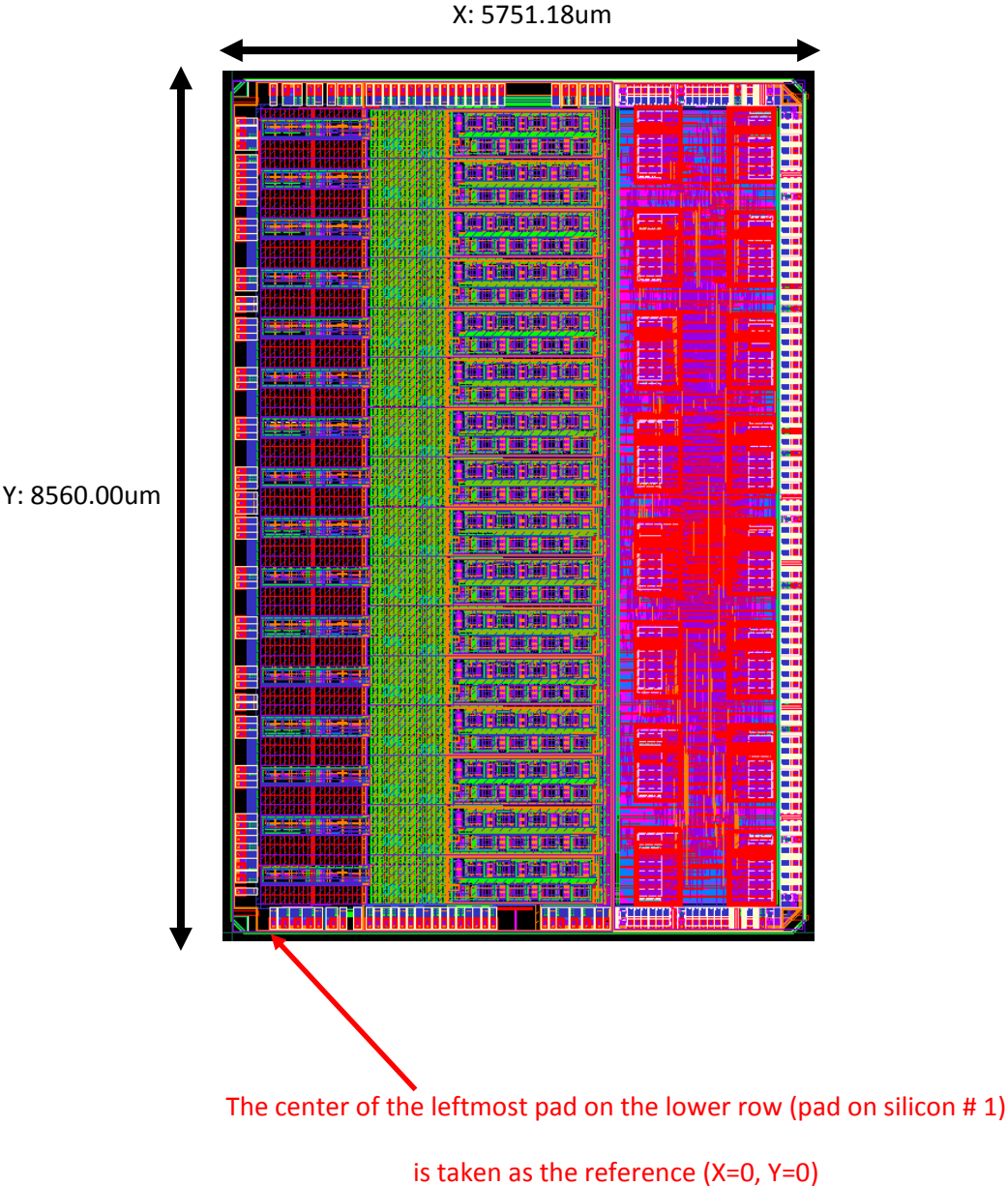


SALTRO16 Bonding Information

