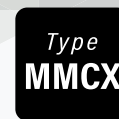


MMCX Series

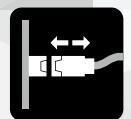
Ultra-small Push-on Coaxial Connector



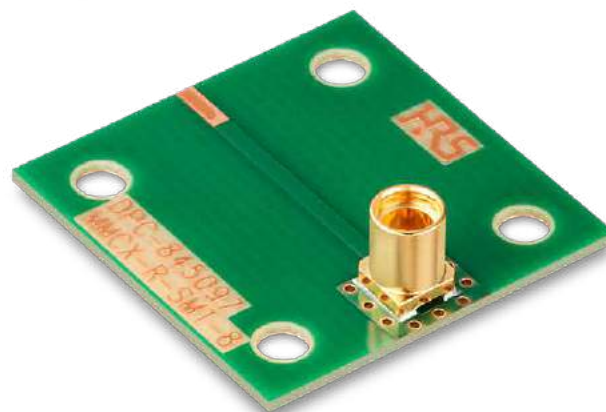
MMCX



Compact



Push On



Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://hirose.nt-rt.ru/> || hes@nt-rt.ru

Features

1. Push-on System for Easy Attachment and Removal

2. Applicable Cable

RG Type High Frequency Coaxial Cable

- RG-178B/U (ϕ 1.8)
- RG-316/U (ϕ 2.59 Max.)

Extra-fine Fluororesin Cable

- Single Shielded Cable (ϕ 1.13, ϕ 1.37, ϕ 1.48)
- Double Shielded Cable (ϕ 1.32)

Semi-flexible Cable

- External conductor diameter equivalent to 0.085 inches
(With jacket finishing diameter is ϕ 2.5)
- External conductor diameter equivalent to 0.047 inches
(With jacket finishing diameter is ϕ 1.44)

3. Double-ended Cable Assembly with Other Hirose Series

Double-ended cable assembly available with H.FL, U.FL, SMA, and SMA(R).

4. High Frequency Characteristics

Guaranteed frequency : DC to 8GHz

(The guaranteed frequency of some parts is DC to 6GHz.)

5. Two Types of Plugs Available

In addition to the standard plug, a mating compatible outer conductor contact reinforced type is also available.

6. RoHS2 Compliant

Application Examples

Wireless LAN, GPS, POS, Measurement Instrument, Wiring Inside Transmission Equipment

Product Specifications

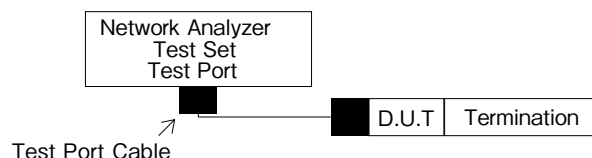
Characteristic Impedance	50 Ω	Operating Temperature	-55 to +85°C
Rated Frequency	DC to 8GHz	Operating Humidity Range	90% Max.

Item	Specification	Condition
Insulation Resistance	500 M Ω Min.	Measured with 500V DC
Withstanding Voltage	No flashover or insulation breakdown	500V AC for 1 min.
Contact Resistance	Center : 10m Ω Max. Outer : 5m Ω Max.	Measured at a maximum of 100mA (DC or 1000Hz)
Retention Force of Female Contact	0.2 to 2N	Measured with ϕ 0.37 pin gauge.
Total Insertion / Extraction Force (Plug)	Insertion Force : 15N Max., Extraction Force : 6 to 15N	Standard Type
	Extraction Force : 6N Min.	Outer Conductor Contact Reinforced Type [MMCX(AR)]
V.S.W.R.* (Note)	1.2 Max.	DC to 6GHz
	1.4 Max.	6 to 8GHz
Vibration Resistance	No electrical discontinuity for 1 μ s or more. No damaged, cracks or loose parts.	Frequency of 10 to 500Hz, single amplitude of 0.75mm, acceleration of 98m/s ² for 12 cycles in each of the 3 axes direction.
Thermal Shock	No electrical discontinuity for 1 μ s or more. No damaged, cracks or loose parts.	Acceleration of 735m/s ² , for a duration of 6ms, sine half-wave waveform, 3 cycles in each of the 3 axes direction.
Humidity Resistance	No damaged, cracked or loose parts Insulation Resistance : 10M Ω Min. (High Humidity) Insulation Resistance : 500M Ω Min. (Dry)	96 hours at temperature of 40°C and humidity of 95%.
Temperature Cycle	No damaged, cracked or loose parts.	Temperature : -55°C → +20 to +35°C → +85°C → +20 to +35°C Time : 30 min. → 5 min. → 30 min. → 5 min. 5 cycles
Mating Durability	Contact Resistance Center : 20m Ω Max. Outer : 10m Ω Max.	Mating/unmating : 500 mating cycles : Standard Type Mating/unmating : 100 mating cycles : Outer Conductor Contact Reinforced Type [MMCX(AR)]
Salt Spray	Satisfies the V.S.M.R.	5% salt water solution for 48 consecutive hours

Note : Refer to section on V.S.W.R. for details.

* V.S.W.R. Measurement System

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



Note 1 : The cable connector is measured attached to a double-ended cable assembly with an applicable 15cm cable.

Note 2 : The board connector is measured while mounted to a 50 Ω board and attached to a dedicated adapter.

● V.S.W.R.

V.S.W.R is 1.2 Max. (DC to 6GHz) or 1.4 Max. (6 to 8GHz) excluding the products listed below.

Item	Part No.	V.S.W.R.
Receptacle	MMCX-R-SMT-8	1.2 Max. (DC to 8GHz)
	MMCX-LR-SMT(40)	1.2 Max. (DC to 4GHz) 1.3 Max. (4 to 6GHz) 1.4 Max. (6 to 8GHz)
	MMCX-R-PC(40)	1.2 Max. (DC to 6GHz)
	MMCX-LR-PC-1(40)	1.3 Max. (DC to 3GHz) 1.5 Max. (3 to 6GHz)
Plug / Jack	MMCX(AR)-P-SF047 MMCX(AR)-P-SF085 MMCX(AR)-LP-SF047 MMCX-PJ-SF085	1.3 Max. (DC to 3GHz) 1.4 Max. (3 to 8GHz)
	MMCX(AR)-LP-SF085	1.3 Max. (DC to 3GHz) 1.4 Max. (3 to 4GHz) 1.5 Max. (4 to 5GHz) 1.6 Max. (5 to 6GHz)

Materials / Finish

Component	Material	Finish
Shell	Brass Stainless steel (Conversion Adapter)	Gold Plating
Male Center Contact	Phosphor Bronze	Gold Plating
Female Center Contact	Beryllium Copper	Gold Plating
In-line Contact (Male/Female)	Beryllium Copper (Conversion Adapter)	Gold Plating
Insulator	PTFE Resin	—
Securing Ring	Beryllium Copper (Plug)	Gold Plating
Crimp Sleeve	Bronze	Gold Plating
Cap	Brass (Plug)	Gold Plating

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

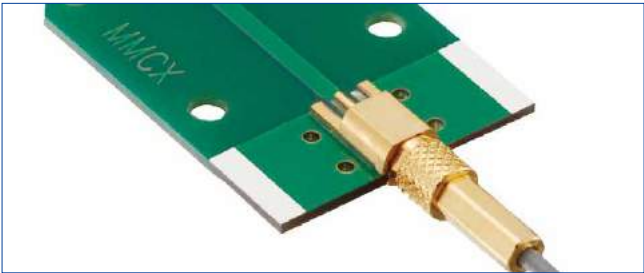
Standard Type

MMCX - LP - 066 (40)

