

Renesas Starter Kit+ for RX71M

Renesas Electronics Corporation

Difference of Component Reference from RSK+RX64M

R20UT3326EG0100 Rev.1.00 Jan.26.2015

Introduction

This document describes the difference of component reference number from RSK+RX64M. Some Application Notes are the common documents of RSK+RX64M and RSK+RX71M. Since these RSKs have near hardware specification, these Application Notes are explained according to RSK+RX64M hardware. When RSK+RX71M are used, please refer to with this document and RSK+RX71M schematics.

1. RSK Scope

This document describes the difference in the component reference number of following RSKs.

RX64M		RX71M
RSK+RX64M		Renesas Starter Kit+ for RX71M
(R0K50564MSxxxBE)	vs	(R0K50571MSxxxBE)
RSK+RX64M which mounted RX71M micon		
(R0K5RX71MC0x0BR) *NOT FOR SALE		

2. Differences

Along with the page of schematics, difference information of RSK+RX64M and RSK+RX71M is shown below.

Note: Since Ethernet PHY has changed the device, only clock circuit and MDC/MDIO setting are described.

2.1 Page.2 (MCU-1)

Table 2-1: Resistor Differences (Page.2)

	Resistor											
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R60	R65	10	R174	R180	19	R183	R189				
2	R61	R66	11	R175	R181	20	R184	R190				
3	R74	R71	12	R176	R182	21	R337	R343				
4	R84	R77	13	R177	R183	22	R461	R463				
5	R101	R87	14	R178	R184	23	R516	None				
6	R102	R89	15	R179	R185	24	R517	None				
7	R109	R88	16	R180	R186	25	R535	R329				
8	R110	R105	17	R181	R187	26	R537	None				
9	R121	R117	18	R182	R188							

Table 2-2: Capacitor Differences (Page.2)

				Capac	eitor	<u></u>		
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M
1	C14	C97	13	C33	C27	25	C55	C49
1								
2	C15	C14	14	C34	C28	26	C56	C50
3	C17	C96	15	C37	C29	27	C57	C51
4	C19	C16	16	C38	C30	28	C58	C52
5	C20	C18	17	C46	C38	29	C89	None
6	C21	C19	18	C47	C39	30	C116	C113
7	C22	C20	19	C48	C40	31	C119	C118
8	C26	C21	20	C49	C41	32	C121	C120
9	C27	C22	21	C50	C42	33	C122	C121
10	C30	C24	22	C51	C43	34	C124	C98
11	C31	C25	23	C53	C47	35	C125	C80
12	C32	C26	24	C54	C48			

Table 2-3: Other component Differences (Page.2)

	Clock, Inductor										
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M										
1	X6	None	2	L9	L10						

2.2 Page.3 (MCU-2)

Table 2-4: Resistor Differences (Page.3)

	Resistor									
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M		
1	R338	R344	3	R344	R351					
2	R339	R345	4	R398	R380					

Table 2-5: Capacitor Differences (Page.3)

	Capacitor									
No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M										
1	C106	C102	2	C109	C107	3	C110	C108		

2.3 Page.4 (MCU Pin Function Select-1)

Table 2-6: Resistor Differences (Page.4)

	Resistor											
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R48	R50	5	R361	R371	9	R400	R392				
2	R57	R58	6	R362	R372	10	R453	R455				
3	R232	R381	7	R364	R374	11	R454	R456				
4	R360	R370	8	R365	R375							

Table 2-7: Jumper Differences (Page.4)

	Jumper										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	J10	J8	3	J12	J11						
2	J11	J10	4	J13	J12						

2.4 Page.5 (MUC Pin Function Select-2)

Table 2-8: Resistor Differences (Page.5)