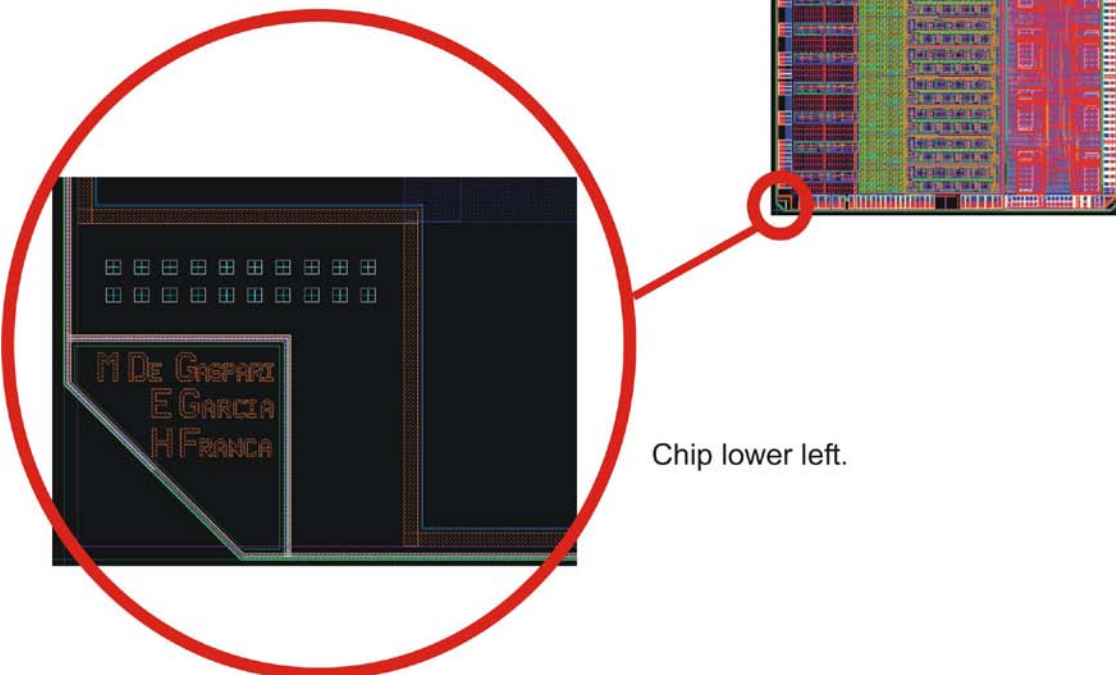
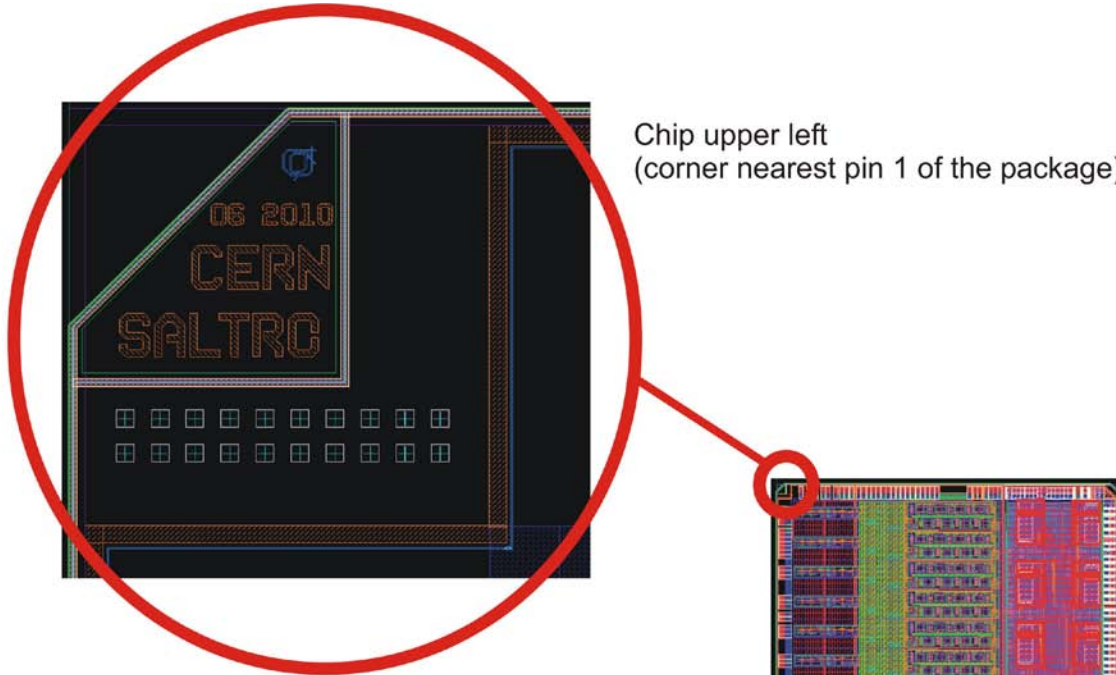
Chip Layout:



The indicated sizes refer to the sizes of the CHIPEDGE layer.

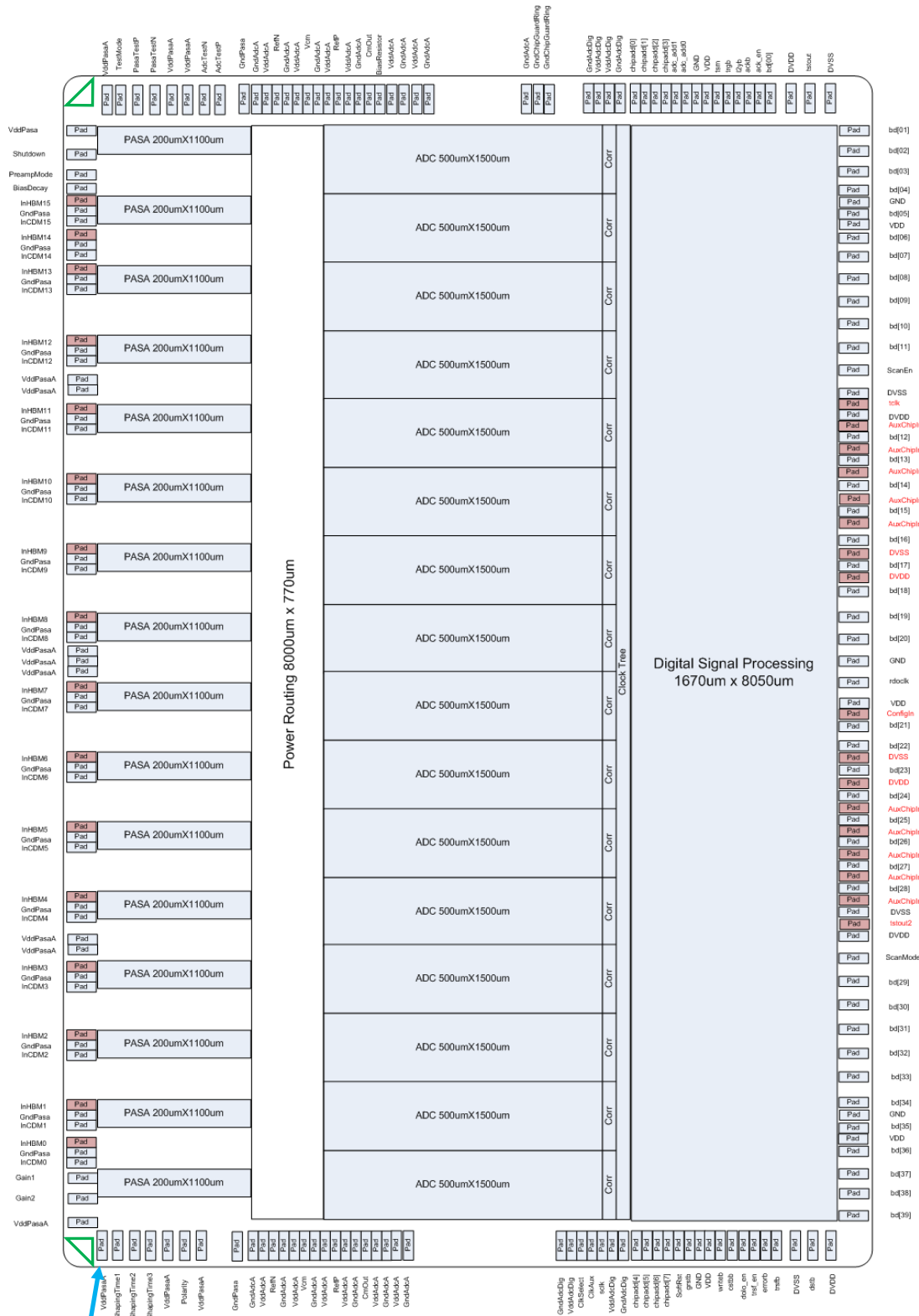
The Logo positions.