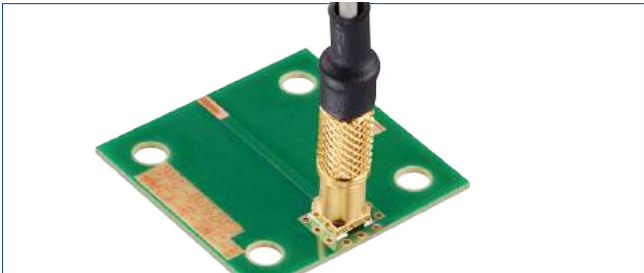
1	2	3	4
1 Series Name	MMCX		3 Applicable Cable /PCB Mounting Style
			178B/U : RG-178B/U (ϕ 1.8) 316/U : RG-316/U (ϕ 2.59 Max.) FHSB : ϕ 1.48 (Single Shielded Cable) Coaxial Fluororesin Cable 088 : ϕ 1.37 (Single Shielded Cable) Coaxial Fluororesin Cable 066 : ϕ 1.32 (Double Shielded Cable) Coaxial Fluororesin Cable : ϕ 1.13 (Single Shielded Cable) Coaxial Fluororesin Cable SF085 :External Conductor Diameter Equivalent to 0.085 Inches (With Jacket Finishing Diameter is ϕ 2.5) PC : PCB Through Hole Type SMT : PCB SMT Mounting Type
2 Connector Type	P : Straight Plug LP : Right Angle Plug PJ, BPJ : Pannel Jack J : Straight Jack LR : Right Angle Receptacle R : Receptacle	4 Specifications	RoHS2 Compliant

Examples of Mated Condition

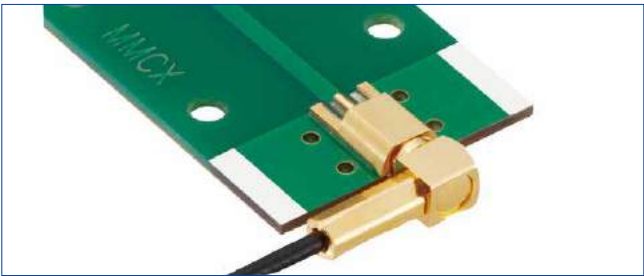
Right Angle Receptacle + Straight Plug



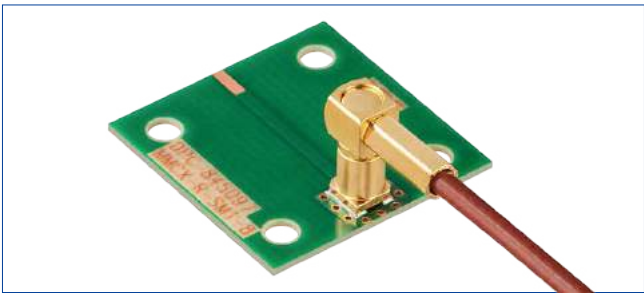
Straight Receptacle + Straight Plug



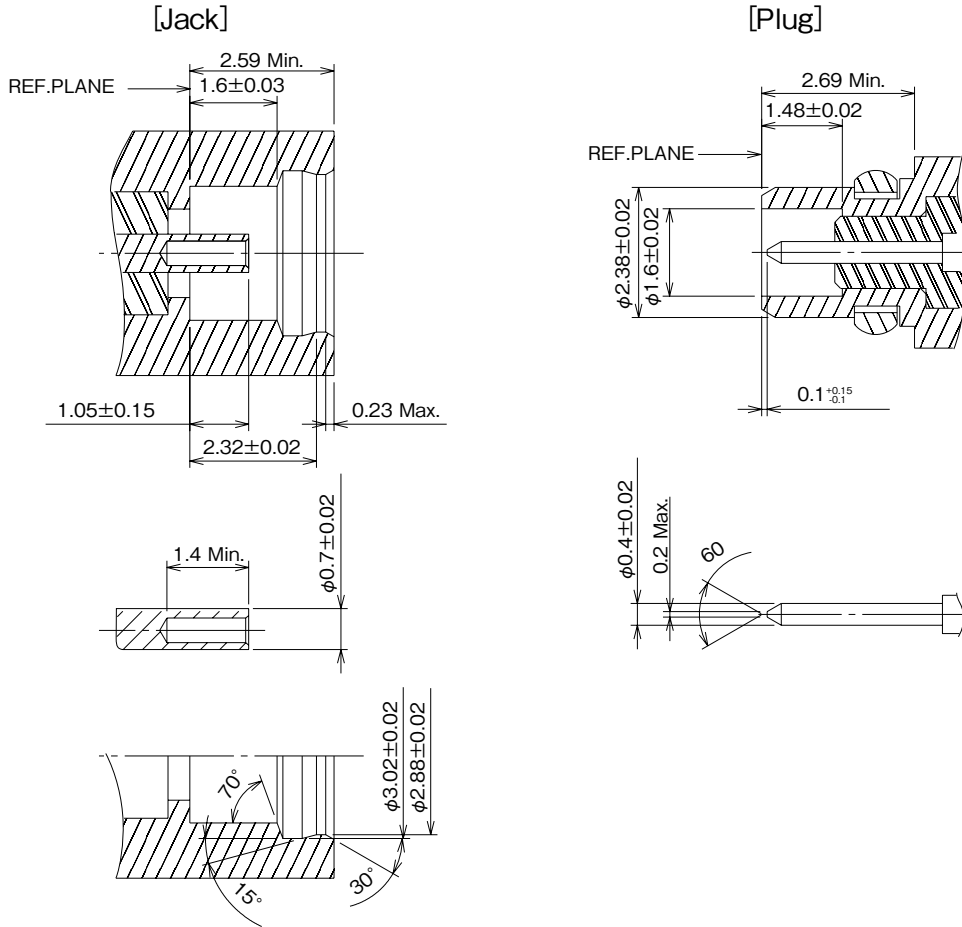
Right Angle Receptacle + Right Angle Plug



Straight Receptacle + Right Angle Plug

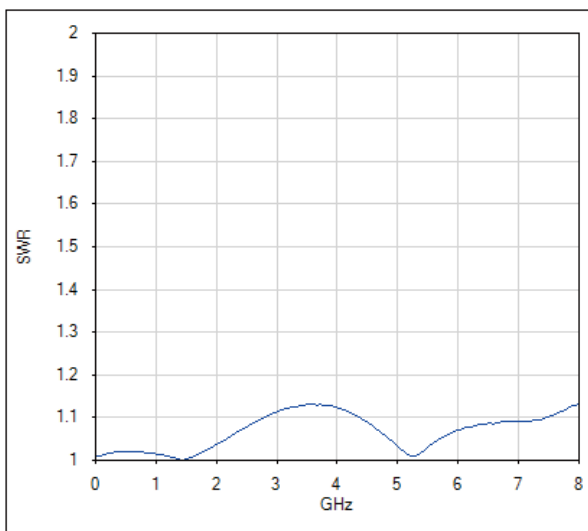


Interface Dimensions

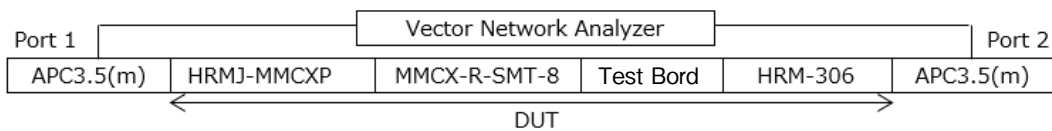
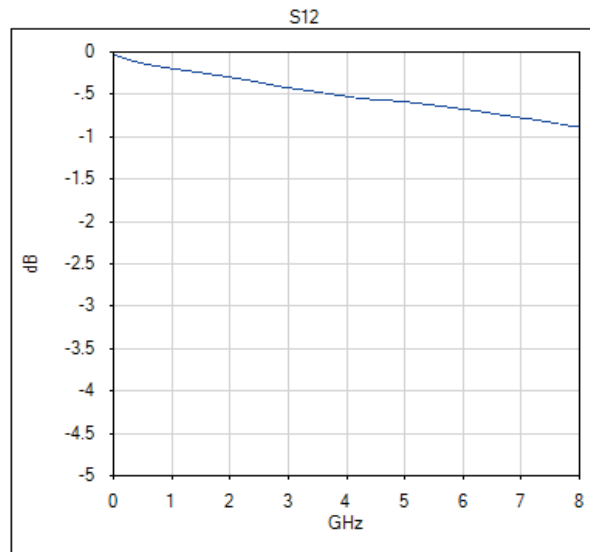


[Reference] MMCX-R-SMT-8 High Frequency Characteristics

■ Insertion Loss



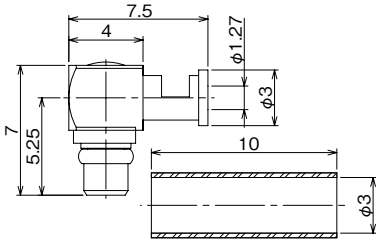
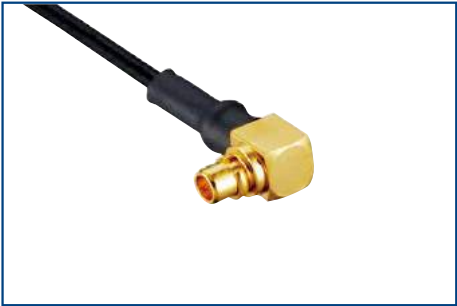
■ V.S.W.R.



