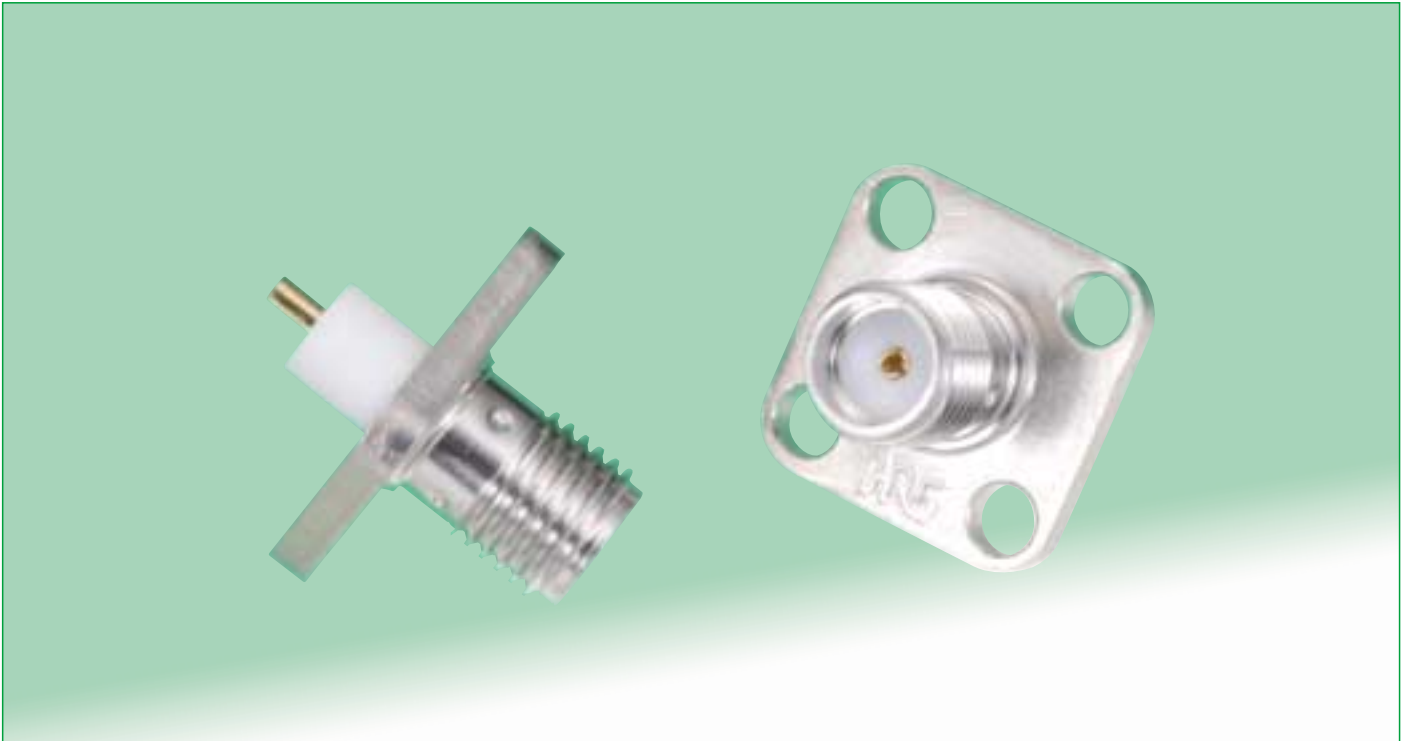




Low-Cost SMA Coaxial Connectors (Version 2)

HRM(V) Series



■ Features

1. Reduced cost

A change in the manufacturing methods makes the connectors more economical to use.

2. Complete compatibility with SMA Coaxial Connectors

3. High degree of impedance matching

V.S.W.R. of 1.2 max. for frequencies of DC to 10 GHz
V.S.W.R. of 1.3 max. for frequencies of 10 to 18 GHz

4. High durability

500 mating /un-mating cycles, with corresponding connector.

5. RoHS compliant

All components and materials comply with the requirements of EU Directive 2002/95/EC.

