

A. ECAD Design Information

This appendix contains information that supports the development of the PCB ECAD model for this device. It is intended to be used by PCB designers.

A.1 Part Number Indexing

Orderable Part Number	Number of Pins	Package Type	Package Code/POD Number
R7F7015013AFD-C#AA2	176	LFQFP	PLQP0176KH-A
R7F7015013AFD-C#BA2	176	LFQFP	PLQP0176KH-A
R7F7015013AFD-C#KA2	176	LFQFP	PLQP0176KH-A
R7F7015013AFE-C#AA2	176	LFQFP	PLQP0176KG-A
R7F7015013AFE-C#BA2	176	LFQFP	PLQP0176KG-A
R7F7015013AFE-C#KA2	176	LFQFP	PLQP0176KG-A
R7F7015014AFD-C#AA2	176	LFQFP	PLQP0176KH-A
R7F7015014AFD-C#BA2	176	LFQFP	PLQP0176KH-A
R7F7015014AFD-C#KA2	176	LFQFP	PLQP0176KH-A
R7F7015014AFE-C#AA2	176	LFQFP	PLQP0176KG-A
R7F7015014AFE-C#BA2	176	LFQFP	PLQP0176KG-A
R7F7015014AFE-C#KA2	176	LFQFP	PLQP0176KG-A
R7F7015023AFD-C#AA2	176	LFQFP	PLQP0176KH-A
R7F7015023AFD-C#BA2	176	LFQFP	PLQP0176KH-A
R7F7015023AFD-C#KA2	176	LFQFP	PLQP0176KH-A
R7F7015023AFE-C#AA2	176	LFQFP	PLQP0176KG-A
R7F7015023AFE-C#BA2	176	LFQFP	PLQP0176KG-A
R7F7015023AFE-C#KA2	176	LFQFP	PLQP0176KG-A
R7F7015024AFD-C#AA2	176	LFQFP	PLQP0176KH-A
R7F7015024AFD-C#BA2	176	LFQFP	PLQP0176KH-A
R7F7015024AFD-C#KA2	176	LFQFP	PLQP0176KH-A
R7F7015024AFE-C#AA2	176	LFQFP	PLQP0176KG-A
R7F7015024AFE-C#BA2	176	LFQFP	PLQP0176KG-A
R7F7015024AFE-C#KA2	176	LFQFP	PLQP0176KG-A
R7F7015303AFD-C#AA2	100	LFQFP	PLQP0100KM-A
R7F7015303AFD-C#BA2	100	LFQFP	PLQP0100KM-A
R7F7015303AFD-C#KA2	100	LFQFP	PLQP0100KM-A
R7F7015303AFE-C#AA2	100	LFQFP	PLQP0100KL-A
R7F7015303AFE-C#BA2	100	LFQFP	PLQP0100KL-A
R7F7015303AFE-C#KA2	100	LFQFP	PLQP0100KL-A
R7F7015313AFD-C#AA2	100	LFQFP	PLQP0100KM-A
R7F7015313AFD-C#BA2	100	LFQFP	PLQP0100KM-A
R7F7015313AFD-C#KA2	100	LFQFP	PLQP0100KM-A
R7F7015313AFE-C#AA2	100	LFQFP	PLQP0100KL-A
R7F7015313AFE-C#BA2	100	LFQFP	PLQP0100KL-A
R7F7015313AFE-C#KA2	100	LFQFP	PLQP0100KL-A

A.2 Symbol Pin Information

A.2.1 176-LFQFP

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
1	P10_3	I/O	TAUD0I7/TAUD007/RIIC0SCL/KR0I1/PWGA3O/ADCA0TRG1/TAPA0VN/CSIH1SSI#/MEMC0CLK
2	P10_4	I/O	TAUD0I9/TAUD009/RLIN21RX/KR0I2/ADCA0SEL0/ADCA0TRG2/TAPA0WP/CSIG0SSI#/ETNB0RXD2
3	P10_5	I/O	TAUD0I11/TAUD0011/RLIN21TX/KR0I3/ADCA0SEL1/TAPA0WN/CSIG0RYI/CSIG0RYO/ETNB0RXD3
4	BVCC	Power	-
5	BVSS	Power	-
6	P10_15	I/O	CSIH3RYI/CSIH3RYO/PWGA24O/RLIN22RX/TAUB0I9/TAUB009/MEMC0RD#
7	P11_0	I/O	CSIH2RYI/CSIH2RYO/ADCA1TRG2/PWGA25O/RLIN22TX/TAUB0I11/TAUB0011/MEMC0WR#

