## Light Weight Micro SMT Coaxial Connector, 1.9mm to 2.4mm Mated Height

**U.FL** Series



## **■**Features

## 1. Mated Height (1.9mm to 2.4mm NOM)

The maximum height from the board surface when the plug and Receptacle are mated is 2.0 to 2.0mm Max. depending on the plug for a low profile. (Refer to diagram on right)

## 2. Receptacle

Small and light weight with a mass of 15.7mg and occupied mounting space of 7.7mm<sup>2</sup>. Compatible with board mounting. (Embossed packaging)

#### 3. Frequency

Plug U.FL(A): Up to 18GHz Plug U.FL: Up to 8GHz Receptacle can be used with both U.FL(A) and U.FL.

## 4. Plug compatible with ultra-fine coaxial (fluorinated resin insulated) cable

 $\phi$ 1.37,  $\phi$ 1.32,  $\phi$ 1.13,  $\phi$ 0.95,  $\phi$ 0.81

### 5. Various Accessories

Plug insertion/extraction tools, adapter for inspection and internal wiring, and SMA, MMCX, and TNC connectors for U.FL back end connection are available.

#### 6. Tactile Mating

Tactile click sensation confirms fully mated condition, assuring complete electrical and mechanical connection.

#### 7. Environmental Compatibility

#### Halogen Free

Chlorine and bromine above the standard values are not used for receptacle and plug harnesses. \*As defined by IEC61249-2-21 Br-900 ppm maximum, Cl-900 ppm maximum, CI+Br combined-1,500 ppm maximum

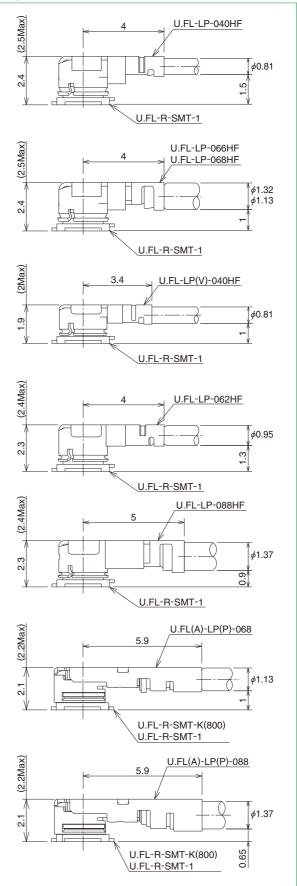
ROHS2 Compatible

## Applications

Wireless LAN Devices (Wi-Fi 6), Bluetooth devices, Car navigation, drone, PDA, GPS, wireless transmission devices, electronic measuring devices, etc.

Plug U.FL(A): Up to 18GHz Plug U.FL: Up to 8GHz

#### Space Factor of Mated Connector

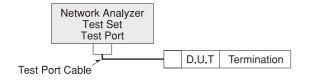


## **■**Product Specifications

Ratings	Nominal characteristi	'	50Ω	Operating temperature range	-40°C to +105°C	Storage tempera	•	-30°C to +70°C
	Frequency range	) 	DC to 8GHz	Operating humidity	comment   comm			
	Item		Specific		Conditions			
1. Contact	resistance		0mΩ max. (50m 0mΩ max. (20m (U.F.		10mA max.			
2. Insulation	on resistance	500MΩmir	١.		100V DC			
3. Withsta	nding voltage	No flashov	er or insulation	breakdown.	200V AC / 1 m	inute		
			Cable <sup>-</sup>	Туре	DC~3GHz	3∼6GHz	6	∼8GHz
		U.FL-LP-0	$\phi_{0.8}$	1	1.3 Max	1.35 Max		1.4 Max
		U.FL-LP(V	)-040HF $\phi$ 0.8°	1		1.3 Ma	ax	
		U.FL-LP-0	68HF <i>∲</i> 1.13	3	1.3 Max	1.4 Max		1.6 Max
		U.FL-LP-0	66HF <i>∲</i> 1.32	2	1.3 Max	1.5 Max		1.7 Max
4. V.S.W.F	₹.*	U.FL-LP-062HF $\phi$ 0.95			1.3 N			1.4 Max
		U.FL-LP-088HF φ1.37		1.3 Max	1.4 Max		1.6 Max	
		U.FL(A)-LP(P)-068 φ1.13 U.FL(A)-LP(P)-088 φ1.37		1.3 Max	1.4 Max	6-9GHz : 1.5 Max 9-12GHz : 1.6 Max		
						12-15GHz : 1.7 Max 15-18GHz : 2.0 Max		
5. Female Retention	Contact on Force	0.15N Min	./0.1N Min. (062	Plug, U.FL(A))	Measured with $\phi$ 0.475 pin gauge			
	ty / un-mating, responding plug)	Contact re Initial Valu			30 cycles			
7. Vibratio	n	No electrical discontinuity of $1\mu$ s min.			Frequency: 10 acceleration of 5 of the 3 axis.			
No damage, cracks or parts dislocation.  8. Shock		Acceleration of 735m/s², 11ms duration, sine half-wave waveform, 3 cycles in each of 3 axes.			, sine half-wave			
9. Humidit (Steady		Insulation Resistance $10M\Omega$ min. (High Temperature) $500M\Omega$ min. (When Dry)		96 hours at temperature of 40°C and humidity of 95%.				
10. Tempe	rature cycle	No damage, cracks or parts dislocation. Contact resistance : $25m\Omega$ max. (Center) $15m\Omega$ max. (Outer)		Temperature : -4 Time : 30min. — 5 cycles			°C→+5 to +35°C 3min.	
11. Salt spray  V.S.W.R. Satisfies initial value			5% salt water s	solution, 48 hou	ırs			

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

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



- Note 1 : Cable type connectors were measured with SMA conversion adapters attached to both ends of the harness product of a suitable 100cm cable.
- Note 2 : Board type connectors were mounted to a  $50\Omega$  glass epoxy board and measurements were conducted with SMA conversion adapters attached.

