

Dedicated Pin	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
INPUT/GCLK1	125	184	D9
INPUT/GCLRn	127	182	E8
INPUT/OE1	126	183	E9
INPUT/OE2/GCLK2	128	181	D8
TDI (1)	4	176	D4
TMS (1)	20	127	J6
TCK (1)	89	30	J11
TDO (1)	104	189	D13
GNDINT	52, 57, 124, 129	75, 82, 180, 185	A8, C9, G9, K8, P9
GNDIO	3, 13, 17, 26, 33, 59, 64, 77, 85, 94, 105, 114, 135	6, 14, 32, 40, 50, 72, 84, 94, 108, 116, 134, 142, 152, 174, 190, 200	A3, B10, C2, D14, E14, F6, G10, H8, J9, K7, L11, M3, M14, P3, P6, P10, R2, R3, T1, T8, T15
VCCINT (3.3 V Only)	51, 58, 123, 130	74, 83, 179, 186	B9, C8, G8, K9, P8
VCCIO (2.5 V or 3.3 V)	24, 50, 73, 76, 95, 115, 144	5, 23, 41, 63, 85, 107, 125, 143, 165, 191	B3, B5, C14, E15, F11, G3, G7, G15, H9, J8, K10, L3, L6, M15, P14, T2, T3
No Connect (N.C.)	–	1, 2, 51, 52, 53, 54, 103, 104, 105, 106, 155, 156, 157, 158, 207, 208	A1, A2, A6, A12, A13, A14, A15, A16, B1, B2, B15, B16, C1, C15, C16, D1, D3, D15, D16, G1, G16, H15, H16, J1, K1, L1, L2, M1, M16, N1, N2, N14, N15, N16, P1, P2, P15, P16, R1, R14, R15, R16, T7, T10, T11, T14, T16
Total User I/O Pins (2)	116	158	161

LAB	MC	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
A	1	–	153	C3
A	2	–	–	–
A	3	2	154	C4
A	4	–	–	–
A	5	1	159	E5
A	6	143	160	D5
A	7	–	–	–
A	8	–	161	C5
A	9	–	162	B4
A	10	–	–	–
A	11	142	163	A4
A	12	–	–	–
A	13	141	164	A5
A	14	140	166	D6
A	15	–	–	–
A	16	139	167	C6
B	17	–	141	F5
B	18	–	–	–
B	19	10	–	F2
B	20	–	–	–
B	21	9	144	E1
B	22	–	145	F4
B	23	–	–	–
B	24	8	146	F3
B	25	7	147	E2
B	26	–	–	–
B	27	6	148	D2
B	28	–	–	–
B	29	5	149	E3
B	30	–	150	E4
B	31	–	–	–
B	32	4 (1)	151	D4 (1)
C	33	36	–	N4
C	34	–	–	–
C	35	35	109	–
C	36	–	–	–
C	37	34	110	N3
C	38	–	111	M4
C	39	–	–	–
C	40	32	112	M2
C	41	31	113	L4
C	42	–	–	–
C	43	30	114	L5
C	44	–	–	–
C	45	29	115	K6
C	46	–	117	K5
C	47	–	–	–
C	48	28	118	K4
D	49	44	92	N6
D	50	–	–	–
D	51	43	93	T5
D	52	–	–	–
D	53	42	95	M6
D	54	41	96	R5

LAB	MC	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
D	55	–	–	–
D	56	40	97	M5
D	57	–	98	P5
D	58	–	–	–
D	59	39	99	N5
D	60	–	–	–
D	61	38	100	T4
D	62	–	101	R4
D	63	–	–	–
D	64	37	102	P4
E	65	–	168	B6
E	66	–	–	–
E	67	–	169	E6
E	68	–	–	–
E	69	138	170	F7
E	70	–	171	E7
E	71	–	–	–
E	72	137	172	D7
E	73	136	173	C7
E	74	–	–	–
E	75	134	175	B7
E	76	–	–	–
E	77	133	176 (1)	A7
E	78	132	177	F8
E	79	–	–	–
E	80	131	178	B8
F	81	–	130	H5
F	82	–	–	–
F	83	19	131	H1
F	84	–	–	–
F	85	18	132	H2
F	86	–	133	H3
F	87	–	–	–
F	88	16	135	H4
F	89	15	136	G6
F	90	–	–	–
F	91	14	137	G5
F	92	–	–	–
F	93	12	138	G2
F	94	–	139	G4
F	95	–	–	–
F	96	11	140	F1
G	97	–	119	K3
G	98	–	–	–
G	99	27	120	K2
G	100	–	–	–
G	101	–	121	J7
G	102	–	122	H7
G	103	–	–	–
G	104	25	123	J5
G	105	23	124	J2
G	106	–	–	–
G	107	22	126	J3
G	108	–	–	–

