

# MS7546-32S Users Guide

Suisei Electronics System Co.,Ltd

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## 1. General Description

MS7546-32S is a writing target board for standard serial I/O mode used by connecting to EFP-I/1M or EFP-S2/S2V.

Reading and writing data to microcomputer 7544, 7546 groups with built-in Renesas Electronics 8 bit QzROM, is enabled by using MS7546-32S.

IC socket for 32-pin 1.778mm pitch SDIP (PRDP0032BA-A) (32P4B) is mounted on MS7546-32S.

<Packing contents>

MS7546-32S

Users guide (this manual)

External Figure of MS7545-32S is shown in Fig.1.

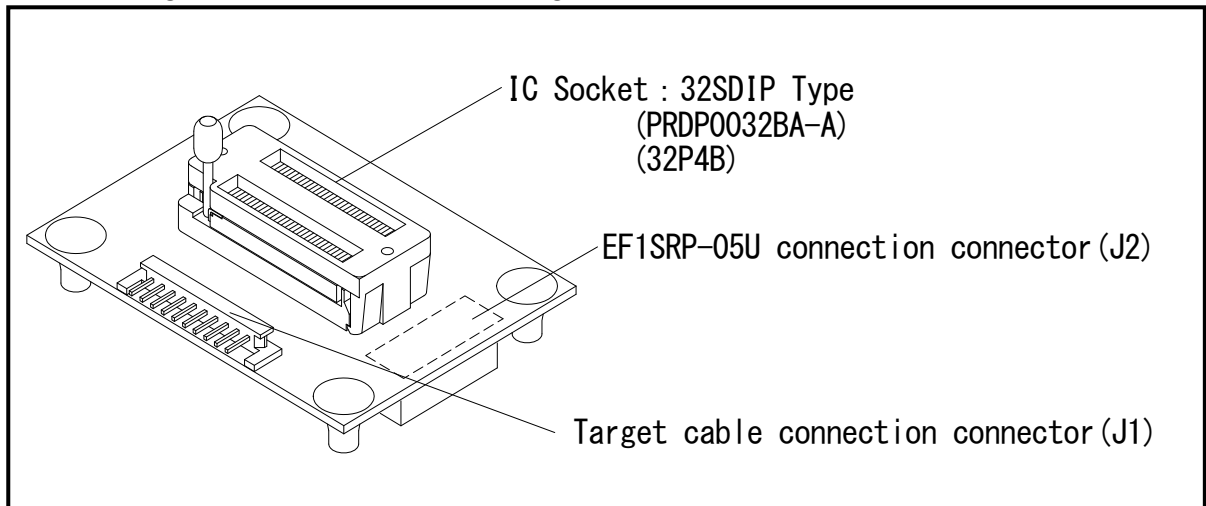


Fig.1.1 MS7545-32S External Figure

## 2. Device constitution and a connection process

### 2. 1 Device constitution

Device constitution when you use MS7546-32S is shown in Fig.2.1.

Fig2.1 Device constitution

Main body	Unit	Cable
EFP-I/IM	EF1SRP-05U	-
EFP-S2/S2V	EF1SRP-05U + EF1CNT-96P *1	-
	EF1SRP-01US2	EF1TGCB-B(4-wire target connection cable) (separate sale)

\*1) when you use EF1SRP-05U in EFP-S2/S2V, EF1CNT-96P (separate sale) is necessary.

### 2. 2 connection process

In case MS7546-32S is used, please connect it to EF1SRP-05U as shown in Fig 2.1.

In case EF1SRP-01US2 is used, please connect it to EF1TGCB-B (4-wire target cable) as shown in Fig.2.2.