## ■Material / Finish

## Plug-right angle

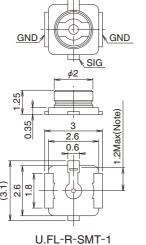
Part	Material	Finish/Remarks
Shell	Phosphor bronze	Silver plated / Nickel plated (Contact gold plated) (U.FL(A))
	PBT, Color : Gray	UL94HB (LP(V)-040HF)
Insulator	LCP, Color : Milky-white	UL94V-0 (040HF,066HF, 068HF, 062HF, 088HF)
	LCP (Black)	UL94V-0 (U.FL(A))
Female center contact	Phosphor bronze	Gold plated

## •Receptacle

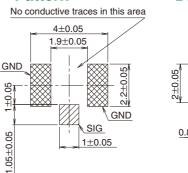
•		
Part	Material	Finish/Remarks
Shell Phosphor bronze		Silver plated (U.FL-R-SMT-1) / Gold Plated (U.FL-R-SMT-K)
la sulata a	LCP, Color : Milky-white	UL94V-0 (U.FL-R-SMT-1)
Insulator	LCP (Black)	UL94V-0 (U.FL-R-SMT-K)
Male center contact Brass		Gold plated

## ■Receptacle

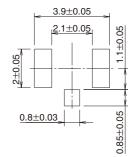




## Recommended **PCB Mounting Pattern**



## Recommended **Metal Mask Dimensions**



Mask Thickness: 0.1mm/0.12mm

#### Shell: Silver plated

Part No.		HRS No.	Packaging	Weight / EA	
	U.FL-R-SMT-1(01)	331-0472-2 01	100 pcs/pack		
	U.FL-R-SMT-1(60)	331-0472-2 60	4,000 pcs/reel	15.7/mg	
	U.FL-R-SMT-1(80)	331-0472-2 80	10,000 pcs/reel		

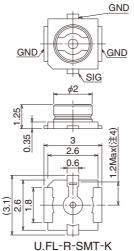
(Note 1) The sales unit of the (01) specification receptacle is one pack (100 units per pack). Please order based on the number of packs.

(Note 2) The sales unit of the (60) specification receptacle is 1 reel (4,000 pcs per

reel) so please order based on the number of reels.

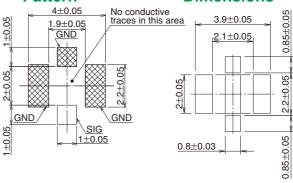
(Note 3) The sales unit of the (80) specification receptacle is 1 reel (10,000 pcs per

reel), so please order based on number of reels.
(Note 4) Tolerance value of mold resin applied to center contact.



Recommended **PCB Mounting Pattern** 

## Recommended **Metal Mask Dimensions**



Mask Thickness: 0.1mm/0.12mm

Shell: Gold plated

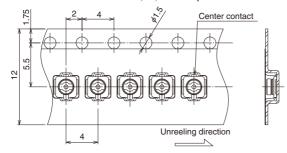
Part No.	HRS No.	Packaging	Mass
U.FL-R-SMT-K(800)	480-0761-0 00	10,000 pcs per reel	15.7/pc

(Note 5) The sales unit of the receptacle is 1 reel (10,000 pcs per reel), so please order based on the number of reels.

### Embossed Carrier Tape Dimensions(IEC 60286-3 compliant) **Embossed Carrier Tape Dimensions**

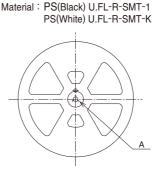
# Center contact

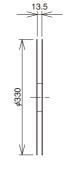
U.FL-R-SMT-1(60): 8mm pitch



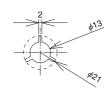
U.FL-R-SMT-1(80) / U.FL-R-SMT-K(800) : 4mm pitch

#### ◆Reel Dimensions





A(SCALE FREE)





## ■Plug (Center Solder Type)



## **♦**U.FL Plug

· The center contact is gold plated and the outer contact is silver plated.

	U.FL-LP-040HF	U.FL-LP-066HF U.FL-LP-068HF	U.FL-LP(V)-040HF	U.FL-LP-062HF	U.FL-LP-088HF
Part No. Size	8	887	3.4	88 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	S 5 98
Mated Height	2.5mm Max. (2.4mm Nom.)	2.5mm Max. (2.4mm Nom.)	2.0mm Max. (1.9mm Nom.)	2.4mm Max. (2.3mm Nom.)	2.4mm Max. (2.3mm Nom.)
Applicable cable	Dia. 0.81mm	Dia. 1.13mm and Dia. 1.32mm	Dia. 0.81mm	Dia. 0.95mm	Dia. 1.37mm
Weight (mg)	54	59	35	45.5	72