Right Angle Plug

- For $\phi 1.32$ Double Shielded Cable
- For $\phi 1.13$ Single Shielded Cable

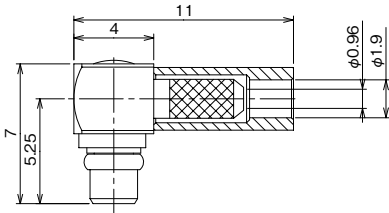
Connects with U.FL-LP-066HF(06).



Part No.	HRS No.	Purchase Unit
MMCX-LP-066(40)	CL0339-0019-2-40	20pcs per bag

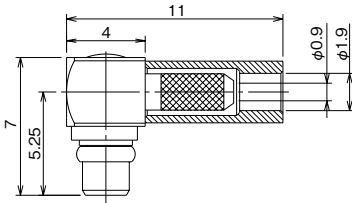
- For $\phi 1.37$ Single Shielded Cable

Connects with U.FL-LP-088HF(06).



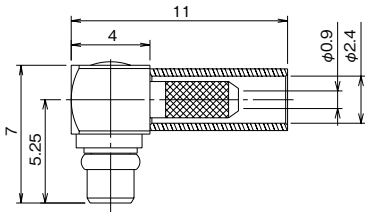
Part No.	HRS No.	Purchase Unit
MMCX-LP-088(40)	CL0339-0020-1-40	20pcs per bag

- For $\phi 1.48$ Single Shielded Cable



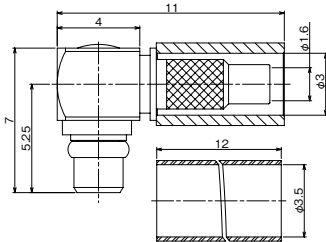
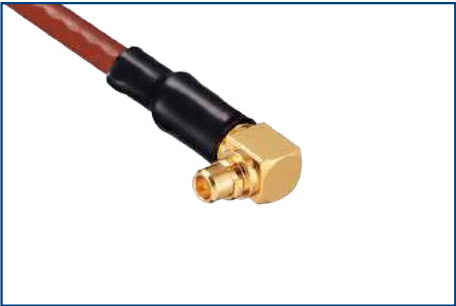
Part No.	HRS No.	Purchase Unit
MMCX-LP-FHSB(40)	CL0339-0007-3-40	100pcs per bag

● For RG-178B/U Cable



Part No.	HRS No.	Purchase Unit
MMCX-LP-178B/U(40)	CL0339-0001-7-40	20pcs per bag

● For RG-316/U Cable

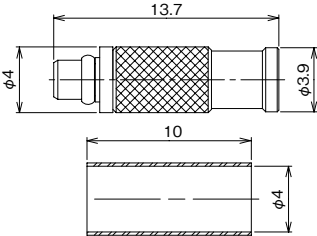


Part No.	HRS No.	Remarks
MMCX-LP-316/U(40)	CL0339-0006-0-40	We accept cable assembly specifications. Please contact a Hirose sales representative.

Straight Plug

- For $\phi 1.32$ Double Shielded Cable
For $\phi 1.13$ Single Shielded Cable

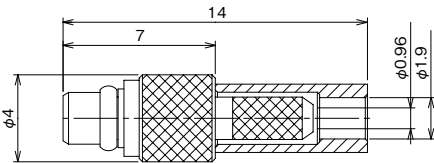
Connects with U.FL-LP-066HF(06).



Part No.	HRS No.	Purchase Unit
MMCX-P-066(40)	CL0339-0023-0-40	100pcs per bag

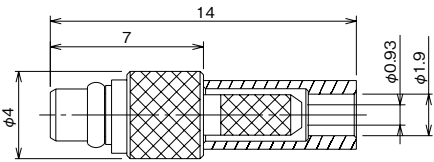
- For $\phi 1.37$ Single Shielded Cable

Connects with U.FL-LP-088HF(06).



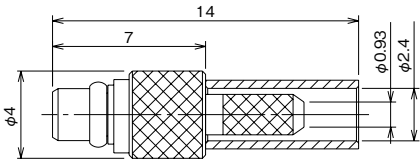
Part No.	HRS No.	Purchase Unit
MMCX-P-088(40)	CL0339-0021-4-40	20pcs per bag

- For $\phi 1.48$ Single Shielded Cable



Part No.	HRS No.	Purchase Unit
MMCX-P-FHSB(40)	CL0339-0008-6-40	100pcs per bag

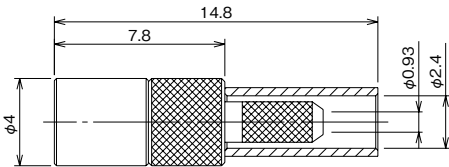
● For RG-178B/U Cable



Part No.	HRS No.	Purchase Unit
MMCX-P-178B/U(40)	CL0339-0010-8-40	20pcs per bag

Straight Jack

● For RG-178B/U Cable

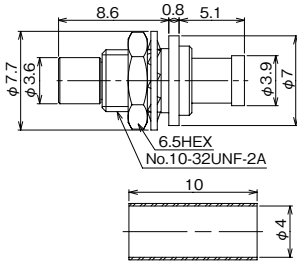


Part No.	HRS No.	Purchase Unit
MMCX-J-178B/U(40)	CL0339-0011-0-40	100pcs per bag

Panel Jack

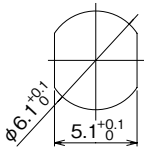
- For $\phi 1.32$ Double Shielded Cable
- For $\phi 1.13$ Single Shielded Cable

Connects with U.FL-LP-066HF(06).



Part No.	HRS No.	Remarks
MMCX-BPJ-066(40)	CL0339-0016-4-40	We accept cable assembly specifications. Please contact a Hirose sales representative.

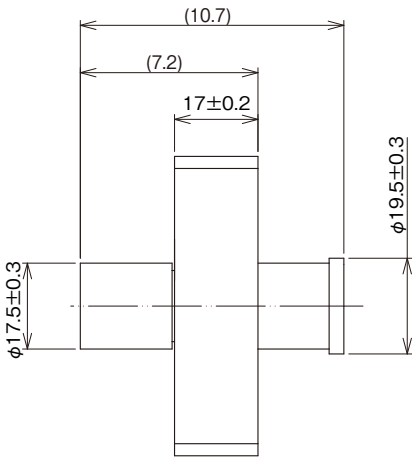
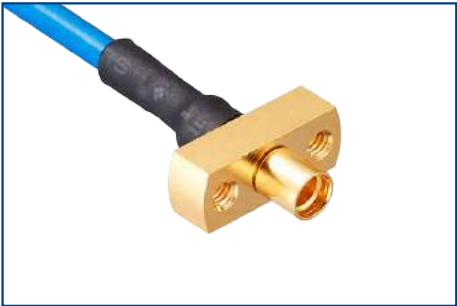
Panel Cut-Out Dimensions



Recommended Panel Thickness : 1.3 to 2.5mm

- For Semi-flexible Cable (Low Loss Type)

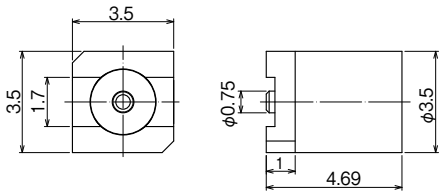
External conductor diameter equivalent to 0.085 Inches. (With jacket finishing diameter is $\phi 2.5$.)



