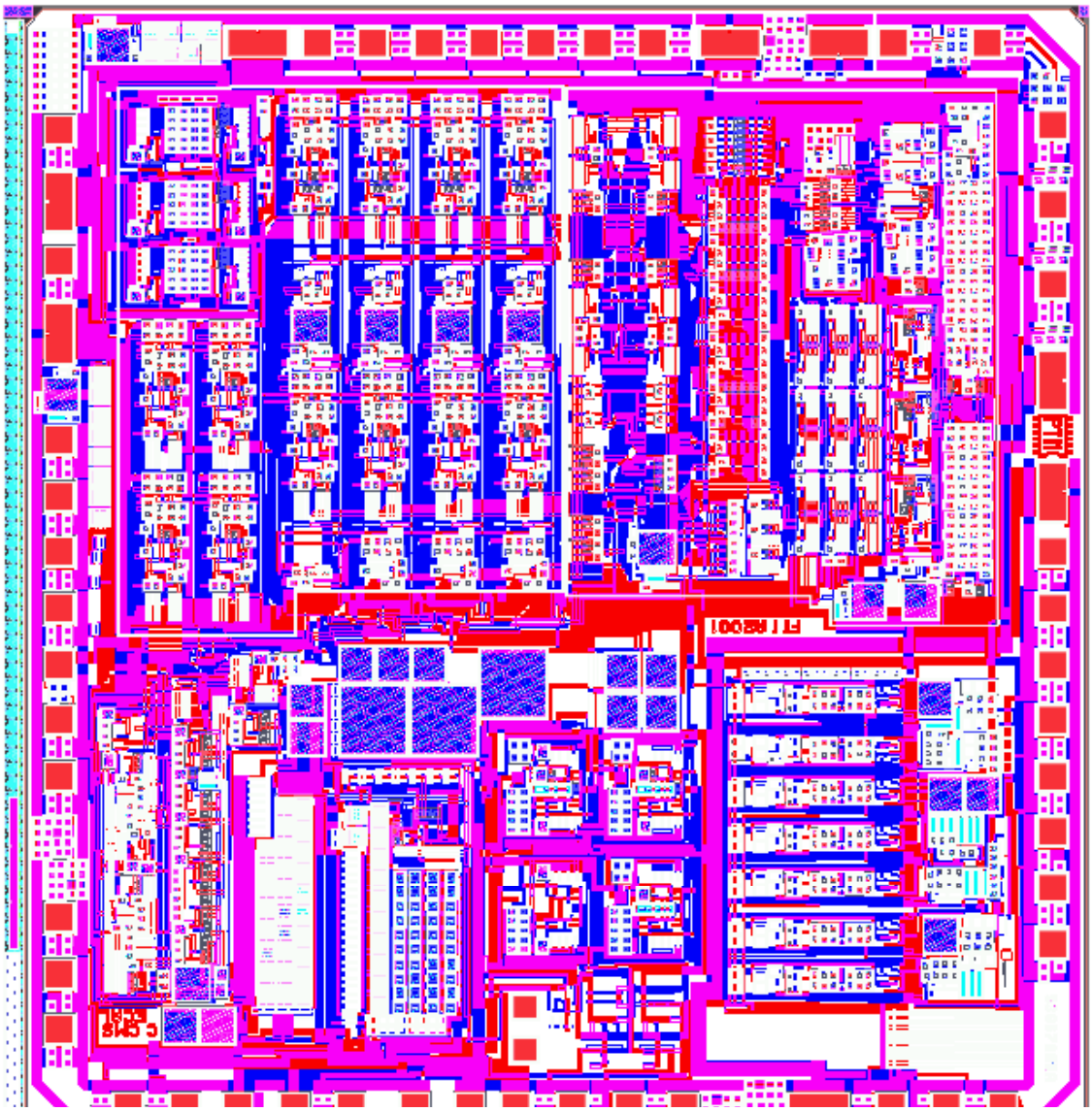
FPPA 2001 Mechanical Specification

Revision: 2 – 11 November 2002

Die Dimensions	Microns[§]	Mils	**Package Specification**	
x-size	5850	230	Package	EDQUAD 10x10x1.4
y-size	5480	215	Base	L/F 270 mils sq. EFTEC64T
Thickness (before thinning)	490	19	Leads	SnPb electroplated
Backside (before thinning)	Rough Si		Die Attach	Conductive 8361J
Pad opening	130 (min)	5.1	Bond Wire	Gold 1.3 mils
Bonded pads	62 (+1 downbond)		Mold Compound	EME6650RA
Pad metal	AlSi		**Special Instructions**	
Passivation	Nitride		Double bond pads	
			Pad 19 – bond to pad ring (ground)	
			Heatsink attach 965-1L	