The chip has two logos. Both logos are located on the left side of the chip as shown below. The upper left logo is to be located nearest pin 1 of the package.



Pad names and location:

Pads in brown are left unbound (NC).



Pad on silicon #1

A total of 229 pads are located on the die; only 196 are bonded.

The table below shows the bonding connections required between the Pads on the silicon and the pins on the package. The origin for the coordinates is the center of the leftmost pad in the lower row of pads, units are um.

Pin # on Package	Pin # on Silicon	Pin Name	CenterX	CenterY
1	NC			
2	NC			
3	NC			
4	168	VddPasaA	-329.55	8068.55
5	169	Shutdown	-329.55	7943.55
6	170	PreamplMode	-329.55	7818.55
7	171	BiasDecay	-329.55	7693.55
NC	172	InHBM15	-329.55	7620.55
8	173	GndPasaA	-329.55	7547.55
9	174	InCDM15	-329.55	7474.55
NC	175	InHBM14	-329.55	7401.55
10	176	GndPasaA	-329.55	7328.55
11	177	InCDM14	-329.55	7255.55
NC	178	InHBM13	-329.55	7055.10
12	179	GndPasaA	-329.55	6982.10
13	180	InCDM13	-329.55	6909.10
NC	181	InHBM12	-329.55	6555.10
14	182	GndPasaA	-329.55	6482.10
15	183	InCDM12	-329.55	6409.10
16	184	VddPasaA	-329.55	6271.60
17	185	VddPasaA	-329.55	6192.60
NC	186	InHBM11	-329.55	6055.10
18	187	GndPasaA	-329.55	5982.10
19	188	InCDM11	-329.55	5909.10
NC	189	InHBM10	-329.55	5555.10
20	190	GndPasaA	-329.55	5482.10
21	191	InCDM10	-329.55	5409.10
NC	192	InHBM9	-329.55	5055.10
22	193	GndPasaA	-329.55	4982.10
23	194	InCDM9	-329.55	4909.10
NC	195	InHBM8	-329.55	4555.10
24	196	GndPasaA	-329.55	4482.10
25	197	InCDM8	-329.55	4409.10
26	198	VddPasaA	-329.55	4308.10
27	199	VddPasaA	-329.55	4232.10
28	200	VddPasaA	-329.55	4156.10
NC	201	InHBM7	-329.55	4055.10
29	202	GndPasaA	-329.55	3982.10

