

CubeSuite+ Code Generator for RL78,78K0R,78K0 V1.00.01

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Chapter 1. Target Devices

Below is a list of devices supported by the Code Generator for RL78/G13 V1.01.00					
PIN	Device name				
20pin	R5F1006A, R5F1006C, R5F1006D, R5F1006E				
24pin	R5F1007A, R5F1007C, R5F	R5F1007A, R5F1007C, R5F1007D, R5F1007E			
25pin	R5F1008A, R5F1008C, R5F	R5F1008A, R5F1008C, R5F1008D, R5F1008E			
30pin	R5F100AA, R5F100AC, R5	F100AD, R5F100AE, R5F100AF, R5F100AG			
32pin	R5F100BA, R5F100BC, R5	F100BD, R5F100BE, R5F100BF, R5F100BG			
36pin	R5F100CA, R5F100CC, R5	F100CD, R5F100CE, R5F100CF, R5F100CG			
40pin	R5F100EA, R5F100EC, R5F100ED, R5F100EE, R5F100EF, R5F100EG, R5F100EH				
R5F100FA, R5F100FC, R5F100FD, R5F100FE, R5F100FF, R5F100FG, R5F100FH					
44pm	R5F100FJ, R5F100FK, R5F100FL				
48nin	R5F100GA, R5F100GC, R5F100GD, R5F100GE, R5F100GF, R5F100GG, R5F100GH				
торіп	R5F100GJ, R5F100GK, R5	R5F100GJ, R5F100GK, R5F100GL			
52nin	52pin R5F100JC, R5F100JD, R5F100JE, R5F100JF, R5F100JG, R5F100JH				
ozpin	R5F100JJ, R5F100JK, R5F100JL				
64pip	R5F100LC, R5F100LD, R5I	F100LE, R5F100LF, R5F100LG, R5F100LH			
04pm	R5F100LJ, R5F100LK, R5F	F100LL			
80pin	R5F100MF, R5F100MG, R5F100MH, R5F100MJ, R5F100MK, R5F100ML				
100pin	R5F100PF, R5F100PG, R5F100PH, R5F100PJ, R5F100PK, R5F100PL				
128pin R5F100SH, R5F100SJ, R5F100SK, R5F100SL					
The Code Generator	The Code Generator for RL78/G13 V1.01.00 is based on the following documents.				
Ма	nual Name	Document Number			
RI 78/G13 Prelimina	ry Lleer's Manual: Hardware	R01UH0146JJ0006 Rev.0.06			
RL78/G13 Preliminary User's Manual: Hardware		R01UH0146EJ0006 Rev.0.06			



Below is a list of devices supported by the Code Generator for 78K0R/Fx3 V1.00.01					
Nickname		Device name			
78K0R/FB3	μPD78F1804, μPD78F1805, μPD78F1806, μPD78F1807				
	μPD78F1808, μPD78F1809, μPD78F1810, μPD78F1811				
78K0R/FC3	μPD78F1812, μPD78F1813	3, μPD78F1814, μPD78F1815, μPD78F1816, μPD78F1817			
	µPD78F1826, µPD78F1827	7, μPD78F1828, μPD78F1829, μPD78F1830			
μPD78F1818, μPD78F1819, μPD78F1820, μPD78F1821, μPD78F1822					
78K0R/FE3 μPD78F1831, μPD78F1832, μPD78F1833, μPD78F1834, μPD78F1835					
70//00//550	μPD78F1823, μPD78F1824, μPD78F1825				
78K0R/FF3	μPD78F1836, μPD78F1837, μPD78F1838, μPD78F1839, μPD78F1840				
78K0R/FG3	78K0R/FG3				
The Code Generato	The Code Generator for 78K0R/Fx3 V1.00.01 is based on the following documents.				
Manual Name Document Number					
		U19145JJ1V0UD00			
78K0R/F	x3 User's Manual	U19145EJ1V0UD00			

