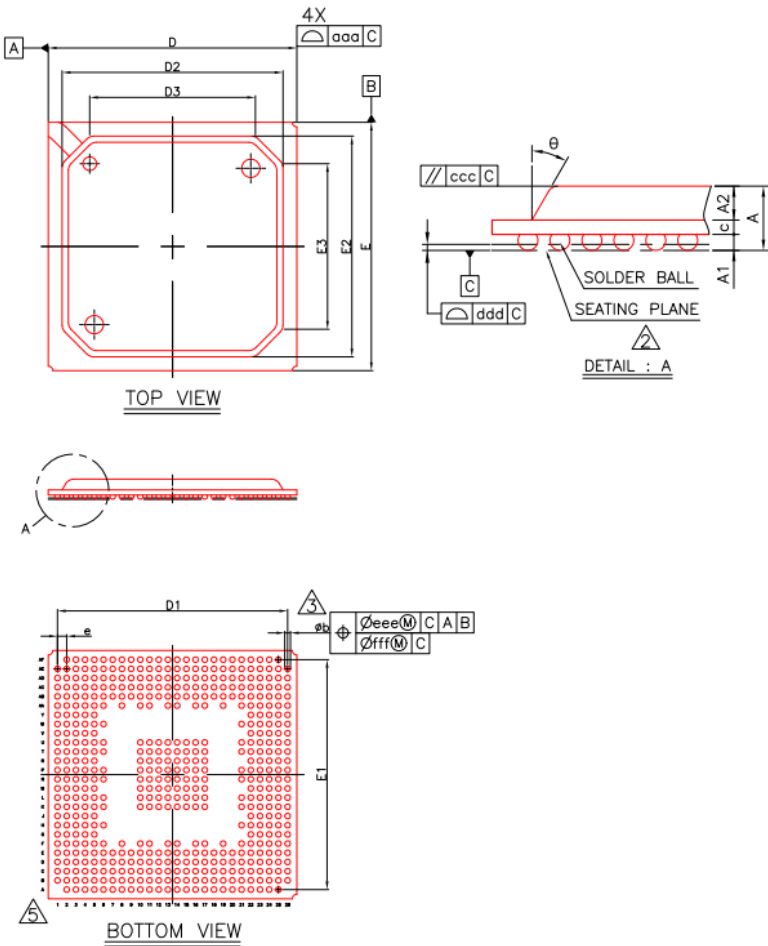


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
A		VDD_LV	PAD[244]	PAD[102]	PAD[107]	PAD[21]	PAD[243]	PAD[19]	PAD[165]	PAD[18]	PAD[128]	PAD[108]	PAD[77]	PAD[103]	PAD[168]	PAD[334]	PAD[132]	PAD[163]	PAD[30]	PAD[99]	PAD[66]	PAD[68]	PAD[137]	VDD_LV	VDD_LV	
B	PAD[239]	VSS_LV	VDD_LV	PAD[247]	PAD[336]	PAD[337]	PAD[105]	PAD[245]	PAD[246]	PAD[16]	PAD[20]	PAD[78]	PAD[166]	PAD[64]	PAD[256]	PAD[104]	PAD[131]	PAD[133]	PAD[29]	PAD[98]	PAD[65]	PAD[96]	VDD_LV	VDD_LV	VSS_LV	PAD[67]
C	PAD[145]	PAD[191]	VSS_LV	VDD_LV	PAD[171]	PAD[241]	PAD[251]	PAD[248]	PAD[249]	PAD[250]	PAD[59]	PAD[17]	PAD[129]	PAD[335]	PAD[255]	PAD[167]	PAD[130]	PAD[162]	PAD[28]	PAD[97]	PAD[161]	PAD[136]	VDD_LV	VSS_LV	PAD[32]	PAD[61]
D	PAD[88]	PAD[86]		VSS_LV	VDD_LV	PAD[242]	PAD[169]	VDD_H V_ADV	VDD_H V_ADV	VSS_LV V_ADV_D	VSS_LV V_ADV_D	PAD[106]	PAD[23]	PAD[135]	PAD[164]	VDD_H V_ADV	VDD_H V_ADV	VSS_LV V_ADV_S	VSS_LV V_ADV_S	PAD[31]	PAD[160]	VDD_LV	VSS_LV	PAD[253]	PAD[138]	PAD[186]
E	PAD[95]	PAD[84]	PAD[81]	PAD[94]	VSS_LV	VDD_LV	PAD[170]	VDD_H V_ADV	VDD_H V_ADV	VSS_LV V_ADV_D	VSS_LV V_ADV_D	PAD[101]	PAD[22]	PAD[134]	PAD[60]	VDD_H V_ADV	VDD_H V_ADV	VSS_LV V_ADV_S	VSS_LV V_ADV_S	PAD[100]	VDD_LV	VSS_LV	PAD[254]	PAD[202]	PAD[176]	PAD[140]
F	PAD[72]	PAD[111]	PAD[124]	PAD[74]	PAD[73]	VDD_H V_IO_M		VDD_LV		VDD_H V_IO_M	VDD_H V_IO_M		VDD_LV	VDD_LV		VDD_H V_IO_M	VDD_LV		VDD_LV		VDD_LV	VDD_H V_IO_M	PAD[228]	PAD[237]	PAD[185]	PAD[118]
G	PAD[70]	PAD[71]	PAD[63]	PAD[62]	VDD_H V_IO_M																	VDD_H V_IO_M	PAD[212]	PAD[201]	PAD[125]	PAD[113]
H	CSRO	PAD[41]	PAD[54]	PAD[58]	PAD[87]	CORS															VDD_LV	VDD_H V_IO_M	PAD[38]	PAD[80]	PAD[85]	PAD[56]
J	PAD[26]	PAD[27]	PAD[34]	PAD[39]	VDD_H V_IO_M																	VDD_H V_IO_M	PAD[37]	PAD[24]	PAD[57]	PAD[11]
K	PAD[14]	PAD[10]	PAD[9]	PAD[36]	VDD_H V_PMC	VDD_H V_FLA				VDD_LV	VDD_LV	VDD_LV	VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV			VDD_LV	VDD_H V_IO_M	PAD[15]	PAD[189]	PAD[13]	PAD[1]
L	PAD[8]	PAD[5]	TESTNO DE7	PAD[7]	TESTNO DE	VDD_H V_OSC				VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV			VDD_LV	VDD_H V_IO_M	PAD[184]	PAD[183]	PAD[182]	PAD[181]
M	PAD[2]	PAD[9]	PAD[110]	PAD[4]	VDD_H V_IO_M					VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV					VDD_LV	PAD[180]	PAD[179]	PAD[178]	PAD[177]
N	EXTA	PAD[213]	PAD[289]	PAD[295]	PAD[299]	PAD[298]				VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV				VDD_LV	VDD_H V_IO_M	PAD[284]	PAD[285]	PAD[173]	PAD[172]
