MS7544-32F2　Users Guide

1．General Description

MS7544-32F2 is a writing target board for serial I/O mode used by connecting to EFP-I or EFP-S2/S2V.

Reading and writing data to QzROM MCU of 8 bit microcomputer 7544, 7545, 7546 groups with built-in Renesas Electronics is enabled by using MS7544-32F2.

IC socket for 32-pin 0.8mm pitch LQFP (PLQP0032GB-A) (32P64U-A) is mounted on MS75444-32F2

＜Packing contents＞

１）MS7544-32F2

２）Users guide (this manual)

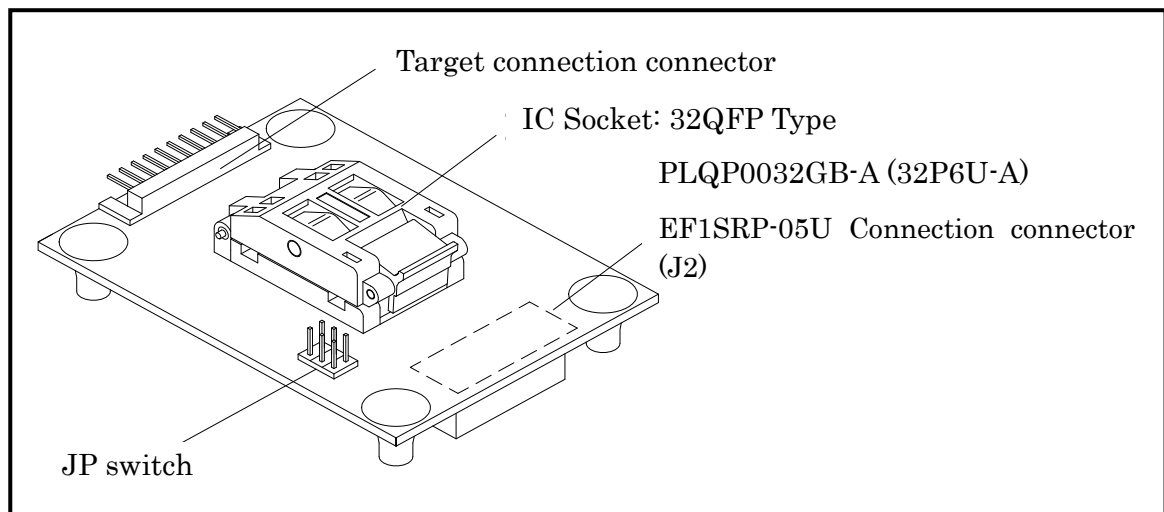External Figure of MS7544-32F2 is shown in Fig.1.1.

Fig.1.1 MS7544-32F2 External Figure

2. Device constitution and a connection process

２．１　Device constitution

Device constitution when you use MS7546-36K 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 MS7544-32F2 is used, please connect J1 to target connection cable as shown in Fig2.1.

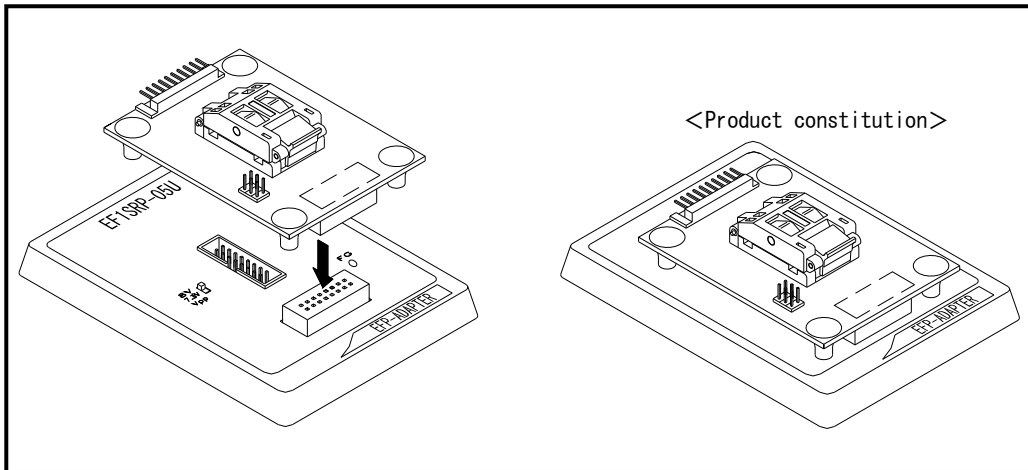In case EF1SRP-01US2 is connected, please use 4-wire target connection cable as shown in Fig2.2.
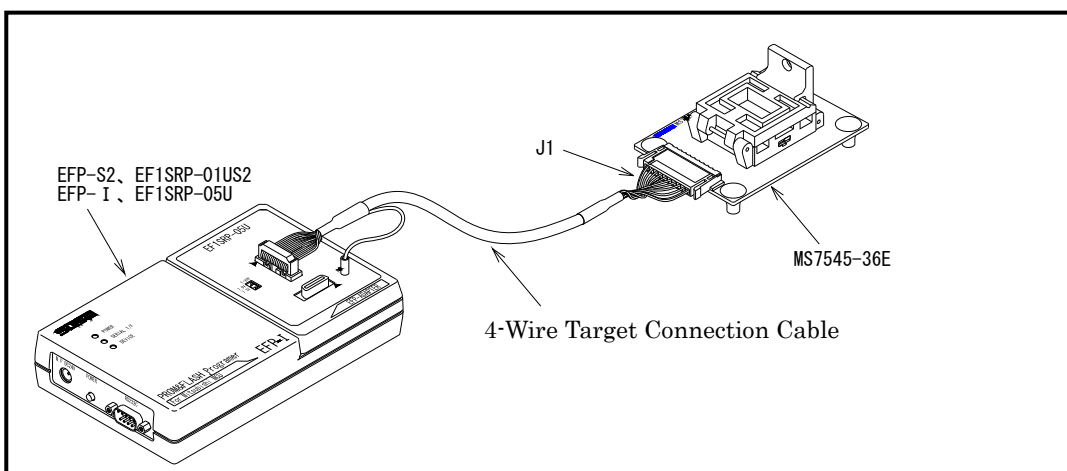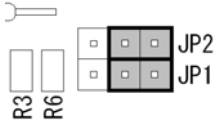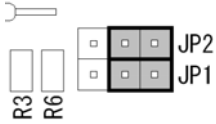

