

RH850/F1L, F1M, F1H

A/D Converter Equivalent Input Circuit

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Introduction

This document describes the equivalent input circuit of the A/D Converter.

It should be used in conjunction with the corresponding RH850/F1x series user manuals and datasheets.

Target Device

RH850/F1L Group

- RH850/F1L (176pin)
- RH850/F1L (144pin)
- RH850/F1L (100pin), including RH850/F1L-Gateway (100pin)
- RH850/F1L (80pin)
- RH850/F1L (64pin)
- RH850/F1L (48pin)

RH850/F1M Group

- RH850/F1M (233pin)
- RH850/F1M (176pin)
- RH850/F1M (144pin)

RH850/F1H Group

- RH850/F1H (272pin)
- RH850/F1H (233pin), including RH850/F1H-Gateway (233pin)
- RH850/F1H (176pin), including RH850/F1H-Gateway (176pin)

1. Reference Documents

This chapter contains information about the device reference documentation.

1.1 User's Manual

The user manual provides information about the functional behaviour of the device.

RH850/F1L User's Manual :	R01UH0390EJxxxx
RH850/F1M User's Manual :	R01UH0518EJxxxx
RH850/F1H User's Manual :	R01UH0445EJxxxx

1.2 Data Sheet

The data sheet provides information about the electrical behaviour of the device.

RH850/F1L (176pin) Data Sheet :	R01DS0170EJxxxx
RH850/F1L (144pin) Data Sheet :	R01DS0210EJxxxx
RH850/F1L (100pin) Data Sheet :	R01DS0211EJxxxx
RH850/F1L (80pin) Data Sheet :	R01DS0212EJxxxx
RH850/F1L (64pin) Data Sheet :	R01DS0213EJxxxx
RH850/F1L (48pin) Data Sheet :	R01DS0214EJxxxx
RH850/F1M Data Sheet :	R01DS0250EJxxxx
RH850/F1H Data Sheet :	R01DS0234EJxxxx

2. A/D Converter Equivalent Input Circuit

This chapter contains the reference values of the A/D Converter equivalent input circuit.

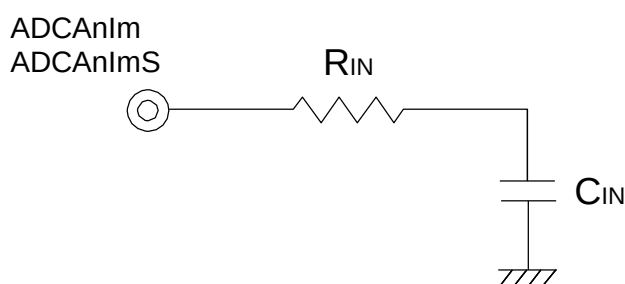


Figure 2-1 ADCAnIm, ADCAnImS Equivalent Input Circuit

2.1 RH850/F1L 176pin, 144pin

Terminals	Condition	R_{IN} (k Ω)	C_{IN} (pF)
ADCA0I0-15	When T&H is used	14.1	2.2
	When T&H is not used	5.0	2.1
ADCA0I0S to 3S, 5S to 16S	-	7.2	8.4
ADCA0I4S, 17S to 19S	-	10.0	8.4
ADCA1I0 to 15	-	4.3	3.1
ADCA1I0S to 7S	-	5.6	6.2

Caution

This specification is not tested during outgoing inspection. Therefore R_{IN} and C_{IN} are reference values only and not guaranteed. In addition these values are specified as maximum values.

2.2 RH850/F1L 100pin, 80pin, 64pin, 48pin

Terminals	Condition	R_{IN} (k Ω)	C_{IN} (pF)
ADCA0I0-15	When T&H is used	14.1	2.2
	When T&H is not used	4.6	2.1
ADCA0I0S to 3S, 5S to 16S	-	6.8	8.8
ADCA0I4S, 17S to 19S	-	9.4	8.8

Caution

This specification is not tested during outgoing inspection. Therefore R_{IN} and C_{IN} are reference values only and not guaranteed. In addition these values are specified as maximum values.

2.3 RH850/F1M

Terminals	Condition	R_{IN} (k Ω)	C_{IN} (pF)
ADCA0I0-15	When T&H is used	13.9	2.6
	When T&H is not used	4.5	2.2
ADCA0I0S to 3S, 5S to 11S, 14S to 16S	-	6.1	9.4
ADCA0I4S, 17S to 19S	-	8.8	9.4
ADCA1I0 to15	-	4.2	2.2
ADCA1I0S to 10S	-	8.3	8.5
ADCA1I11S to 19S	-	6.0	8.6

Caution

This specification is not tested during outgoing inspection. Therefore R_{IN} and C_{IN} are reference values only and not guaranteed. In addition these values are specified as maximum values.

2.4 RH850/F1H

Terminals	Condition	R_{IN} (k Ω)	C_{IN} (pF)
ADCA0I0-15	When T&H is used	13.9	2.6
	When T&H is not used	5.1	2.2
ADCA0I0S to 3S, 5S to 11S, 14S to 16S	-	6.1	9.4
ADCA0I4S, 17S to 19S	-	8.8	9.4
ADCA1I0 to15	-	4.5	2.2
ADCA1I0S to 10S	-	8.3	8.5
ADCA1I11S to 19S	-	6.0	8.6

Caution

This specification is not tested during outgoing inspection. Therefore R_{IN} and C_{IN} are reference values only and not guaranteed. In addition these values are specified as maximum values.

Revision History

Rev	Date	Descriptions	
		Page	Summary
1.00	Feb 17, 2016	-	Initial release

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