P	EXTA	PAD[293]	PAD[294]	PAD[300]	PAD[319]	PAD[306]				VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV				VDD_LV	VDD_H V_IO_M	PAD[159]	PAD[158]	PAD[157]	PAD[156]
R	PAD[290]	PAD[301]	PAD[296]	PAD[309]	VDD_H V_IO_M					VDD_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV					VDD_H V_IO_M	PAD[154]	PAD[153]	PAD[152]	PAD[150]
T	PAD[302]	PAD[297]	PAD[303]	PAD[307]	PAD[310]	PAD[311]				VDD_H V_IO_M	VDD_H V_IO_M	VDD_H V_IO_M	VSS_LV	VSS_LV	VSS_LV	VSS_LV	VSS_LV				VDD_LV	VDD_H V_IO_M	PAD[149]	PAD[148]	PAD[146]	PAD[141]
U	PAD[304]	PAD[305]	PAD[318]	PAD[308]	VDD_H V_IO_M	VDD_H V_IO_M				VDD_LV	VDD_LV	VDD_LV	VDD_LV	VDD_LV	VDD_LV	VDD_LV	VDD_LV				VDD_LV	VDD_H V_IO_M	PAD[123]	PAD[121]	PAD[115]	PAD[112]
V	PAD[320]	PAD[313]	PAD[332]																			VDD_H V_IO_M	PAD[93]	PAD[286]	PAD[287]	PAD[288]
W	PAD[321]	PAD[314]	PAD[322]	PAD[338]	VDD_H V_IO_M	VDD_H V_IO_M															VDD_LV	VDD_H V_IO_M	PAD[55]	PAD[283]	PAD[281]	PAD[282]
Y	PAD[323]	PAD[315]	PAD[292]	PAD[333]	VDD_H V_IO_M																	VDD_H V_IO_M	PAD[219]	PAD[220]	PAD[222]	PAD[280]
AA	PAD[324]	PAD[328]	PAD[339]	PAD[331]	PAD[203]	VDD_H V_IO_M		VDD_H V_IO_M		VDD_H V_IO_M	VDD_H V_IO_M		PAD[218]	PAD[229]		PAD[75]	PAD[266]		VDD_H V_IO_M		VDD_LV	VDD_H V_IO_M	PAD[89]	PAD[252]	PAD[210]	PAD[276]
AB	PAD[325]	PAD[329]	PAD[215]	PAD[340]	VSS_LV	PAD[193]	PAD[76]	PAD[196]	PAD[194]	PAD[155]	PAD[240]	PAD[217]	PAD[116]	PAD[226]	PAD[261]	PAD[260]	PAD[271]	PAD[147]	PAD[269]	PAD[262]	VDD_LV	VSS_LV	PAD[90]	PAD[235]		PAD[275]
AC	PAD[326]	PAD[327]	PAD[144]	VSS_LV	VDD_LV	PAD[42]	PAD[192]	PAD[195]		PAD[109]	PAD[117]	PAD[206]	PAD[209]	PAD[114]	PAD[230]		PAD[259]	PAD[264]	PAD[122]	PAD[151]	PAD[142]	VDD_LV	VSS_LV	PAD[234]	PAD[50]	PAD[279]
AD	PAD[330]	PAD[291]	VSS_LV	VDD_LV	PAD[317]	PAD[174]	PAD[45]	PAD[139]	PAD[190]	PAD[53]	PAD[126]	PAD[205]	PAD[208]	PAD[207]	PAD[263]	PAD[221]	PAD[233]	PAD[232]	PAD[119]	PAD[120]	PAD[143]	PAD[268]	VDD_LV	VSS_LV	PAD[270]	PAD[272]
AE	PAD[238]	VSS_LV	VDD_LV	PAD[40]	PAD[316]	PAD[47]	PAD[44]	PAD[25]	PAD[43]	PAD[198]	PAD[188]	PAD[69]	PAD[83]	PAD[127]	PAD[224]	PAD[227]	PAD[225]	PAD[278]	PAD[231]	PAD[267]	PAD[277]	PAD[273]	PAD[257]	VDD_LV	VSS_LV	PAD[274]
AF		VDD_LV	PAD[312]	PAD[197]	PAD[200]	PAD[35]	PAD[199]	PAD[82]	PAD[175]	PAD[52]	PAD[216]	PAD[3]	PAD[12]	PAD[214]	PAD[204]	PAD[211]	PAD[223]		PAD[49]	PAD[48]	PAD[92]	PAD[91]	PAD[265]	PAD[236]	PAD[258]	VDD_LV