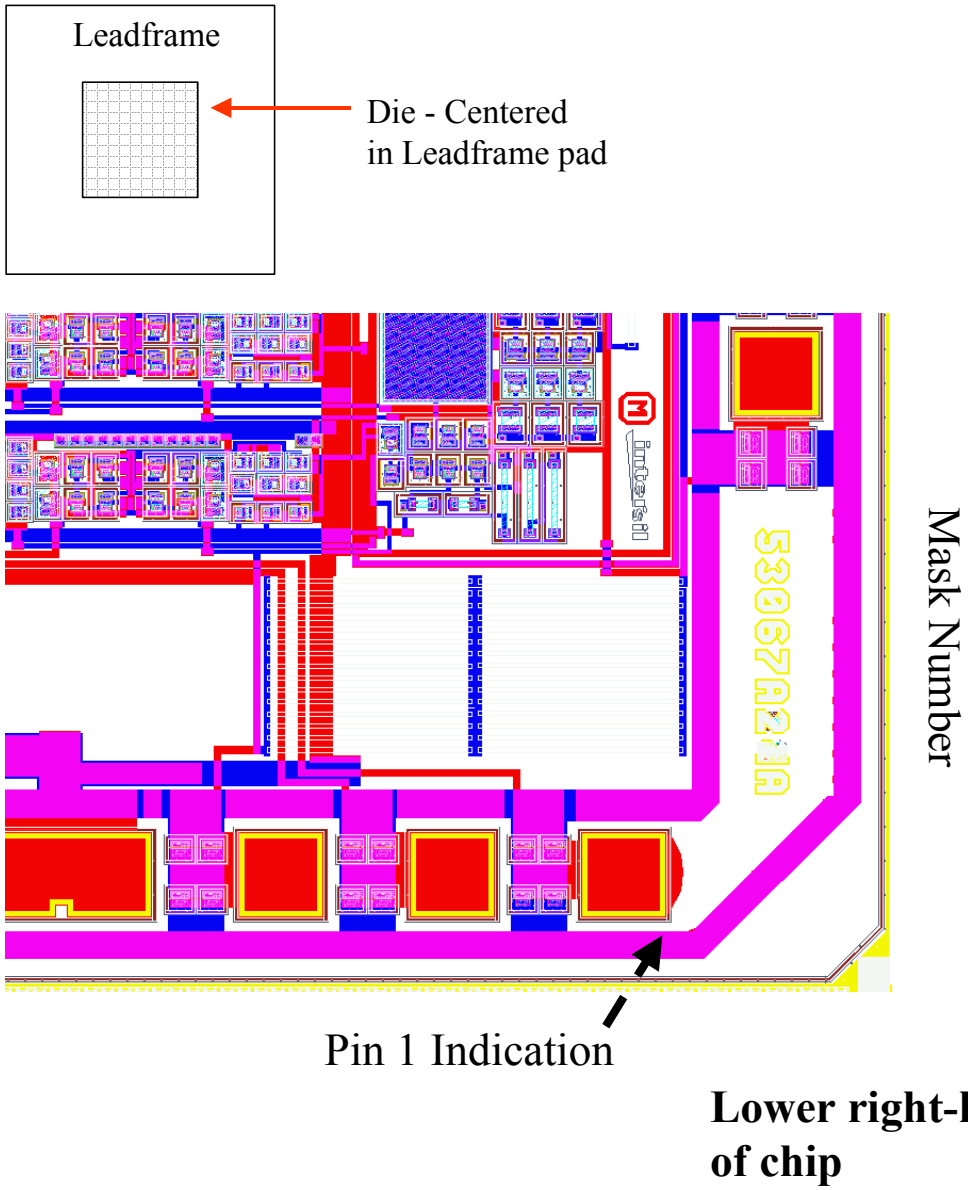
[§] Controlling dimension

Die artwork as seen from top. Die is mounted **<u>die down</u>**.



Die Orientation: Center die on leadframe pad.

