

2.92mm coaxial connectors based on MIL Specifications

2.92mm Series

Compatible with 40GHz configurations



■ Features

1. 2.92mm coaxial connector based on MIL Specifications (MIL-STD-348B)
2. Compatible with the frequency range of up to 40GHz
3. RoHS-compatible

Compliant with all RoHS Directives.

■ Applications

Measuring for data transmission,
Radio communication equipment,
Measuring instruments, RF module,
Radio power amplifier,
High speed router,
High speed switch etc.

■ Functional diagram

Plug side

■ Straight plug HK-P-SF085



Receptacle side

■ Straight receptacle HK-R201 HK-R401



■ Plug receptacle HK-PR201



■ PCB vertical mount receptacle HK-R-SR2-1



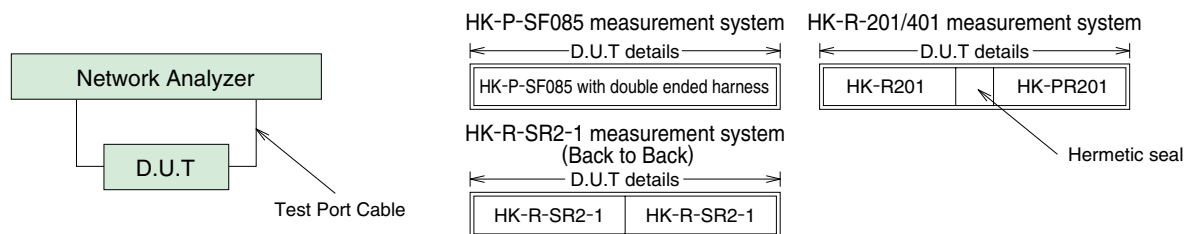
Product Specifications

Ratings	Nominal characteristic impedance	50Ω	Operating Temperature Range	-55℃ to +105℃ (95% RH or less)
	Rated frequency	DC to 50GHz	Storage Temperature Range	-55℃ to +50℃ (95% RH or less)

Items	Specifications	Conditions
1. Contact resistance	Center : Less than 6mΩ External : Less than 2mΩ	Measured at less than 100mA
2. Insulation resistance	1,000MΩ min.	Measured at 500V DC
3. Withstanding voltage	No flashover or breakdown	500V AC for one minute
4. Voltage standing wave ratio	●HK-P-SF085, HK-R-201/401	●HK-R-SR2-1
	V.S.W.R. : Less than 1.15 (DC to 18GHz)	V.S.W.R. : 1.10 (DC to 18GHz)
	V.S.W.R. : Less than 1.20 (18GHz to 26.5GHz)	V.S.W.R. : 1.15 (18GHz to 26.5GHz)
	V.S.W.R. : Less than 1.35 (26.5GHz to 40GHz)	V.S.W.R. : 1.30 (26.5GHz to 40GHz)
5. Mating Cycles	Contact resistance at center : Less than 8mΩ External : Less than 4mΩ No broken, cracked, or loose parts	500 cycles
6. Vibration resistance	No electrical discontinuity for more than 1μs. No broken, cracked, or loose parts	Frequency : 10 to 2000Hz, half amplitude : 0.75mm, Acceleration : 196m/s ² , 10 cycles in each of 3 axis directions
7. Shock resistance	No electrical discontinuity for more than 1μs. No broken, cracked, or loose parts	Acceleration : 1960m/s ² , duration : 6ms, Wave form : half-sine wave, 3 times in each of 3 directions
8. Moisture resistance of temperature/humidity cycle	Insulation resistance : More than 100MΩ (in a high humidity environment) Insulation resistance : More than 1,000MΩ (in a dry environment) No broken, cracked or loose parts	Left for 10 cycles (240 hours) in an environment with the temperature ranging from -10 to 65℃ and the humidity ranging from 90 to 98%.
9. Temperature cycle	No broken, cracked or loose parts	Temperature : 5 cycles for a series of time periods : -55℃ for 30 minutes → 3 minutes → +105℃ for 30 minutes → 3 minutes
10. Salt spray	No considerable corrosion	Continuous 48 hour cycle in 5% salt water solution

*Measurement of voltage standing wave ratio (V.S.W.R.)

The specified values of the voltage standing wave ratio (V.S.W.R.) noted above, are taken with the test set up shown in the figure below:



Materials / Finish

Part	Materials	Finish
Shell	Stainless steel	Passivated
Insulator	PPO / PTFE resin	—
Contact	Beryllium copper	Gold plated
Ring	Stainless steel	Gold plated

Product Number Structure

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

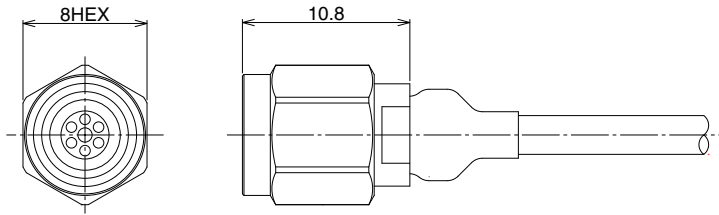
Please select from the product numbers listed in this catalog when placing orders.

