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Renesas Electronics Corporation

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M3A-2191

Product Standards

Connector Pitch Converter for Connecting
M32R/ECU Evaluation Board: M3A-2114G02/
G12/G22

SDI Interface Board: M3A-2190 /

SDI Interface Board with Housing: M3A-2195

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For Inquiries About Product Contents or This Manual

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Renesas Solutions Corporation
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Summary of changes

Version	Date	Content
1.00	'03.7.2	Made.
1.01	'03.8.29	Added connection diagram and component table.

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1. Application

This specification stipulates hardware specifications of the Pitch Converter M3A-2191 which converts connector pitches from the M3A-2195/M3A-2190 connector (10-pin) of the SDI interface board for the M32R to the YDC-manufactured EZlyzer connector (34-pin) mounted on the M32R/ECU#4 Evaluation Board "M3A-2114G02/G12/G22."

2. Specifications

2.1 Outline of Specifications

Table 2.1 lists specifications of the M3A-2191. Figure 2.1 shows a connection diagram for the M3A-2191.

Table 2.1 Specifications of the M3A-2191

Item	Specification	Useful product
Applicable emulator	M32100T-SDI, M3A-2195/M3A-2190	
Pitch conversion	MCU control interface connector on emulator SDI for the M32R ↓ M32R SDI connector to connect EZlyzer made by YDC	Made by Omron : XG4M-1030-U ICE32R-SDI-MCUCTL cable & connector Made by Yamaichi : NFP-34A-0134-BS or NFP-34A-0132-BS or NFP-34A-0122-BF
Connector (J1)	Connects to ICE32R-SDI-MCUCTL	Made by Omron : XG4C-1031
Connector (J2)	Connects to the target board	Made by Yamaichi : NFS-34A-1314-BS

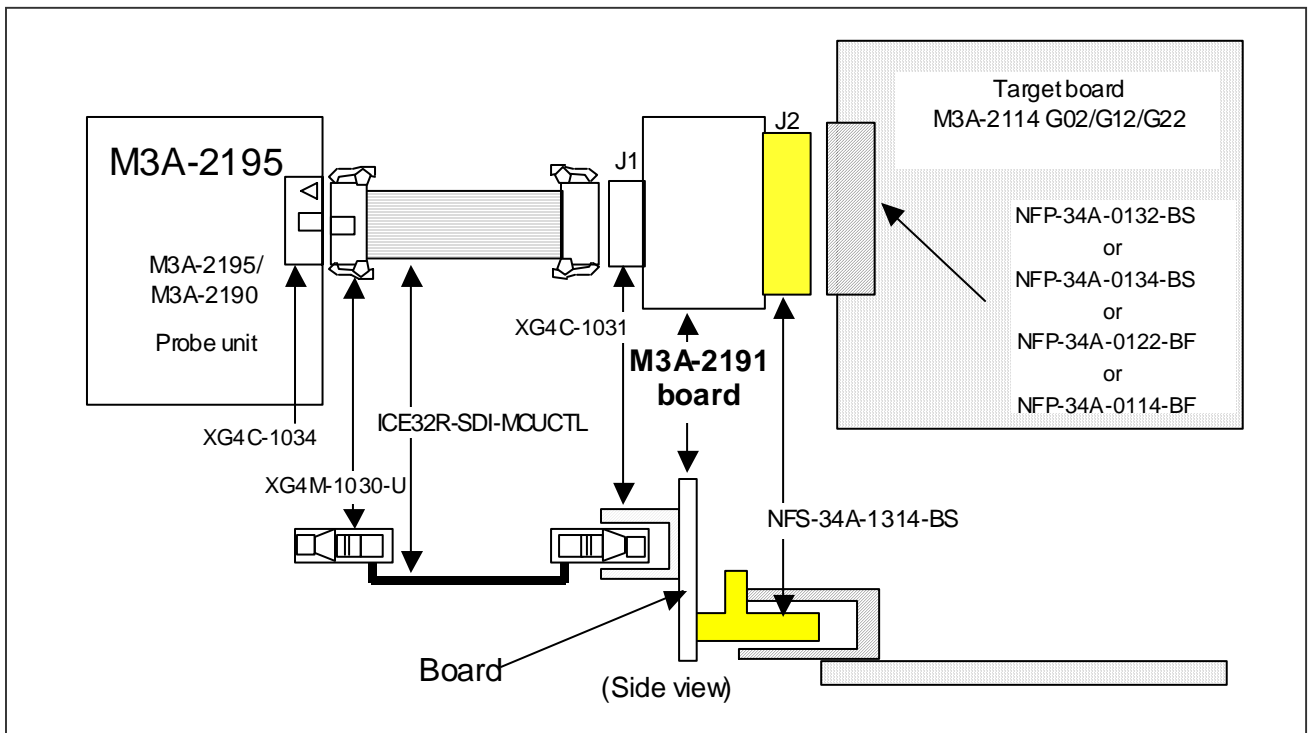


Figure 2.1 Connection diagram for the M3A-2191

2.2 Detail Specifications

The M3A-2191 is designed to convert connector shapes and therefore consists of only a connector. Figure 2.2 shows pin numbers on each connector. Tables 2.2 through 2.4 list pin assignments of each connector.