Below is a list of devices supported by the Code Generator for 78K0R/Ix3 V1.00.01				
Nickname		Device name		
78K0R/IB3	μPD78F1201, μPD78F1203	JPD78F1201, μPD78F1203		
78K0R/IC3	μΡD78F1211(38pin), μΡD78F μΡD78F1211(44pin), μΡD78F	D78F1211(38pin), μPD78F1213(38pin), D78F1211(44pin), μPD78F1213(44pin)		
78K0R/ID3	μPD78F1213(48pin), μPD78F1214(48pin), μPD78F1215(48pin) μPD78F1223, μPD78F1224,μPD78F1225			
78K0R/IE3	μPD78F1233, μPD78F1234,μPD78F1235			
The Code Generator for 78K0R/Ix3 V1.00.01 is based on the following documents.				
Manual Name		Document Number		
78K0P/ly2 Licor's Manual		U19678JJ1V1UD00		
		U19678EJ1V1UD00		



Below is a list of devices supported by the Code Generator for 78K0R/Kx3 V1.00.01							
Nickname	Device name						
78K0R/KE3	μPD78F1142/A, μPD78F11	μPD78F1142/A, μPD78F1143/A, μPD78F1144/A, μPD78F1145/A, μPD78F1146/A					
78K0R/KF3	μPD78F1152/A, μPD78F11	153/A, µPD78F1154/A, µPD78F1155/A, µPD78F1156/A					
78K0R/KG3	μPD78F1162/A, μPD78F1163/A, μPD78F1164/A, μPD78F1165/A, μPD78F1166/A, μPD78F1167/A, μPD78F1168/A						
78K0R/KH3	μPD78F1174/A, μPD78F11	μPD78F1174/A, μPD78F1175/A, μPD78F1176/A, μPD78F1177/A, μPD78F1178/A					
78K0R/KJ3	μPD78F1184A, μPD78F11	85Α, μΡD78F1186Α, μΡD78F1187Α, μΡD78F1188Α					
The Code Generator for 78K0R/Kx3 V1.00.01 is based on the following documents							
Manual Name Document Number							
78K0R/KE3 User's Manual		U17854JJ8V0UD00					
		U17854EJ8V0UD00					
78K0P/KE3 Llear's Manual		U17893JJ7V0UD00					
78KUR/KF3 User's Manual		U17893EJ7V0UD00					
		U17894JJ8V0UD00					
78KUR/KG3 User's Manual		U17894EJ8V0UD00					
ZOKOD #KUO Us sels Manush		U18432JJ4V0UD00					
78K0R/KH3 User's Manual		U18432EJ4V0UD00					
		U18417JJ3V0UD00					
Torur/NJS User's Mariuar		U18417EJ3V0UD00					

Below is a list of devices supported by the Code Generator for 78K0R/Kx3-A V1.00.01				
Nickname		Device name		
78K0R/KE3-A	μPD78F1016, μPD78F1017	PD78F1016, μPD78F1017, μPD78F1018		
The Code Generator for 78K0R/Kx3-A V1.00.01 is based on the following documents				
Manual Name Document Number				
78K0P/Ky3-A Liser's Manual		U19653JJ1V0UD		
		U19653EJ1V0UD		



Below is a list of devices supported by the Code Generator for 78K0R/Kx3-L V1.00.01					
Nickname		Device name			
78K0R/KC3-L	μPD78F1000(44pin), μPD	μPD78F1000(44pin), μPD78F1001(44pin), μPD78F1002(44pin),μPD78F1003(44pin),			
	μPD78F1001(48pin), μPD78F1002(48pin), μPD78F1003(48pin)				
78K0R/KD3-L	µPD78F1004, µPD78F100	μPD78F1004, μPD78F1005, μPD78F1006			
78K0R/KE3-L	µPD78F1007, µPD78F100	μPD78F1007, μPD78F1008, μPD78F1009			
78K0R/KF3-L	μPD78F1010, μPD78F1011, μPD78F1012				
78K0R/KG3-L	μPD78F1013, μPD78F1014				
The Code Generator for 78K0R/Kx3-L V1.00.01 is based on the following documents					
Manual Name Document Number					
70K0D/Kv2 L Llassia Manual		U19291JJ2V0UD00			
		U19291EJ3V0UD00			
ZOKOD/KE2 Liperia Manual		U19459JJ1V0UD00			
		U19459EJ1V0UD00			
78K0P/KC2 L Llaaria Manual		U19460JJ1V0UD00			
		U19460EJ1V0UD00			