Pin Numb er	Primar y Pin Name	Primary Electric al Type	Alternate Pin Name(s)
8	P11_8	I/O	CSIG1SSI#/RLIN35TX/PWGA48O/TAUB1I11/TAUB1O11/MEMCOC50#
9	P11_9	I/O	CSIG1SO/RLIN35RX/INTP15/PWGA49O/TAUB1I13/TAUB1O13/MEMCOC51#
10	P11_10	I/O	CSIG1SC/PWGA50O/TAUB1I15/TAUB1O15/MEMCOC52#/ETNB0COL
11	P11_11	I/O	CSIG1SI/RLIN25TX/PWGA51O/TAUB1I0/TAUB1O0/MEMCOC53#/ETNB0RXDV
12	P11_12	I/O	RLIN25RX/PWGA52O/TAUB1I2/TAUB1O2/MEMCOWAIT#
13	P11_13	I/O	RLIN24RX/PWGA53O/TAUB1I4/TAUB1O4/MEMC0BEN0#/ETNB0CRS/ETNB0CRSDV/CSIG2RYI/CSIG2R YO
14	P11_14	I/O	RLIN24TX/PWGA54O/TAUB1I6/TAUB1O6/MEMC0BEN1#/ETNB0RXERR/ETNB0RRXERR/CSIG2SSI#
15	P12_3	I/O	RLIN27RX/ETNB0REFCLK/PWGA68O/CSIG2SI
16	P12_4	I/O	RLIN27TX/PWGA69O/CSIG2SC/ETNB0MDIO
17	P12_5	I/O	PWGA70O/ETNB0MDC/CSIG2SO
18	P0_0	I/O	TAUD0I2/TAUD0O2/RLIN20RX/CAN0TX/PWGA10O/CSIH0SSI#/DPO/RESETOUT#
19	P0_1	I/O	TAUD0I4/TAUD0O4/CAN0RX/INTP0/RLIN20TX/PWGA11O/CSIH0SI/APO
20	P0_2	I/O	TAUD0I6/TAUD0O6/CAN1RX/INTP1/RLIN30TX/PWGA12O/CSIH0SC/DPO
21	P0_3	I/O	TAUD0I8/TAUD0O8/RLIN30RX/INTP10/CAN1TX/DPIN1/PWGA13O/CSIH0SO
22	EVCC	Power	-
23	P0_4	I/O	RLIN31RX/INTP11/CAN2TX/PWGA10O/CSIH1SI/SELDP0/DPIN8
24	P0_5	I/O	CAN2RX/INTP2/RLIN31TX/DPIN9/SELDP1/CSIH1SO
25	P0_6	I/O	INTP2/DPIN10/SELDP2/CSIH1SC/PWGA35O
26	P0_11	I/O	RIIC0SDA/DPIN12/CSIH1CSS2/TAUB0I8/TAUB0O8/RLIN26RX/PWGA34O
27	P0_12	I/O	RIIC0SCL/DPIN13/PWGA45O/TAUB0I10/TAUB0O10/CSIG0SI/RLIN26TX
28	P0_13	I/O	RLIN32RX/INTP12/PWGA46O/TAUB0I12/TAUB0O12/CSIG0SO/CAN5RX/INTP5
29	P0_14	I/O	RLIN32TX/PWGA47O/TAUB0I14/TAUB0O14/CSIG0SC/CAN5TX
30	P1_0	I/O	RLIN33RX/INTP13
31	P1_1	I/O	RLIN33TX
32	P1_2	I/O	CAN3RX/INTP3
33	P1_3	I/O	CAN3TX/DPIN23
34	P1_12	I/O	CAN4RX/INTP4
35	P1_13	I/O	CAN4TX
36	P2_6	I/O	ADCA0SEL2
37	EVSS	Power	-
38	P8_2	I/O	TAUJ0I0/TAUJ0O0/DPIN2/CSIH0CSS0/INTP6/PWGA22O/ADCA0I4S
39	P8_10	I/O	CSIH3CSS3/DPIN14/PWGA42O/ADCA0I17S
40	P8_11	I/O	TAUJ1I2/TAUJ1O2/DPIN15/PWGA43O/CSIH1CSS4/ADCA0I18S
41	P8_12	I/O	TAUJ1I3/TAUJ1O3/DPIN16/PWGA44O/CSIH1CSS5/ADCA0I19S
42	JP0_5	I/O	NMI/RTCA0OUT/TAUJ0I3/TAUJ0O3/DCURDY#/LPDCLKOUT
43	JP0_4	I/O	DCUTRST#
44	JP0_3	I/O	INTP3/CSCXFOUT/TAUJ0I2/TAUJ0O2/DCUTMS
45	JP0_2	I/O	INTP2/TAUJ0I1/TAUJ0O1/DCUTCK/LPDCLK
46	JP0_1	I/O	INTP1/TAUJ0I0/TAUJ0O0/DCUTDO/LPDO
47	JP0_0	I/O	INTP0/DCUTDI/LPDI/LPDIO
48	P2_1	I/O	RLIN27TX/CAN6TX
49	P2_0	I/O	RLIN27RX/INTP6/CAN6RX
50	P1_11	I/O	ADCA1TRG2/RLIN24TX/DPIN22
51	P1_10	I/O	RLIN24RX/DPIN21
52	P1_9	I/O	RLIN34TX/DPIN20
53	P1_8	I/O	RLIN34RX/INTP14
54	\RESET	Input	-
55	EVCC	Power	-
56	XT1	Input	-
57	XT2	Input	IP0_0
58	AWOVSS	Power	-
59	AWOVCL	Power	-
60	REGVC C	Power	-
61	X2	Input	-
62	X1	Input	-
63	FLMD0	Input	-

Pin Numb er	Primar y Pin Name	Primary Electric al Type	Alternate Pin Name(s)
64	P2_3	I/O	RLIN28TX
65	P2_2	I/O	RLIN28RX
66	JP0_6	I/O	EVTO#
67	P0_10	I/O	INTP3/CSIH1CSS1/DPIN11/RLIN22TX/TAUB0I6/TAUB0O6/CAN4TX
68	P0_9	I/O	INTP12/CSIH1CSS0/DPIN7/RLIN22RX/TAUB0I4/TAUB0O4/CAN4RX/INTP4
69	P0_8	I/O	RLIN21TX/DPIN6/CSIH0CSS6/CSIH1SSI#/TAUB0I2/TAUB0O2/CAN3TX
70	P0_7	I/O	RLIN21RX/DPIN5/CSCXFOUT/CSIH1RYI/CSIH1RYO/TAUB0I0/TAUB0O0/CAN3RX/INTP3
71	EVSS	Power	-
72	P1_7	I/O	ADCA1TRG1/RLIN25TX/DPIN19
73	P1_6	I/O	RLIN25RX/DPIN18
74	P1_5	I/O	ADCA1TRG0/RLIN35TX/DPIN17
75	P1_4	I/O	RLIN35RX/INTP15
76	P2_4	I/O	RLIN29RX/ADCA0SELO
77	P2_5	I/O	RLIN29TX/ADCA0SEL1
78	P1_14	I/O	RLIN23RX
79	P1_15	I/O	RLIN23TX
80	P8_0	I/O	TAUJ0I0/TAUJ0O0/DPIN2/PWGA14O/INTP4/CSIH0CSS0/ADCA0I0S
81	P8_1	I/O	TAPA0ESO/TAUJ0O1/DPIN0/PWGA15O/INTP5/CSIH1CSS3/ADCA0I1S
82	P8_3	I/O	TAUJ0I1/TAUJ0O1/DPIN3/CSIH0CSS1/INTP7/PWGA23O/ADCA0I5S
83	P8_4	I/O	TAUJ0I2/TAUJ0O2/DPIN4/CSIH0CSS2/INTP8/PWGA36O/ADCA0I6S
84	P8_5	I/O	TAUJ0I3/TAUJ0O3/CSIH0CSS3/INTP9/PWGA37O/ADCA0I7S
85	P8_6	I/O	NMI/CSIH0CSS4/PWGA38O/RTCA0OUT/ADCA0I8S
86	P8_7	I/O	CSIH3CSS0/PWGA39O/ADCA0I14S
87	P8_8	I/O	CSIH3CSS1/PWGA40O/ADCA0I15S
88	P8_9	I/O	CSIH3CSS2/PWGA41O/ADCA0I16S
89	A0VSS	Power	-
90	A0VREF	Power	-
91	AP0_15	I/O	ADCA0I15
92	AP0_14	I/O	ADCA0I14
93	AP0_13	I/O	ADCA0I13
94	AP0_12	I/O	ADCA0I12
95	AP0_11	I/O	ADCA0I11
96	AP0_10	I/O	ADCA0I10
97	AP0_9	I/O	ADCA0I9
98	AP0_8	I/O	ADCA0I8
99	AP0_7	I/O	ADCA0I7
100	AP0_6	I/O	ADCA0I6
101	AP0_5	I/O	ADCA0I5
102	AP0_4	I/O	ADCA0I4
103	AP0_3	I/O	ADCA0I3
104	AP0_2	I/O	ADCA0I2
105	AP0_1	I/O	ADCA0I1
106	AP0_0	I/O	ADCA0I0
107	EVSS	Power	-
108	P9_0	I/O	NMI/PWGA8O/TAUD0I0/TAUD0O0/ADCA0TRG0/CSIH2CSS0/KR0I4/ADCA0I2S
109	P9_1	I/O	INTP11/PWGA9O/TAUD0I2/TAUD0O2/KR0I5/CSIH2CSS1/ADCA0I3S
110	P9_2	I/O	KR0I6/PWGA20O/TAPA0ESO/CSIH2CSS2/ADCA0I9S
111	P9_3	I/O	KR0I7/PWGA21O/CSIH2CSS3/TAUJ1I1/TAUJ1O1/ADCA0I10S
112	P9_4	I/O	CSIH0CSS5/PWGA33O/TAUJ1I0/TAUJ1O0/ADCA0I11S
113	ISOVCL	Power	-
114	ISOVSS	Power	-
115	P20_3	I/O	CAN4TX/PWGA67O/RLIN29TX/CSIG3RYI/CSIG3RYO
116	P20_2	I/O	CAN4RX/INTP4/PWGA66O/RLIN29RX/CSIG3SC
117	P20_1	I/O	RLIN26TX/PWGA65O/CAN6TX/CSIG3SO
118	P20_0	I/O	RLIN26RX/PWGA64O/INTP6/CAN6RX/CSIG3SI
119	P20_5	I/O	RLIN23TX/PWGA60O
120	P20_4	I/O	RLIN23RX/PWGA59O/CSIG3SSI#
121	EVCC	Power	-
122	AP1_11	I/O	ADCA1I11