30	203	InCDM7	-329.55	3909.10
NC	204	InHBM6	-329.55	3555.10
31	205	GndPasaA	-329.55	3482.10
32	206	InCDM6	-329.55	3409.10
NC	207	InHBM5	-329.55	3055.10
33	208	GndPasaA	-329.55	2982.10
34	209	InCDM5	-329.55	2909.10
NC	210	InHBM4	-329.55	2555.10
35	211	GndPasaA	-329.55	2482.10
36	212	InCDM4	-329.55	2409.10
37	213	VddPasaA	-329.55	2271.60
38	214	VddPasaA	-329.55	2192.60
NC	215	InHBM3	-329.55	2055.10
39	216	GndPasaA	-329.55	1982.10
40	217	InCDM3	-329.55	1909.10
NC	218	InHBM2	-329.55	1555.10
41	219	GndPasaA	-329.55	1482.10
42	220	InCDM2	-329.55	1409.10
NC	221	InHBM1	-329.55	1069.55
43	222	GndPasaA	-329.55	996.55
44	223	InCDM1	-329.55	923.55
NC	224	InHBM0	-329.55	850.55
45	225	GndPasaA	-329.55	777.55
46	226	InCDM0	-329.55	704.55
47	227	Gain1	-329.55	579.55
48	228	Gain2	-329.55	454.55
49	229	VddPasaA	-329.55	329.55
50	NC			
51	NC			
52	NC			
53	1	VddPasaA	0.00	0.00
54	2	ShapingTime1	125.00	0.00
55	3	ShapingTime2	250.00	0.00
56	4	ShapingTime3	375.00	0.00
57	5	VddPasaA	453.90	0.00
58	6	Polarity	607.97	0.00
59	7	VddPasaA	699.34	0.00
60	8	GndPasaA	846.36	0.00
61	9	GndAdcA	968.89	0.00
62	10	VddAdcA	1049.26	0.00
63	11	RefN	1133.57	0.00
64	12	GndAdcA	1217.89	0.00
65	13	VddAdcA	1298.26	0.00
66	14	Vcm	1382.57	0.00
67	15	GndAdcA	1466.89	0.00
68	16	VddAdcA	1547.26	0.00

69	17	RefP	1631.57	0.00
70	18	VddAdcA	1713.26	0.00
71	19	GndAdcA	1798.89	0.00
72	20	CmOut	1880.57	0.00
73	21	VddAdcA	1962.25	0.00
74	22	GndAdcA	2043.93	0.00
75	23	VddAdcA	2125.61	0.00
76	24	GndAdcA	2207.29	0.00
77	NC			
78	25	GndAdcDig	2728.90	0.00
79	26	VddAdcDig	2806.10	0.00
80	27	ClkSelect	2883.30	0.00
81	28	ClkAux	3013.30	0.00
82	29	sclk	3143.30	0.00
83	30	VddAdcDig	3273.30	0.00
84	31	GndAdcDig	3350.73	0.00
85	NC			
86	NC			
87	NC			
88	32	chipadd [4]	3585.32	0.00
89	33	chipadd [5]	3658.32	0.00
90	34	chipadd [6]	3731.32	0.00
91	35	chipadd [7]	3804.32	0.00
92	36	SoftRst	3877.32	0.00
93	37	grstb	3950.32	0.00
94	38	GND	4023.32	0.00
95	39	VDD	4100.32	0.00
96	40	writeb	4173.32	0.00
97	41	cstbb	4246.32	0.00
98	42	dolo_en	4319.32	0.00
99	43	trsf_en	4392.32	0.00
100	44	errorb	4465.32	0.00
101	45	trsfb	4538.32	0.00
102	46	DVSS	4663.32	0.00
103	47	dstb	4788.32	0.00
104	48	DVDD	4913.32	0.00
105	49	bd[39]	5259.72	365.50
106	50	bd[38]	5259.72	490.50
107	51	bd[37]	5259.72	615.50
108	52	bd[36]	5259.72	740.50
109	53	VDD	5259.72	852.60
110	54	bd[35]	5259.72	963.60
111	55	GND	5259.72	1074.60
112	56	bd[34]	5259.72	1185.60
113	57	bd[33]	5259.72	1296.60
114	58	bd[32]	5259.72	1407.60
115	59	bd[31]	5259.72	1518.60

