL DIMENSIONS IN MILLIMETERS

CLASSIFICATION:				ORIGINAL ISSUE									
DRAWING:		PART:		TITLE BLOCK:		REV	CLASS REVIEW	REVISIONS		DATE	CHANGED BY	CHECKED BY	APPROVED BY
ORIG	SIGNATURE	DATE	GROUP	LOS ALAMOS				TITLE					
DRAWN	PROKOP	4/08	AOT-RFE	LOS ALAMOS NATIONAL LABORATORY LOS ALAMOS, NEW MEXICO, 87545				iFVTX ROC CARD, 45 DEGREE CARD, PHENIX VTX UPGRADE					
CHECKED	WALT	4/08	P-25	TOLERANCE - (UNLESS OTHERWISE NOTED)				PHENIX DRAWING NO.					
PROJ ENGR				X:± 0.XX ± .05 ANG:± .5				SCALE TOTAL SHEETS DRAWING NO. SIZE NO.					
APPROVED				.X:± 0.XXX ± FIN:				B					
RELEASED													

Proposed stacks			conventional	conventional		
1	copper	0.0007	1 thru 16 .008 hole .018 pad	1 thru 8 .008 hole .018 pad		GND/50 OHM SIGNAL
	dielectric	0.003				
2	copper	0.0007				GND
	dielectric	0.004				
3	copper	0.0007				Pair Layer (3.5trace---5.5 space)
	dielectric	0.005				
4	copper	0.0007				POWER
	dielectric	0.004				
5	copper	0.0007			Pair Layer (3.5trace---5.5 space)	
	dielectric	0.005				
6	copper	0.0007			GND	
	dielectric	0.004				
7	copper	0.0007			Pair Layer (3.5trace---5.5 space)	
	dielectric	0.005				
8	copper	0.0007			POWER	
	dielectric	0.006				
9	copper	0.0007		9 thru 16 .008 hole .018 pad		GND
	dielectric	0.005				
10	copper	0.0007				Pair Layer (3.5trace---5.5 space)
	dielectric	0.004				
11	copper	0.0007				POWER
	dielectric	0.005				
12	copper	0.0007				Pair Layer (3.5trace---5.5 space)
	dielectric	0.004				
13	copper	0.0007				GND
	dielectric	0.005				
14	copper	0.0007				SIGNAL
	dielectric	0.004				
15	copper	0.0007				POWER
	dielectric	0.003				
16	copper	0.0007			GND/50 OHM SIGNAL	
0.004 ***plus plating (.001)						
thk			0.0812			