Part No.	HRS No.	Remarks
MMCX-PJ-SF085	CL0339-0045-0-00	We accept cable assembly specifications. Please contact a Hirose sales representative.

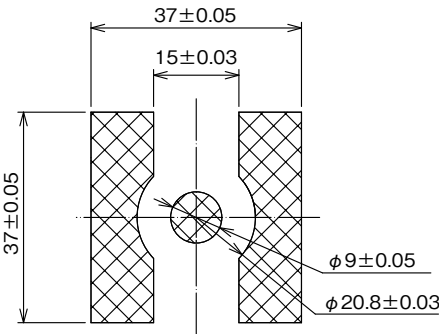
Receptacle

● For Straight SMT

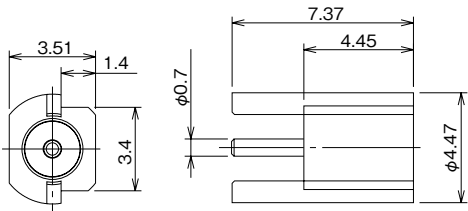
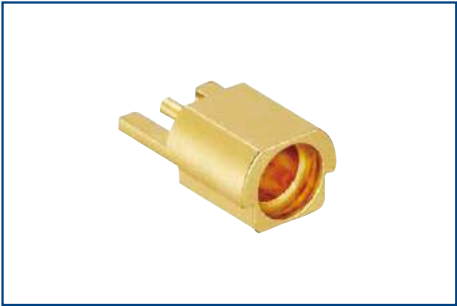


Part No.	HRS No.	Purchase Unit
MMCX-R-SMT-8	CL0339-0046-0-00	500pcs per reel

■ Recommended PCB Layout

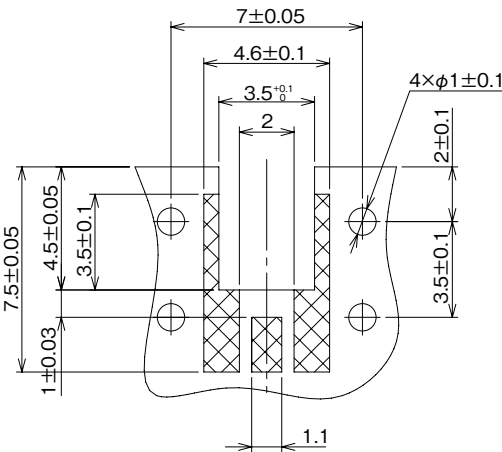


● For Right Angle SMT

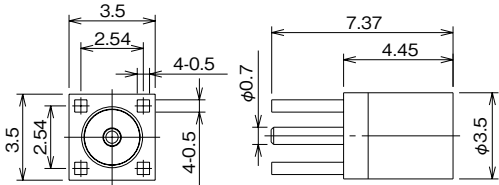


Part No.	HRS No.	Purchase Unit
MMCX-LR-SMT(40)	CL0339-0003-2-40	50pcs per tray

■ Recommended PCB Layout

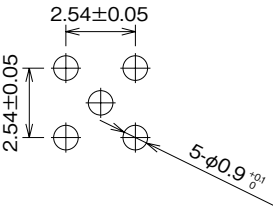


● For Straight Through-Hole

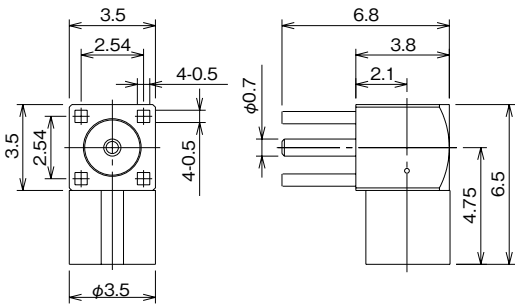


Part No.	HRS No.	Purchase Unit
MMCX-R-PC(40)	CL0339-0005-8-40	100pcs per bag

■ Recommended PCB Dimensions

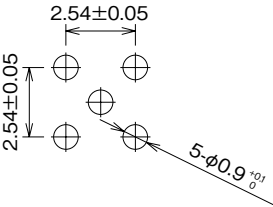


● For Right Angle Through-Hole



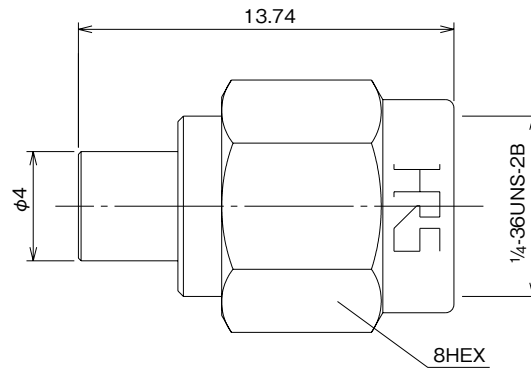
Part No.	HRS No.	Purchase Unit
MMCX-LR-PC-1(40)	CL0339-0013-6-40	10pcs per bag

■ Recommended PCB Dimensions



Conversion Adapter

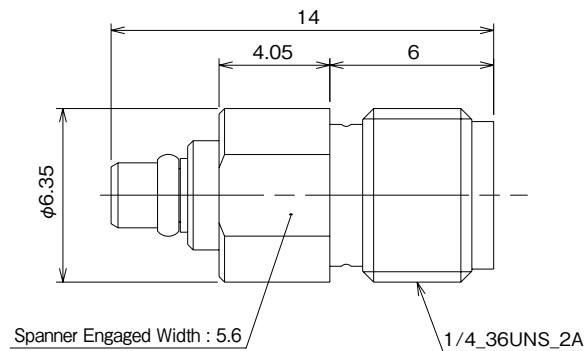
● SMA Conversion Adapter (Mated Portion : SMA Plug - MMCX Jack)



Part No.	HRS No.	Purchase Unit
HRMP-MMCXJ	CL0311-0312-1-00	20pcs per bag

Note : Can be used with standard type and outer conductor contact reinforced type (MMCX[AR]) MMCX plugs.

● SMA Conversion Adapter (Mated Portion : SMA Jack - MMCX Plug)



Part No.	HRS No.	Purchase Unit
HRMJ-MMCXP	CL0311-0313-4-00	20pcs per bag

Plug/Jack Termination Tools

Item	Part No.	Tool	HRS No.	Usage
Right Angle Plug	MMCX-LP-066(40)	MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
	MMCX-LP-088(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
		MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
	MMCX-LP-FHSB(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
		MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
	MMCX-LP-178B/U(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
		MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
Straight Plug	MMCX-P-066(40)	MMCX-P-066/CV-MD	CL0902-3272-0-00	Clamp Press Fitting
	MMCX-P-088(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
	MMCX-P-FHSB(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
	MMCX-P-178B/U(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
Straight Jack	MMCX-J-178B/U(40)	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening

Outer Conductor Contact Reinforced Plug Connector [MMCX(AR)]

