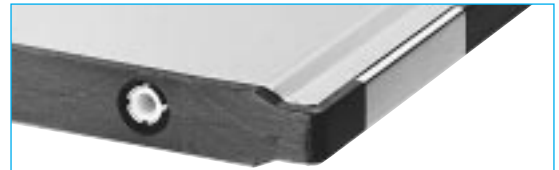
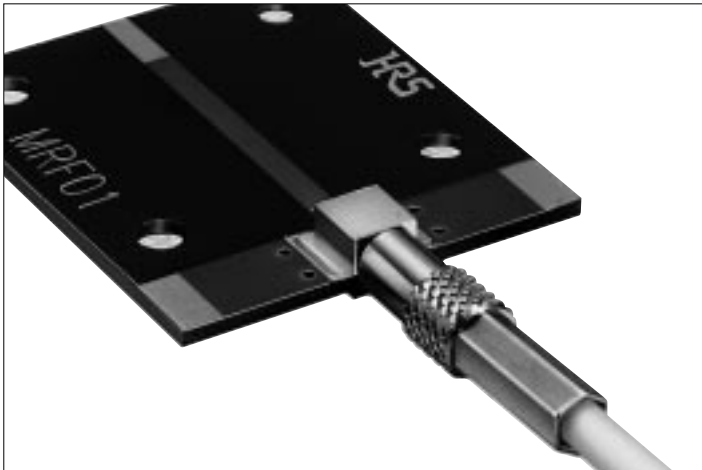


## MRF01 Series



Modem Card Mounting Example  
(A special frame kit has not been manufactured.)



Board Mounting Example

## ■ Features

1. Uses a push-on type system which is easy to engage and disengage. (There is no lock.)
2. Mountable on PCMCIA Type II Card

The 3 mm receptacle thickness permits mounting to the back side of a type II card.

Note that at the time of card mounting, use of 0.15mm offset of the board mounting surface from the card center line will result in the same card center axis and connector center axis.

## 3. High Degree of Matching

These connectors offer high frequency performance from 0 to 3 GHz with a V.S.W.R. of 1.3 or less.

## 4. Accommodates Ultra-Fine Cable

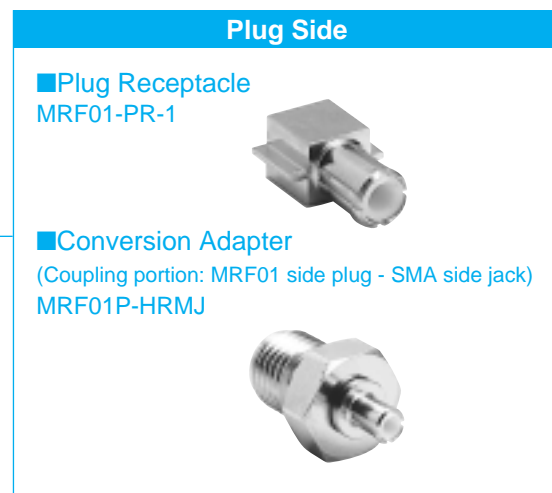
Suitable cable ...RG-178B/U (Ø1.8)

...RG-196A/U (Ø 2)

## ■ Applications

Wireless LAN cards, GPS cards, and miniature wireless communications devices.

## ■ Function Diagrams



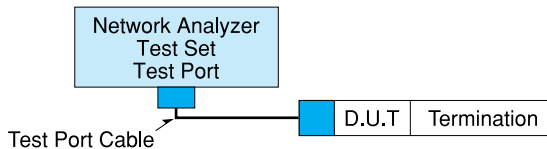
## Product Specifications

Ratings	Nominal characteristic impedance Voltage rating Frequency rating	50Ω 150 V AC (rms) DC to 3 GHz	Operating temperature range Operating humidity	-20°C to +60°C 95% or less
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Item	Specification	Condition
1. Contact resistance	Center : 10 mΩ or less Outside: 3 mΩ or less	Measured at 10 mA or less
2. Insulation resistance	5,000 MΩ or greater	Measured at 500 V DC
3. Withstand voltage	No line or insulation breakdown	500 V AC for one minute
4. V.S.W.R.(*)	1.3 or less	At DC to 3 GHz
5. Female contact holding force	0.137 N or greater	Measured with a Ø 0.381 pin gauge
6. Coupling force (Disconnection force)	0.56 N or greater	Measured with a suitable connector
7. Repetitive operation	Contact resistance: Amount of change 20 mΩ or less	10,000 cycles of insertion and disengagement
8. Vibration resistance	No momentary disconnections of 1 μs or longer No damage, cracks, or parts looseness	Frequency of 10 to 2,000 Hz, single amplitude of 0.75 mm, acceleration of 147 m/s <sup>2</sup> , for 4 hours in the direction of the 3 axes
9. Shock resistance	No momentary disconnections of 1 μs or longer No damage, cracks, or parts looseness	Acceleration of 490 m/s <sup>2</sup> , 11 ms duration, sine half-wave waveform, for 6 cycles in the direction of each of the 3 axes
10. Humidity resistance of the temperature and humidity cycles	Insulation resistance: 100 MΩ or greater Contact resistance: Amount of change 20 mΩ or less No damage, cracks, or parts looseness	Temperature -10°C to +65°C, Humidity 90 to 96%, let stand for 240 hours
11. Temperature cycle	No damage, cracks, or parts looseness	Temperature: -65°C → 20 to 35°C → 125°C → 20 to 35°C Time: 30 min. → Within 5 min. → 30 min. → Within 5 min. Cycles: 5
12. Hydrogen sulfide gas	Contact resistance: Amount of change 20 mΩ or less No damage, cracks, or parts looseness	Temperature 40°C, Humidity approximately 80%, Concentration 3 ppm, let stand for 96 hours
13. Salt spray test	No excessive corrosion	48 hours continuous exposure to 5% brine

