

# MHF<sup>®</sup>-SW23 PLUG

Part No. Plug:20851-001R RF switch:20549-001E-\*\*

## Instruction Manual

Rev.	ECN	Date	Prepared by	Checked by	Approved by
1	S23071	March 7, 2023	H. Takao	K. Tanaka	Y. Hashimoto
0	S18298	October 15, 2018	Y. Nakagawa	T. Yamauchi	K. Yotsutani

This manual explains the mating and unmating methods and important handling points of the MHF-SW23 PLUG connector for proper use.

**【Part name and part number】**

RF-Connector

Product name MHF-SW23 PLUG

Product No. 20851-001R

RF-Switch

Product name MHF-SW23 ASS'Y

※Hereinafter referred to as "Switch"

Product No. 20549-001E-\*\*

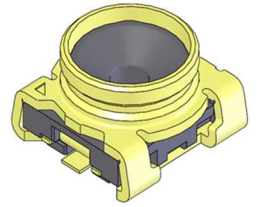
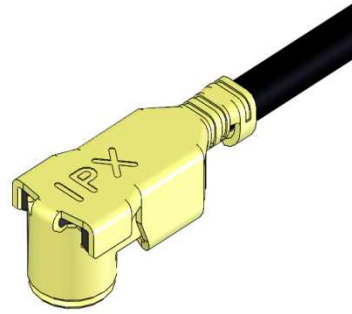


Fig. 1 MHF-SW23 PLUG

Fig. 2 MHF-SW23 ASS'Y

**【Mating and unmating JIG】**

The connector recommends using the JIG shown in Fig. 3 for mating/unmating operation to avoid excessive stress to a cable connection point. The cable connector is designed to hook this "Mating and unmating JIG" (Fig. 4)

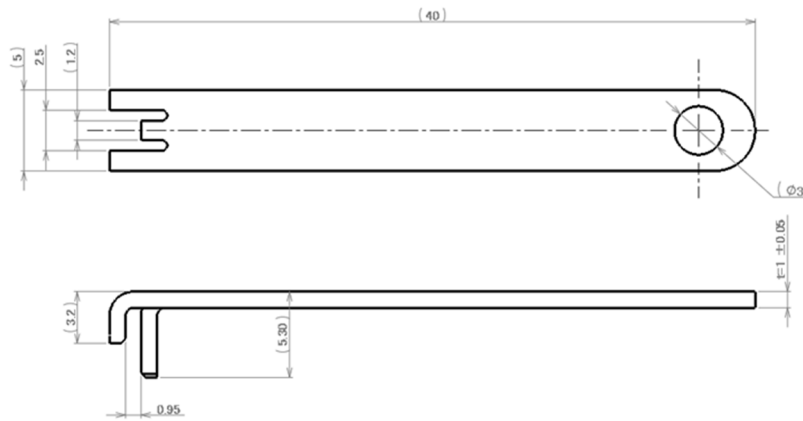


Fig. 3 Recommended mating and unmating JIG

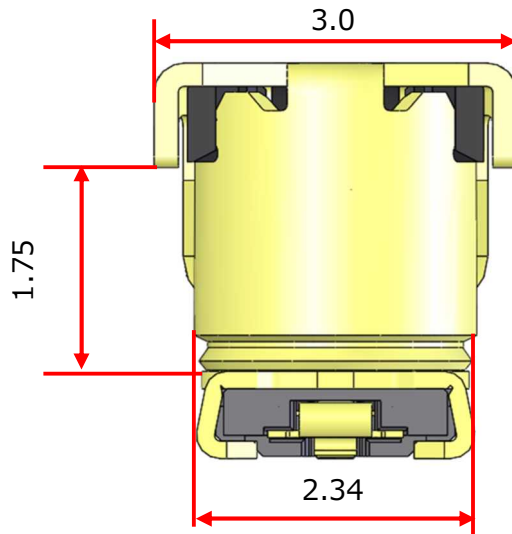


Fig. 4 The hook for mating/unmating JIG

## [Connector mating manual]

### 1. Procedures for mating by hands

#### ① How to hold a MHF-SW23 PLUG

Hold a cable end of MHF-SW23 PLUG as show in Fig. 5.