116	60	bd[30]	5259.72	1629.60
117	61	bd[29]	5259.72	1740.60
118	62	ScanMode	5259.72	1851.60
119	63	DVDD	5259.72	1962.60
NC	64	tstout2	5259.72	2073.60
120	65	DVSS	5259.72	2184.60
NC	66	AuxChipIn[0]	5259.72	2295.60
121	67	bd[28]	5259.72	2406.60
NC	68	AuxChipIn[1]	5259.72	2517.60
122	69	bd[27]	5259.72	2628.60
NC	70	AuxChipIn[2]	5259.72	2739.60
123	71	bd[26]	5259.72	2850.60
NC	72	AuxChipIn[3]	5259.72	2961.60
124	73	bd[25]	5259.72	3072.60
NC	74	AuxChipIn[4]	5259.72	3183.60
125	75	bd[24]	5259.72	3294.60
NC	76	DVDD	5259.72	3405.60
126	77	bd[23]	5259.72	3516.60
NC	78	DVSS	5259.72	3627.60
127	79	bd[22]	5259.72	3738.60
128	80	bd[21]	5259.72	3849.60
NC	81	ConfigIn	5259.72	3960.60
129	82	VDD	5259.72	4071.60
130	83	rdock	5259.72	4182.60
131	84	GND	5259.72	4293.60
132	85	bd[20]	5259.72	4404.60
133	86	bd[19]	5259.72	4515.60
134	87	bd[18]	5259.72	4626.60
NC	88	DVDD	5259.72	4737.60
135	89	bd[17]	5259.72	4848.60
NC	90	DVSS	5259.72	4959.60
136	91	bd[16]	5259.72	5070.60
NC	92	AuxChipIn[5]	5259.72	5181.60
137	93	bd[15]	5259.72	5292.60
NC	94	AuxChipIn[6]	5259.72	5403.60
138	95	bd[14]	5259.72	5514.60
NC	96	AuxChipIn[7]	5259.72	5625.60
139	97	bd[13]	5259.72	5736.60
NC	98	AuxChipIn[8]	5259.72	5847.60
140	99	bd[12]	5259.72	5958.60
NC	100	AuxChipIn[9]	5259.72	6069.60
141	101	DVDD	5259.72	6180.60
NC	102	tclk	5259.72	6291.60
142	103	DVSS	5259.72	6402.60
143	104	ScanEn	5259.72	6513.60
144	105	bd[11]	5259.72	6624.60

