

μPD78F9210xxGR(x)-JJG-A

Renesas MCU
78K Family

ROM Type
F: Flash

78K0,
78K0S
Series

Product Group

04	78K0	Lx3
05	78K0	Kx2, Kx2-L, Kx2-A
07	78K0	Ix2, 071x, 073x, Kx2-C
08	78K0	Dx2, Fx2-L, Fx2
80	78K0	8025, Lx3-M
92	78K0S	Kx1+
95	78K0S	Kx1+

Optional

Temperature & Quality Grade

None	-40°C to 85°C	Standard
(A), A	-40°C to 85°C	Special
(A2), A2	-40°C to 125°C	Special

Pb-Free

A	Terminal finish is Sn-Bi plating
AX, G	Terminal finish is Ni/Pa/Au plating

Packaging type, Pin Count

MA-CAC	LSSOP	10	GA-8EU	LFQFP	48
MA-FAA	SSOP	16	GB-GAG	LFQFP	52
CS-CBA	SDIP	16	GB-UET	LFQFP	52
GR-JJG	SSOP	16	GC-GAL	LQFP	64
FH-2A2	UFBGA	16	GC-UBS	LQFP	64
MC-CAA	LSSOP	20	GK-UET	LQFP	64
MC-5A4	LSSOP	20	GK-GAJ	LQFP	64
CS-CAC	SDIP	20	GB-UEU	LFQFP	64
MC-CAB	SOP	20	GB-GAH	LFQFP	64
FC-2N2	WFLGA	25	GK-9ET	TQFP	64
MC-CAB	LSSOP	30	GA-HAB	TFQFP	64
MC-5A4	LSSOP	30	GA-9EV	TFQFP	64
K8-3B4	HWQFN	32	AF-AA2	VFBGA	64
CS-CAA	SDIP	32	FC-AA1	VFLGA	64
FC-AA3	VFLGA	36	GC-UBT	LQFP	80
MC-GAA	SSOP	38	GC-GAD	LQFP	80
K8-4B4	HWQFN	40	GK-8EU	LFQFP	80
GB-GAF	LQFP	44	GK-GAK	LFQFP	80
GB-UES	LQFP	44	KA-GAK	LFQFP	80
GA-GAM	LFQFP	48	GC-UEU	LFQFP	100

With some exceptions

78K0, 78K0S Series

Example shown here:

78K0S/KY1+ (16-pin), Part number μPD78F9210GR(A)-JJG-A

μPD78F0546xxGC(A2)-GAD-AX

Renesas MCU ROM Type F: Flash

78K0/Kx2 Group

Product Group

50x	78K0/KB2
51x	78K0/KC2
52x	78K0/KD2
53x	78K0/KE2
54x	78K0/KF2

High-speed RAM/ Expansion RAM/Flash Memory Size

5x0	512B	-	8KB
5x1	768B	-	16KB
5x2	1KB	-	24KB
5x3	1KB	-	32KB
5x4	1KB	1KB	48KB
5x5	1KB	2KB	60KB
5x6	1KB	4KB	96KB
5x7	1KB	6KB	128KB

Production type

None	Conventional-spec
A	Expanded-spec

On-chip Debug Function

None	Not mounted
D	Mounted

Temperature & Quality Grade

None	-40°C to 85°C	Standard
(A), A	-40°C to 85°C	Special
(A2), A2	-40°C to 125°C	Special

Pb-Free

A	Terminal finish is Sn-Bi plating
AX, G	Terminal finish is Ni/Pa/Au plating

With some exceptions

Packaging type, Pin Count

MC-5A4, MC-CAB	SSOP	7.62mm	30	KB2
FC-AA3	FLGA	4x4	36	
MC-GAA	SSOP	7.62mm	38	KC2
GB-UES, GB-GAF	LQFP	7x7	44	
GA-8RU, GA-GAM	LQFP	10x10	48	KD2
GB-UET, GB-GAG	LQFP	10x10	52	
GB-UEU, GB-GAH	LQFP	10x10	64	KE2
GC-UBS, GC-GAL	LQFP	14x14	64	
GK-UET, GK-GAJ	LQFP	12x12	64	KF2
GA-9EV, GA-HAB	TQFP	7x7	64	
FC-AA1	FLGA	5x5	64	KF2
F1-AA2	FBGA	4x4	64	
GC-UBT, GC-GAD	LQPF	14x14	80	
GK-8EU, GK-GAK	LQFP	12x12	80	

Example shown here:

78K0/KB2 (80-pin), Part number μPD78F0546GC(A2)-GAD-AX

78K0/Kx2 Group

μPD78F0581K8-4B4-AX

Renesas
MCU

ROM Type
F: Flash

78K0/Kx2-L Group

Product Group

55x	78K0/KY2-L
56x	78K0/KA2-L
57x	78K0/KB2-L
58x	78K0/KC2-L

Flash Memory /High-speed
RAM/ Size /Operational amp.