## **●**Cable Guide

	0-1-1-		Cable Specification						
Description	Cable	Inner	Dielectric	Outer	Jacket	Flame Retardant	nt Nominal attenu		n (dB/m)
	Type	Conductor*	Diameter	Conductor*	Jacket	Grade	At 3GHz	At 6GHz	At 8GHz
Dia.0.81mm	04	7/0.05 SA	Dia.0.4mm	Single			E 4	0.0	10.0
Coaxial Cable	04	(AWG#36)	FEP	Shield TA			5.4	8.0	10.2
Dia.1.13mm	068	7/0.08 SA	Dia.0.68mm	Single			0.70	E 44	6.5
Coaxial Cable	068	(AWG#32)	FEP	Shield TA			3.73	5.44	6.5
Dia.1.32mm	000	7/0.08 SA	Dia.0.66mm	Double			0.0	<b>5</b> 0	7.4
Coaxial Cable	066	(AWG#32)	FEP	Shield TA	FED	) (A) d	3.8	5.6	7.1
Dia.0.95mm	000	7/0.071 SA	Dia.0.62mm	Tape, single	FEP	VW-1	0.1	4.4	F 0
Coaxial Cable	062	(AWG#33)	FEP	Shield TA			3.1	4.4	5.3
Dia.1.37mm	088	7/0.102 SA	Dia.0.88mm	Single			0.0	4.0	F 0
Coaxial Cable	088	(AWG#30)	FEP	Shield TA			2.8	4.3	5.0
Dia.1.37mm Coaxial Cable	088	7/0.102 SA	Dia.0.88mm	Tape, Single			2.5	3.4	20
(Low Loss)	000	(AWG#30)	FEP/PTFE	Shield TA			2.5	3.4	3.8

(Attenuation is a reference value.)

[Plugs can be ordered only as terminated cable assemblies.]

<sup>\*</sup> SA: Silver plated annealed copper wire, TA: Tin plated annealed copper wire

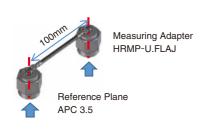
## ■Plug (No Solder Type)

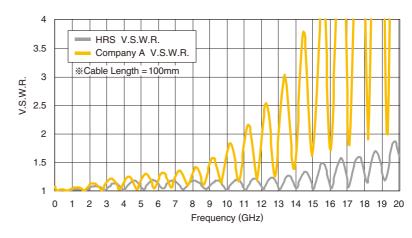


## U.FL(A) Plug

- · Harness product guarantees frequency up to 18GHz and impedance matching.
- The inner and outer contact portion are gold plated (the main body is nickel plated)
- The receptacle can be mated with U.FL-R-SMT-1 (shell : silver plated) and U.FL-R-SMT-K (shell : gold plated).
- The SMA inspection adapter and extraction tool are only for the U.FL(A) Plug.
- · Controls variation and improves extraction force by 50% compared to conventional products and competing products (Approx. 30N) It is difficult to remove the connector even when bending the cable.

	U.FL(A)-LP(P)-068	U.FL(A)-LP(P)-088
Part No. Size	5.9	5.9
Mated Height	2.2mm Max. (	2.1mm Nom.)
Applicable cable	φ1.13	φ1.37
Weight (mg)	56	58





## **■**U.FL(A) Inspection SMA Conversion Adapter

(Mated Portion: U.FLA Jack- SMA Plug)







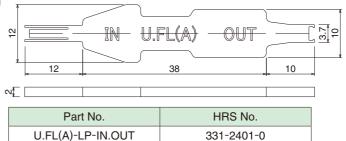
Part No.	HRS No.
HRMP-U.FLAJ	311-2400-0

(Note) Since the U.FL side mated portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.

## ■U.FL(A) Insertion/Extraction Tool

For removing from the mated condition

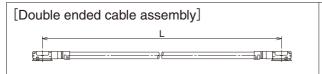


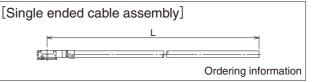


## ■The Procedure for ordering patch cord

Please select the specifications in 3 steps. No need product name for ordering patch cords.

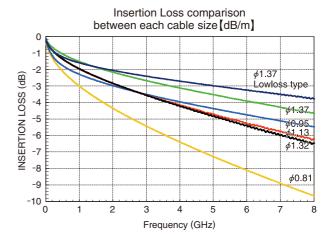
## STEP 1 : Single end or both ends





## **STEP 2**: Cable and mating height

No.	Jacket diameter	Cable color	Mating height (Max)	Plug
1	<i>ϕ</i> 1.37	Gray / Black	0.0mm (0.4mm)	U.FL-LP-088HF
2	$\phi$ 1.37 Low Loss	Gray / Black	, ,	
3	<i>ϕ</i> 1.37	Gray / Black	2.1mm (2.2mm)	U.FL(A)-LP(P)-088
4	<i>ϕ</i> 1.32			U.FL-LP-066HF
5	<i>∮</i> 1.13	Gray / Black	2.4mm (2.5mm)	U.FL-LP-068HF
6	<i>ϕ</i> 1.13	Gray / Black	2.1mm (2.2mm)	U.FL(A)-LP(P)-068
7	$\phi$ 0.95	Gray / Black	2.3mm (2.4mm)	U.FL-LP-062HF
8	<i>ϕ</i> 0.81	White / Black	2.4mm (2.5mm)	U.FL-LP-040HF
9	φ0.81	White / Black	2.0mm (1.9mm)	U.FL-LP(V)-040HF



#### STEP 3 : Cable length (mm)

#### Standard tolerances for (L)

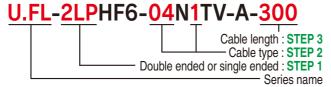
(L)(mm)	Standard tolera(mm)
*L=35 to 200	<u>±</u> 4
L=201 to 500	±8
L=501 to 1000	±12
L=Longer than 1000	±1.5% of (L)

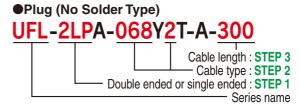
Note: Minimum available length(L) is 35mm. (U.FL(A) is from 80 to 1200mm)

## Patch cord name example

Characters that are not red are for Hirose internal identification.