	Resistor									
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M		
1	R36	R51	44	R185	R401	87	R329	R333		
2	R40	R55	45	R186	R405	88	R330	R334		
3	R51	R59	46	R187	R191	89	R351	R362		
4	R62	R67	47	R188	R194	90	R374	R111		
5	R63	R377	48	R189	R195	91	R381	R378		
6	R69	R340	49	R192	R198	92	R401	R389		
7	R70	R369	50	R199	R202	93	R402	R388		
8	R75	R342	51	R200	R203	94	R403	R397		
9	R76	R368	52	R204	R207	95	R404	R398		
10	R77	R72	53	R234	R235	96	R409	R407		
11	R80	R359	54	R235	R236	97	R410	R408		
12	R83	R76	55	R236	R237	98	R412	R409		
13	R90	R396	56	R237	R238	99	R414	R411		
14	R92	R83	57	R238	R239	100	R417	R415		
15	R99	R85	58	R239	R240	101	R419	R417		
16	R100	R86	59	R240	R241	102	R421	R419		
17	R114	R104	60	R246	R243	103	R422	R420		
18	R115	R116	61	R250	R247	104	R423	R421		
19	R117	R121	62	R255	R253	105	R424	R422		
20	R119	R124	63	R263	R261	106	R428	R430		
21	R123	R130	64	R265	R267	107	R433	R435		
22	R124	R132	65	R266	R268	108	R438	R440		
23	R125	R134	66	R267	R269	109	R439	R441		
24	R128	R136	67	R268	R270	110	R440	R442		
25	R131	R133	68	R269	R271	111	R441	R443		
26	R135	R142	69	R270	R272	112	R448	R450		
27	R136	R143	70	R271	R273	113	R476	R478		
28	R137	R144	71	R272	R274	114	R478	R480		
29	R142	R151	72	R273	R275	115	R481	R483		
30	R143	R152	73	R274	R276	116	R482	R484		
31	R145	R179	74	R275	R277	117	R490	R488		
32	R152	R176	75	R277	R281	118	R505	R427		
33	R157	R165	76	R280	R284	119	R506	R315		
34	R159	R175	77	R281	R285	120	R507	R313		
35	R160	R168	78	R285	R289	121	R508	R119		
36	R161	R169	79	R286	R290	122	R511	R118		
37	R162	R390	80	R287	R291	123	R512	R128		
38	R163	R393	81	R288	R292	124	R513	R127		
39	R166	R172	82	R289	R293	125	R514	R125		
40	R168	R167	83	R290	R294	126	R515	R84		
41	R169	R177	84	R317	R322	127	R518	R192		
42	R170	R394	85	R318	R323	128	R536	R367		
43	R171	R400	86	R321	R327					

Table 2-9: Jumper Differences (Page.5)

	Jumper										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	J6	J3	3	J23	J24						
2	J9	J7	4	J27	J21						

2.5 Page.6 (MCU & Emulator Mode Setting)

Table 2-10: Resistor Differences (Page.6)

				Resis	tor	, ,	,	
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M
1	R85	R356	14	R399	R391	27	R491	R489
2	R129	R137	15	R405	R399	28	R523	R102
3	R130	R138	16	R406	R402	29	R524	R410
4	R153	R160	17	R407	R403	30	R531	R264
5	R193	R199	18	R413	R425	31	R525	R406
6	R213	R215	19	R416	R423	32	R526	R395
7	R222	R223	20	R450	R452	33	R527	R404
8	R223	R224	21	R451	R453	34	R528	R414
9	R313	R318	22	R452	R454	35	R529	R278
10	R316	R321	23	R475	R477	36	R530	R263
11	R363	R373	24	R477	R479	37	R532	R279
12	R366	R376	25	R479	R481	38	R533	R265
13	R388	R379	26	R480	R482	39	R534	R262

Page.7 (PSU, Reset, Switch and LED) 2.6

Table 2-11: Resistor Differences (Page.7)

	Table 2 11. Redictor Silver Frage. 7)											
				Resis	tor							
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R210	R212	11	R257	R255	21	R474	R476				
2	R215	R217	12	R258	R256	22	R486	R485				
3	R217	R218	13	R259	R257	23	R487	R486				
4	R220	R221	14	R278	R282	24	R489	R487				
5	R221	R222	15	R279	R283	25	R492	R490				
6	R244	R242	16	R282	R286	26	R494	R492				
7	R251	R248	17	R283	R287	27	R496	R493				
8	R252	R250	18	R284	R288	28	R498	R495				
9	R253	R251	19	R304	None							
10	R254	R252	20	R305	R309							

Table 2-12: Capacitor Differences (Page.7)

	Capacitor											
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	C74	C64	6	C81	C72	11	C123	None				
2	C75	C65	7	C82	C74	12	C126	C67				
3	C76	C66	8	C83	C75	13	C127	C116				
4	C77	C68	9	C84	None							
5	C80	C71	10	C85	None							

Table 2-13: Jumper Differences (Page.7)

	Jumper									
No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M										
1	J21	J22	2	J22	J23	3	J24	J27		

Table 2-14: Other component Differences (Page.7)

	IC, Inductor, Diode										
No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M								RX71M			
1	U15	U14	4	L10	L7	7	D11	D9			
2	U17	None	5	L11	L9	8	D12	D8			
3	L7	L8	6	L12	L6						

2.7 Page.8 (On-board Memory)

Table 2-15: Resistor Differences (Page.8)

	Table 2-13. Resistor Differences (Fage.o)											
				Resis	tor							
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R196	R193	10	R341	R347	19	R430	R432				
2	R197	R200	11	R345	R352	20	R431	R433				
3	R198	R201	12	R346	R353	21	R432	R434				
4	R202	R205	13	R349	R360	22	R434	R436				
5	R203	R206	14	R350	R361	23	R436	R438				
6	R212	R214	15	R355	R364	24	R444	R446				
7	R218	R219	16	R356	R365	25	R446	R448				
8	R219	R220	17	R357	R366	26	R447	R449				
9	R340	R346	18	R426	R428							