4 Package Information

4.1 516 PBGA (production) case drawing



Symbol	Dimension in mm			Dimension in inch		
	MIN	NOM	MAX	MIN	NOM	MAX
A	2.07	2.20	2.33	0.081	0.087	0.092
A1	0.37	0.47	0.57	0.015	0.019	0.022
A2	1.12	1.17	1.22	0.044	0.046	0.048
b	0.52	0.62	0.72	0.020	0.024	0.028
c	0.51	0.56	0.61	0.020	0.022	0.024
D	26.80	27.00	27.20	1.055	1.063	1.071
D1	---	25.00	---	---	0.984	---
D2	23.80	24.00	24.20	0.937	0.945	0.953
D3	---	18.00	---	---	0.709	---
E	26.80	27.00	27.20	1.055	1.063	1.071
E1	---	25.00	---	---	0.984	---
E2	23.80	24.00	24.20	0.937	0.945	0.953
E3	---	18.00	---	---	0.709	---
e	---	1.00	---	---	0.039	---
aaa	0.20			0.008		
ccc	0.20			0.008		
ddd	0.15			0.006		
eee	0.25			0.010		
fff	0.10			0.004		
θ	30°TYP					
MD/ME	26/26					

- NOTE:
1. CONTROLLING DIMENSION: MILLIMETER.
 2. PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
 3. DIMENSION b IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.
 4. SPECIAL CHARACTERISTICS C CLASS: ccc, ddd, (SPIL STANDARD).
 5. THE PATTERN OF PIN 1 FIDUCIAL IS FOR REFERENCE ONLY.
 6. BALL PLACEMENT USE 0.60 mm SOLDER BALL.
BGA PAD SOLDER MASK OPENING= 0.50 mm.

Figure 4-1. 516 BGA (production) package mechanical drawing