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
123	AP1_10	I/O	ADCA1I10
124	AP1_9	I/O	ADCA1I9
125	AP1_8	I/O	ADCA1I8
126	AP1_7	I/O	ADCA1I7
127	AP1_6	I/O	ADCA1I6
128	AP1_5	I/O	ADCA1I5
129	AP1_4	I/O	ADCA1I4
130	AP1_3	I/O	ADCA1I3
131	AP1_2	I/O	ADCA1I2
132	AP1_1	I/O	ADCA1I1
133	AP1_0	I/O	ADCA1I0
134	AP1_15	I/O	ADCA1I15
135	AP1_14	I/O	ADCA1I14
136	AP1_13	I/O	ADCA1I13
137	AP1_12	I/O	ADCA1I12
138	A1VREF	Power	-
139	A1VSS	Power	-
140	BVCC	Power	-
141	ISOVCL	Power	-
142	ISOVSS	Power	-
143	P18_0	I/O	CSIG1RYI/CSIG1RYO/ETNB0LINK/PWGA61O/ADCA1I0S
144	P18_1	I/O	PWGA62O/ETNB0TXD0/ETNB0RTXD0/ADCA1I1S
145	P18_2	I/O	PWGA63O/ETNB0TXD1/ETNB0RTXD1/ADCA1I2S
146	P18_3	I/O	PWGA71O/ETNB0TXD2/ADCA1I3S
147	P18_4	I/O	CSIH1CSS4/ETNB0TXD3/ADCA1I4S
148	P18_5	I/O	CSIH1CSS5/ETNB0TXEN/ETNB0RTXEN/ADCA1I5S
149	P18_6	I/O	ETNB0TXERR/ADCA1I6S
150	P18_7	I/O	ETNB0TXCLK/ADCA1I7S
151	BVSS	Power	-
152	P10_6	I/O	TAUD0I13/TAUD0O13/CSIG0SO/ENCA0TIN0/ADCA0SEL2/CAN1RX/INTP1/MEMC0AD0
153	P10_7	I/O	TAUD0I15/TAUD0O15/CSIG0SC/ENCA0TIN1/PWGA4O/CAN1TX/MEMC0AD1
154	FLMD1	Input	P10_8/TAUD0I10/TAUD0O10/CSIG0SI/FLXA0TXDB/ENCA0EC/PWGA5O/MEMC0AD2
155	P10_9	I/O	TAUD0I12/TAUD0O12/RLIN30RX/INTP10/ENCA0E0/PWGA6O/CSIH0RYI/CSIH0RYO/MEMC0AD3/FLXA0RXDB
156	P10_10	I/O	TAUD0I14/TAUD0O14/RLIN30TX/ENCA0E1/PWGA7O/CSIH0CSS1/MEMC0AD4
157	P10_11	I/O	PWGA16O/RLIN31RX/INTP11/FLXA0TXENA/CSIH1CSS0/TAUB0I1/TAUB0O1/MEMC0AD5
158	P10_12	I/O	PWGA17O/FLXA0STPWT/RLIN31TX/CSIH1CSS1/TAUB0I3/TAUB0O3/MEMC0AD6
159	P10_13	I/O	CSIH0SSI#/PWGA18O/RLIN32RX/INTP12/FLXA0TXENB/TAUB0I5/TAUB0O5/MEMC0AD7
160	P10_14	I/O	ADCA1TRG0/PWGA19O/FLXA0RXDA/RLIN32TX/CSIH3SSI#/TAUB0I7/TAUB0O7/MEMC0AD8
161	P11_1	I/O	CSIH2SSI#/FLXA0TXDA/RLIN20RX/CSIH0CSS7/PWGA26O/TAUB0I13/TAUB0O13/MEMC0AD9
162	P11_2	I/O	CSIH2SO/RLIN20TX/PWGA27O/TAUB0I15/TAUB0O15/MEMC0AD10
163	P11_3	I/O	CSIH2SC/CAN3RX/INTP3/PWGA28O/TAUB1I1/TAUB1O1/MEMC0AD11
164	P11_4	I/O	CSIH2SI/CAN3TX/PWGA29O/TAUB1I3/TAUB1O3/MEMC0AD12
165	P11_5	I/O	CAN5RX/INTP5/RLIN33TX/PWGA30O/CSIH3SI/TAUB1I5/TAUB1O5/MEMC0AD13
166	P11_6	I/O	RLIN33RX/INTP13/CAN5TX/ADCA1TRG1/PWGA31O/CSIH3SO/TAUB1I7/TAUB1O7/MEMC0AD14
167	P11_7	I/O	INTP5/PWGA32O/CSIH3SC/TAUB1I9/TAUB1O9/MEMC0AD15
168	P11_15	I/O	CAN2RX/INTP2/CSIH2CSS4/PWGA55O/TAUB1I8/TAUB1O8/MEMC0ASTB#
169	P12_0	I/O	CAN2TX/PWGA56O/TAUB1I10/TAUB1O10/MEMC0A16
170	P12_1	I/O	RLIN34RX/INTP14/CSIH2CSS5/PWGA57O/TAUB1I12/TAUB1O12/MEMC0A17
171	P12_2	I/O	RLIN34TX/PWGA58O/TAUB1I14/TAUB1O14/MEMC0A18
172	BVCC	Power	-
173	BVSS	Power	-
174	P10_0	I/O	TAUD0I1/TAUD0O1/CAN0RX/INTP0/CSCXFOUT/PWGA0O/TAPA0UP/CSIH1SI/MEMC0A19/ETNB0RXC LK
175	P10_1	I/O	TAUD0I3/TAUD0O3/CAN0TX/PWGA1O/TAPA0UN/CSIH1SC/ETNB0RDX0/ETNB0RRXD0/MODE0
176	P10_2	I/O	TAUD0I5/TAUD0O5/RIIC0SDA/KR0I0/PWGA2O/ADCA0TRG0/TAPA0VP/CSIH1SO/ETNB0RDX1/ETNB0RRXD1/MODE1