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

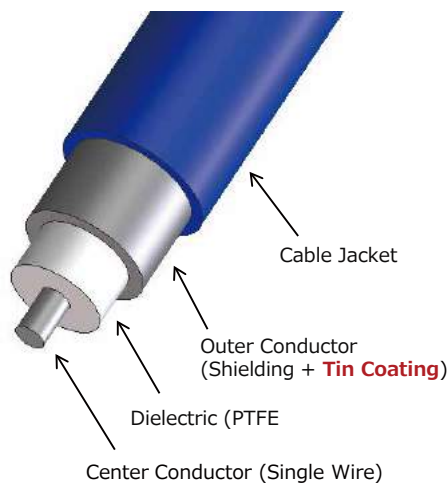
MMCX (AR) - LP - 066

①	Series Name	MMCX	④	Applicable Cable or Board Mounting Style	178B/U : RG-178B/U (φ 1.8) FHSB : φ 1.48 (Single Shielded Cable) Coaxial Fluororesin Cable 088 : φ 1.37 (Single Shielded Cable) Coaxial Fluororesin Cable 066 : φ 1.32 (Double Shielded Cable) Coaxial Fluororesin Cable : φ 1.13 (Single Shielded Cable) Coaxial Fluororesin Cable SF085 : External Conductor Diameter Equivalent to 0.085 Inches (With Jacket Finishing Diameter is φ 2.5) SF047 : External Conductor Diameter Equivalent to 0.047 Inches (With Jacket Finishing Diameter is φ 1.44)
②	Outer Conductor Contact Reinforced Type	(AR)			
③	Connector Type	P : Straight Plug LP : Right Angle Plug TMP : Termination Plug			

[Reference] Semi-flexible Cable Configuration and Cable Loss Comparison

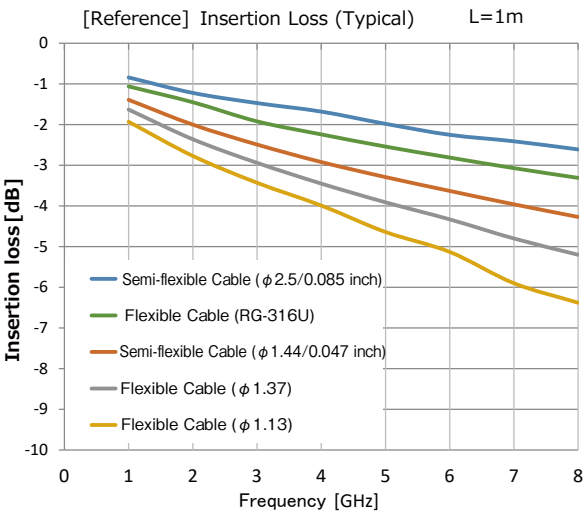
Semi-flexible Cable Configuration

Excellent Electrical Performance Due to Tin-Coated Braided Shielding



Insertion Loss Comparison

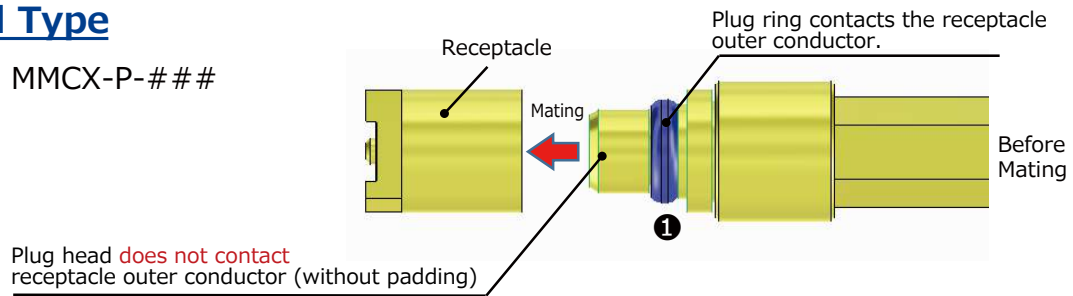
(Semi-flexible Cable & Flexible Cable)



Standard Type and Outer Conductor Contact Reinforced Type [MMCX(AR)]

Standard Type

Product : MMCX-P-# # #

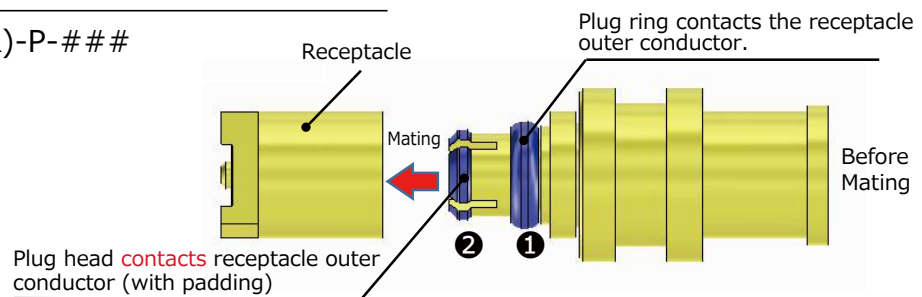


Only a single point makes contact with the outer conductor.

Outer Conductor Contact Reinforced Type [MMCX(AR)]

Since the contact is strengthened compared to the standard type, mating feels tighter.

Product : MMCX(AR)-P-# # #



Contact with the receptacle outer conductor at two points enhances prying force and ensures high contact reliability even in difficult wiring conditions.

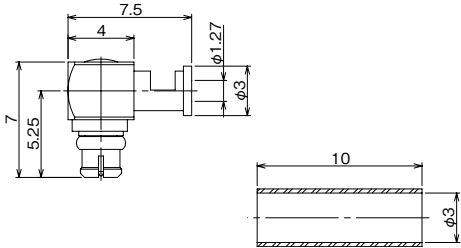
Mating and Extraction Forces Comparison (Reference Value)

(Reference Value)	Mating Force	Extraction Force
Standard Type	15N	15N
Outer Conductor Contact Reinforced Type [MMCX(AR)]	35N	25N

Right Angle Plug

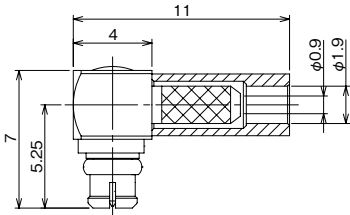
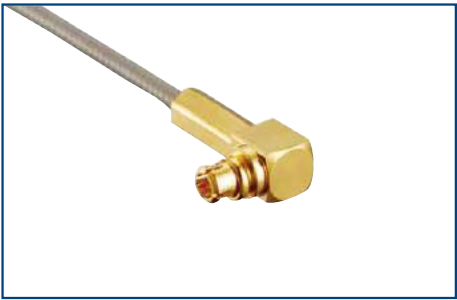
- For $\phi 1.32$ Double Shielded Cable
For $\phi 1.13$ Single Shielded Cable

Connects with U.FL-LP-066HF(06).



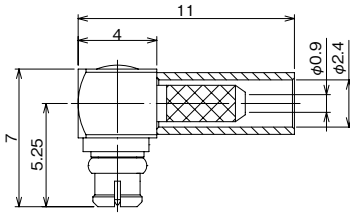
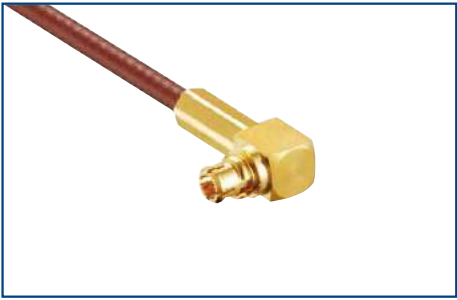
Part No.	HRS No.	Purchase Unit
MMCX(AR)-LP-066	CL0339-0031-8-00	20pcs per bag

- For $\phi 1.48$ Single Shielded Cable



Part No.	HRS No.	Purchase Unit
MMCX(AR)-LP-FHSB	CL0339-0035-9-00	100pcs per bag

- For RG-178B/U Cable

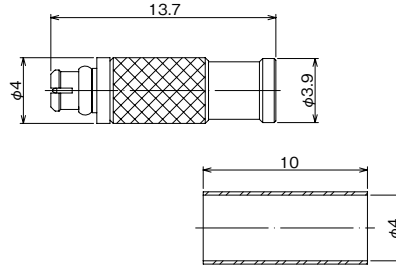


Part No.	HRS No.	Purchase Unit
MMCX(AR)-LP-178B/U	CL0339-0033-3-00	100pcs per bag

Straight Plug

- For $\phi 1.32$ Double Shielded Cable
For $\phi 1.13$ Single Shielded Cable

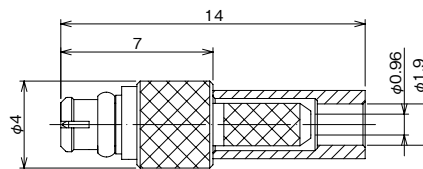
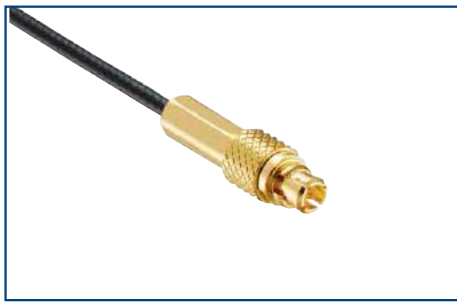
Connects with U.FL-LP-066HF(06).