●Plug (Center Solder Type)





#### **STEP 1 Example Notation**

[Double ended]

[Single ended]

U.FL-2LPHF6-04N1TV-A-300

U.FL-LPHF6-04N1TV-A-300

#### STEP 2 Example Notation

1 Cable-mating height

[Dia. 1.37 cable (088 cable)]

088 is listed in the third block representing the cable type.

U.FL-2LPHF6-088N1T-A-300 (Plua: U.FL) **UFL-2LPA-088Y1T-A-300** (Plug: U.FL(A))

[Dia. 1.37 Cable (088) Low Loss]

Block 3 that shows the cable times says 088.

UFL-2LPHF6-088N1PD-A-300 (Plug : U.FL)

[Dia. 1.32 cable (066 cable)]

066 is listed in the third block representing the cable type.

U.FL-2LPHF6-066N1-A-300 (Plug: U.FL)

[Dia. 1.13 cable (068 cable)]

068 is listed in the third block representing the cable type.

U.FL-2LPHF6-068N1T-A-300 (Plug: U.FL)

UFL-2LPA-068Y1T-A-300 (Plug : U.FL(A))

[Dia. 0.95 cable (062 cable)]

062 is listed in the third block representing the cable type.

U.FL-2LPHF6-062N1D-A-300 (Plug : U.FL)

[Dia. 0.81 cable (040 cable)]
04 is listed in the third block representing the cable type.

When the height is 1.9mm, V enters affer LP. Dot does not needed for U.FL series name.

U.FL-2LPHF6-04N1TV-A-300 : Mating height 2.4mm UFL-2LPVHF6-04N1TV-A-300 : Mating height 1.9mm

#### STEP 3 Example Notation

Cable length is written in millimeters at the end.

EX: 300mm

U.FL-2LPHF6-088N1T-A-300

#### 2 Cable color

Except Dia. 0.81 cable~

[Gray]

1 is listed in the third block representing the cable type. U.FL-2LPHF6-062N1D-A-300 (Plug: U.FL) [Black]

2 is listed in the third block representing the cable type. U.FL-2LPHF6-062N2D-A-300 (Plug : U.FL)

-Dia. 0.81 cable -

[White]

1 is listed in the third block representing the cable type. U.FL-2LPHF6-04N1TV-A-300 (Plug: U.FL) [Black]

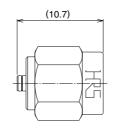
2 is listed in the third block representing the cable type. U.FL-2LPHF6-04N2TV-A-300 (Plug: U.FL)

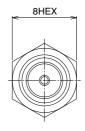


## **■**Conversion Adapter

## SMA Conversion Adapter (Mated Portion : UFL Jack - SMA Plug)





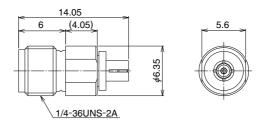


Part No.	HRS No.
HRMP-U.FLJ(40)	311-0300-2 40

(Note) Since the U.FL side mating portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.

## SMA Conversion Adapter (Mated Portion : U.FL Plug - SMA Jack)



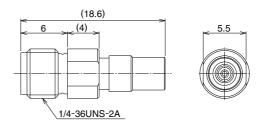


Part No.	HRS No.	
HRMJ-U.FLP(40)	311-0301-5 40	

(Note) Since the U.FL side mating portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.

## SMA Conversion Adapter (Mated Portion : U.FL Plug - SMA Jack)





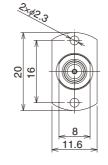
Part No.	HRS No.	
HRMJ-U.FLP-ST1(40)	311-0385-5 40	

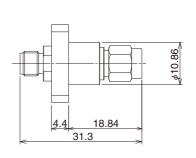
This connector is used by pressing the mating portion of the U.FL side with the mating portion of U.FL-R-SMT.

#### SMA Conversion Adapter (Mated Portion: SMA Jack (Measuring Device Connection Side) -SMA Plug)



Part No.	HRS No.
HRM-PA-PJ(F)-1(40)	323-0805-9 40

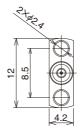


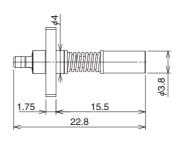


(Note) HRMJ-U.FLP-ST1 aborbs misalignment when mated with the plug (coupling side) and connecting the jack with the measuring device. (Refer to next page)

## ● Probe for Inspect of Multiple Narrow Pitch Receptacles (Mated Portion : U.FL Plug (No lock) - ML51 Jack)





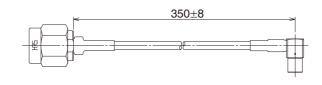


Part No.	HRS No.
U.FLP-ML51.J-PA(F)-ST	311-0446-8

(Note) Hirose's ML51 is used for the measuring device interface. It is ideal for simultaneous inspection of multiple narrow pitch mounted receptacles.

#### Harness for Narrow Pitch Probe Connection (Mated Portion: SMA Plug (Measuring Device Connection Side) - ML55 Plug





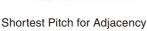
Part No.	HRS No.
HRMP-ML51LP-DTR178-350RS	321-4926-2 01

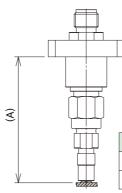
(Note) Used to connect U.FLP-ML51J-PA(F)-ST and the measuring device. It is recommended to provide slack to the cable length so that it can absorb misalignment smoothly.

