

**ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE  
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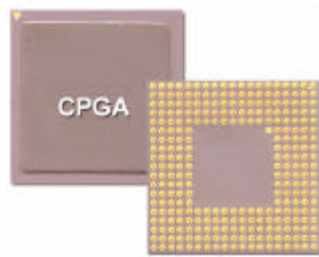
Laboratoire Européen pour la Physique des Particules  
European Laboratory for Particle Physics

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# K-CHIP PACKAGING

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**176 pin CBGA**



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**V0.1**

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Version: 0.1

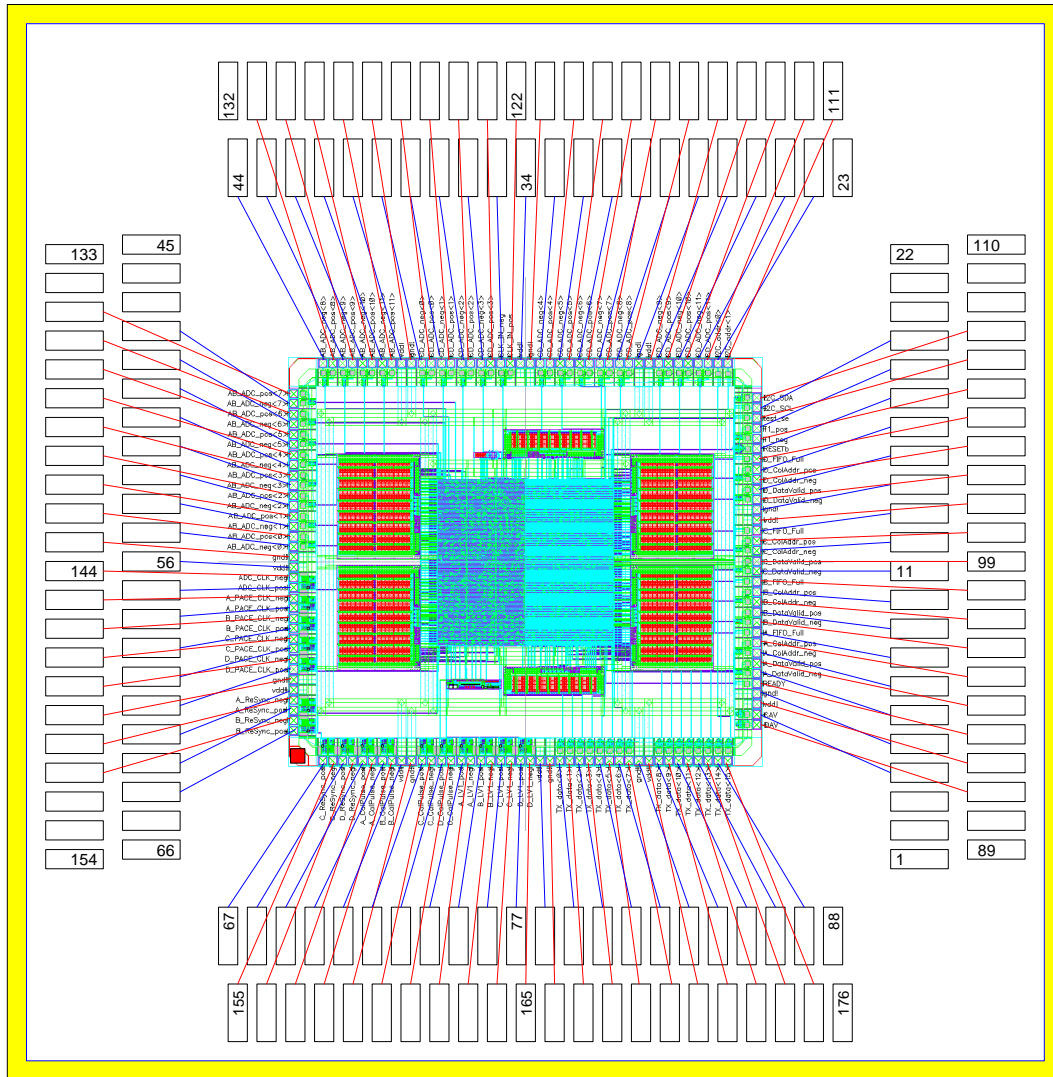
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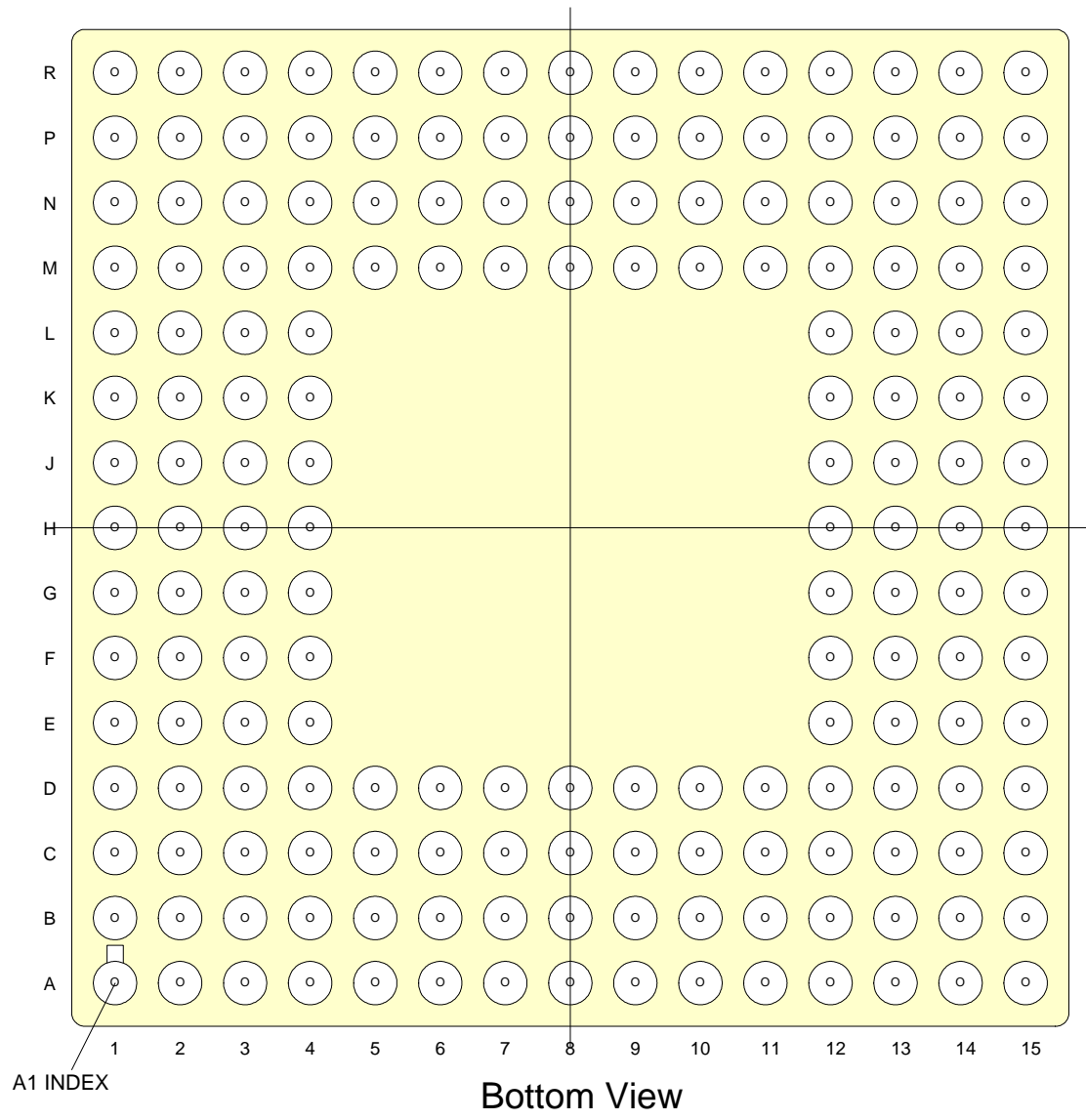
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## **Document History**