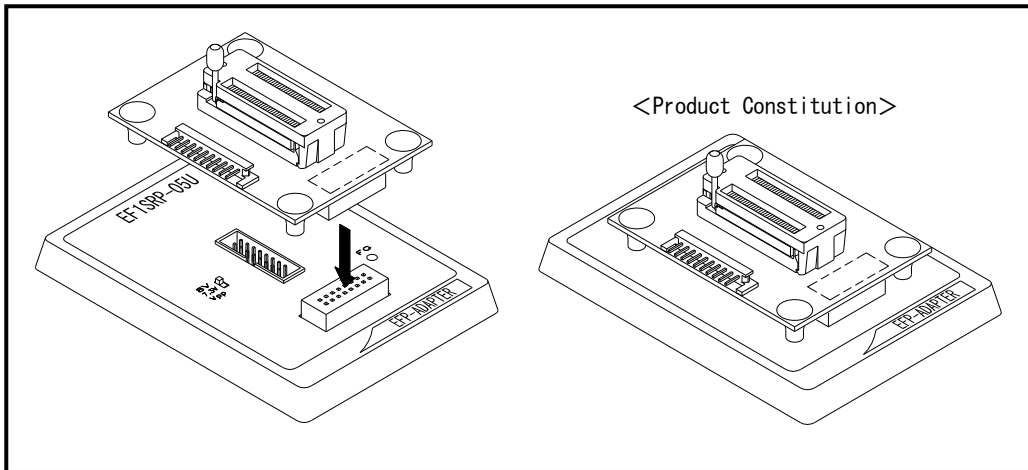


Fig 2.1 Connection with EF1SRP-05U

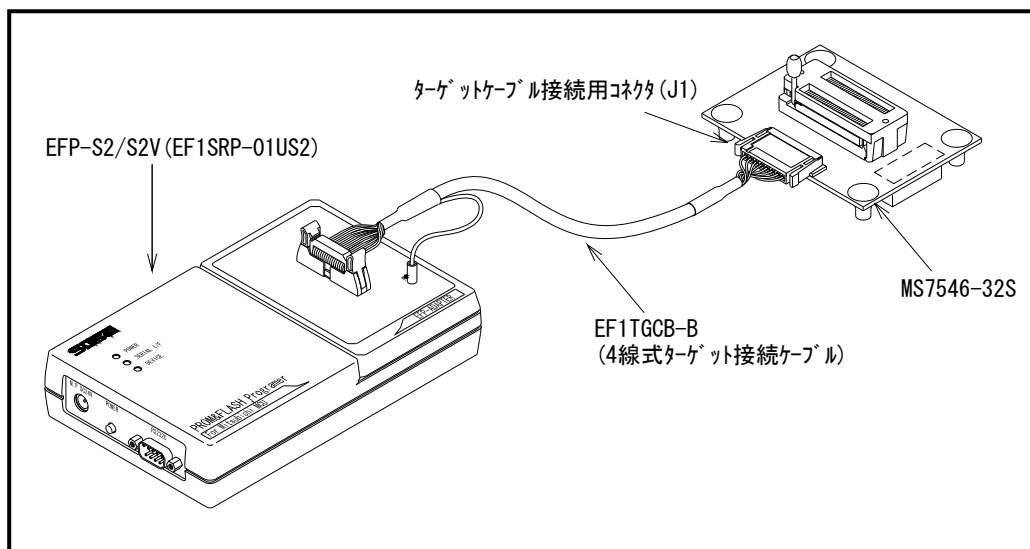


Fig 2.2 Connection with EF1SRP-01US2

**List of Corresponding MCU and corresponding version**

3. 1 List of Corresponding MCU

A corresponding MCU list of MS7546-32S is shown in Fig 0.1.

Fig 0.1 Corresponding MCU List for MS7546-32S

Main body	MCU type	Corresponding MCU name	Program memory area	EF1SRP-05U SW setting
EFP-I/1M	M37544G2A (Vdd:5V Vpp:7.9V)	M37544G2ASP	E080h~FFFDh	T_VPP : 7.9V side
	M37546/M37547G2 (Vdd:5V Vpp:7.9V)	M37546G2SP	E080h~FFD3h FFD8h~FFFDh	
	M37546/M37547G4 (Vdd:5V Vpp:7.9V)	M37546G4SP	C080h~FFD3h FFD8h~FFFDh	
EFP-S2/S2V	M37544G2A	M37544G2ASP	E080h~FFFDh	T_VPP : 7.9V side *1
	M37546G2/M37547G2	M37546G2SP	E080h~FFD3h FFD8h~FFFDh	
	M37546G4/M37547G4	M37546G4SP	C080h~FFD3h FFD8h~FFFDh	

\*1) SW setting of EF1SRP-05U is needed when you use EF1SRP-05U.

3. 2 About Software version (S/W)

The version numbers such as EFP-1 and WinEFP are displayed by [Help]→[About] in the WinEFP window menu. Please download the latest version up data on the following site when the S/W version such as EFP- I used is old.

< EFP- I S/W the latest free download site >

[http://www.suisei.co.jp/download\\_e/productdata\\_efp1\\_e.html](http://www.suisei.co.jp/download_e/productdata_efp1_e.html)

< EFP-S2 S/W the latest free download site >

[http://www.suisei.co.jp/download\\_e/productdata\\_s2\\_e.html](http://www.suisei.co.jp/download_e/productdata_s2_e.html)

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[http://www.suisei.co.jp/download\\_e/productdata\\_s2\\_e.html](http://www.suisei.co.jp/download_e/productdata_s2_e.html)

**Note on Corresponding Versions**

Above corresponding versions might change without notice on account of the future capability improvement, etc. Furthermore in case the upgrade procedure manual is attached when this product is purchased, please refer to that manual as a priority.