## ■Inspection Probe

## ●HRMJ-U.FLP-ST1 and HRM-PA-PJ(F)1 Combination and Usage

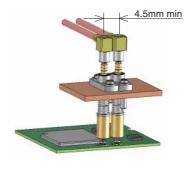




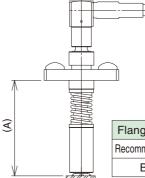


Flange to Board Surface	(A)
Recommendation for Measurement	32.5±0.2
Starting Load	33.2

## ■U.FLP-ML51.J-PA(F)-ST and HRMP-ML51LP-DTR178-350RS Combination and Usage



Shortest Pitch for Adjacency



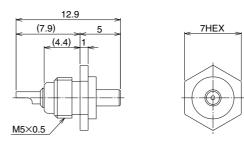
Flange to Board Surface	(A)
Recommendation for Measurement	15.1±0.2
Beginning Load	16

\*For the inspection probe do not tilt the tip contact from the tensile load of the connecting cable.

## **■Inspection Receptacle**

Receptacle for inspecting the conduction and withstanding voltage of harness products.





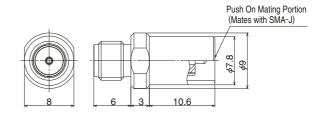
Part No.	HRS No.
U.FL-R-1	331-0466-0

(Note 1) Product cannot be used for purposes other than conduction or withstanding voltage inspection because there is no lock on the mating portion.

## ■Inspection Assistance Device

## SMA Mating Push On Conversion Adapter





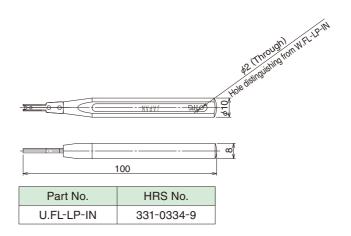
Part No.	HRS No.
HRMP(PO)-HRMJ	323-0741-8

Coverts SMA plug mating portion to push on type, reducing the number of steps required for repeated SMA mating.

## **■Insertion Tool**

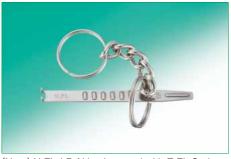
Tool for plug insertion.



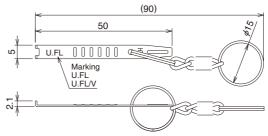


## Extraction Tool

Tool for unmating.



(Note) U.FL-LP-N is also used with E.FL Series.



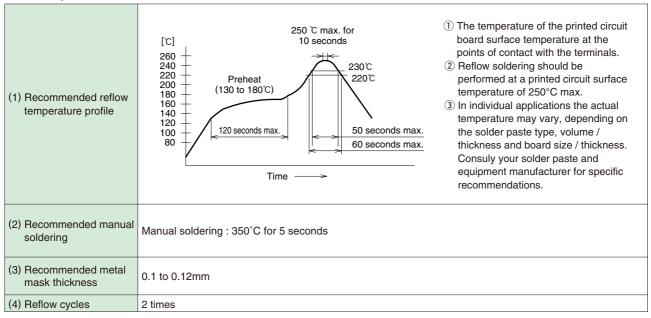
Part No.	HRS No.	Applicable Plug
U.FL-LP-N-2	331-0494-5	U.FL-LP-040HF, 066HF, 088HF, 068HF
U.FL-LP(V)-N-2	331-0493-2	U.FL-LP-062HF, U.FL-LP(V)-040HF

## **● Usage Precautions**

## 1. Plugs

(1) Mating / unmating	1) To disconnect connectors, insert the end portion of U.FL-LP-N-2 and U.FL-LP(V)-N-2 under the connector flanges and pull off vertically, in the direction of the connector mating axis. However for U.FL(A) (Solderless connection type, use U.FL(A)-LP-IN.OUT and pull out vertically. When removing the connector directly, hold the connector lid and pull out vertically in relation to the connector mating axis. (Be careful not to damage the connector with fingers or nails.) 2) To mate the connectors, the mating axes of both connectors must be aligned and the connectors can be mated. The "click" will confirm fully mated connection.Do not attempt to insert on an extreme angle.  U.FL-R-SMT-1
(2) Pull forces on the cable after connectors are mated.	After the connectors are mating, do not apply a load to the cable in excess of the values indicated in the diagram below.  U.FL-LP Cable Assembly  1N max (U.FL-LP(V)-040HF, U.FL-LP-062HF) 2N max (U.FL-LP-040HF, U.FL-LP-066HF, U.FL-LP-068HF, U.FL-LP-088HF, U.FL(A)-LP(P)-088)  3N max (U.FL-LP(V)-040HF, U.FL-LP-062HF) 4N max (U.FL-LP-040HF, U.FL-LP-066HF, U.FL-LP-068HF, U.FL-LP-088HF, U.FL(A)-LP(P)-068, U.FL(A)-LP(P)-068, U.FL(A)-LP(P)-088)  1N max (U.FL-LP-040HF, U.FL-LP-066HF, U.FL-LP-068HF, U.FL-LP-088HF, U.FL(A)-LP(P)-068, U.FL(A)-LP(P)-088)
(3) Precautions	Do NOT forcefully twist or deform wires.