5x0	4KB	384B	Not mounted
5x1	8KB	-	
5x2	16KB	-	
5x3	32KB	-	
5x5	4KB	1KB	Mounted
5x6	8KB	2KB	
5x7	16KB	4KB	
5x8	32KB	6KB	

With some exceptions

Pb-Free

AX Terminal finish is Ni/Pa/Au plating

Packaging type, Pin Count

MA-FAA	SSOP	5.72mm	16	KY2-L
MC-CAA	SSOP	7.62mm	20	
FC-2N2	FLGA	3x3	25	KA2-L
K8-3B4	WQFN	5x5	32	
MC-CAB	SSOP	7.62mm	30	KB2-L
K8-4B4	WQFN	6x6	40	
GB-GAF	LQFP	10x10	44	KC2-L
GA-GAM	LQFP	7x7	48	

78K0/Kx2-L Group

Example shown here:

78K0/KC2-L (40-pin), Part number μPD78F0581K8-4B4-AX

μPD78F0441GK-GAJ-AX

Renesas
MCU

ROM Type
F: Flash

78K0/Lx3 Group

Product Group

40x, 41x	78K0/LC3
42x, 43x	78K0/LD3
44x, 45x, 46x	78K0/LE3
47x, 48x, 49x	78K0/LF3

High-speed RAM/ Expansion
RAM/Flash Memory Size

4x0	512B	-	8KB
4x1	768B	-	16KB
4x2	1KB	-	24KB
4x3	1KB	-	32KB
4x4	1KB	1KB	48KB
4x5	1KB	1KB	60KB

With some exceptions

Pb-Free

AX Terminal finish is Ni/Pa/Au plating

Packaging type, Pin Count

GA-GAM	LFQFP	7x7	48	} LC3
GB-GAG	LQFP	10x10	52	
GB-GAH	LFQFP	10x10	64	} LD3
GK-GAJ	LQFP	12x12	64	
GA-HAB	TFQFP	7x7	64	} LE3
GC-GAD	LQFP	14x14	80	
GK-GAK	LFQFP	12x12	80	
				} LF3

78K0/Lx3 Group

Example shown here:

78K0/LE3 (64-pin), Part number μPD78F0441GK-GAJ-AX

μPD78F1168xGC(x)-UEU-AX

Renesas
MCU

ROM Type
F: Flash

78K0R Series

Product Group

10	78K0R	Kx3-L, Kx3-A, Hx3
11	78K0R	Kx3
12	78K0R	Ix3
15	78K0R	Lx3
18	78K0R	Fx3, Kx3-C
80	78K0R	Lx3-M,, 8043, 8058

Temperature & Quality Grade

None	-40°C to 85°C	Standard
(A), A	-40°C to 85°C	Special
(A2), A2	-40°C to 125°C	Special

With some exceptions

Pb-Free

A	Terminal finish is Sn-Bi plating
AX, G	Terminal finish is Ni/Pa/Au plating

Optional

Packaging type, Pin Count

MC-CAB	LSSOP	30	F1-BA4	LFBGA	64
K8-3B4	HWQFN	32	GA-HAB	TFQFP	64
MC-GAA	SSOP	38	GB-GAH	LFQFP	64
K8-4B4	HWQFN	40	GK-GAJ	LQFP	64
GB-GAF	LQFP	44	GC-GAD	LQFP	80
GA-HAA	TFQFP	48	GK-GAK	LFQFP	80
GA-GAM	LFQFP	48	GF-GAS	LQFP	100
K8-5B4	HWQFN	48	GC-UEU	LFQFP	100
K8-9B4	HWQFN	56	F1-BAK	TFBGA	100
F1-AA2	VFBGA	64	GF-GAT	LFQFP	128
F1-AN1	VFBGA	64	GJ-GAE	LFQFP	144

78K0R Series

Example shown here:

78K0R/KG3 (100-pin), Part number μPD78F1168GC-UEU-AX