Table 2-16: Capacitor Differences (Page.8)

	Capacitor										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	C18	C15	5	C65	C58	9	C72	C62			
2	C29	C23	6	C66	C59	10	C73	C63			
3	C63	C56	7	C67	C55						
4	C64	C57	8	C71	C61						

Table 2-17: Other component Differences (Page.8)

	IC										
1	Vo.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M		
1	1	U13	U12	2	U14	U13					

2.8 Page.9 (E1 and USB to Serial Port)

Table 2-18: Resistor Differences (Page.9)

	Table 2 To: Nociotal Emotioned (1 ago.0)											
				Resis	tor							
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R126	R135	10	R149	R158	19	R249	R246				
2	R127	R131	11	R150	R159	20	R256	R254				
3	R132	R139	12	R154	R162	21	R260	R258				
4	R133	R140	13	R155	R163	22	R261	R259				
5	R134	R141	14	R156	R164	23	R262	R260				
6	R138	R146	15	R164	R170	24	None	R148				
7	R139	R147	16	R165	R171	25	None	R413				
8	R140	R149	17	R247	R244							
9	R141	R150	18	R248	R245							

Table 2-19: Capacitor Differences (Page.9)

	rable 2 Te. Capacitor Bindrenees (Tage.e)										
				Capac	itor						
No.	o. RX64M RX71M No. RX64M RX71M No. RX64M RX71M										
1	C39	C31	5	C43	C35	9	C59	C53			
2	C40	C32	6	C44	C36	10	C60	C54			
3	C41	C33	7	C45	C37						
4	C42	C34	8	C52	C44						

Table 2-20: Other component Differences (Page.9)

	Diode									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	D10	D7								

2.9 Page.10 (SD Slot, CAN, PDC and SSI)

Table 2-21: Resistor Differences (Page.10)

	Table 2-21. Nesision Differences (Fage.10)											
				Resis	tor							
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R190	R196	14	R297	R301	27	R467	R469				
2	R191	R197	15	R298	R302	28	R468	R470				
3	R206	R209	16	R299	R303	29	R469	R471				
4	R207	R210	17	R300	R304	30	R470	R472				
5	R208	R211	18	R301	R305	31	R471	R473				
6	R264	R266	19	R302	R306	32	R472	R474				
7	R276	R280	20	R303	R307	33	R473	R475				
8	R291	R295	21	R455	R457	34	R483	None				
9	R292	R296	22	R456	R458	35	R484	R249				
10	R293	R297	23	R457	R459	36	R493	R491				
11	R294	R298	24	R458	R460	37	R499	R496				
12	R295	R299	25	R459	R461	38	None	R308				
13	R296	R300	26	R460	R462							

Table 2-22: Capacitor Differences (Page.10)

	Capacitor										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	C70	C60	4	C118	C117	7	None	C73			
2	C78	None	5	C120	C119	8	None	C69			
3	C79	None	6	None	C70						

Table 2-23: Other component Differences (Page.10)

Diode										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M		
1	U12	U11	2	U16	U15					

2.10 Page.11 (Application Board Interface)

Table 2-24: Resistor Differences (Page.11)

	Resistor											
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R68	R70	14	R147	R154	27	R445	R447				
2	R82	R75	15	R148	R157	28	R449	R451				
3	R86	R357	16	R201	R204	29	R462	R464				
4	R87	R78	17	R205	R208	30	R463	R465				
5	R91	R82	18	R211	R213	31	R464	R466				
6	R93	R79	19	R214	R216	32	R465	R467				
7	R103	R90	20	R348	R358	33	R466	R468				
8	R108	R103	21	R427	R429	34	R497	R494				
9	R111	R106	22	R429	R431	35	R519	R155				
10	R116	R120	23	R435	R437	36	R520	R145				
11	R120	R126	24	R437	R439	37	R521	R161				
12	R122	R129	25	R442	R444	38	R522	R156				
13	R146	R153	26	R443	R445							

2.11 Page.12 (TFT and Pmod)

Table 2-25: Resistor Differences (Page.12)

	Resistor										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	R144	R178	8	R307	R312	15	R315	R320			
2	R151	R174	9	R308	R324	16	R408	R426			
3	R158	R173	10	R309	R314	17	R415	R412			
4	R167	R166	11	R310	R325	18	R418	R416			
5	R224	R225	12	R311	R316	19	R420	R418			
6	R225	R232	13	R312	R317	20	R425	R424			
7	R233	R234	14	R314	R319	21	None	R233			

Table 2-26: Capacitor Differences (Page.12)