## 2. Receptacles



## 3. Operating environment and storage conditions

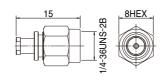
(1) Operating environment	The connectors are not designed to operate in the following environments:  • Exposed to a excessive amounts of fine particles and dust  • Regions and places having a high density of sulfur dioxide, hydrogen sulfide, nitrogen dioxide or other corrosive gasses.  • Environments having large rapid variations in temperature.
(2) Storage conditions - Receptacle	Store in the Hirose Electric packaging.  Temperature: -10 to +40°C, Humidity: 85% max.  Use within 6 months of delivery.  Receptacles for which the storage period has elapsed must be tested for solderability to the PC board mounting surface.
(3) Silver Plating Discoloration	Discoloration occurs only on the plating surface. Since the contact portion is wiped, there is no effect on the electrical contact.

## ■Standard Connectors that Connect with U.FL

## SMA Cable Type

## Straight Plug

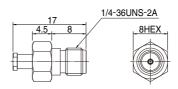




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040PBN(40)	323-0790-3 40	Dia. 0.81 type	SMA
HRM-200-066PBN(40)	323-0791-6 40	Dia. 1.13, Dia.1.32 type	(Male
HRM-200-088PBN(40)	323-0800-5 40	Dia. 1.37 type	Contact)

## Straight Jack

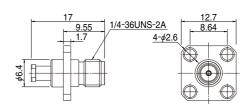




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040JBN(40)	323-0792-9 40	Dia. 0.81 type	SMA
HRM-200-066JBN(40)	323-0793-1 40	Dia. 1.13, Dia.1.32 type	(Female
HRM-200-088JBN(40)	323-0801-8 40	Dia. 1.37 type	Contact)

## ●Panel mount Jack (Four Screws)

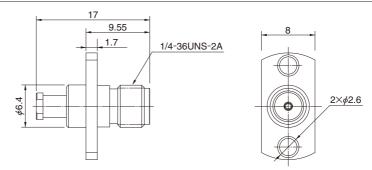




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040PJ4BN(40)	323-0795-7 40	Dia. 0.81 type	SMA
HRM-200-066PJ4BN(40)	323-0796-0 40	Dia. 1.13, Dia.1.32 type	(Female
HRM-200-088PJ4BN(40)	323-0803-3 40	Dia. 1.37 type	Contact)

## Panel mount Jack (Two Screws)

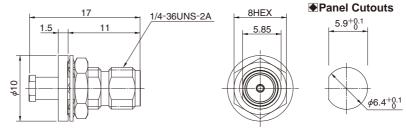




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040PJ2BN(40)	323-0794-4 40	Dia. 0.81 type	SMA
HRM-200-066PJ2BN(40)	323-0788-1 40	Dia. 1.13, Dia.1.32 type	(Female
HRM-200-088PJ2BN(40)	323-0802-0 40	Dia. 1.37 type	Contact)

## Panel mount Jack (Bulkhead)

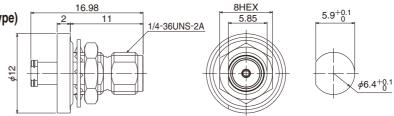




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040BPJBN(40)	323-0797-2 40	Dia. 0.81 type	SMA
HRM-200-066BPJBN(40)	323-0798-5 40	Dia. 1.13, Dia.1.32 type	(Female
HRM-200-088BPJBN(40)	323-0804-6 40	Dia. 1.37 type	Contact)

# ■Panel mount Jack (Bulkhead, Waterproof Mounting Surface Type)

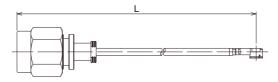




Part No.	HRS No.	Applicable cable	Notes
HRM-200-040WBPJBN	323-0945-8	Dia. 0.81 type	SMA
HRM-200-066WBPJBN	323-0946-0	Dia. 1.13, Dia.1.32 type	(Female
HRM-200-088WBPJBN	323-0920-7	Dia. 1.37 type	Contact)

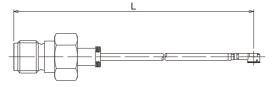
## **■SMA-U.FL Cable Assembly Representative Product**

#### ● SMA Straight Plug-U.FL Plug



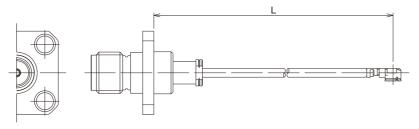
Part No.	HRS No.	Cable (Color)	Lmm	Notes
HRMP-UFLHF6-04N2TV-A200RS	321-0753-0-04	φ0.81 (Black)	- 200±4	
HRMP-UFLHF6-068N2T-A200RS	321-0854-0-02	φ1.13 (Black)		SMA (Famala
HRMP-UFLHF6-066N2-A200RS	321-0862-0-05	φ1.32 (Black)		(Female Contact)
HRMP-UFLHF6-088N2T-A200RS	321-0755-0-07	φ1.37 (Black)		

## ● SMA Straight Jack-U.FL Plug



Part No.	HRS No.	Cable (Color)	Lmm	Notes
HRMJ-UFLHF6-04N2TV-A200RS	321-0881-0-02	φ0.81 (Black)	200±4	
HRMJ-UFLHF6-068N2T-A200RS	321-0869-0-03	φ1.13 (Black)		SMA (Male Contact)
HRMJ-UFLHF6-066N2-A200RS	321-0868-0-02	φ1.32 (Black)		
HRMJ-UFLHF6-088N2T-A200RS	321-0904-0-04	φ1.37 (Black)		

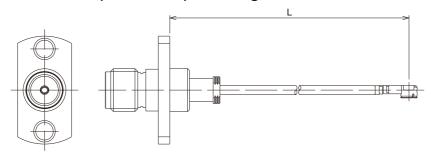
## ● SMA Panel Mount Jack (Four Screws)-U.FL Plug



