

RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan
Renesas Electronics Corporation

Product Category	MPU/MCU	Document No.	TN-78K-A004A/E	Rev.	1.00
Title	The level of output pin during System Reset.		Information Category	Technical Notification	
Applicable Product	Refer to a body.	Lot No.	Reference Document	User's Manual: Hardware of each product	
		All lots			

The following contents are added to the User's Manual.

1. Additional contents

In User's Manual, the static state is described about input-output pin state when resetting. However, when reset is asserted, pins become stable after a transition period. Therefore I/O pins possibly become output mode (output value are undefined) during the transition period (10ns or less) after reset is asserted. I/O pins become the static state described in User's Manual after the transition period.

2. Target Product

78K0/Kx1	78K0/Kx1+	78K0	78K0S	78K0S/Kx1+
----------	-----------	------	-------	------------

2. Target Product

78K0/Kx1	UPD780101,UPD780102,UPD780103,UPD780111,UPD780112,UPD780113,UPD780114,UPD780121,UPD780122,UPD780123,UPD780124,UPD780131,UPD780132,UPD780133,UPD780134,UPD780136,UPD780138,UPD780143,UPD780144,UPD780146,UPD780148,UPD78F0103
78K0/Kx1+	UPD78F0101H,UPD78F0102H,UPD78F0103H,UPD78F0112H,UPD78F0113H,UPD78F0122H,UPD78F0123H,UPD78F0124H,UPD78F0132H,UPD78F0134H,UPD780136H,UPD78F0138H,UPD78F0148H
78K0	UPD780021,UPD780021A,UPD780022,UPD780022A,UPD780023,UPD780023A,UPD780024,UPD780024A,UPD780031,UPD780031A,UPD780032,UPD780032A,UPD780033,UPD780033A,UPD780034,UPD780034A,UPD780053,UPD780053,UPD780055,UPD780056,UPD780058,UPD780065,UPD780076,UPD780078,UPD780204,UPD780206,UPD780208,UPD780232,UPD780233,UPD780306,UPD780308,UPD780316,UPD780318,UPD780326,UPD780336,UPD780338,UPD780343,UPD780344,UPD780354,UPD78F0034,UPD78F0034A,UPD78F0034B,UPD78F0058,UPD78F0066,UPD78F0078,UPD78F0233,UPD78F0338,UPD78F0354
78K0S	UPD789011,UPD789022,UPD789024,UPD789025,UPD789026,UPD789046,UPD789052,UPD789071,UPD789072,UPD789074,UPD789086,UPD789088,UPD789101A,UPD789102A,UPD789104A,UPD789106,UPD789111A,UPD789112A,UPD789114A,UPD789121A,UPD789122A,UPD789124A,UPD789132A,UPD789134A,UPD789146A,UPD789166,UPD789167,UPD789176,UPD789177,UPD789304,UPD789306,UPD789314,UPD789316,UPD789322,UPD789324,UPD789326,UPD789327,UPD789405A,UPD789406A,UPD789407A,UPD789415A,UPD789416A,UPD789417A,UPD789425,UPD789445,UPD789446,UPD789455,UPD789456,UPD789464,UPD789466,UPD789477,UPD789478,UPD789479,UPD789488,UPD789489,UPD789800,UPD789835,UPD789850,UPD789851,UPD789852,UPD789860,UPD789861,UPD789862,UPD789871,UPD789881,UPD78F9026,UPD78F9046,UPD78F9076,UPD78F9088,UPD78F9116A,UPD78F9116B,UPD78F9136A,UPD78F9136B,UPD78F9177A,UPD78F9189,UPD78F9306,UPD78F9316,UPD78F9328,UPD78F9418,UPD78F9436,UPD78F9456,UPD78F9468,UPD78F9478,UPD78F9479,UPD78F9488,UPD78F9489,UPD78F9500,UPD78F9501,UPD78F9502,UPD78F9510,UPD78F9511,UPD78F9512,UPD78F9801,UPD78F9831,UPD78F9835,UPD78F9842,UPD78F9850,UPD78F9852
78K0S/Kx1+	UPD78F9200,UPD78F9201,UPD78F9202,UPD78F9210,UPD78F9211,UPD78F9212,UPD78F9221,UPD78F9222,UPD78F9224,UPD78F9232,UPD78F9234