Below is a list of devices supported by the Code Generator for 78K0R/Lx3 V1.00.01				
Nickname	Device name			
78K0R/LF3	μPD78F1500, μPD78F1501	PD78F1500, μPD78F1501, μPD78F1502		
78K0R/LG3	μPD78F1503, μPD78F1504	JPD78F1503, μPD78F1504, μPD78F1505		
78K0R/LH3	μPD78F1506, μPD78F1507, μPD78F1508			
The Code Generator for 78K0R/Lx3 V1.00.01 is based on the following documents				
Manual Name		Document Number		
78K0R/L	x3 User's Manual	U19155JJ3V0UD		
U19155EJ3V0UD				



Below is a list of devices supported by the Code Generator for 78K0/lx2 V1.00.00				
Nickname	Device name			
78K0/IY2	ιPD78F0740, μPD78F0741, μPD78F0742, ιPD78F0750, μPD78F0751, μPD78F0752			
78K0/IA2	μPD78F0743, μPD78F0744 μPD78F0753, μPD78F0754	ιPD78F0743, μPD78F0744, ιPD78F0753, μPD78F0754		
78K0/IB2	μPD78F0745, μPD78F0746, μPD78F0755, μPD78F0756			
The Code Generator for 78K0/Ix2 V1.00.00 is based on the following documents.				
Manual Name		Document Number		
78K0/lx2 User's Manual		U19353JJ3V0UD00		

Below is a list of devices supported by the Code Generator for 78K0/Kx2-L V1.00.00					
Nickname		Device name			
μPD78F0550, μPD78F0551, μPD78F0552,					
78KU/KYZ-L	µPD78F0555, µPD78F0556	δ, μPD78F0557			
μPD78F0560, μPD78F0561, μPD78F0562,					
78KU/KA2-L	µPD78F0565, µPD78F0566	δ, μPD78F0567			
70//0////2001	μPD78F0571, μPD78F0572, μPD78F0573,				
^{78K0/KB2-L} μPD78F0576, μPD78F0577, μPD78F0578					
μPD78F0581(44pin), μPD78F0582(44pin), μPD78F0583(44pin),					
	μPD78F0581(48pin), μPD78F0582(48pin), μPD78F0583(48pin),				
78K0/KC2-L	μPD78F0586(44pin), μPD78F0587(44pin), μPD78F0588(44pin),				
μPD78F0586(48pin), μPD78F0587(48pin), μPD78F0588(48pin)					
The Code Generator for 78K0/Kx2-L V1.00.00 is based on the following documents.					
Manual Name Document Number					
79K0/Kv2	L Llear's Manual	U19111JJ2V1UD			
7000/022		U19111EJ2V1UD			



Chapter 2. User's Manuals

Please read the following user's manuals together with this document.

Manual Name	Document Number
CubeSuite+ V1.00.00 RL78 Design	R20UT0548EJ0100
CubeSuite+ V1.00.00 78K0R Design	R20UT0547EJ0100
CubeSuite+ V1.00.00 78K0 Design	R20UT0546EJ0100
CubeSuite+ V1.00.00 Message	R20UT0407EJ0100



Chapter 3. Key Points for Selecting Uninstallation Method

There are two ways to uninstall this product.

- Use the integrated uninstaller (uninstalls CubeSuite+)
- Use separate uninstaller (uninstalls this product only)

To use the separate uninstaller, select the following from the Control Panel:

- Add/Remove Programs (Windows XP)
- Programs and Features (Windows Vista, Windows 7)

Then select "CubeSuite+ Code Generator for RL78_78K".



Chapter 4. Cautions

This section describes cautions for using Code Generator for RL78,78K0R,78K0.