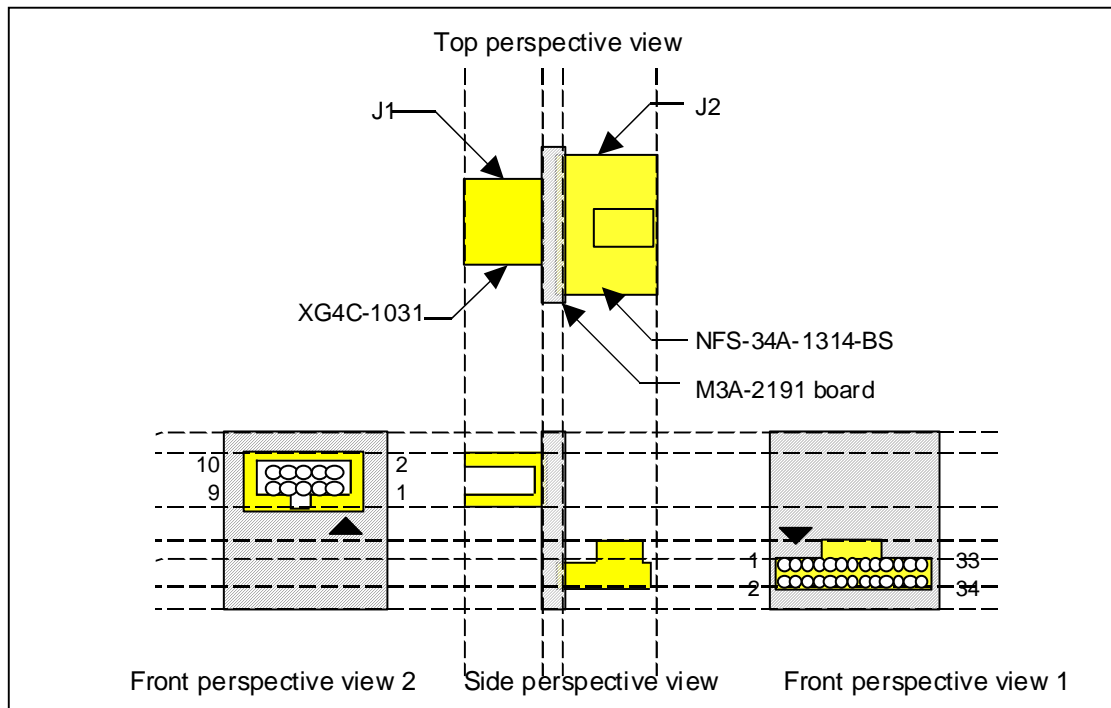


Figure 2.2 Dimensional Outline Drawing and Pin Layout of the M3A-2191

Table 2.2 Relationship between J1 and J2 Connector Pins

J1		J2	
Pin name	Pin number	Pin number	Pin name
JTCLK	1	1	JTCLK
GND	2	2	GND
TDI	4	3	JTDO
VCCJ	9	4	VCC
TMS	5	5	JTMS
DBI	7	6	RVCC
RST	10	7	RESET
JTRST	6	8	JTRST
TDO	3	9	JTDI
FVCC	8	OPEN	

Table 2.3 Pin Assignments of J1 Connector

Pin number	Pin name	Function
1	TCLK	JTAG : Clock output
2	Vss	GND (0V)
3	TDO	JTAG : Data output
4	TDI	JTAG : Data input
5	TMS	JTAG : Control signal
6	TRST	JTAG : Reset signal
7	DBI	Interrupt request
8	NC	Idle pin
9	Vcc	Power supply (voltages specified for each type of microcomputer)
10	RST	Target microcomputer reset request

Table 2.4 Pin Assignments of J2 Connector

Pin number	Pin name	Function
1	TCLK	JTAG : Clock output
2	Vss	GND (0V)
3	TDI	JTAG : Data input↔ J1 :TDO
4	Vcc	Power supply (voltages specified for each type of microcomputer)
5	TMS	JTAG : Control signal
6	DBI	Interrupt request
7	RST	Target microcomputer reset request
8	TRST	JTAG : Reset signal
9	TDO	JTAG : Data output↔ J1 :TDI
10	Vss	GND (0V)
11	EVENT0	Event signal (0)
12	Vss	GND (0V)
13	EVENT1	Event signal (1)
14	Vss	GND (0V)
15	TRDATA(0)	Trace : Trace data (bit0)
16	TRDATA(1)	Trace : Trace data (bit1)
17	Vss	GND (0V)
18	TRDATA(2)	Trace : Trace data (bit2)
19	TRDATA(3)	Trace : Trace data (bit3)
20	Vss	GND (0V)
21	TRDATA(4)	Trace : Trace data (bit4)
22	TRDATA(5)	Trace : Trace data (bit5)
23	Vss	GND (0V)
24	TRDATA(6)	Trace : Trace data (bit6)
25	TRDATA(7)	Trace : Trace data (bit7)
26	Vss	GND (0V)
27	TRSYNC	Trace : Trace data synchronized signal
28	Vss	GND (0V)
29	TRCLK	Trace : Clock output
30	Vss	GND (0V)
31	NC	Idle pin
32	NC	Idle pin
33	NC	Idle pin
34	NC	Idle pin

3 Reference data

3.1 Connection Diagram and Part List

A connection diagram and a part list are provided in this and following pages for your reference.

Component Table

Renesas Solutions Corporation

Item number	Part name		Part specification			No. of pcs. per unit	Supplied by	Remarks
	Product name	Part number	Part type name	Manufacturer name	Mounting instruction			
1	Board		M3A-2191			1	Susei Electronics System	
2	Connector	J1	XG4C-1031	Omron	Attached backside	1		10pin straight angle
3	Connector	J2	XFFS-34A-1314	Yamaichi	Attached directly	1		34pin straight angle
Supplements:			Date of creation		Title	Connecting pitch converter M3A-2191		
			2001-11-6					
Revision:			Created by	Checked by	Component table number	PPL-M3A-2191 (1 / 1)		