LAB	MC	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
G	109	21	127 (1)	J4
G	110	–	128	H6
G	111	–	–	–
G	112	20 (1)	129	J6 (1)
H	113	–	79	M8
H	114	–	–	–
H	115	54	80	N8
H	116	–	–	–
H	117	53	81	L8
H	118	–	–	R7
H	119	–	–	–
H	120	49	86	P7
H	121	48	87	N7
H	122	–	–	–
H	123	47	88	M7
H	124	–	–	–
H	125	46	89	L7
H	126	–	90	T6
H	127	–	–	–
H	128	45	91	R6
I	129	–	197	C11
I	130	–	–	–
I	131	116	196	B11
I	132	–	–	–
I	133	117	195	A11
I	134	–	194	F10
I	135	–	–	–
I	136	118	193	E10
I	137	119	192	A10
I	138	–	–	–
I	139	120	–	C10
I	140	–	–	–
I	141	121	189 (1)	D10
I	142	–	188	F9
I	143	–	–	–
I	144	122	187	A9
J	145	–	27	J15
J	146	–	–	–
J	147	90	26	J16
J	148	–	–	–
J	149	91	25	J10
J	150	–	24	H14
J	151	–	–	–
J	152	92	22	H13
J	153	93	21	H12
J	154	–	–	–
J	155	–	20	H11
J	156	–	–	–
J	157	96	19	H10
J	158	–	18	G11
J	159	–	–	–
J	160	97	17	G14
K	161	–	38	K11
K	162	–	–	–

LAB	MC	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
K	163	82	37	K12
K	164	–	–	–
K	165	83	36	K14
K	166	–	35	K13
K	167	–	–	–
K	168	84	34	K15
K	169	86	33	K16
K	170	–	–	–
K	171	87	31	J13
K	172	–	–	–
K	173	88	30 (1)	J14
K	174	–	29	J12
K	175	–	–	–
K	176	89 (1)	28	J11 (1)
L	177	–	78	R8
L	178	–	–	–
L	179	55	77	T9
L	180	–	–	–
L	181	56	76	R9
L	182	–	73	N9
L	183	–	–	–
L	184	60	71	M9
L	185	61	70	L9
L	186	–	–	–
L	187	62	69	R10
L	188	–	–	–
L	189	63	68	N10
L	190	–	67	M10
L	191	–	–	–
L	192	65	66	L10
M	193	106	4	B14
M	194	–	–	–
M	195	107	3	C13
M	196	–	–	–
M	197	108	206	B13
M	198	–	205	F12
M	199	–	–	–
M	200	109	204	E12
M	201	110	203	D12
M	202	–	–	–
M	203	111	202	C12
M	204	–	–	–
M	205	–	201	B12
M	206	112	199	E11
M	207	–	–	–
M	208	113	198	D11
N	209	–	16	G13
N	210	–	–	–
N	211	98	15	G12
N	212	–	–	–
N	213	99	13	F16
N	214	–	12	F15
N	215	–	–	–
N	216	100	11	F13

LAB	MC	144-Pin TQFP	208-Pin PQFP	256-Pin FineLine BGA
N	217	101	10	F14
N	218	–	–	–
N	219	102	9	E16
N	220	–	–	–
N	221	103	8	–
N	222	–	7	E13
N	223	–	–	–
N	224	104 (1)	–	D13 (1)
O	225	–	49	R13
O	226	–	–	–
O	227	74	48	P13
O	228	–	–	–
O	229	75	47	N13
O	230	–	46	–
O	231	–	–	–
O	232	–	45	M13
O	233	78	44	L13
O	234	–	–	–
O	235	79	43	L14
O	236	–	–	–
O	237	80	42	L12
O	238	–	–	L15
O	239	–	–	–
O	240	81	39	L16
P	241	66	65	R11
P	242	–	–	–
P	243	67	64	P11
P	244	–	–	–
P	245	68	62	N11
P	246	69	61	M11
P	247	–	–	–
P	248	–	60	T12
P	249	70	59	R12
P	250	–	–	–
P	251	–	58	M12
P	252	–	–	–
P	253	71	57	P12
P	254	–	56	N12
P	255	–	–	–
P	256	72	55	T13

Notes:

- (1) This pin may function as either a JTAG port or a user I/O pin. When the device is configured to use the JTAG ports for in-system programming, this pin is not available as a user I/O pin.
- (2) The user I/O pin count includes dedicated input pins and all I/O pins.

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