Part No.	HRS No.	Purchase Unit
MMCX(AR)-P-066	CL0339-0030-5-00	100pcs per bag

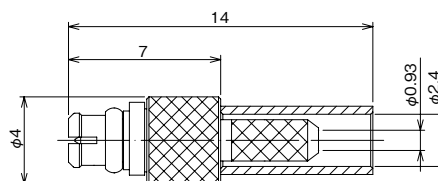
- For $\phi 1.37$ Single Shielded Cable

Connects with U.FL-LP-088HF(06).



Part No.	HRS No.	Purchase Unit
MMCX(AR)-P-088	CL0339-0037-4-00	20pcs per bag

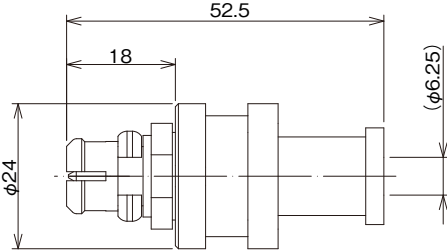
- For RG-178B/U Cable



Part No.	HRS No.	Purchase Unit
MMCX(AR)-P-178B/U	CL0339-0038-7-00	100pcs per bag

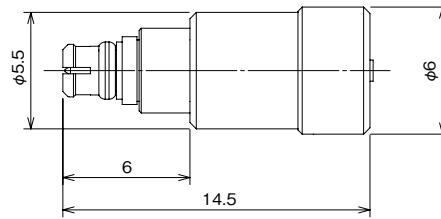
● For Semi-flexible Cable (Low Loss Type)

External conductor diameter equivalent to 0.047 Inches. (With jacket finishing diameter is ϕ 1.44.)



Part No.	HRS No.	Remarks
MMCX(AR)-P-SF047	CL0339-0032-0-00	We accept cable assembly specifications. Please contact a Hirose sales representative.

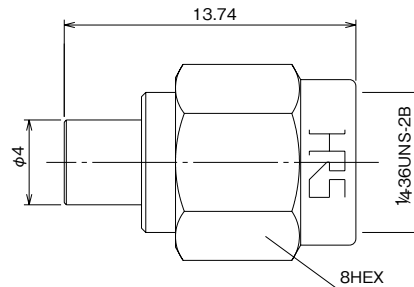
Non-reflective Terminator



Part No.	HRS No.	Electric Power (W)	Purchase Unit
MMCX(AR)-TMP	CL0353-0010-0-00	1/4	20pcs per bag

Conversion Adapter

● SMA Conversion Adapter (Mated Portion : SMA Plug - MMCX Jack)



Part No.	HRS No.	Purchase Unit
HRMP-MMCXJ	CL0311-0312-1-00	20pcs per bag

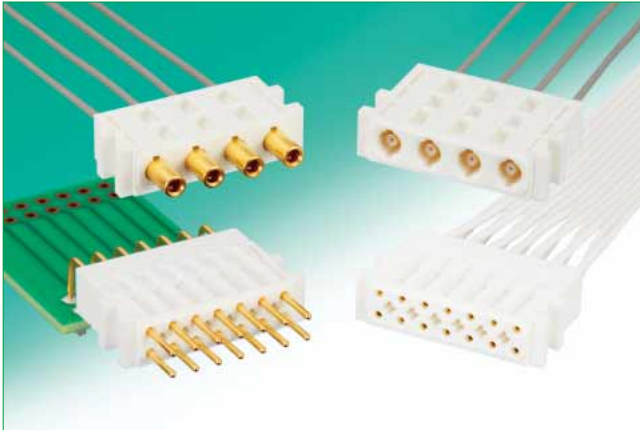
Note : Can be used with standard type and outer conductor contact reinforced type (MMCX[AR]) MMCX plugs.

Plug Termination Tools

Item	Part No.	Tool	HRS No.	Usage
Right Angle Plug	MMCX(AR)-LP-066	MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
	MMCX(AR)-LP-FHSB	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
		MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
	MMCX(AR)-LP-178B/U	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
		MMCX-LP/PR-MP	CL0902-3064-6-00	Cap Press Fitting
Straight Plug	MMCX(AR)-P-066	MMCX-P-066/CV-MD	CL0902-3272-0-00	Clamp Press Fitting
	MMCX(AR)-P-088	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening
	MMCX(AR)-P-178B/U	HT103/MRF01-J-178	CL0350-0128-5-00	Outer Conductor Tightening

Non-magnetic, Long-Life Connector

MRF14 Series



Summary

The MRF14 Series is a non-magnetic long-life connector.

With excellent mating durability (60,000 cycles for both coaxial and signal contacts) it is a suitable interface connector suitable for use in a variety of MRI and testing equipment.

Features

<Both Coaxial and Signal>

- Non-magnetic
- Long life (60,000 times)
- Compliant with RoHS

<Coaxial>

1. Impedance Matching

High Frequency Characteristics : DC to 0.5GHz, V.S.W.R. 1.3 Max., 0.5 to 1GHz, V.S.W.R. 1.5 Max.

2. Small Diameter

Both the plug and jack have a small outer diameter of only $\phi 3.84\text{mm}$.

3. Plug-in Mating, Low Insertion and Removal Force

Plug-in mating for easy insertion and removal. Insertion force of 1.5N or less per pin and extraction force of 0.15N or more.

4. Applicable cable

Outer diameter $\phi 1.37$ flexible coaxial cable

5. Housing

4pin housing (Plug, Jack)

<Signal>

1. Small and light

Male (terminal) : $\phi 2.09\text{mm}$ outer diameter, 0.35g-0.62g weight per pin

Female (terminal) : $\phi 2.04\text{mm}$, 0.18g per pin for reducing the size and weight of the interface.