Die Orientation



Lower right-hand corner of chip

(Updated 11 Nov 02)

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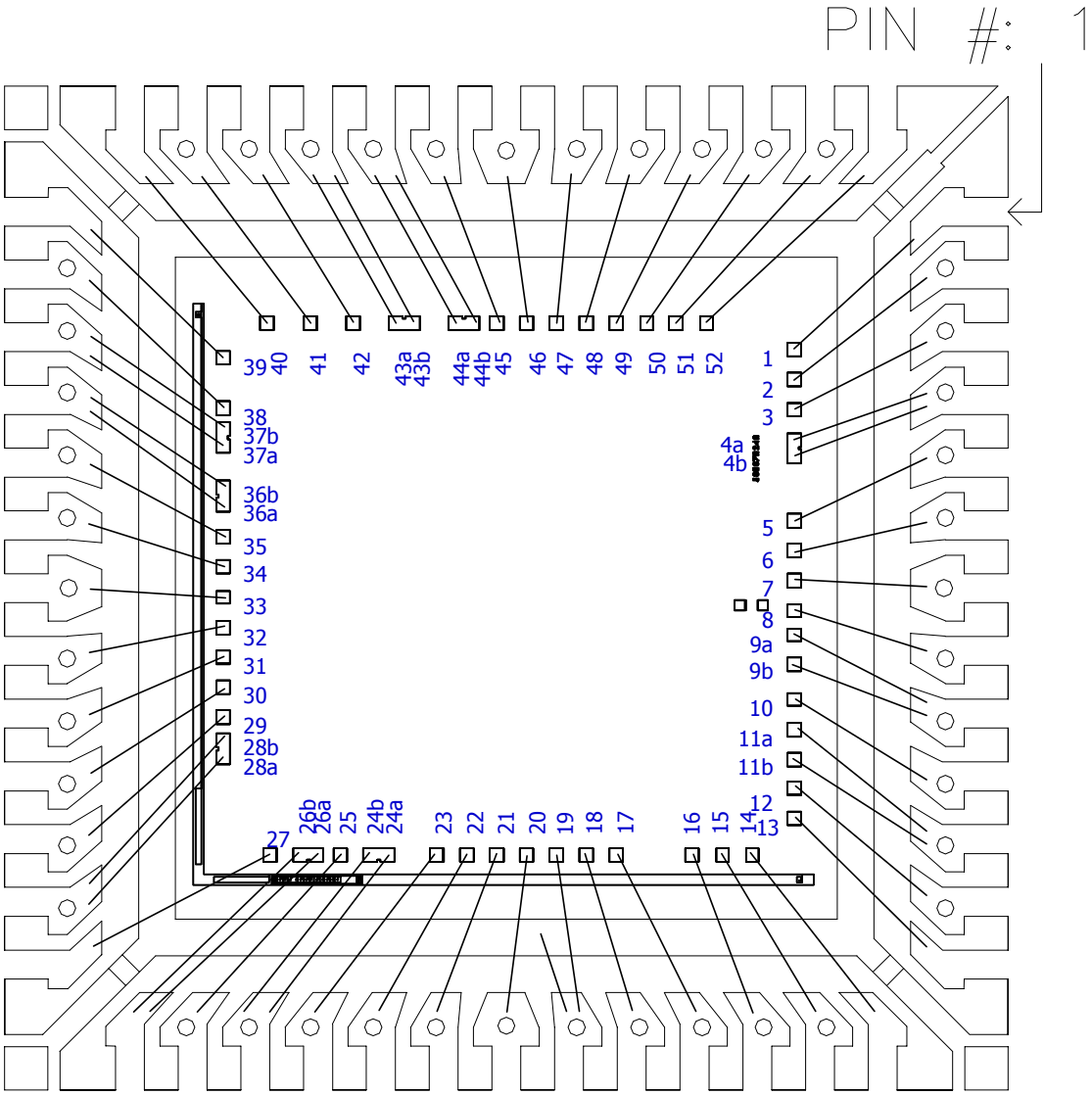
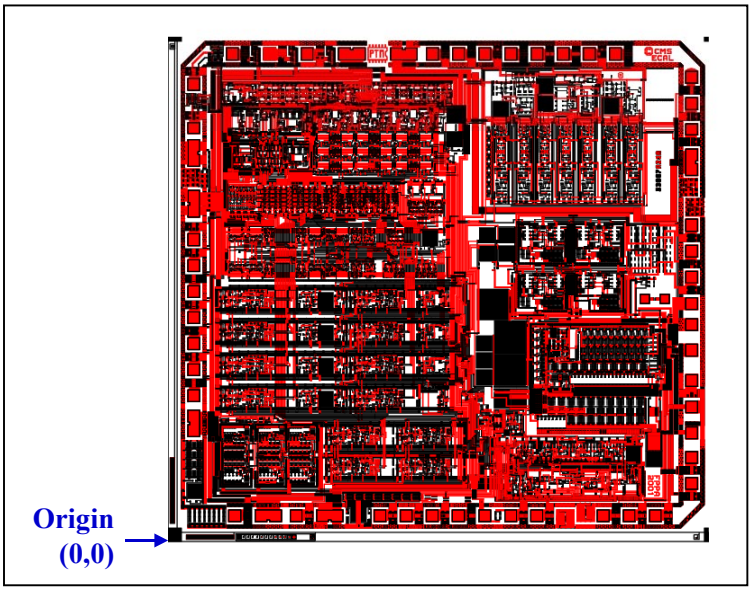
Bonding locations **shown for <u>die down</u> mounting**