#### 4. Insertion Direction of MCU and cleaning of IC socket

##### 4. 1 Insertion Direction of MCU

When MCU is inserted, No.1 pin of the IC socket on MS7546-32S and MCU's No.1 pin should be connected. The Wrong insertion would cause a serious breakage of MCU.

Insertion direction of MCU is shown in Fig 4.1.

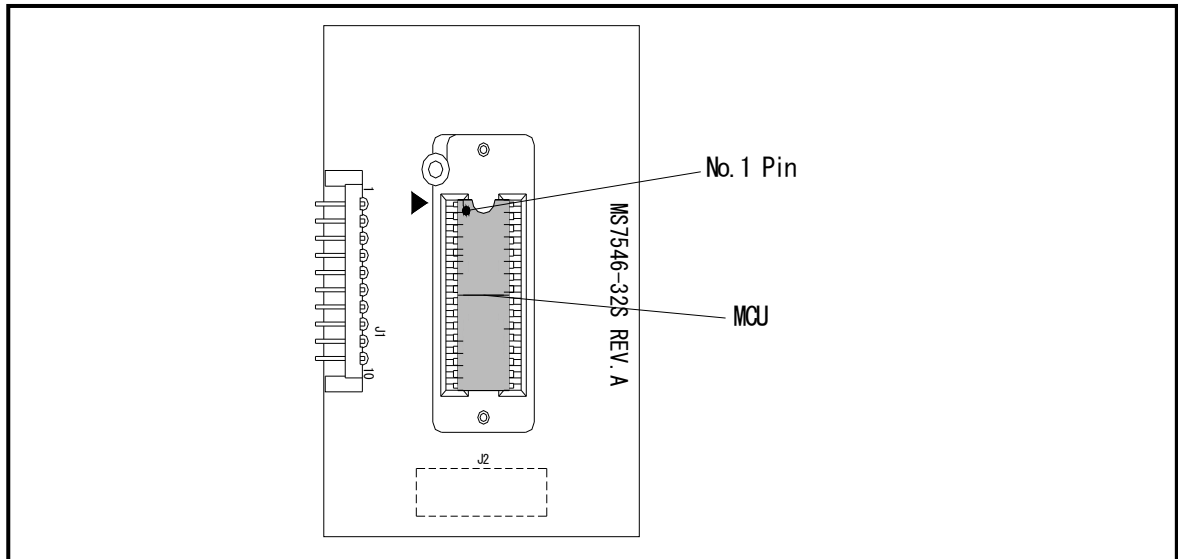


Fig 4.1 Insertion Direction of MCU

##### 4. 2 Cleaning of IC Socket

A contact pin inside of the IC socket of the MCU unit might deteriorate and a contact failure might occur because of the number of times used and its age of service. As the contact failure may cause incorrect writing of MCU and malfunction of the writer, please take the below measures.

#### Measures against IC Socket Contact Failure

- (i) Please clean the contact pin surface inside of IC socket with a brush, etc. regularly, depending on the number of times used.
- (ii) If the product is not to be used for a long period, please keep it with less humidity in a plastic bag, etc.

Though enquiries on contact failures can be made, we regard IC sockets as consumable supplies. We may recommend you to replace them if a contact failure of IC socket occurs due to its use deterioration.

#### 【Recommended item for cleaning】

About the cleaning of the contact pin in the IC socket, we recommend the use of the nanotech brush (Kita Mfg Co., Ltd).

The nanotech brush can remove the dirt which stuck to a contact pin, a very small amount of metastasis of solder. When a contact poor problem occurred, please try it.

About nanotech brush, please ask us or Kita Mfg Co., Ltd (refer to the following site).

Nanotech brush (Kita Mfg Co., Ltd.) [http://www.kita-mfg.com/pro\\_nanotech\\_e.html](http://www.kita-mfg.com/pro_nanotech_e.html)

## 5. List of Pin Connection

Connector terminal names of target cable connection connector (J1) of MS7546-32S are shown in List 5.1.

List 5.1 List of J1 Connector Connection Terminal

Pin No.	Terminal Name	I/O(writer side)	Pin No.	Terminal Name	I/O(writer side)
1	GND	—	6	SCLK	Output
2	RXD	Input	7	TXD	Output
3	BUSY	Input	8	PGM/OE	Output
4	VPP	Output	9	RESET	Output
5	VDD	Output	10	GND	—