**Version 0.1:** this is the first draft of the K-chip CBGA package.



INDEX MARK (GOLD)



Kchip CPGA176 package (test package) V1.0

PAD	PIN	NAME	PAD	PIN	NAME	PAD	PIN	NAME	PAD	PIN	NAME
1	D4	-	45	M12	-	89	B2	-	133	P14	-
2	B1	-	46	P15	-	90	D3	-	134	M13	-
3	E4	-	47	L12	-	91	C2	DAV	135	N14	AB_ADC_pos<7>
4	C1	CAV	48	N15	AB_ADC_neg<7>	92	D2	vdd!	136	M14	AB_ADC_pos<6>
5	E3	gnd!	49	L13	AB_ADC_neg<6>	93	D1	READY	137	M15	AB_ADC_pos<5>
6	F4	A_DataValid_neg	50	K12	AB_ADC_neg<5>	94	E2	A_DataValid_pos	138	L14	AB_ADC_pos<4>
7	E1	A_ColAddr_neg	51	L15	AB_ADC_neg<4>	95	F3	A_ColAddr_pos	139	K13	AB_ADC_pos<3>
8	F2	A_FIFO_Full	52	K14	AB_ADC_neg<3>	96	F1	B_DataValid_neg	140	K15	AB_ADC_pos<2>
9	G4	B_DataValid_pos	53	J12	AB_ADC_neg<2>	97	G3	B_ColAddr_neg	141	J13	AB_ADC_pos<1>
10	G2	B_ColAddr_pos	54	J14	AB_ADC_neg<1>	98	G1	B_FIFO_Full	142	J15	AB_ADC_pos<0>
11	H1	C_DataValid_neg	55	H15	AB_ADC_neg<0>	99	H2	C_DataValid_pos	143	H14	gnd!
12	H4	C_ColAddr_neg	56	H12	vdd!	100	H3	C_ColAddr_pos	144	H13	ADC_CLK_neg
13	J1	C_FIFO_Full	57	G15	ADC_CLK_pos	101	J2	vdd!	145	G14	A_PACE_CLK_neg
14	J3	gnd!	58	G13	A_PACE_CLK_pos	102	K1	D_DataValid_neg	146	F15	B_PACE_CLK_neg
15	J4	D_DataValid_pos	59	G12	B_PACE_CLK_pos	103	K2	D_ColAddr_neg	147	F14	C_PACE_CLK_neg
16	K3	D_ColAddr_pos	60	F13	C_PACE_CLK_pos	104	L1	D_FIFO_Full	148	E15	D_PACE_CLK_neg
17	L2	RESETb	61	E14	D_PACE_CLK_pos	105	M1	T1_neg	149	D15	gnd!
18	K4	T1_pos	62	F12	vdd!	106	L3	test_se	150	E13	A_ReSync_neg
19	M2	I2C_SCL	63	D14	A_ReSync_pos	107	N1	I2C_SDA	151	C15	B_ReSync_neg
20	N2	-	64	C14	B_ReSync_pos	108	L4	-	152	E12	-
21	M3	-	65	D13	-	109	P1	-	153	B15	-
22	R1	-	66	A15	-	110	N3	-	154	C13	-
23	M4	-	67	D12	C_ReSync_pos	111	P2	I2C_addr<1>	155	B14	C_ReSync_neg
24	R2	I2C_addr<0>	68	A14	D_ReSync_pos	112	N4	CD_ADC_pos<11>	156	C12	D_ReSync_neg
25	M5	CD_ADC_neg<11>	69	D11	A_CalPulse_pos	113	P3	CD_ADC_pos<10>	157	B13	A_CalPulse_neg
26	R3	CD_ADC_neg<10>	70	A13	B_CalPulse_pos	114	P4	CD_ADC_pos<9>	158	B12	B_CalPulse_neg
27	N5	CD_ADC_neg<9>	71	C11	vdd!	115	R4	vdd!	159	A12	gnd!
28	M6	gnd!	72	D10	C_CalPulse_pos	116	P5	CD_ADC_pos<8>	160	B11	C_CalPulse_neg
29	R5	CD_ADC_neg<8>	73	A11	D_CalPulse_pos	117	N6	CD_ADC_pos<7>	161	C10	D_CalPulse_neg
30	P6	CD_ADC_neg<7>	74	B10	A_LV1_pos	118	R6	CD_ADC_pos<6>	162	A10	A_LV1_neg
31	M7	CD_ADC_neg<6>	75	D9	B_LV1_pos	119	N7	CD_ADC_pos<5>	163	C9	B_LV1_neg
32	P7	CD_ADC_neg<5>	76	B9	C_LV1_pos	120	R7	CD_ADC_pos<4>	164	A9	C_LV1_neg
33	R8	CD_ADC_neg<4>	77	A8	D_LV1_pos	121	P8	gnd!	165	B8	D_LV1_neg
34	M8	vdd!	78	D8	vdd!	122	N8	CLK_IN_pos	166	C8	gnd!
35	R9	CLK_IN_neg	79	A7	TX_data<0>	123	P9	CD_ADC_pos<3>	167	B7	TX_data<1>
36	N9	CD_ADC_neg<3>	80	C7	TX_data<2>	124	R10	CD_ADC_pos<2>	168	A6	TX_data<3>
37	M9	CD_ADC_neg<2>	81	D7	TX_data<4>	125	P10	CD_ADC_pos<1>	169	B6	TX_data<5>
38	N10	CD_ADC_neg<1>	82	C6	TX_data<6>	126	R11	CD_ADC_pos<0>	170	A5	TX_data<7>
39	P11	CD_ADC_neg<0>	83	B5	gnd!	127	R12	gnd!	171	A4	vdd!
40	M10	vdd!	84	D6	TX_data<8>	128	N11	AB_ADC_pos<11>	172	C5	TX_data<9>
41	P12	CD_ADC_neg<11>	85	B4	TX_data<10>	129	R13	AB_ADC_pos<10>	173	A3	TX_data<11>
42	P13	CD_ADC_neg<10>	86	B3	TX_data<12>	130	M11	AB_ADC_pos<9>	174	D5	TX_data<13>
43	N12	CD_ADC_neg<9>	87	C4	TX_data<14>	131	R14	AB_ADC_pos<8>	175	A2	TX_data<15>
44	R15	CD_ADC_neg<8>	88	A1	-	132	N13	-	176	C3	-