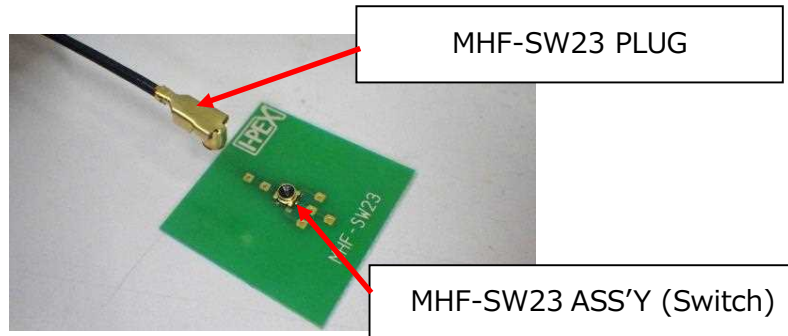


Fig. 5 How to hold a MHF-SW23 PLUG

#### ② How to set MHF-SW23PLUG

Set connectors of the switch and of the MHF-SW23 PLUG side as shown in Fig. 6.  
Please check they are set firmly by moving back and forth slightly.

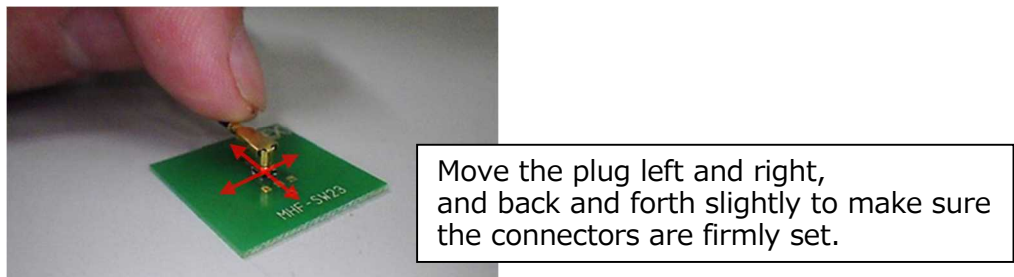


Fig. 6 How to set the MHF-SW23 PLUG

#### ③ How to mate

Push the center of a cable connector vertically as shown in Fig. 7.  
Connector clicks when mating is completed.

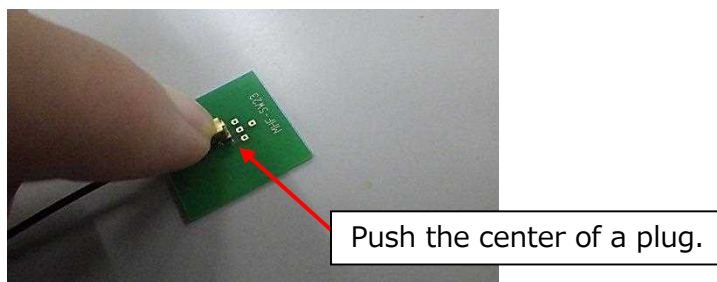


Fig. 7 How to mate

## 2. Procedures for mating by mating and unmating JIG

- ① Slide the Mating and unmating JIG from the direction of drawing out of a cable and attach to the MHF-SW23 PLUG. (Fig. 8-a)
- ② Slide the JIG until it reaches stoppers and holds the MHF-SW23 PLUG. (Fig. 8-b)
- ③ Push to the JIG vertically to the PCB surface (Switch). (Fig. 8-c)