A.2.2 176-LFQFP

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
1	P10_3	I/O	TAUD0I7/TAUD007/RIIC0SCL/KR0I1/PWGA30/ADCA0TRG1/TAPA0VN/CSIH1SSI#/MEMC0CLK
2	P10_4	I/O	TAUD0I9/TAUD009/RLIN21RX/KR0I2/ADCA0SEL0/ADCA0TRG2/TAPA0WP/CSIG0SSI#/ETNB0RXD2
3	P10_5	I/O	TAUD0I11/TAUD0011/RLIN21TX/KR0I3/ADCA0SEL1/TAPA0WN/CSIG0RYI/CSIG0RYO/ETNB0RXD3
4	BVCC	Power	-
5	BVSS	Power	-
6	P10_15	I/O	CSIH3RYI/CSIH3RYO/PWGA24O/RLIN22RX/TAUB0I9/TAUB009/MEMCORD#
7	P11_0	I/O	CSIH2RYI/CSIH2RYO/ADCA1TRG2/PWGA25O/RLIN22TX/TAUB0I11/TAUB0011/MEMC0WR#
8	P11_8	I/O	CSIG1SSI#/RLIN35TX/PWGA48O/TAUB1I11/TAUB1O11/MEMC0CS0#
9	P11_9	I/O	CSIG1SO/RLIN35RX/INTP15/PWGA49O/TAUB1I13/TAUB1O13/MEMC0CS1#
10	P11_10	I/O	CSIG1SC/PWGA50O/TAUB1I15/TAUB1O15/MEMC0CS2#/ETNB0COL
11	P11_11	I/O	CSIG1SI/RLIN25TX/PWGA51O/TAUB1I0/TAUB1O0/MEMC0CS3#/ETNB0RXDV
12	P11_12	I/O	RLIN25RX/PWGA52O/TAUB1I2/TAUB1O2/MEMC0WAIT#
13	P11_13	I/O	RLIN24RX/PWGA53O/TAUB1I4/TAUB1O4/MEMC0BEN0#/ETNB0CRS/ETNB0CRSDV/CSIG2RYI/CSIG2RYO
14	P11_14	I/O	RLIN24TX/PWGA54O/TAUB1I6/TAUB1O6/MEMC0BEN1#/ETNB0RXERR/ETNB0RRXERR/CSIG2SSI#
15	P12_3	I/O	RLIN27RX/ETNB0REFCLK/PWGA68O/CSIG2SI
16	P12_4	I/O	RLIN27TX/PWGA69O/CSIG2SC/ETNB0MDIO
17	P12_5	I/O	PWGA70O/ETNB0MDC/CSIG2SO
18	P0_0	I/O	TAUD0I2/TAUD002/RLIN20RX/CAN0TX/PWGA10O/CSIH0SSI#/DPO/RESETOUT#
19	P0_1	I/O	TAUD0I4/TAUD004/CAN0RX/INTP0/RLIN20TX/PWGA11O/CSIH0SI/APO
20	P0_2	I/O	TAUD0I6/TAUD006/CAN1RX/INTP1/RLIN30TX/PWGA12O/CSIH0SC/DPO
21	P0_3	I/O	TAUD0I8/TAUD008/RLIN30RX/INTP10/CAN1TX/DPIN1/PWGA13O/CSIH0SO
22	EVCC	Power	-
23	P0_4	I/O	RLIN31RX/INTP11/CAN2TX/PWGA10O/CSIH1SI/SELDP0/DPIN8
24	P0_5	I/O	CAN2RX/INTP2/RLIN31TX/DPIN9/SELDP1/CSIH1SO
25	P0_6	I/O	INTP2/DPIN10/SELDP2/CSIH1SC/PWGA35O
26	P0_11	I/O	RIIC0SDA/DPIN12/CSIH1CSS2/TAUB0I8/TAUB008/RLIN26RX/PWGA34O
27	P0_12	I/O	RIIC0SCL/DPIN13/PWGA45O/TAUB0I10/TAUB0010/CSIG0SI/RLIN26TX
28	P0_13	I/O	RLIN32RX/INTP12/PWGA46O/TAUB0I12/TAUB0012/CSIG0SO/CAN5RX/INTP5
29	P0_14	I/O	RLIN32TX/PWGA47O/TAUB0I14/TAUB0014/CSIG0SC/CAN5TX
30	P1_0	I/O	RLIN33RX/INTP13
31	P1_1	I/O	RLIN33TX
32	P1_2	I/O	CAN3RX/INTP3
33	P1_3	I/O	CAN3TX/DPIN23
34	P1_12	I/O	CAN4RX/INTP4
35	P1_13	I/O	CAN4TX
36	P2_6	I/O	ADCA0SEL2
37	EVSS	Power	-
38	P8_2	I/O	TAUJ0I0/TAUJ000/DPIN2/CSIH0CSS0/INTP6/PWGA22O/ADCA0I4S
39	P8_10	I/O	CSIH3CSS3/DPIN14/PWGA42O/ADCA0I17S
40	P8_11	I/O	TAUJ1I2/TAUJ102/DPIN15/PWGA43O/CSIH1CSS4/ADCA0I18S
41	P8_12	I/O	TAUJ1I3/TAUJ103/DPIN16/PWGA44O/CSIH1CSS5/ADCA0I19S
42	JP0_5	I/O	NMI/RTCA0OUT/TAUJ0I3/TAUJ003/DCURDY#/LPDCLKOUT
43	JP0_4	I/O	DCUTRST#
44	JP0_3	I/O	INTP3/CSCXFOUT/TAUJ0I2/TAUJ002/DCUTMS
45	JP0_2	I/O	INTP2/TAUJ0I1/TAUJ001/DCUTCK/LPDCLK
46	JP0_1	I/O	INTP1/TAUJ0I0/TAUJ000/DCUTDO/LPDO
47	JP0_0	I/O	INTP0/DCUTDI/LPDI/LPDIO
48	P2_1	I/O	RLIN27TX/CAN6TX
49	P2_0	I/O	RLIN27RX/INTP6/CAN6RX
50	P1_11	I/O	ADCA1TRG2/RLIN24TX/DPIN22
51	P1_10	I/O	RLIN24RX/DPIN21
52	P1_9	I/O	RLIN34TX/DPIN20
53	P1_8	I/O	RLIN34RX/INTP14
54	\RESET	Input	-
55	EVCC	Power	-
56	XT1	Input	-
57	XT2	Input	IPO_0