4.1 Cautions List

		Corresponds of code generation								
No.	Description	RL78/G13	78K0R/Fx3	78KOR/Ix3	78K0R/Kx3	78K0R/Kx3-A	78K0R/Kx3-L	78K0R/Lx3	78K0/lx2	78K0/Kx2-L
		V 1.01.00	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.00	V 1.00.00
1	About the LIN-bus function of UART2 or UART3 or UART6.	0	0	0	0	0	0	0	0	0
2	About the operation for slave transmission of serial interface IICA or IIC0.	0	×	0	0	0	0	0	0	0
3	About extension code, multimaster, wakeup function of serial interface IICA or IIC0	0	×	0	0	0	0	0	0	0
4	About cooperation with the linker option	×	×	×	×	×	×	×	0	0
5	About CAN controllers	×	0	×	×	×	×	×	×	×
6	About PORT	0	×	×	×	×	×	×	×	×
7	About the SNOOZE mode of Serial array unit 1	0	×	×	×	×	×	×	×	×

 \circ : Correspondence, **X**: Not correspondence



4.2 Cautions Details

4.2.1 About the LIN-bus function of UART2 or UART3 or UART6

The code generator is not supporting the LIN-bus functions of serial interface UART2 or UART3 or UART6.

4.2.2 About the operation for slave transmission of serial interface IICA or IIC0

The code generator is not supporting the extension code, multimaster, wakeup function of serial interface IIC.

4.2.3 About extension code, multimaster, wakeup function of serial interface IICA or IIC0

During slave transmission, if the master receiver does not return an ACK after the final data is received, then the error API IICA_SlaveErrorCallback(MD_NACK) will be called, regardless of whether the actual slave transmission process ended. For this reason, the program will not terminate normally.

[Work-around]

If the master being communicated with does not return an ACK after the final data reception, change IICA_SlaveHandler's internal code as follows. (So that it does not check for an ACK after the final data is received. The figure below for the serial interface IICA.)





4.2.4 About cooperation with the linker option

The setting of on the chip debugging of the code generation is not coordinated with " Set user option byte" of link-option.

4.2.5 About CAN controllers

The code generator is not supporting the CAN Controllers.

4.2.6 About PORT

There are notes in the port setting of RL78/G13(R5F100LJ, R5F100LK, R5F100LL). Please do not use a item of P43, P52, P53, and P54 ("TTL buffer" or "N-ch").

4.2.7 About the SNOOZE mode of Serial array unit 1

The code generation of RL78/G13 in not supporting the SNOOZE mode of serial array unit 1.



Chapter 5. Restrictions

This section describes the restrictions for the Code Generator for RL78,78K0R,78K0.

5.1 Restrictions List

				Corresponds of code generation							
No.	Description	RL78/G13	78K0R/Fx3	78K0R/Ix3	78K0R/Kx3	78K0R/Kx3-A	78K0R/Kx3-L	78K0R/Lx3	78K0/lx2	78K0/Kx2-L	
		V 1.01.00	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.01	V1.00.00	V 1.00.00	
1	About the coding rule of MISRA-C.	0	0	0	0	0	0	0	0	0	

 \circ : Correspondence, **x**: Not correspondence

5.2 Restrictions Details

5.2.1 About the coding rule of MISRA-C

Compliance with the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention is not supported for source code output by the code generator.



Chapter 6. Changes in User's Manual

This section describes errata in CubeSuite+ documentation. The same content is also contained in the Help file, and should be replaced by this content.

6.1 Modifications in RL78 design

This section describes modifications in User's Manual RL78 Design(document #R20UT0548EJ01000).

6.1.1 Changed description relating to the features of Code generating function

Location:	Page 10
Before change:	Remarks 1. Source code output by the Code Generator conforms to the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention.
After change:	Remarks 1. Compliance with the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention is planned for source code output by the code generator.

6.2 Modifications in 78K0R design

This section describes modifications in User's Manual 78K0R Design(document #R20UT0547EJ01000).

6.2.1 Changed description relating to the features of Code generating function

Location:	Page 10	
Before change:	Remarks 1.	Source code output by the Code Generator conforms to the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention.
After change:	Remarks 1.	Compliance with the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention is planned for source code output by the code generator.

6.3 Modifications in 78K0 design

This section describes modifications in User's Manual 78K0 Design(document #R20UT0546EJ01000).

6.3.1 Changed description relating to the features of Code generating function

Location:	Page 10
Before change:	Remarks 1. Source code output by the Code Generator conforms to the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention.
After change:	Remarks 1. Compliance with the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention is planned for source code output by the code generator.

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