Part No.	HRS No.	Cable (Color)	Lmm	Notes
HPJ-UFLHF6-04N2TV-A200RS	321-0965-0-02	φ0.81 (Black)	200±4	
HPJ-UFLHF6-068N2T-A200RS	321-3660-0-02	φ1.13 (Black)		SMA (Female Contact)
HPJ-UFLHF6-066N2-A200RS	321-0905-0-01	φ1.32 (Black)		
HPJ-UFLHF6-088N2T-A200RS	321-0911-0-03	φ1.37 (Black)		,

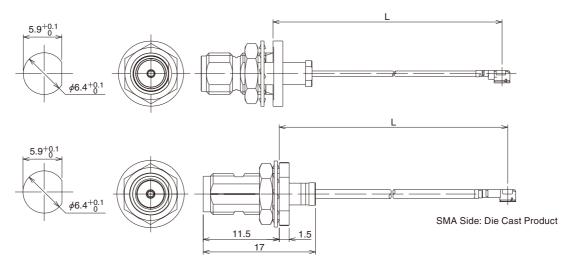
For cable lengths, cable colors and connector combinations other than those listed above, please contact a Hirose representative.

#### ● SMA Panel Mount Jack (Two Screws)-U.FL Plug



Part No.	HRS No.	Cable (Color)	Lmm	Notes
HPJ2-UFLHF6-04N2TV-A200RS	321-0969-0-03	φ0.81 (Black)	- 200±4	
HPJ2-UFLHF6-068N2T-A200RS	321-1083-0-03	φ1.13 (Black)		SMA (Female Contact)
HPJ2-UFLHF6-066N2-A200RS	321-1084-0-03	φ1.32 (Black)		
HPJ2-UFLHF6-088N2T-A200RS	321-0812-0-04	φ1.37 (Black)		

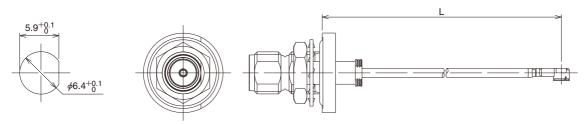
## ●SMA Panel Mount Jack (Bulkhead)-U.FL Plug



Part No.	HRS No.	Cable (Color)	Lmm	Notes
HBPJ-UFLHF6-04N2TV-A200RS	321-0964-0-02	φ0.81 (Black)	- 200±4	
HBPJD-UHF6-068N2T-A200 (Note)	321-5463-0-02	φ1.13 (Black)		SMA (Female Contact)
HBPJD-UHF6-066N2-A200 (Note)	321-5464-0-02	φ1.32 (Black)		
HBPJD-UHF6-088N2T-A200 (Note)	321-5600-0-02	φ1.37 (Black)		,

(Note) Die Cast Body on SMA Side (Different product than those listed on the SMA Cable Type Page)

## ●SMA Panel Mount Jack (Bulkhead, Waterproof Mounting Surface)-U.FL Plug



Part No.	HRS No.	Cable (Color)	Lmm	Notes
HWBPJ-UHF6-068N2T-A-200	321-1235-0-03	φ1.13 (Black)	200±4	SMA
HWBPJ-UFLHF6-088N2T-A200	321-0760-0-04	φ1.37 (Black)		(Female Contact)

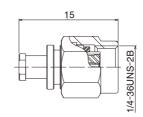
For cable lengths, cable colors and connector combinations other than those listed above, please contact a Hirose representative.

## ■Standard Connectors that Connect with U.FL

## SMA/R Cable Type /R : Reverse Polarity SMA Connector

## Straight Plug



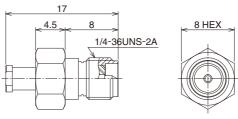




Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040PBN	323-0925-0	Dia. 0.81 type	SMA
SMA(R)-200-066PBN	323-0930-0	Dia. 1.13, Dia.1.32 type	Reverse (Female
SMA(R)-200-088PBN	323-0905-3	Dia. 1.37 type	Contact)

## Straight Jack

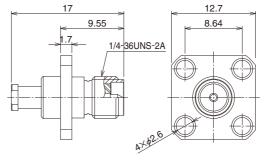




Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040JBN	323-0926-3	Dia. 0.81 type	SMA
SMA(R)-200-066JBN	323-0931-3	Dia. 1.13, Dia.1.32 type	Reverse (Male
SMA(R)-200-088JBN	323-0904-0	Dia. 1.37 type	Contact)

## ● Panel Mount Jack (Four Screws)

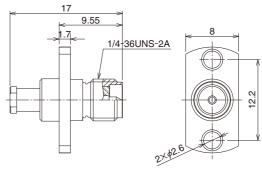




Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040PJ4BN	323-0928-9	Dia. 0.81 type	SMA
SMA(R)-200-066PJ4BN	323-0932-6	Dia. 1.13, Dia.1.32 type	Reverse (Male
SMA(R)-200-088PJ4BN	323-0934-1	Dia. 1.37 type	Contact)

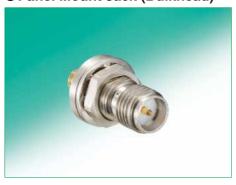
## Panel Mount Jack (Two Screws)

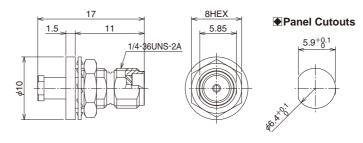




Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040PJ2BN	323-0929-1	Dia. 0.81 type	SMA
SMA(R)-200-066PJ2BN	323-0933-9	Dia. 1.13, Dia.1.32 type	Reverse (Male
SMA(R)-200-088PJ2BN	323-0935-4	Dia. 1.37 type	Contact)