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
58	AWOVS	Power	-
59	AWOVL	Power	-
60	REGVC	Power	-
61	X2	Input	-
62	X1	Input	-
63	FLMD0	Input	-
64	P2_3	I/O	RLIN28TX
65	P2_2	I/O	RLIN28RX
66	JP0_6	I/O	-
67	P0_10	I/O	INTP3/CSIH1CSS1/DPIN11/RLIN22TX/TAUB0I6/TAUB0O6/CAN4TX
68	P0_9	I/O	INTP12/CSIH1CSS0/DPIN7/RLIN22RX/TAUB0I4/TAUB0O4/CAN4RX/INTP4
69	P0_8	I/O	RLIN21TX/DPIN6/CSIH0CSS6/CSIH1SSI#/TAUB0I2/TAUB0O2/CAN3TX
70	P0_7	I/O	RLIN21RX/DPIN5/CSCXFOUT/CSIH1RYI/CSIH1RYO/TAUB0I0/TAUB0O0/CAN3RX/INTP3
71	EVSS	Power	-
72	P1_7	I/O	ADCA1TRG1/RLIN25TX/DPIN19
73	P1_6	I/O	RLIN25RX/DPIN18
74	P1_5	I/O	ADCA1TRG0/RLIN35TX/DPIN17
75	P1_4	I/O	RLIN35RX/INTP15
76	P2_4	I/O	RLIN29RX/ADCA0SEL0
77	P2_5	I/O	RLIN29TX/ADCA0SEL1
78	P1_14	I/O	RLIN23RX
79	P1_15	I/O	RLIN23TX
80	P8_0	I/O	TAUJ0I0/TAUJ0O0/DPIN2/PWGA14O/INTP4/CSIH0CSS0/ADCA0I0S
81	P8_1	I/O	TAPA0ESO/TAUJ0O1/DPIN0/PWGA15O/INTP5/CSIH1CSS3/ADCA0I1S
82	P8_3	I/O	TAUJ0I1/TAUJ0O1/DPIN3/CSIH0CSS1/INTP7/PWGA23O/ADCA0I5S
83	P8_4	I/O	TAUJ0I2/TAUJ0O2/DPIN4/CSIH0CSS2/INTP8/PWGA36O/ADCA0I6S
84	P8_5	I/O	TAUJ0I3/TAUJ0O3/CSIH0CSS3/INTP9/PWGA37O/ADCA0I7S
85	P8_6	I/O	NMI/CSIH0CSS4/PWGA38O/RTCA0OUT/ADCA0I8S
86	P8_7	I/O	CSIH3CSS0/PWGA39O/ADCA0I14S
87	P8_8	I/O	CSIH3CSS1/PWGA40O/ADCA0I15S
88	P8_9	I/O	CSIH3CSS2/PWGA41O/ADCA0I16S
89	A0VSS	Power	-
90	A0VREF	Power	-
91	AP0_15	I/O	ADCA0I15
92	AP0_14	I/O	ADCA0I14
93	AP0_13	I/O	ADCA0I13
94	AP0_12	I/O	ADCA0I12
95	AP0_11	I/O	ADCA0I11
96	AP0_10	I/O	ADCA0I10
97	AP0_9	I/O	ADCA0I9
98	AP0_8	I/O	ADCA0I8
99	AP0_7	I/O	ADCA0I7
100	AP0_6	I/O	ADCA0I6
101	AP0_5	I/O	ADCA0I5
102	AP0_4	I/O	ADCA0I4
103	AP0_3	I/O	ADCA0I3
104	AP0_2	I/O	ADCA0I2
105	AP0_1	I/O	ADCA0I1
106	AP0_0	I/O	ADCA0I0
107	EVSS	Power	-
108	P9_0	I/O	NMI/PWGA8O/TAUD0I0/TAUD0O0/ADCA0TRG0/CSIH2CSS0/KR0I4/ADCA0I2S
109	P9_1	I/O	INTP11/PWGA9O/TAUD0I2/TAUD0O2/KR0I5/CSIH2CSS1/ADCA0I3S
110	P9_2	I/O	KR0I6/PWGA20O/TAPA0ESO/CSIH2CSS2/ADCA0I9S
111	P9_3	I/O	KR0I7/PWGA21O/CSIH2CSS3/TAUJ1I1/TAUJ1O1/ADCA0I10S
112	P9_4	I/O	CSIH0CSS5/PWGA33O/TAUJ1I0/TAUJ1O0/ADCA0I11S
113	ISOVCL	Power	-
114	ISOVSS	Power	-

Pin Numb er	Primar y Pin Name	Primary Electric al Type	Alternate Pin Name(s)
115	P20_3	I/O	CAN4TX/PWGA67O/RLIN29TX/CSIG3RYI/CSIG3RYO
116	P20_2	I/O	CAN4RX/INTP4/PWGA66O/RLIN29RX/CSIG3SC
117	P20_1	I/O	RLIN26TX/PWGA65O/CAN6TX/CSIG3SO
118	P20_0	I/O	RLIN26RX/PWGA64O/INTP6/CAN6RX/CSIG3SI
119	P20_5	I/O	RLIN23TX/PWGA60O
120	P20_4	I/O	RLIN23RX/PWGA59O/CSIG3SSI#
121	EVCC	Power	-
122	AP1_11	I/O	ADCA1I11
123	AP1_10	I/O	ADCA1I10
124	AP1_9	I/O	ADCA1I9
125	AP1_8	I/O	ADCA1I8
126	AP1_7	I/O	ADCA1I7
127	AP1_6	I/O	ADCA1I6
128	AP1_5	I/O	ADCA1I5
129	AP1_4	I/O	ADCA1I4
130	AP1_3	I/O	ADCA1I3
131	AP1_2	I/O	ADCA1I2
132	AP1_1	I/O	ADCA1I1
133	AP1_0	I/O	ADCA1I0
134	AP1_15	I/O	ADCA1I15
135	AP1_14	I/O	ADCA1I14
136	AP1_13	I/O	ADCA1I13
137	AP1_12	I/O	ADCA1I12
138	A1VREF	Power	-
139	A1VSS	Power	-
140	BVCC	Power	-
141	ISOVCL	Power	-
142	ISOVSS	Power	-
143	P18_0	I/O	CSIG1RYI/CSIG1RYO/ETNB0LINK/PWGA61O/ADCA1I0S
144	P18_1	I/O	PWGA62O/ETNB0TXD0/ETNB0RTXD0/ADCA1I1S
145	P18_2	I/O	PWGA63O/ETNB0TXD1/ETNB0RTXD1/ADCA1I2S
146	P18_3	I/O	PWGA71O/ETNB0TXD2/ADCA1I3S
147	P18_4	I/O	CSIH1CSS4/ETNB0TXD3/ADCA1I4S
148	P18_5	I/O	CSIH1CSS5/ETNB0TXEN/ETNB0RTXEN/ADCA1I5S
149	P18_6	I/O	ETNB0TXERR/ADCA1I6S
150	P18_7	I/O	ETNB0TXCLK/ADCA1I7S
151	BVSS	Power	-
152	P10_6	I/O	TAUD0I13/TAUD0O13/CSIG0SO/ENCA0TIN0/ADCA0SEL2/CAN1RX/INTP1/MEMC0AD0
153	P10_7	I/O	TAUD0I15/TAUD0O15/CSIG0SC/ENCA0TIN1/PWGA4O/CAN1TX/MEMC0AD1
154	FLMD1	Input	P10_8/TAUD0I10/TAUD0O10/CSIG0SI/FLXA0TXDB/ENCA0EC/PWGA5O/MEMC0AD2
155	P10_9	I/O	TAUD0I12/TAUD0O12/RLIN30RX/INTP10/ENCA0E0/PWGA6O/CSIH0RYI/CSIH0RYO/MEMC0AD3/FLXA0RXDB
156	P10_10	I/O	TAUD0I14/TAUD0O14/RLIN30TX/ENCA0E1/PWGA7O/CSIH0CSS1/MEMC0AD4
157	P10_11	I/O	PWGA16O/RLIN31RX/INTP11/FLXA0TXENA/CSIH1CSS0/TAUB0I1/TAUB0O1/MEMC0AD5
158	P10_12	I/O	PWGA17O/FLXA0STPWT/RLIN31TX/CSIH1CSS1/TAUB0I3/TAUB0O3/MEMC0AD6
159	P10_13	I/O	CSIH0SSI# /PWGA18O/RLIN32RX/INTP12/FLXA0TXENB/TAUB0I5/TAUB0O5/MEMC0AD7
160	P10_14	I/O	ADCA1TRG0/PWGA19O/FLXA0RXDA/RLIN32TX/CSIH3SSI# /TAUB0I7/TAUB0O7/MEMC0AD8
161	P11_1	I/O	CSIH2SSI# /FLXA0TXDA/RLIN20RX/CSIH0CSS7/PWGA26O/TAUB0I13/TAUB0O13/MEMC0AD9
162	P11_2	I/O	CSIH2SO/RLIN20TX/PWGA27O/TAUB0I15/TAUB0O15/MEMC0AD10
163	P11_3	I/O	CSIH2SC/CAN3RX/INTP3/PWGA28O/TAUB1I1/TAUB1O1/MEMC0AD11
164	P11_4	I/O	CSIH2SI/CAN3TX/PWGA29O/TAUB1I3/TAUB1O3/MEMC0AD12
165	P11_5	I/O	CAN5RX/INTP5/RLIN33TX/PWGA30O/CSIH3SI/TAUB1I5/TAUB1O5/MEMC0AD13
166	P11_6	I/O	RLIN33RX/INTP13/CAN5TX/ADCA1TRG1/PWGA31O/CSIH3SO/TAUB1I7/TAUB1O7/MEMC0AD14
167	P11_7	I/O	INTP5/PWGA32O/CSIH3SC/TAUB1I9/TAUB1O9/MEMC0AD15
168	P11_15	I/O	CAN2RX/INTP2/CSIH2CSS4/PWGA55O/TAUB1I8/TAUB1O8/MEMC0ASTB#
169	P12_0	I/O	CAN2TX/PWGA56O/TAUB1I10/TAUB1O10/MEMC0A16
170	P12_1	I/O	RLIN34RX/INTP14/CSIH2CSS5/PWGA57O/TAUB1I12/TAUB1O12/MEMC0A17
171	P12_2	I/O	RLIN34TX/PWGA58O/TAUB1I14/TAUB1O14/MEMC0A18
172	BVCC	Power	-