	Capacitor									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	C61	C46	3	C86	C77					
2	C62	C45	4	C87	C78					

2.12 Page.13 (USB0)

Table 2-27: Resistor Differences (Page.13)

	Table 2 27: Nesister Billereness (1 age: 10)											
	Resistor											
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M				
1	R18	R23	6	R27	R43	11	R42	R56				
2	R19	R24	7	R28	R44	12	R52	R60				
3	R20	R25	8	R31	R47	13	R323	R328				
4	R23	R27	9	R32	R48							
5	R26	R42	10	R33	R49							

Table 2-28: Capacitor Differences (Page.13)

	Capacitor									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	C8	C6	3	C12	C11					
2	C9	C7	4	C90	C82					

Table 2-29: Jumper Differences (Page.13)

	Jumper									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	1 J2 J1									

Table 2-30: Other component Differences (Page.13)

	Inductor, Diode									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	L1	L2	2	D6	D5	3	D8	D6		

2.13 Page.14 (USBA)

Table 2-31: Resistor Differences (Page.14)

	()										
	Resistor										
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M			
1	R15	R21	6	R30	R46	11	R324	R330			
2	R16	R22	7	R37	R52	12	R325	R331			
3	R24	R40	8	R38	R53	13	R328	R332			
4	R25	R41	9	R39	R54						
5	R29	R45	10	R319	R310						

Table 2-32: Capacitor Differences (Page.14)

	Capacitor									
No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M										
1	C1	C1, C76	4	C10	C9	7	C92	C83		
2	C6	C4	5	C11	C10					
3	C7	C5	6	C13	C12					

Table 2-33: Jumper Differences (Page.14)

	Jumper									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	J1	None	3	J8	J6					
2	2 J7 J4 <mark>4 None J2</mark>									

Table 2-34: Other component Differences (Page.14)

	IC, Inductor, Diode									
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M									
1	None	U16	4	D2	None	7	D5	D3		
2	L2	L3	5	D3	D4	8	D13	None		
3	L14	L1	6	D4	D2					

2.14 Page.15 (Related Clock Circuit and MDIO/MDC)

Table 2-35: Resistor Differences (Page.15)

	rasio 2 del ricoloter Billerenede (r agel re)											
Resistor												
No.	No. RX64M RX71M No. RX64M RX71M No. RX64M RX71M											
1	R94	R63	4	R105	R61	7	R118	R26				
2	R95	R64	5	R106	R62							
3	R96	R68	6	R107	R69							

Table 2-36: Capacitor Differences (Page.15)

	Capacitor								
I	No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M
	1	C28	C8	2	C35	C13	3	C36	C17

Table 2-37: Jumper Differences (Page.15)

	14.010 = 01.10 a.mps. = motorios (1.4.301.10)							
Jumper								
No.	RX64M	RX71M	No.	RX64M	RX71M	No.	RX64M	RX71M
1	J3	J13	2	J4	J9			

Website and Support

Renesas Electronics Website http://www.renesas.com/

Technical Contact Details

Global & Japan: csc@renesas.com

REVISION HISTORY	RSK+RX71M				
REVISION HISTORY	Difference of Component Reference from RSK+RX64M				

Rev.	Date	Description				
		Page	Summary			
1.00	Jan 26, 2015	—	First Edition issued			

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Renesas Electronics America Inc.

2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A. Tel: +1-408-588-6000, Fax: +1-408-588-6130 Renesas Electronics Canada Limited

1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada Tel: +1-905-898-5441, Fax: +1-905-898-3220

Renesas Electronics Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K
Tel: +44-1628-651-700, Fax: +44-1628-651-804

Renesas Electronics Europe GmbH

Arcadiastrasse 10, 40472 Düsseldorf, Germany Tel: +49-211-65030, Fax: +49-211-6503-1327

Renesas Electronics (China) Co., Ltd.
7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.

Unit 204, 205, AZIA Center, No. 1233 Lujiazru858 / -7898
Renesas Electronics Hong Kong Limited

Nenesas Electronics Hong Kong Limited
Unit 1601-1613, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong
Tel: +852-2886-9318, Fax: +852 2886-9022/9044
Renesas Electronics Taiwan Co., Ltd.
13F, No. 363, Fu Shing North Road, Taipei, Taiwan
Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd.

80 Bendemeer Road, Unit #06-02 Hyflux Innovation Centre Singapore 339949 Tel: +65-6213-0200, Fax: +65-6213-0300

Renesas Electronics Malaysia Sdn.Bhd.
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia

Tel: +60-3-7955-9390, Fax: +60-3-7955-9510 Renesas Electronics Korea Co., Ltd.

11F., Samik Lavied' or Bldg., 720-2 Yeoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea Tel: +82-2-558-3737, Fax: +82-2-558-5141