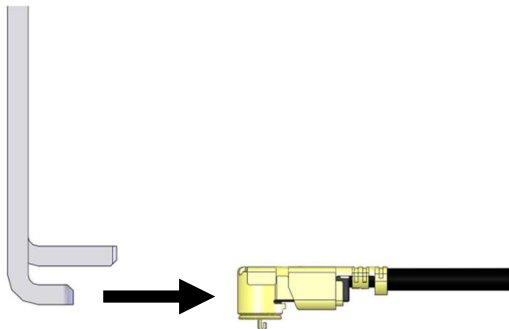


Fig. 8-a Slide

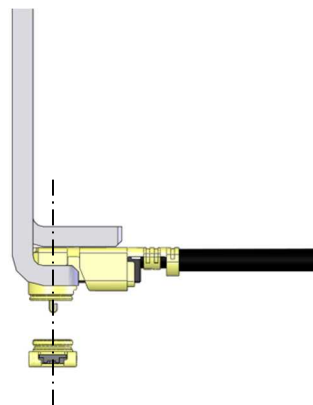


Fig. 8-b Set

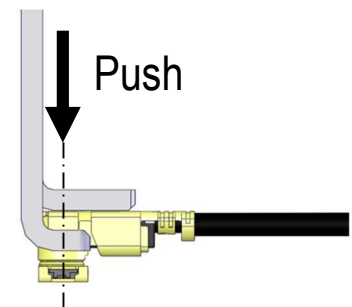
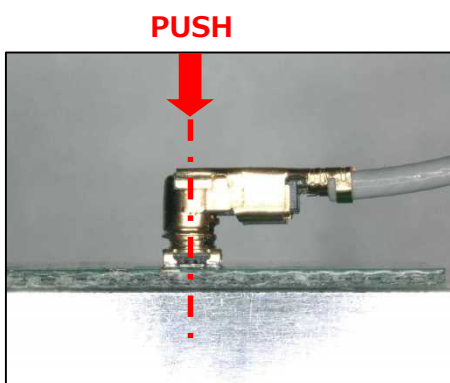


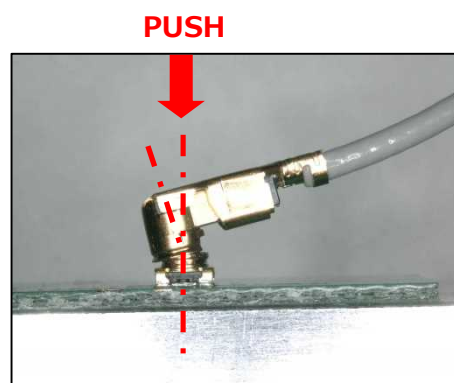
Fig. 8-c Push

### CAUTION

Set the MHF-SW23 PLUG parallel to the board as shown in Fig. 9-a.  
If the connector is mated while bent as shown in Fig. 9-b, the connector may be damaged.



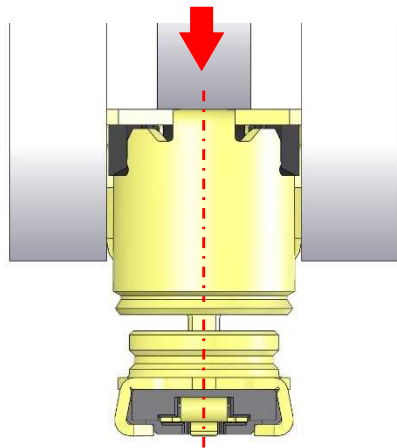
○ Fig. 9-a Correct condition



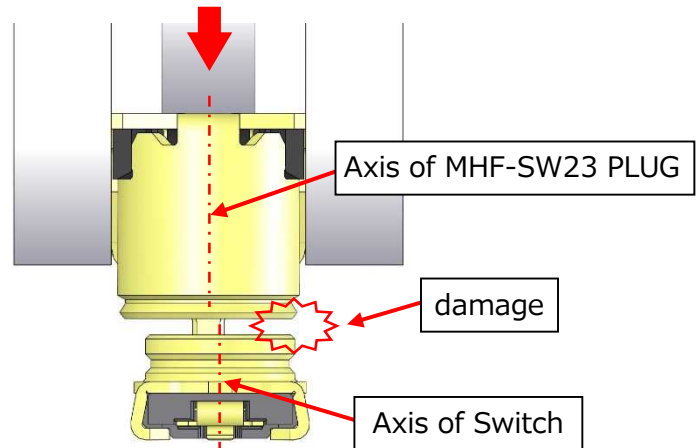
⊘ Fig. 9-b Incorrect condition

In aligning, the MHF-SW23 PLUG and the Switch should lightly touch each other, and do not apply the insertion load.

The insertion load may damage the connectors if the connectors were misaligned as shown in figure 10-b.