Fig ２.1　Connection with EF1SRP-05U

Fig ２.2 Connection with EF1SRP-01US2

3. List of Corresponding MCU and corresponding version

3. 1　List of Corresponding MCU

　　A corresponding MCU list of MS7544-32F2 is shown in Fig3.1.

Fig 3.1 Corresponding MCU List for MS7544-32F2

Main body	Device Type	Corresponding MCU name	Program memory area	EF1SRP-05U SW setting	JP switch setting
EFP-I/1M	M37544G2(Vdd:5V Vpp:7.3V)	M37544G2GP	E080h～FFFDh	T_VPP : 7.3V side *1	
	M37544G2A(Vdd:5V Vpp:7.9V)	M37544G2AGP	E080h～FFFDh	T_VPP : 7.9V side *1	
	M37545G4(Vdd:5V Vpp:7.9V)	M37545G4GP	C080h～FFD3h FFDAh～FFFDh		
	M37545G6(Vdd:5V Vpp:7.9V)	M37545G6GP	A080h～FFD3h FFDAh～FFFDh		
	M37545G8(Vdd:5V Vpp:7.9V)	M37545G8GP	8080h～FFD3h FFDAh～FFFDh		
	M37546G2(Vdd:5V Vpp:7.9V)	M37546G2GP	E080h～FFD3h FFD8h～FFFDh		
	M37546G4(Vdd:5V Vpp:7.9V)	M37546G4GP	C080h～FFD3h FFD8h～FFFDh		
EFP-S2/S2V	M37544G2	M37544G2GP	E080h～FFFDh	T_VPP : 7.3V side *1	
	M37544G2A	M37544G2AGP	E080h～FFFDh	T_VPP : 7.9V side *1	
	M37545G4	M37545G4GP	C080h～FFD3h FFDAh～FFFDh		
	M37545G6	M37545G6GP	A080h～FFD3h FFDAh～FFFDh		
	M37545G8	M37545G8GP	8080h～FFD3h FFDAh～FFFDh		
	M37546G2/M37547G2	M37546G2GP	E080h～FFD3h FFD8h～FFFDh		
	M37546G4/M37547G4	M37546G4GP	C080h～FFD3h FFD8h～FFFDh		

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

３．２　About Software version (S/W)

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

< EFP-S2 S/W the latest free download site >
http://www.suisei.co.jp/download_e/productdata_s2_e.html

< EFP-S2V S/W the latest free download site >
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 MS7544-32F2 and MCU's No.1 pin should be connected. The Wrong insertion would cause a serious breakage of MCU.

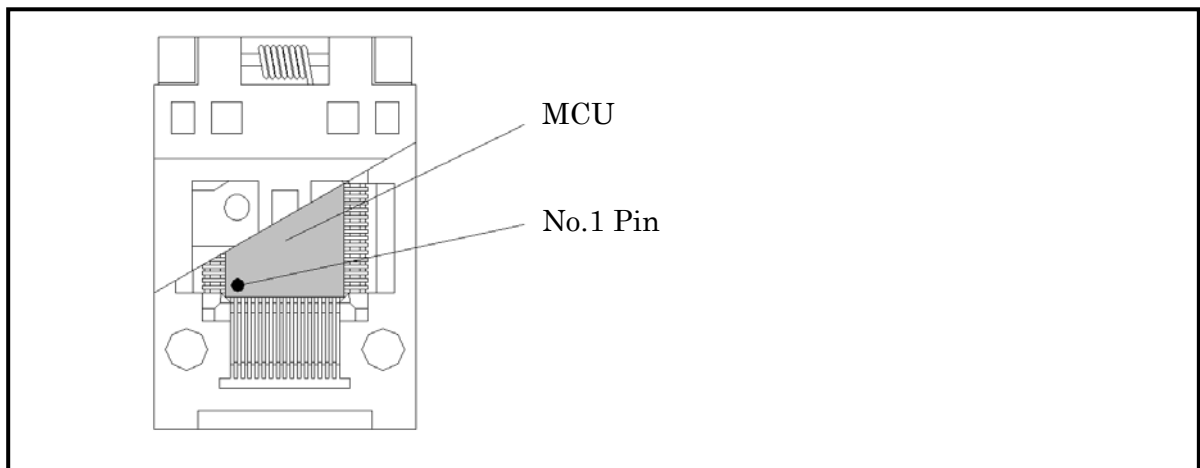Insertion direction of MCU is shown in Fig ４.1.

MCU

No.1 Pin

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

5. List of Pin Connection

Connector terminal list of target cable connection connector (J1) of MS7544-32F2 is 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	－