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Pad name and location – looking at die. Die is mounted die down. Positions are in microns relative to chip origin

Pad	X(cen)	Y(cen)	Name	Pad	X(cen)	Y(cen)	Name
1	5713	5088.7	LEAKIN	27	730	283	FPUOUT
2	5713	4803.7	LEAKREF1	28a	283	1214.7	VCCD
3	5713	4518.7	LEAKREF2	28b	283	1374.7	VCCD
4a	5713	4073.7	VCCA	29	283	1597.7	FPIN0
4b	5713	4233.7	VCCA	30	283	1882.7	FPIN1
5	5713	3465.2	PAC33	31	283	2167.7	FPIN2
6	5713	3180.2	PAC9	32	283	2452.7	FPIN3
7	5713	2895.2	PAC5	33	283	2737.7	CKIN
8	5712.8	2606.2	PAIN	34	283	3022.7	CKI
9	5712.8	2096.2	VCCPA	35	283	3307.7	RDELAY
9	5712.8	2375.2	VCCAMP	36a	283	3619.5	VEED
10	5713	1765.2	PAOUT	36b	283	3779.5	VEED
11	5713.3	1191.2	VEEAMP	37a	283	4175.7	VEEO
11	5713.3	1476.2	VEEPA	37b	283	4335.7	VEEO
12	5713	922	BUFBYP	38	283	4533.7	CKADN
13	5713	637	BIASBYP	39	283	5012.7	CKAD
14	5317.5	283	PARF	40	702	5342.7	FPO0
15	5032.5	283	PACC	41	1110	5342.7	FPO1
16	4747.5	283	IBIAS	42	1518	5342.7	FPO2
17	4024	283	REXT	43a	1926	5342.7	VCCO
18	3739	283	AGND_B	43b	2086	5342.7	VCCO
19	3455.9	283	EPI	44a	2493.9	5342.7	VEEA
20	3168.5	283	BIASTIA	44b	2653.9	5342.7	VEEA
21	2883.5	283	BIASFPUA	45	2885.4	5342.7	TEMPREF
22	2598.5	283	BIASFPUD	46	3170.4	5342.7	TEMPIN
23	2313.5	283	BIASDP	47	3455.4	5342.7	TEMPROFF
24a	1686	283	VEEA	48	3740.4	5342.7	TEMPREF1
24b	1846	283	VEEA	49	4025.4	5342.7	TEMPREF2
25	1400.5	283	ADREF	50	4310.4	5342.7	TEMPREF2DUMMY
26a	1015	283	VCCA	51	4595.4	5342.7	AGND_S
26b	1175	283	VCCA	52	4880.4	5342.7	TEMPREF1DUMMY