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
173	BVSS	Power	-
174	P10_0	I/O	TAUD011/TAUD001/CAN0RX/INTP0/CSCXFOUT/PWGA00/TAPA0UP/CSIH1SI/MEMCOA19/ETNB0RXC LK
175	P10_1	I/O	TAUD013/TAUD003/CAN0TX/PWGA10/TAPA0UN/CSIH1SC/ETNB0RDXD0/ETNB0RRDXD0/MODE0
176	P10_2	I/O	TAUD015/TAUD005/RIIC0SDA/KR010/PWGA20/ADCA0TRG0/TAPA0VP/CSIH1SO/ETNB0RDXD1/ETNB0RRXD1/MODE1

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Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
1	P10_3	I/O	TAUD017/TAUD007/RIIC0SCL/KR011/PWGA30/ADCA0TRG1/CSIH1SSI#
2	P10_4	I/O	TAUD019/TAUD009/RLIN21RX/KR012/ADCA0TRG2/CSIG0SSI#/CAN6RX/INTP6
3	P10_5	I/O	TAUD011/TAUD0011/RLIN21TX/KR013/CSIG0RYI/CSIG0RYO/CAN6TX
4	P10_15	I/O	RLIN22RX/TAUB019/TAUB009
5	P11_0	I/O	CSIH2RYI/CSIH2RYO/RLIN22TX/TAUB011/TAUB0011
6	P0_0	I/O	TAUD012/TAUD002/RLIN20RX/CAN0TX/PWGA100/CSIH0SSI#/DPO/RESETOUT#
7	P0_1	I/O	TAUD014/TAUD004/CAN0RX/INTP0/RLIN20TX/PWGA110/CSIH0SI/APO
8	P0_2	I/O	TAUD016/TAUD006/CAN1RX/INTP1/RLIN30TX/PWGA120/CSIH0SC/DPO
9	P0_3	I/O	TAUD018/TAUD008/RLIN30RX/INTP10/CAN1TX/DPIN1/PWGA130/CSIH0SO
10	EVCC	Power	-
11	P0_4	I/O	RLIN31RX/INTP11/CAN2TX/PWGA100/CSIH1SI/SELDPO/DPIN8
12	P0_5	I/O	CAN2RX/INTP2/RLIN31TX/DPIN9/SELDP1/CSIH1SO
13	P0_6	I/O	INTP2/DPIN10/SELDP2/CSIH1SC
14	P0_11	I/O	RIIC0SDA/DPIN12/CSIH1CSS2/TAUB018/TAUB008
15	P0_12	I/O	RIIC0SCL/DPIN13/TAUB010/TAUB0010/CSIG0SI
16	P0_13	I/O	INTP12/TAUB012/TAUB0012/CSIG0SO/CAN5RX/INTP5
17	P0_14	I/O	TAUB014/TAUB0014/CSIG0SC/CAN5TX
18	EVSS	Power	-
19	P8_2	I/O	TAUJ010/TAUJ000/DPIN2/CSIH0CSS0/INTP6
20	P8_10	I/O	DPIN14
21	P8_11	I/O	TAUJ112/TAUJ102/DPIN15
22	P8_12	I/O	TAUJ113/TAUJ103/DPIN16
23	JP0_5	I/O	NMI/TAUJ013/TAUJ003/DCURDY#/LPDCLKOUT
24	JP0_4	I/O	DCUTRST#
25	JP0_3	I/O	INTP3/TAUJ012/TAUJ002/DCUTMS
26	JP0_2	I/O	INTP2/TAUJ011/TAUJ001/DCUTCK/LPDCLK
27	JP0_1	I/O	INTP1/TAUJ010/TAUJ000/DCUTDO/LPDO
28	JP0_0	I/O	INTP0/DCUTDI/LPDI/LPDIO
29	\RESET	Input	-
30	EVCC	Power	-
31	AWOVSS	Power	-
32	AWOVCL	Power	-
33	REGVCC	Power	-
34	X2	Input	-
35	X1	Input	-
36	FLMD0	Input	-
37	P0_10	I/O	INTP3/CSIH1CSS1/DPIN11/RLIN22TX/TAUB016/TAUB006/CAN4TX
38	P0_9	I/O	INTP12/CSIH1CSS0/DPIN7/RLIN22RX/TAUB014/TAUB004/CAN4RX/INTP4
39	P0_8	I/O	RLIN21TX/DPIN6/CSIH1SSI#/TAUB012/TAUB002/CAN3TX
40	P0_7	I/O	RLIN21RX/DPIN5/CSIH1RYI/CSIH1RYO/TAUB010/TAUB000/CAN3RX/INTP3
41	EVSS	Power	-
42	P8_0	I/O	TAUJ010/TAUJ000/DPIN2/PWGA140/INTP4/CSIH0CSS0
43	P8_1	I/O	TAUJ001/DPIN0/INTP5/CSIH1CSS3
44	P8_3	I/O	TAUJ011/TAUJ001/DPIN3/CSIH0CSS1/INTP7
45	P8_4	I/O	TAUJ012/TAUJ002/DPIN4/CSIH0CSS2/INTP8
46	P8_5	I/O	TAUJ013/TAUJ003/CSIH0CSS3
47	P8_6	I/O	NMI
48	P8_7	I/O	-