HK - [1] - [2]

① Series identifier : HK	③ Applicable cable or board mounting style SF085 : 0.085-inch, semi-flexible cable
② Connector type P : Straight plug R : Receptacle PR : Plug receptacle	

■ Plug

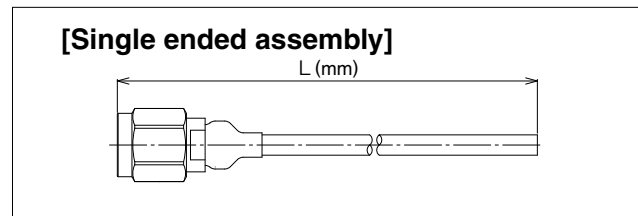
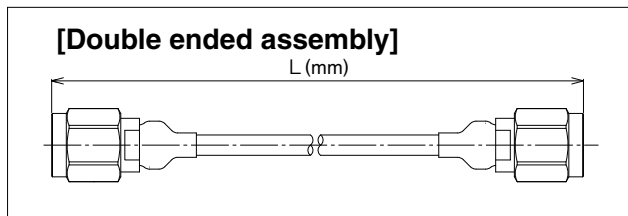
HK-P-SF085



[Please place cable assembly orders per the specifications below]

■ Cable assembly specifications

Please specify the dimensions of 2.92mm Series cable assembly as follows : For the cable length, Please contact HRS representative.



● Composition of the cable harness specification product number structure

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

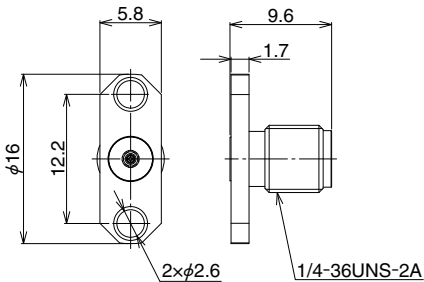
Please select from the product numbers listed in this catalog when placing orders.

HK - [] P - SF085N 1 - A - L RS

① ② ③ ④ ⑤

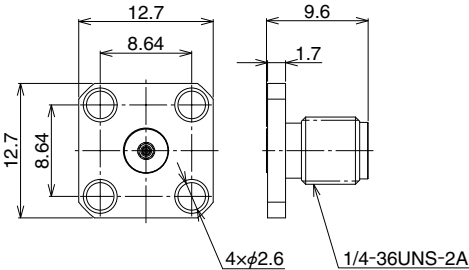
① Series identifier : HK
② Harness type None : On either end 2 : On both ends
③ Cable type SF085N : 0.085-inch, semi-flexible cable
④ Cable color None : No jacket 1 : Blue
⑤ Overall length L (mm) : Length L is expressed by the unit of mm.

■ Receptacle



Part No.	HRS No.	RoHS
HK-R201	338-0073-1	○

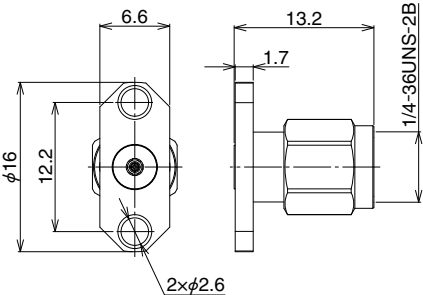
*Compliant with hermetic seal of $\phi 0.3\text{mm}$ pin.



Part No.	HRS No.	RoHS
HK-R401	338-0074-4	○

*Compliant with hermetic seal of $\phi 0.3\text{mm}$ pin.

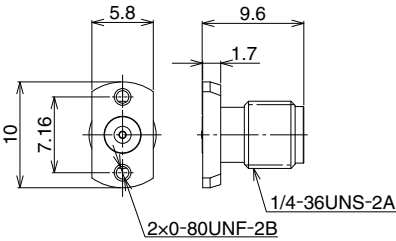
■ Plug-receptacle



Part No.	HRS No.	RoHS
HK-PR201	338-0075-7	○

*Compliant with hermetic seal of $\phi 0.3\text{mm}$ pin.

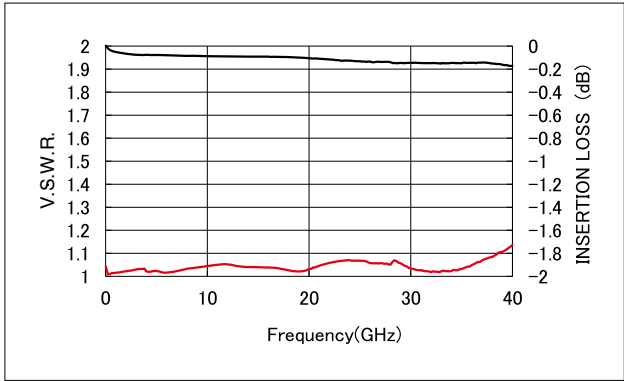
■PCB vertical mount receptacle



Part No.	HRS No.	Attached screw	RoHS
HK-R-SR2-1	338-0003-0	—	○
HK-R-SR2-1 (11)	338-0003-0 11	0-80UNF 1/4 inch	
HK-R-SR2-1 (12)	338-0003-0 12	0-80UNF 3/16 inch	

This receptacle is for highfrequency measurement only.
It cannot be used actual machine.

◆Frequency characteristics (Back to Back)



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