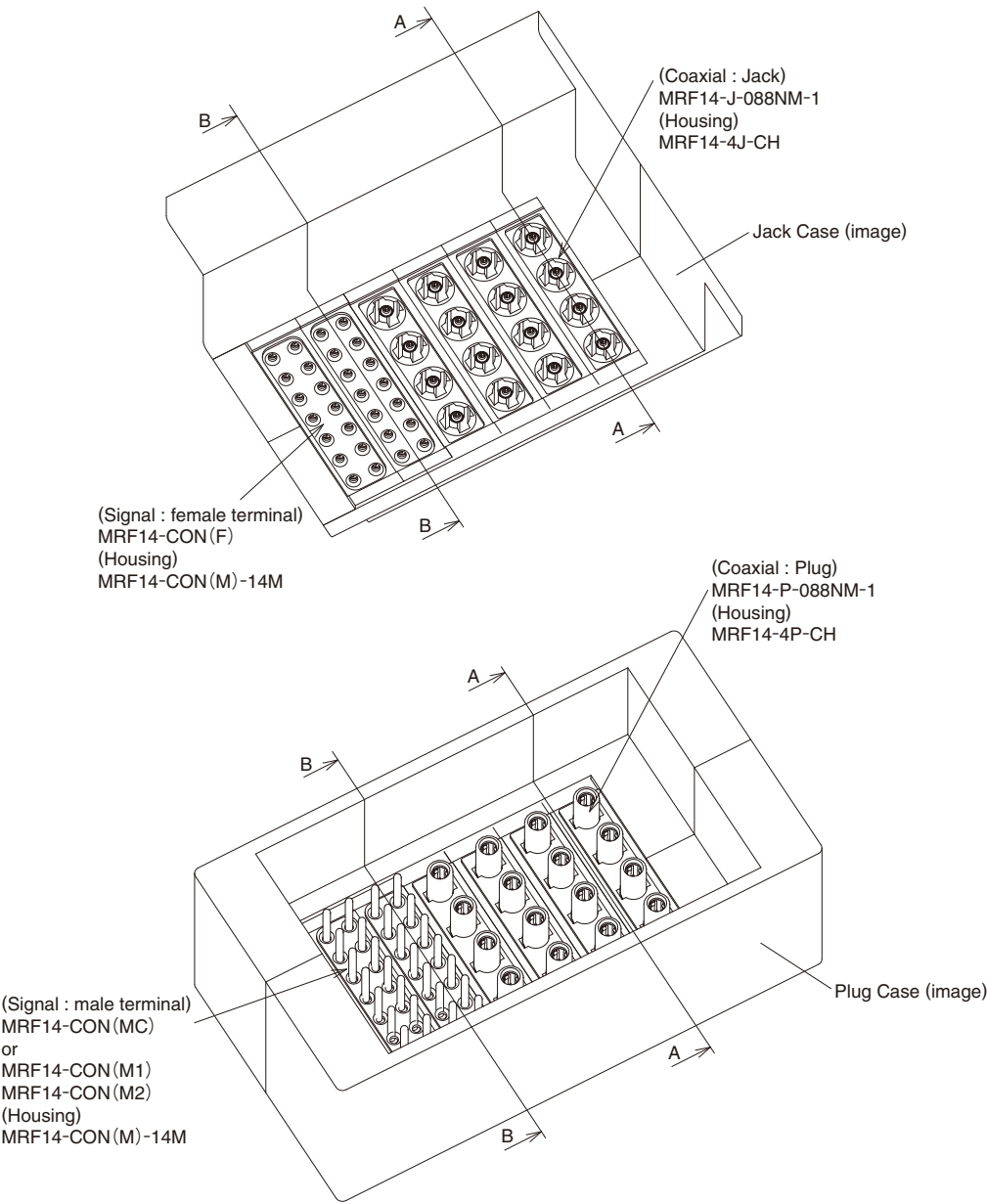
2. DIP type, Cable harness type

The male (terminal) is a Light angle DIP type, the female (terminal) is a cable harness type.

3. Housing

14 pin housing (same for male and female)

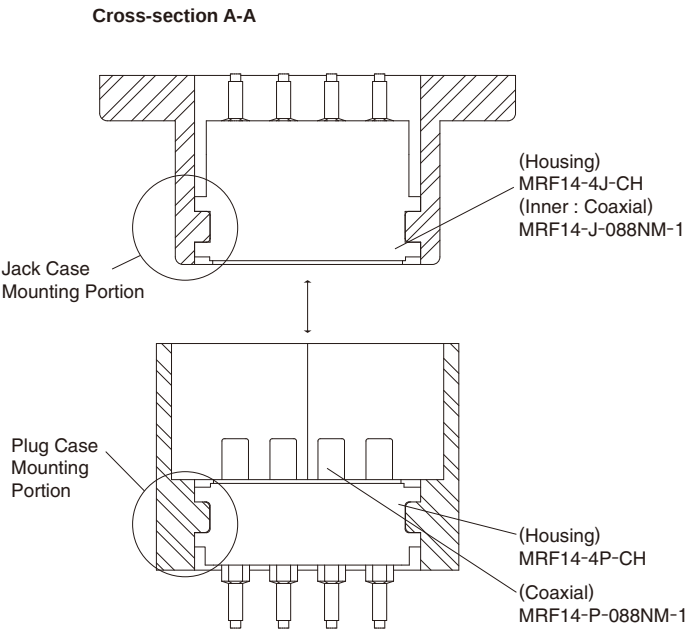
■Mounted Connector Diagram



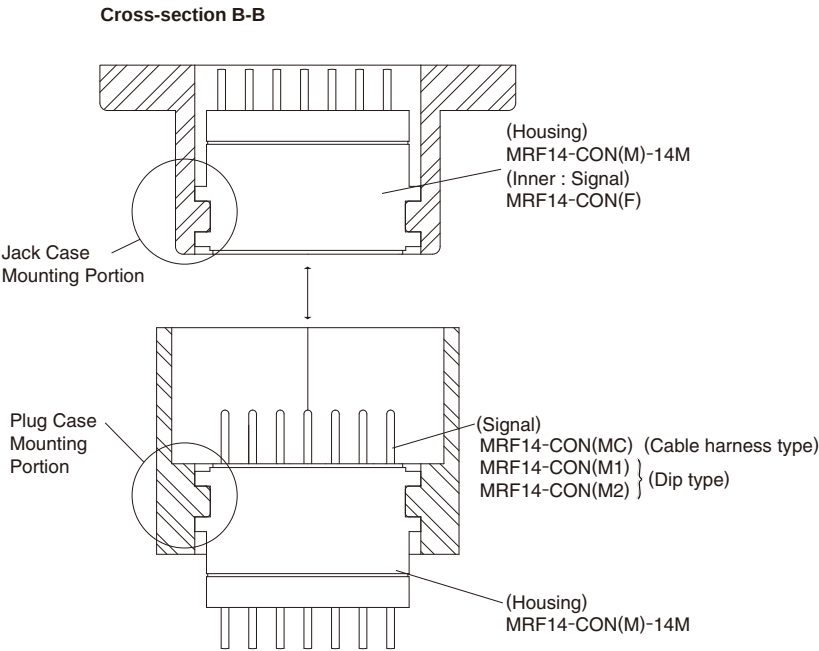
※ Lock and guide pin are purchased separately. Contact a Hirose sales representative for installation details and dimensions.

■Functional Diagram

<Coaxial>



<Signal>



■Cable Type

Part No.	Applicable Cable
MRF14-P-088NM-1	φ1.37 flexible coaxial cable
MRF14-J-088NM-1	φ1.37 flexible coaxial cable
MRF14-CON (MC)	24 AWG
MRF14-CON (F)	24 AWG

[Coaxial]

■Product Specifications

Ratings	Nominal Characteristic Impedance	50Ω	Operating Temperature	-40°C to +85°C
	Frequency	DC to 1GHz	Operating Humidity	90% RH or less

Item	Specifications	Conditions
1. Contact Resistance	30mΩ Max. (Center) 30mΩ Max. (Outer)	Measured at less than 100mA
2. Insulation Resistance	500MΩ Min.	Measured at 500V DC
3. Withstanding Voltage	No flashover or breakdown	500V AC for 1 min.
4. V.S.W.R.	1.3 Max. 1.5 Max.	DC to 0.5GHz 0.5 to 1GHz
5. Retention Force of Female Contact	0.05N Min.	Measured with φ0.4826 steel pin
6. Total Insertion and Extraction Force	Insertion force 1.5N Max. Extraction force 0.15N Min.	Measured with applicable connector.
7. Mating Cycles	Contact Resistance 60mΩ Max. (Center) 60mΩ Max. (Outer) No broken, cracked or loose parts.	60,000 cycles
8. Vibration Resistance	No electrical discontinuity for 1μs or more. No broken, cracked or loose parts.	Frequency 10 to 500Hz, Half Amplitude 0.75mm, Acceleration 98m/s ² 10 cycles in 3 axial directions
9. Shock Resistance	No electrical discontinuity for 1μs or more. No broken, cracked or loose parts.	Acceleration 735m/s ² , Duration 6ms, Wave form half-sine wave, 3 times in 3 axial directions
10. Damp Heat	Insulation Resistance 10MΩ Min. (in high humidity environment) Insulation Resistance 500MΩ Min. (in dry environment) No broken, cracked or loose parts.	Left at +40°C and 95% RH for 96 hours
11. Temperature Cycles	No broken, cracked or loose parts.	Temperature : -55°C→20 to 35°C→+85°C→20 to 35°C Time : 30min. → 3min. → 30min. → 3min. Cycles : 5
12. Salt Spray	No considerable corrosion	Continuous 48 hour cycle in 5% salt water solution