Pin Number	Primary Pin Name	Primary Electrical Type	Alternate Pin Name(s)
49	P8_8	I/O	-
50	P8_9	I/O	-
51	A0VSS	Power	-
52	A0VREF	Power	-
53	AP0_15	I/O	ADCA0I15
54	AP0_14	I/O	ADCA0I14
55	AP0_13	I/O	ADCA0I13
56	AP0_12	I/O	ADCA0I12
57	AP0_11	I/O	ADCA0I11
58	AP0_10	I/O	ADCA0I10
59	AP0_9	I/O	ADCA0I9
60	AP0_8	I/O	ADCA0I8
61	AP0_7	I/O	ADCA0I7
62	AP0_6	I/O	ADCA0I6
63	AP0_5	I/O	ADCA0I5
64	AP0_4	I/O	ADCA0I4
65	AP0_3	I/O	ADCA0I3
66	AP0_2	I/O	ADCA0I2
67	AP0_1	I/O	ADCA0I1
68	P9_0	I/O	NMI/PWGA80/TAUD0I0/TAUD000/ADCA0TRG0/CSIH2CSS0/KR0I4
69	P9_1	I/O	INTP11/PWGA90/TAUD0I2/TAUD002/KR0I5/CSIH2CSS1
70	EVSS	Power	-
71	ISOVCL	Power	-
72	ISOVSS	Power	-
73	P20_5	I/O	RLIN23TX
74	P20_4	I/O	RLIN23RX
75	EVCC	Power	-
76	EVSS	Power	-
77	EVCC	Power	-
78	ISOVCL	Power	-
79	ISOVSS	Power	-
80	EVSS	Power	-
81	P10_6	I/O	TAUD0I13/TAUD0013/CSIG0S0/CAN1RX/INTP1
82	P10_7	I/O	TAUD0I15/TAUD0015/CSIG0SC/PWGA40/CAN1TX
83	FLMD1	Input	P10_8/TAUD0I10/TAUD0010/CSIG0SI/PWGA50
84	P10_9	I/O	TAUD0I12/TAUD0012/RLIN30RX/INTP10/PWGA60/CSIH0RYI/CSIH0RYO
85	P10_10	I/O	TAUD0I14/TAUD0014/RLIN30TX/PWGA70/CSIH0CSS1
86	P10_11	I/O	RLIN31RX/INTP11/CSIH1CSS0/TAUB0I1/TAUB001
87	P10_12	I/O	RLIN31TX/CSIH1CSS1/TAUB0I3/TAUB003
88	P10_13	I/O	CSIH0SSI#/INTP12/TAUB0I5/TAUB005/CAN7TX
89	P10_14	I/O	TAUB0I7/TAUB007/CAN7RX/INTP9
90	P11_1	I/O	CSIH2SSI#/RLIN20RX/TAUB0I13/TAUB0013
91	P11_2	I/O	CSIH2SO/RLIN20TX/TAUB0I15/TAUB0015
92	P11_3	I/O	CSIH2SC/CAN3RX/INTP3
93	P11_4	I/O	CSIH2SI/CAN3TX
94	P11_5	I/O	CAN5RX/INTP5
95	P11_6	I/O	INTP13/CAN5TX
96	EVCC	Power	-
97	EVSS	Power	-
98	P10_0	I/O	TAUD0I1/TAUD001/CAN0RX/INTP0/PWGA00/CSIH1SI
99	P10_1	I/O	TAUD0I3/TAUD003/CAN0TX/PWGA10/CSIH1SC/MODE0
100	P10_2	I/O	TAUD0I5/TAUD005/RIIC0SDA/KR0I0/PWGA20/ADCA0TRG0/CSIH1SO/MODE1

A.3 Symbol Parameters

Orderable Part Number	Min Input Voltage	Max Input Voltage	Max Output Frequency	Min Operating Temperature	Max Operating Temperature	RAM Size	Memory Size	Interface	Number of ADC Channels	Number of I2C Channels	Number of SPI Channels	Number of UART Channels	Number of Timers/Counters
R7F7015013A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015013A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015013A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015013A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015013A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015013A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015014A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015014A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015014A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015014A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015014A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch

R7F7015014A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	320 KB	3 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015023A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015024A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+125 °C	384 KB	4 MB	SCI, UART, LIN, CAN, I2C	10-bit X 26- Ch, 12-bit X 32-Ch	1	8	6	16-bit X 48-Ch, 32- bit X 8-Ch
R7F7015303A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch

R7F7015303A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015303A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015303A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015303A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015303A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	3 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FD-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FD-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FD-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FE-C#AA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FE-C#BA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch
R7F7015313A FE-C#KA2	3 V	5.5 V	120 MHz	−40° C	+105 °C	512 KB	4 MB	SCI, UART, LIN, CAN, I2C	12-bit X 15- Ch	1	4	2	16-bit X 32-Ch, 32- bit X 8-Ch

A.4 Footprint Design Information

A.4.1 176-LFQFP

IPC Footprint Type	Package Code/ POD number	Number of Pins
QFP	PLQP0176KH-A	176

Description	Dimension	Value (mm)	Diagram
Minimum lead span (vertical side)	Dmin	25.8	
Maximum lead span (vertical side)	Dmax	26.2	
Minimum lead span (horizontal side)	Emin	25.8	
Maximum lead span (horizontal side)	Emax	26.2	
Minimum body span (vertical side)	D1min	24.2	
Maximum body span (vertical side)	D1max	24.2	
Minimum body span (horizontal side)	E1min	24.2	
Maximum body span (horizontal side)	E1max	24.2	
Minimum Lead Width	Bmin	0.17	
Maximum Lead Width	Bmax	0.27	
Minimum Lead Length	Lmin	0.45	
Maximum Lead Length	Lmax	0.75	
Maximum Height	Amax	1.6	
Minimum Standoff Height	A1min	0.05	
Minimum Lead Thickness	cmin	0.09	
Maximum Lead Thickness	cmax	0.2	
Number of pins (vertical side)	PinCountD	44	
Number of pins (horizontal side)	PinCountE	44	
Distance between the center of any two adjacent pins	Pitch	0.5	
Location of pin 1; S2 = corner of D side, C1 = center of E side	Pin1	S2	
Minimum thermal pad size (vertical side)	D2min	-	
Maximum thermal pad size (vertical side)	D2max	-	
Minimum thermal pad size (horizontal side)	E2min	-	
Maximum thermal pad size (horizontal side)	E2max	-	

