# MS7549-24F Users Guide

Suisei Electronics System Co.,Ltd 3<sup>rd</sup> Edition issued June 2011

# 1. General Description

MS7549-24F is a writing target board for standard serial I/O mode used by connecting to EFP-I/IM or EFP-S2/S2V.

Reading and writing data to microcomputer 7549 groups with built-in Renesas Electronics 8 bit QzROM, is enabled by using MS7549-24F.

IC socket for 24-pin 0.8mm pitch SSOP (PRSP0024GA-A) (24P2Q-A) is mounted on MS7549-24F.

<Packing contents>

- 1) MS7549-24F
- 2) Users guide (this manual)

External Figure of MS7549-24F is shown in Fig 1.1.

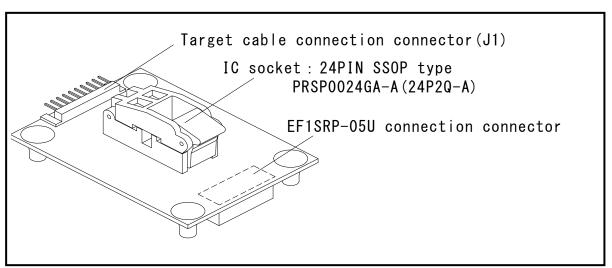


Fig. 1.1 MS7549-24F External Figure

# 2. Device constitution and a connection method

#### 2. 1 Device constitution

Device constitution when you use MS7549-24F is shown in Fig.2.1.

Fig2.1 Device constitution

Main body	unit	cable		
EFP-I/1M	EF1RP-05U	_		
EFP-S2/S2V	EF1RP-05U+EF1CNT-96P *1	_		
	EF1RP-01US2	EF1TGCB-B (4-wire target connection		
		cable)(option)		

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

# 2. 2 Connection Process

In case MS7549-24F is connected, please use EF1SRP-05U as shown in Fig.2.1.

In case EF1SRP-01US2 is connected, please use EF1TGCB-B (4-wire target connection cable) as shown in Fig.2.2.

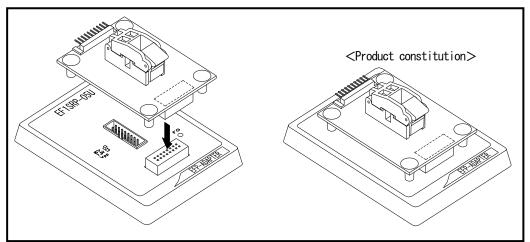


Fig.2.1 Connection with EF1SRP-05U

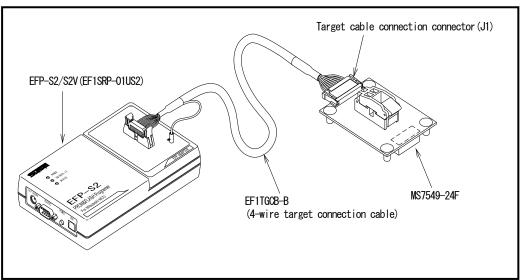


Fig2.2 Connection with EF1SRP-01US2

# 3. List of Corresponding MCU and corresponding version

# 3. 1 List of Corresponding MCU

A corresponding MCU list of MS7549-24F is shown in Fig.3.1.

Fig3.1 List of Corresponding MCU

Main Body	MCU Type	Corresponding	Program	EF1SRP-05U SW
		MCU name	memory area	Setting
EFP-I/1M	M37548/M37549G1	Magg 40CaED	E880h~	
	(Vdd:5V Vpp:7.9V)	M37549G3FP	FFFDh	
	M37548/M37549G1	M37549G2FP	F080h $\sim$	
	(Vdd:5V Vpp:7.9V)	W157549G2FF	FFFDh	
	M37548/M37549G1	M37549G1FP	F880h~	
	(Vdd:5V Vpp:7.9V)	M57549G1FF	FFFDh	$T_{VPP}: 7.9V \text{ side}$
EFP-S2/S2V	M37548G3/M37549G3	M37549G3FP	E880h~	*1
			FFFDh	
	M37548G2/M37549G2	M37549G2FP	F080h∼	
			FFFDh	
	M37548G1/M37549G1	M37549G1FP	F880h~	
			FFFDh	

<sup>\*1)</sup> when you use EF1SRP-05U in FP-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  $[Help] \rightarrow [About]$  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 >

 $http://www.suisei.co.jp/download\_e/productdata\_efp1\_e.html\\$ 

< 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 MS7549-24F 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 Fig4.1.

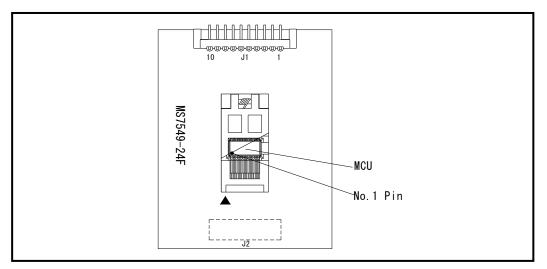


Fig.4.1 Insertion Direction of MCU

# 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

# 5. List of Pin Connection

m J1 connector terminal names of MS7549-24F 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	1 0	GND	_