■Materials / Finish

Part	Material	Finish
Shell	Phosphor Bronze	Gold plated
Center Female Contact	Beryllium Copper	Gold plated
Center Male Contact	Phosphor Bronze	Gold plated
Insulator	PTEE	————
Crimp Sleeve	Phosphor Bronze	Non-magnetic nickel plating
Heat Shrink Tube	Polyolefin	————
Housing	PBT	————

■Product Number Structure

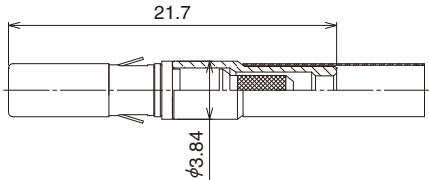
Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

MRF14 - **[]** - **088** NM - **1**

① ② ③

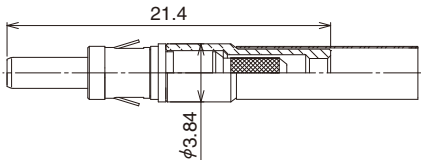
① Series Name : MRF14
② Connector Type P : Straight Plug J : Straight Jack
③ Applicable Cable 088 : ϕ 1.37 Flexible Coaxial Cable

■Straight Plug



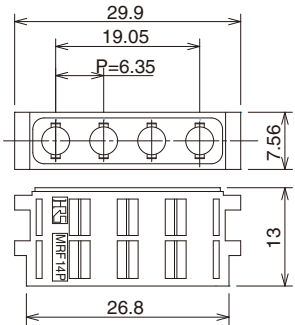
Part No.	HRS No.	RoHS
MRF14-P-088NM-1	313-0714-8	○

■Straight Jack



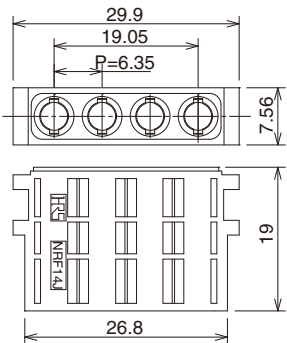
Part No.	HRS No.	RoHS
MRF14-J-088NM-1	313-0715-0	○

■Housing (4pos., for plug)



Part No.	HRS No.	RoHS
MRF14-4P-CH	313-0707-2	○

■Housing (4pos., for jack)



Part No.	HRS No.	RoHS
MRF14-4J-CH	313-0708-5	○

[Signal]

■Product Specifications

Rated Voltage	500V AC	Operating Temperature	−40°C to +85°C
Rated Current	2A DC	Operating Humidity	90% RH or less

Item	Specifications	Conditions
1. Contact Resistance	30mΩ Max.	Measured at less than 100mA
2. Insulation Resistance (※)	500MΩ Min.	Measured at 500V DC
3. Withstanding Voltage (※)	No flashover or breakdown	1,500V AC for 1 min.
4. Retention Force of Female Contact	0.02N Min.	Measured with applicable connector
5. Mating Cycles	Contact Resistance 60mΩ Max. No broken, cracked or loose parts	60,000 cycles
6. Vibration Resistance	No electrical discontinuity for 1μs or more. No broken, cracked or loose parts	Frequency 10 to 500Hz, Half Amplitude 0.75mm, Acceleration 98m/s ² 10 cycles in 3 axial directions
7. Shock Resistance	No electrical discontinuity for 1μs or more. No broken, cracked or loose parts.	Acceleration 735m/s ² , Duration 6ms, Wave form half-sine wave, 3 times in 3 axial directions
8. Damp Heat	Insulation Resistance 10MΩ Min. (in high humidity environment) Insulation Resistance 500MΩ Min. (in dry environment) No broken, cracked or loose parts	Left at +40°C and 95% RH for 96 hours
9. Temperature Cycle	No broken, cracked or loose parts	Temperature : −40°C→20 to 35°C→+85°C→20 to 35°C Time : 30min. → 3min. → 30min. → 3min. Cycles : 5
10. Salt Spray	No considerable corrosion	Continuous 48 hour cycle in 5% salt water solution

※Measured when mounted in housing.

■Materials / Finish

Part	Material	Finish
Terminal	Beryllium Copper	Gold plated
Outer Shell	Phosphor Bronze	Gold plated
Male Contact	Beryllium Copper or Phosphor Bronze	Gold plated
Female Contact	Beryllium Copper	Gold plated
Housing	PBT	—

■Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

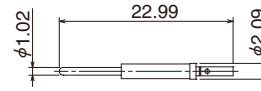
Please select from the product numbers listed in this catalog when placing orders.

MRF14 - CON (Γ J)

① ② ③

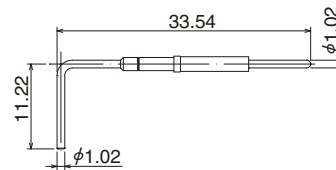
① Series Name : MRF14
② CON : Signal Connector
③ Connector Type MC : Male (Cable Harness type) M1, M2 : Male (DIP type) F : Female (Cable Harness type)
Applicable Cable 24 AWG

■Male Contact (Cable Harness Type)

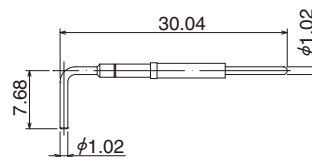


Part No.	HRS No.	RoHS
MRF14-CON(MC)	313-0716-3	○

■Male Contact (DIP Type)

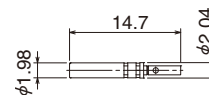


Part No.	HRS No.	RoHS
MRF14-CON(M1)	313-0710-7	○



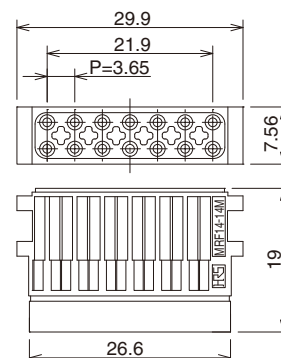
Part No.	HRS No.	RoHS
MRF14-CON(M2)	313-0711-0	○

■Female Contact (Cable Harness Type)



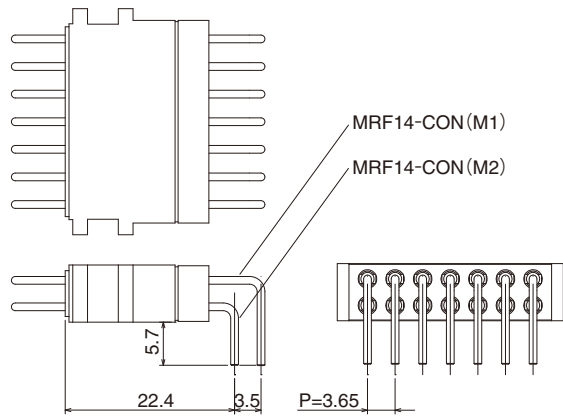
Part No.	HRS No.	RoHS
MRF14-CON(F)	313-0709-8	○

■Housing (14pos., Same for both male and female contacts)

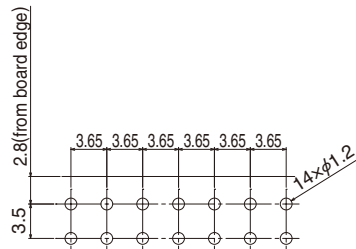


Part No.	HRS No.	RoHS
MRF14-CON(M)-14M	313-0706-0	○

◆ Male Contact (DIP Type) Mounted in Housing



◆ Board Hole Dimensions (Male Contact DIP Type)



◆ Applicable Tool

Item	Part No.	Applicable Connector
Cable Crimping Tool	HT702/MRF14-088	MRF14-P-088NM-1
		MRF14-J-088NM-1
	HT901/MRF14-CON	MRF14-CON (MC)
		MRF14-CON (F)

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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