Recommended Land Pattern (NSMD Design)

Description	Dimension	Value (mm)	Diagram
Distance between left pad toe to right pad toe (horizontal side)	ZE	-	
Distance between top pad toe to bottom pad toe (vertical side)	ZD	-	
Distance between left pad heel to right pad heel (horizontal side)	GE	-	
Distance between top pad heel to bottom pad heel (vertical side)	GD	-	
Pad Width	X	-	
Pad Length	Y	-	

A.4.2 176-LFQFP

IPC Footprint Type	Package Code/ POD number	Number of Pins
QFP	PLQP0176KG-A	176

Description	Dimension	Value (mm)	Diagram
Minimum lead span (vertical side)	Dmin	25.8	
Maximum lead span (vertical side)	Dmax	26.2	
Minimum lead span (horizontal side)	Emin	25.8	
Maximum lead span (horizontal side)	Emax	26.2	
Minimum body span (vertical side)	D1min	24.2	
Maximum body span (vertical side)	D1max	24.2	
Minimum body span (horizontal side)	E1min	24.2	
Maximum body span (horizontal side)	E1max	24.2	
Minimum Lead Width	Bmin	0.17	
Maximum Lead Width	Bmax	0.27	
Minimum Lead Length	Lmin	0.45	
Maximum Lead Length	Lmax	0.75	
Maximum Height	Amax	1.6	
Minimum Standoff Height	A1min	0.05	
Minimum Lead Thickness	cmin	0.09	
Maximum Lead Thickness	cmax	0.2	
Number of pins (vertical side)	PinCountD	44	
Number of pins (horizontal side)	PinCountE	44	
Distance between the center of any two adjacent pins	Pitch	0.5	
Location of pin 1; S2 = corner of D side, C1 = center of E side	Pin1	S2	
Minimum thermal pad size (vertical side)	D2min	-	
Maximum thermal pad size (vertical side)	D2max	-	
Minimum thermal pad size (horizontal side)	E2min	-	
Maximum thermal pad size (horizontal side)	E2max	-	

Recommended Land Pattern (NSMD Design)

Description	Dimension	Value (mm)	Diagram
Distance between left pad toe to right pad toe (horizontal side)	ZE	-	
Distance between top pad toe to bottom pad toe (vertical side)	ZD	-	
Distance between left pad heel to right pad heel (horizontal side)	GE	-	
Distance between top pad heel to bottom pad heel (vertical side)	GD	-	
Pad Width	X	-	
Pad Length	Y	-	

A.4.3 100-LFQFP

IPC Footprint Type	Package Code/ POD number	Number of Pins
QFP	PLQP0100KM-A	100

Description	Dimension	Value (mm)	Diagram
Minimum lead span (vertical side)	Dmin	16.2	
Maximum lead span (vertical side)	Dmax	16.2	
Minimum lead span (horizontal side)	Emin	16.2	
Maximum lead span (horizontal side)	Emax	16.2	
Minimum body span (vertical side)	D1min	14.2	
Maximum body span (vertical side)	D1max	14.2	
Minimum body span (horizontal side)	E1min	14.2	
Maximum body span (horizontal side)	E1max	14.2	
Minimum Lead Width	Bmin	0.17	
Maximum Lead Width	Bmax	0.27	
Minimum Lead Length	Lmin	0.45	
Maximum Lead Length	Lmax	0.75	
Maximum Height	Amax	1.6	
Minimum Standoff Height	A1min	0.05	
Minimum Lead Thickness	cmin	0.09	
Maximum Lead Thickness	cmax	0.2	
Number of pins (vertical side)	PinCountD	25	
Number of pins (horizontal side)	PinCountE	25	
Distance between the center of any two adjacent pins	Pitch	0.5	
Location of pin 1; S2 = corner of D side, C1 = center of E side	Pin1	S2	
Minimum thermal pad size (vertical side)	D2min	-	
Maximum thermal pad size (vertical side)	D2max	-	
Minimum thermal pad size (horizontal side)	E2min	-	
Maximum thermal pad size (horizontal side)	E2max	-	

Recommended Land Pattern (NSMD Design)

Description	Dimension	Value (mm)	Diagram
Distance between left pad toe to right pad toe (horizontal side)	ZE	-	
Distance between top pad toe to bottom pad toe (vertical side)	ZD	-	
Distance between left pad heel to right pad heel (horizontal side)	GE	-	
Distance between top pad heel to bottom pad heel (vertical side)	GD	-	
Pad Width	X	-	
Pad Length	Y	-	

A.4.4 100-LFQFP

IPC Footprint Type	Package Code/ POD number	Number of Pins
QFP	PLQP0100KL-A	100

Description	Dimension	Value (mm)	Diagram
Minimum lead span (vertical side)	Dmin	16.2	
Maximum lead span (vertical side)	Dmax	16.2	
Minimum lead span (horizontal side)	Emin	16.2	
Maximum lead span (horizontal side)	Emax	16.2	
Minimum body span (vertical side)	D1min	14.2	
Maximum body span (vertical side)	D1max	14.2	
Minimum body span (horizontal side)	E1min	14.2	
Maximum body span (horizontal side)	E1max	14.2	
Minimum Lead Width	Bmin	0.17	
Maximum Lead Width	Bmax	0.27	
Minimum Lead Length	Lmin	0.45	
Maximum Lead Length	Lmax	0.75	
Maximum Height	Amax	1.6	
Minimum Standoff Height	A1min	0.05	
Minimum Lead Thickness	cmin	0.09	
Maximum Lead Thickness	cmax	0.2	
Number of pins (vertical side)	PinCountD	25	
Number of pins (horizontal side)	PinCountE	25	
Distance between the center of any two adjacent pins	Pitch	0.5	
Location of pin 1; S2 = corner of D side, C1 = center of E side	Pin1	S2	
Minimum thermal pad size (vertical side)	D2min	-	
Maximum thermal pad size (vertical side)	D2max	-	
Minimum thermal pad size (horizontal side)	E2min	-	
Maximum thermal pad size (horizontal side)	E2max	-	

Recommended Land Pattern (NSMD Design)

Description	Dimension	Value (mm)	Diagram
Distance between left pad toe to right pad toe (horizontal side)	ZE	-	
Distance between top pad toe to bottom pad toe (vertical side)	ZD	-	
Distance between left pad heel to right pad heel (horizontal side)	GE	-	
Distance between top pad heel to bottom pad heel (vertical side)	GD	-	
Pad Width	X	-	
Pad Length	Y	-	