○ Fig. 10-a Correct condition



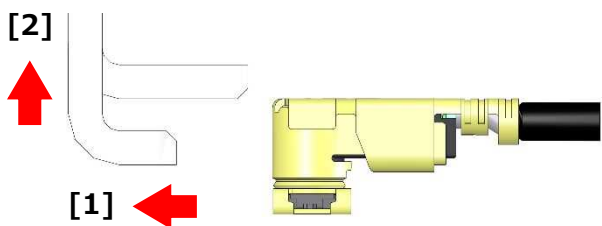
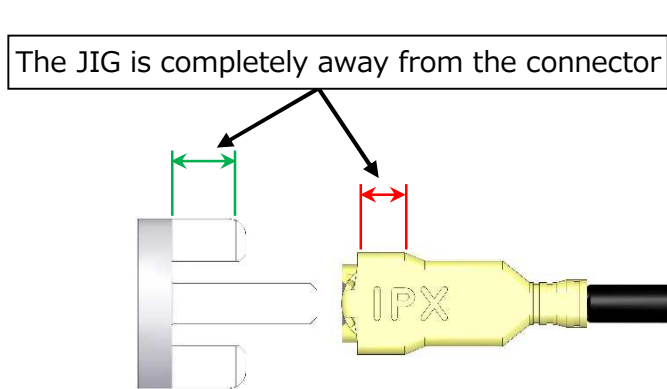
⊘ Fig. 10-b Incorrect condition

As shown in Fig. 11-a, after the insertion is completed,

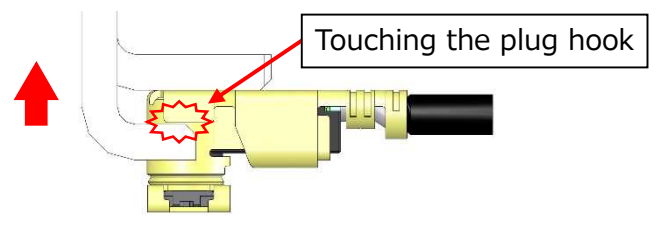
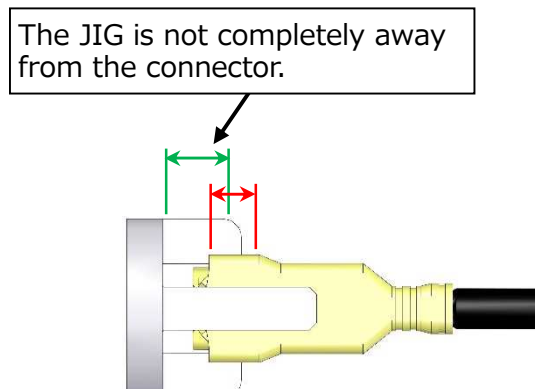
[1] Slide back the mating and unmating JIG parallel to the test board.

[2] Make sure that the JIG is completely away from the connector before pulling the JIG up vertically.

As shown in Fig. 11-b, if pull the JIG not separated enough from the plug hook, the connectors may get unmated or mating may get incomplete.



○ Fig. 11-a Correct condition



⊘ Fig. 11-b Incorrect condition

## [Connector unmating manual]

- ① Slide the Mating and unmating JIG from the direction of drawing out of a cable and attach to the MHF-SW23 PLUG. (Fig. 12-a)
- ② Slide the JIG until it reaches stoppers and holds the MHF-SW23 PLUG. (Fig. 12-b)
- ③ Pull up the JIG vertically from the PCB surface (Switch). (Fig. 12-c)