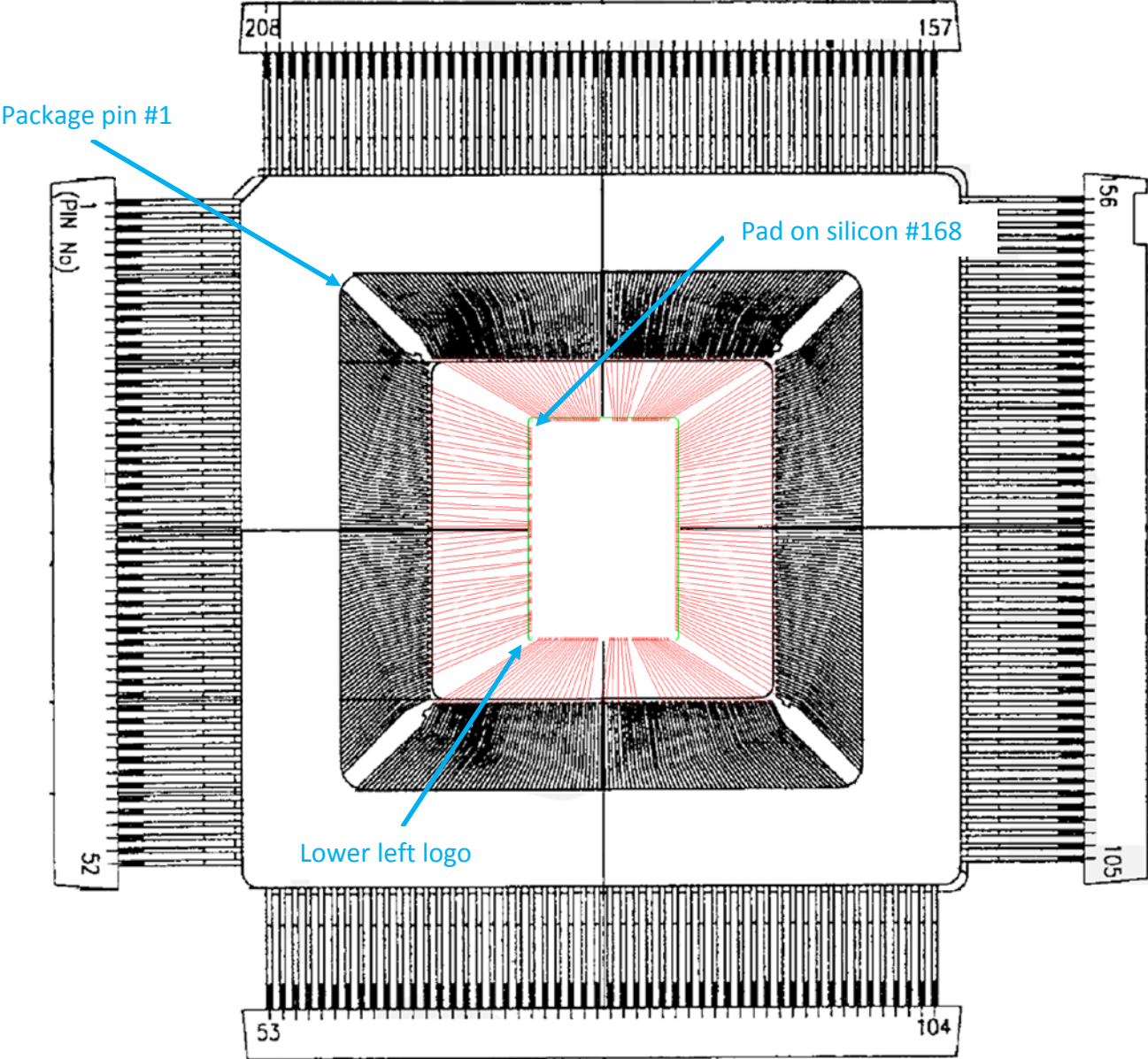
145	106	bd[10]	5259.72	6753.60
146	107	bd[09]	5259.72	6866.60
147	108	bd[08]	5259.72	6979.60
148	109	bd[07]	5259.72	7092.60
149	110	bd[06]	5259.72	7203.90
150	111	VDD	5259.72	7315.20
151	112	bd[05]	5259.72	7426.50
152	113	GND	5259.72	7537.70
153	114	bd[04]	5259.72	7650.70
154	115	bd[03]	5259.72	7775.70
155	116	bd[02]	5259.72	7900.70
156	117	bd[01]	5259.72	8025.70
157	118	DVSS	4913.32	8398.09
158	119	tstout	4788.32	8398.09
159	120	DVDD	4663.32	8398.09
160	121	bd[00]	4538.32	8398.09
161	122	ack_en	4465.32	8398.09
162	123	ackb	4392.32	8398.09
163	124	l2yb	4319.32	8398.09
164	125	trgb	4246.32	8398.09
165	126	tsm	4173.32	8398.09
166	127	VDD	4096.32	8398.09
167	128	GND	4023.32	8398.09
168	129	adc_add0	3950.32	8398.09
169	130	adc_add1	3877.32	8398.09
170	131	chipadd [3]	3804.32	8398.09
171	132	chipadd [2]	3731.32	8398.09
172	133	chipadd [1]	3658.32	8398.09
173	134	chipadd [0]	3585.32	8398.09
174	NC			
175	NC			
176	135	GndAdcDig	3350.38	8398.09
177	136	VddAdcDig	3273.30	8398.09
178	137	VddAdcDig	3196.22	8398.09
179	138	GndAdcDig	3119.14	8398.09
180	139	GndChipGuardRing	3010.58	8398.09
181	140	GndChipGuardRing	2937.58	8398.09
182	141	GndAdcA	2837.41	8398.09
183	142	GndAdcA	2292.92	8398.09
184	143	VddAdcA	2211.24	8398.09
185	144	GndAdcA	2129.56	8398.09
186	145	VddAdcA	2047.88	8398.09
187	146	BiasGate	1966.20	8398.09
188	147	CmOut	1883.20	8398.09
189	148	GndAdcA	1798.89	8398.09
190	149	VddAdcA	1718.52	8398.09