## Panel Mount Jack (Bulkhead)

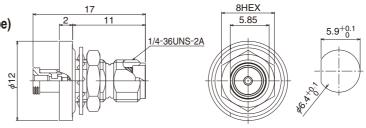




Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040BPJBN	323-0927-6	Dia. 0.81 type	SMA
SMA(R)-200-066BPJBN	323-0902-5	Dia. 1.13, Dia.1.32 type	Reverse (Male
SMA(R)-200-088BPJBN	323-0901-2	Dia. 1.37 type	Contact)

# ● Panel Mount Jack (Bulkhead, Waterproof Mounting Surface Type)





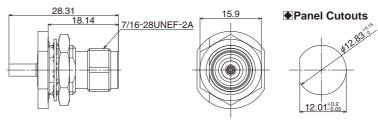
Part No.	HRS No.	Applicable cable	Notes
SMA(R)-200-040WBPJBN	323-0947-3	Dia. 0.81 type	SMA
SMA(R)-200-066WBPJBN	323-0948-6	Dia. 1.13, Dia.1.32 type	Reverse (Male
SMA(R)-200-088WBPJBN	323-0949-9	Dia. 1.37 type	Contact)

## ■Standard Connectors that Connect with U.FL

## TNC Cable Type

#### ● Panel Jack (Bulkhead, Waterproof Panel Mounting Surface Type)





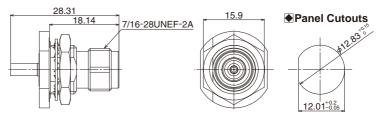
Part No.	HRS No.	Applicable cable
TNC-WBPJ-088-1	313-0004-0	$\phi$ 1.37 cable

<sup>\*</sup>Please order the product after designating the harness specifications including product length, etc.

#### TNC/R Cable Type /R : Reverse Polarity SMA Connector

## Panel Jack (Bulkhead, Waterproof Panel Mounting Surface Type)





Part No.	HRS No.	Applicable cable
TNC(R)-WBPJ-088	313-0003-0	$\phi$ 1.37 cable

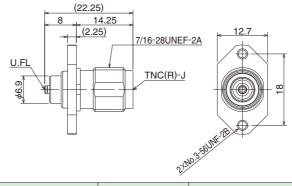
\*Please order the product after designating the harness specifications including product length, etc.

#### TNC/R Conversion Adapter

## /R: Reverse Polarity SMA Connector

#### Panel Mount Adapter (Two Screws)





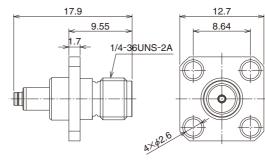
Part No.	HRS No.	Notes
TNC(R)J-U.FLJ-PA-2	311-0416-7	TNC Reverse (Male Contact)

#### **SMA Conversion Adapter**

Note: Please avoid mating with the U.FL(A) plug.

## ● Panel Mount Adapter (Four Screws)

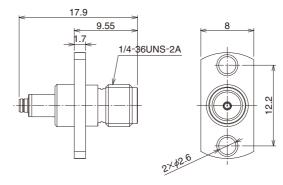




Part No.	HRS No.	Notes
HRMJ-U.FLJ-PA4	311-0465-2	SMA (Female Contact)

## ●Panel Mount Adapter (Two Screws)

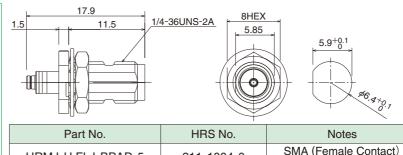




Part No.	HRS No.	Notes
HRMJ-U.FLJ-PA2	311-0467-8	SMA (Female Contact)

## Panel Mount Adapter (Bulkhead)

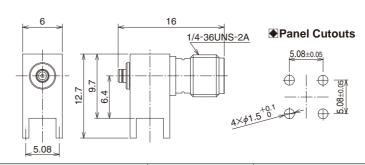




HRMJ-U.FLJ-BPAD-5 311-1004-0 SMA (Female Contact) Body : Die Cast Type	Part No.	HRS No.	Notes
	HRMJ-U.FLJ-BPAD-5	311-1004-0	

#### PCB Mount Adapter





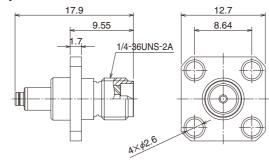
Part No.	HRS No.	Notes
HRMJ-U.FLJ-PC	311-0411-3	Nickel Exterior

SMA/R Conversion Adapter R : Reverse Polarity SMA Connector

Note: Please avoid mating with the U.FL(A) plug.

Panel Mount Adapter (Four Screws)

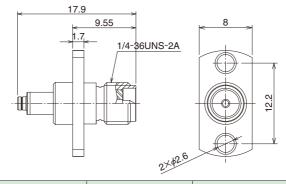




Part No.	HRS No.	Notes
SMA(R)J-U.FLJ-PA4	311-0466-5	Reverse Polarity SMA (Male Contact)

## ● Panel Mount Adapter (Two Screws)

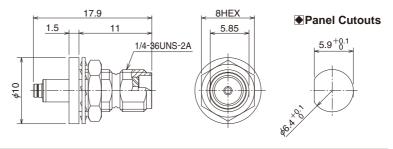




Part No.	HRS No.	Notes
SMA(R)J-U.FLJ-PA2	311-0468-0	Reverse Polarity SMA (Male Contact)

## Panel Mount Adapter (Bulkhead)





Part No.	HRS No.	Notes
SMA(R)J-U.FLJ-BPA-4	311-0464-0	Reverse Polarity SMA (Male Contact)

MEMO:

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