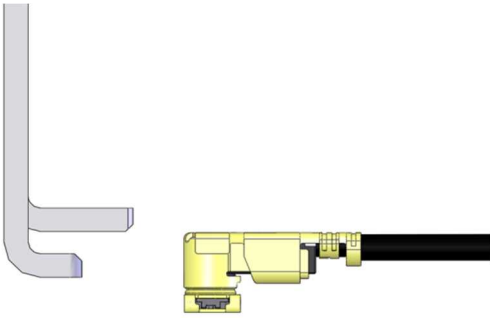


Fig. 12-a Slide

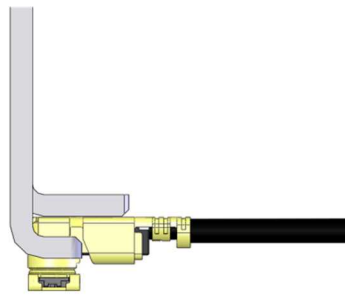


Fig. 12-b Set

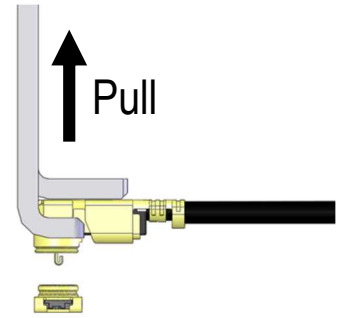


Fig. 12-c Pull

## CAUTION

- Do not unmate a MHF-SW23 PLUG by pulling cable.
- Mating and unmating JIG must be pulled up vertically from the PCB surface. (Fig. 13)
- In case unmate the MHF-SW23 PLUG by hand, must pull it up vertically by holding the hook area which is located at both connector ends.

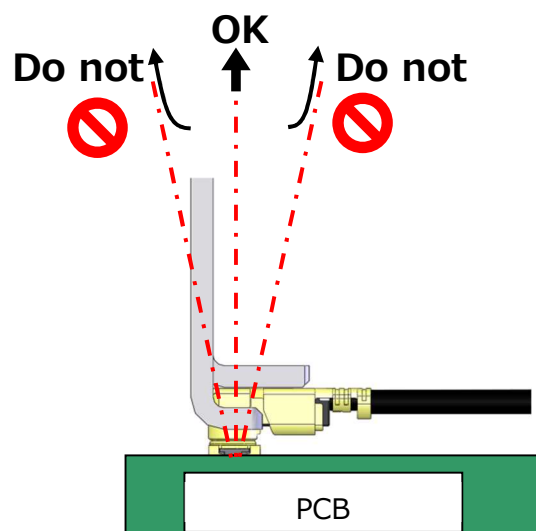


Fig. 13 Pulling direction

## [Caution in cable connector handling]

It may damage the connector and cause coming off from the switch when operator gives continuous force to the indicated directions in Fig. 14.

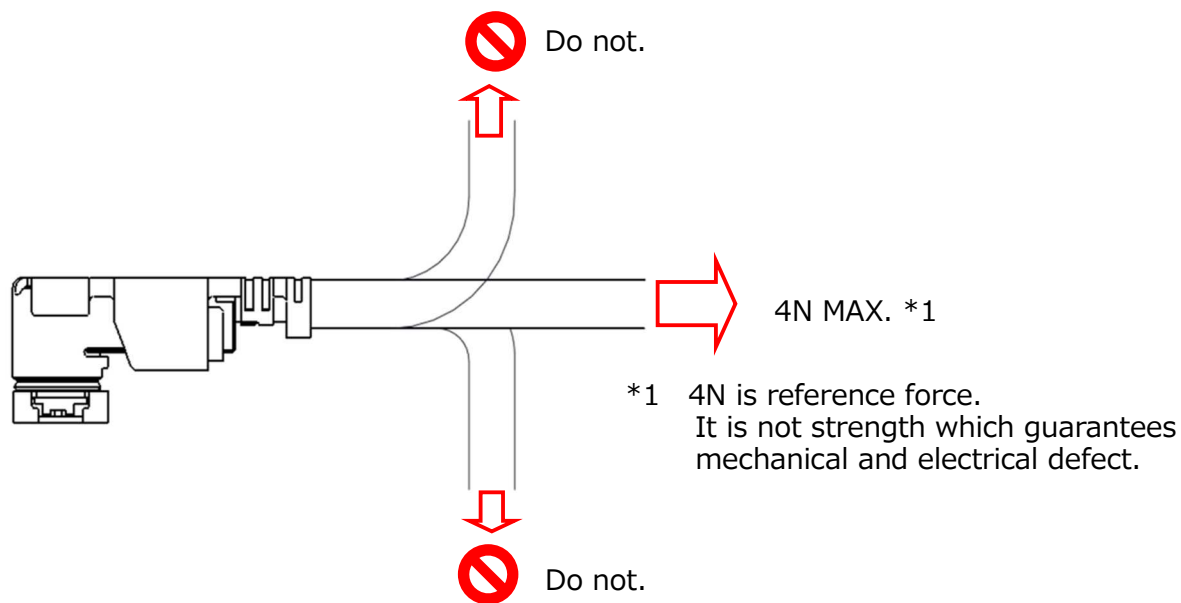


Fig. 14 Cable handling caution