191	150	RefP	1634.20	8398.09
192	151	VddAdcA	1552.52	8398.09
193	152	GndAdcA	1466.89	8398.09
194	153	Vcm	1385.20	8398.09
195	154	VddAdcA	1303.52	8398.09
196	155	GndAdcA	1217.89	8398.09
197	156	RefN	1136.20	8398.09
198	157	VddAdcA	1054.52	8398.09
199	158	GndAdcA	968.89	8398.09
200	159	GndPasaA	852.30	8398.09
201	160	AdcTestP	766.67	8398.09
202	161	AdcTestN	683.67	8398.09
203	162	VddPasaA	582.66	8398.09
204	163	VddPasaA	453.90	8398.09
205	164	PasaTestN	375.00	8398.09
206	165	PasaTestP	250.00	8398.09
207	166	TestMode	125.00	8398.09
208	167	VddPasaA	0.00	8398.09

The size of the opening of each pad is 95.03um x 62.00um.
The minimum pad pitch is 73um.

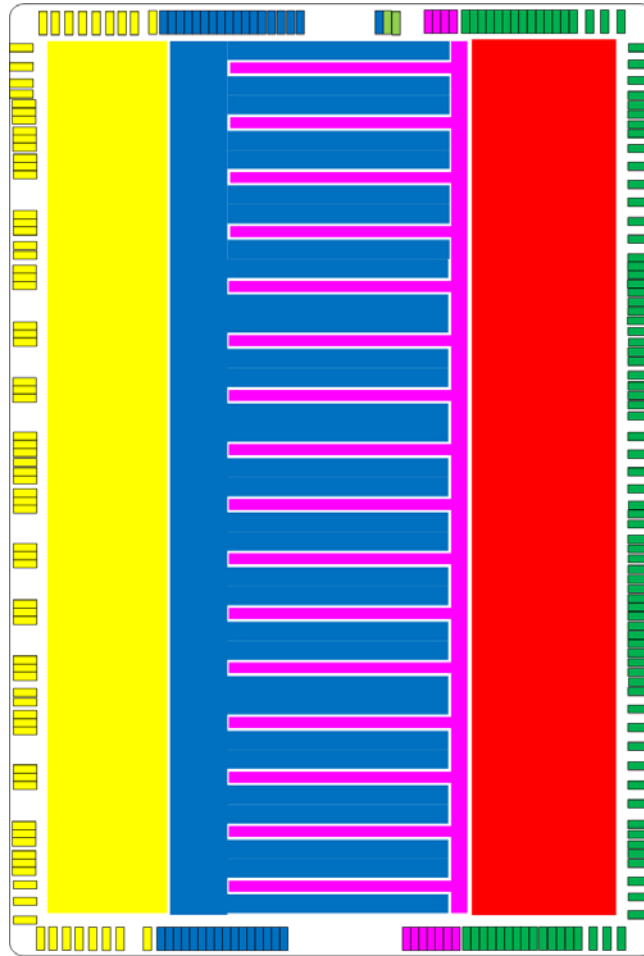
Total # signal IOs: 110.
Total # power pins: 86.

Bonding diagram in package QC-208510 (CQFP208):



Orientation of the silicon die: package pin #4 corresponds to pad on silicon #168.

Power domains:



Yellow: power domain of GndPasaA / VddPasaA; 135mW @ 1.5V.

Blue: power domain of GndAdcA / VddAdcA; 600mW @ 1.5V.

Purple: power domain of GndAdcDig / VddAdcDig; 150mW @ 1.5V.

Red: power domain of GND / VDD; 150mW @ 1.5V.

Green: power domain of DVSS / DVDD; 150mW @ 2.5V.

Light green: connection to the chip guard ring.