\*V.S.W.R. Measurement System

The above V.S.W.R. standard values were measured using the measurement system of the diagram below.



NOTE 1: Cable type connectors were measured with SMA conversion adapters attached to both ends of the harness product of a suitable 10-cm cable.

NOTE 2: Board type connectors were mounted to a 50Ω glass epoxy board and measurements were conducted with SMA conversion adapters attached.

## Materials

Part Name	Material	Processing
Shell	Beryllium copper/Brass	Gold plating
Insulator	PTFE resin	—
Female center contact	Beryllium copper	Gold plating
Male center contact	Phosphor bronze	Gold plating
Crimp sleeve	Copper	Nickel plating

## Structure of the Product Number

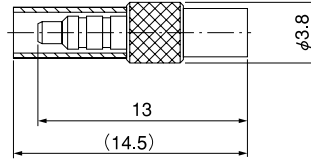
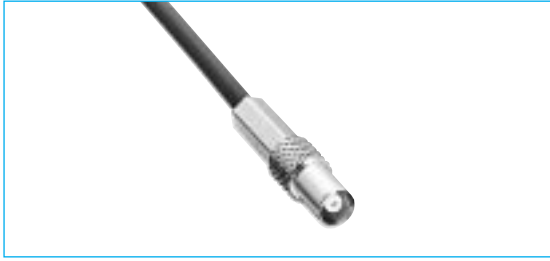
This information is used to determine the product specifications from the product number expression.

At the time of ordering, select from the product number expressions on Page 3 of this catalog.

**MRF01** - [      ] - [      ]  
①
②
③

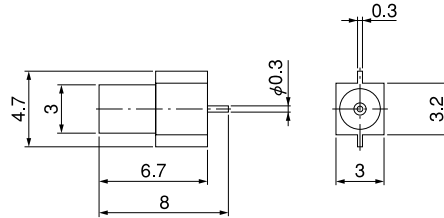
① Series name : MRF01	③ Suitable cable or suffix 178: RG-178B/U (Ø 1.8) RG-196B/U (Ø 2)
② Connector types J : Jack R : Receptacle PR : Plug receptacle	

## Jack



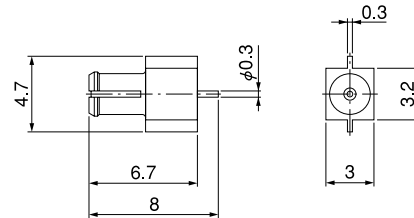
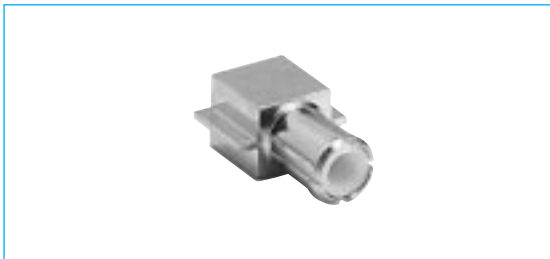
HRS No.	Product No.
CL313-1102-7	MRF01-J-178

## Receptacle



HRS No.	Product No.
CL313-1101-4	MRF01-R-1

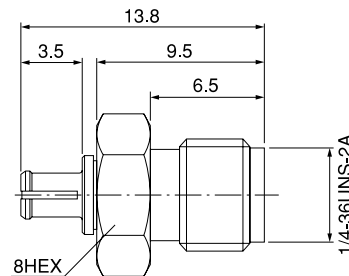
## Plug Receptacle



HRS No.	Product No.
CL313-1100-1	MRF01-PR-1

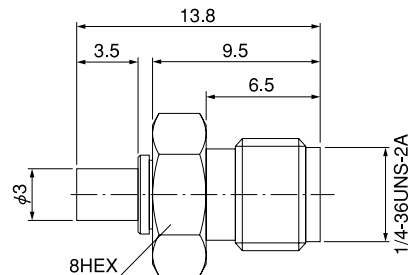
## Conversion Adapter

- SMA conversion adapter  
(Coupling portion: MRF01 side plug - SMA side jack)



HRS No.	Product No.
CL311-0289-1	MRF01P-HRMJ

- SMA conversion adapter  
(Coupling portion: MRF01 side jack - SMA side jack)



HRS No.	Product No.
CL311-0290-0	MRF01J-HRMJ