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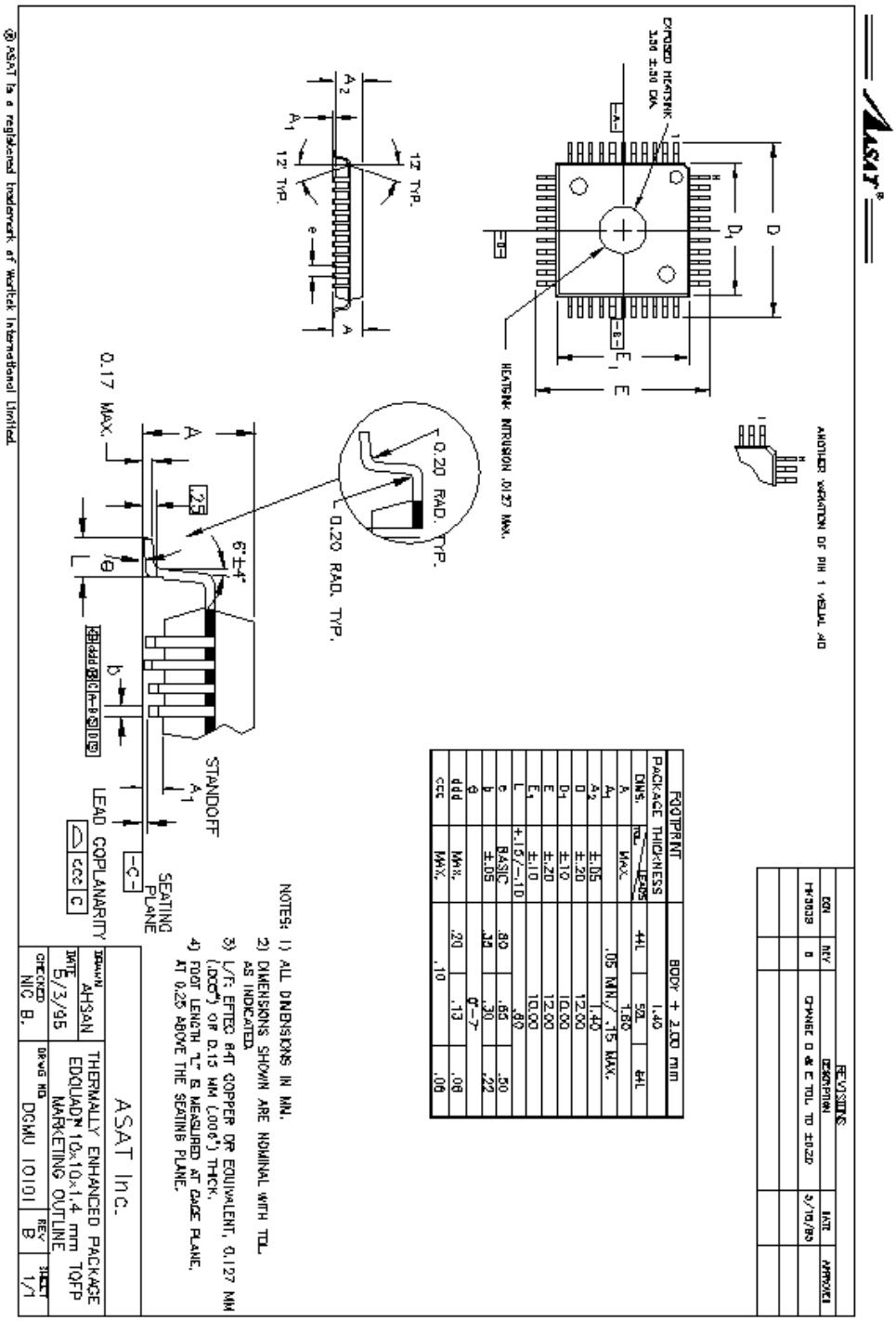
ASAT – Package Mechanical Drawing



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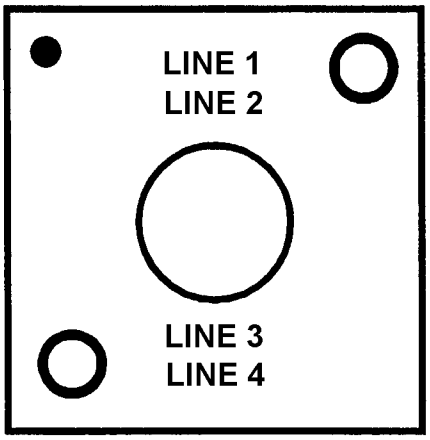
Package Marking Instructions



Line 1: *Project*: **CMS ECAL**
Line 2: *Circuit*: **FPPA2001**
Line 3: *Mask ID*: **53067A**
Line 4: *Date Code*: **YY** (year) **MM** (month)

Tray packaging:

Antistatic plastic stacked matrix trays + cover, 96 units/tray, vacuum packaged in hermetically sealed antistatic bag

Rev. 2 11-Nov-02
Corrected mis-print 270 (not 250) mil L/F
Updated chip metal picture and pin 1 area to reflect final layout…