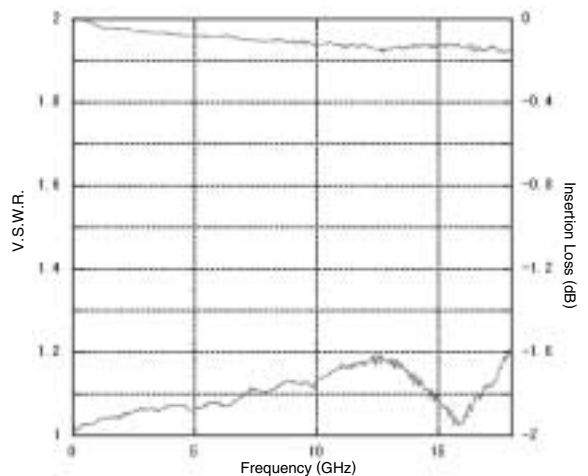
■ Applications

Mobile communications base stations, microwave equipment, measuring instrumentation and other applications requiring use of reliable coaxial connections with SMA connectors.

● Typical Data

Measurement system

HRM(V) Series	Measurement Adapter
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HRM(V) Series Low-Cost SMA Coaxial Connectors (Version 2)

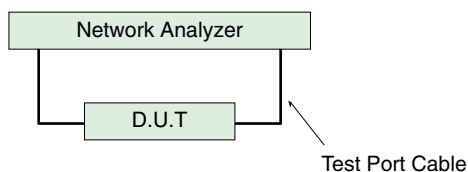
Specifications

Ratings	Nominal characteristic impedance	50Ω	Operating temperature range	-55°C to +85°C
	Frequency range	DC to 18 GHz	Operating relative humidity	95% max.

Item	Specification	Conditions
1. Insulation resistance	5000M Ω min.	500V DC
2. Withstanding voltage	No flashover or insulation breakdown	1,000 V AC / 1 minute
3. Contact resistance	Center contact: 6 mΩ max. Outer shell: 6 mΩ max.	100 mA max.
4. Center contact retention	0.3 N min.	Measured with 0.9017 mm dia. pin gauge
5. V.S.W.R.*	1.2 max. 1.3 max.	DC to 10 GHz 10 to 18 GHz
6. Vibration	No electrical discontinuity of 1 μs or longer No damage, cracks, or parts dislocation	Frequency: 10 to 2,000 Hz, single amplitude of 0.75 mm, acceleration of 196 m/s ² , 4 hours in each of the 3 directions
7. Moisture resistance	Insulation resistance: 100 MΩ min. (high humidity) Insulation resistance: 5,000 MΩ min. (dry) No damage, cracks, or parts dislocation	10 cycles (240 hours) at a temperature of +25 to +65°C, and humidity of 90 to 98%
8. Temperature cycle	Contact resistance Center contact: 8 mΩ max. Outer shell: 8 mΩ max. No damage, cracks, or parts looseness	Temperature: -55°C → +5°C to +35°C → +85°C → +5°C to +35°C Time: 30 min. → 5 min. → 30 min. → 5 min. 5 cycles
9. Durability	Contact resistance Center contact: 8 mΩ max. Outer shell: 8 mΩ max. No damage, cracks, or parts dislocation	500 cycles
10. Salt spray	No corrosion	5% salt water solution, 48 hours

*V.S.W.R. Measurement System

Measured as shown on the block diagram below.



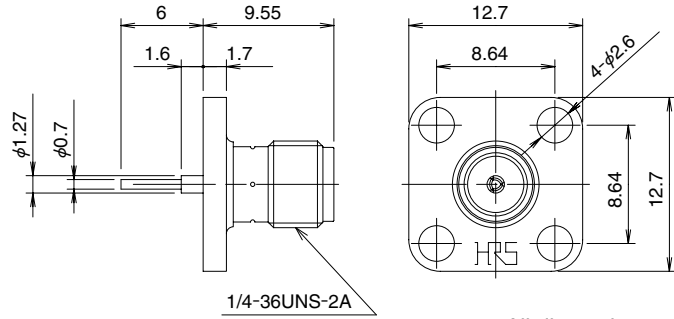
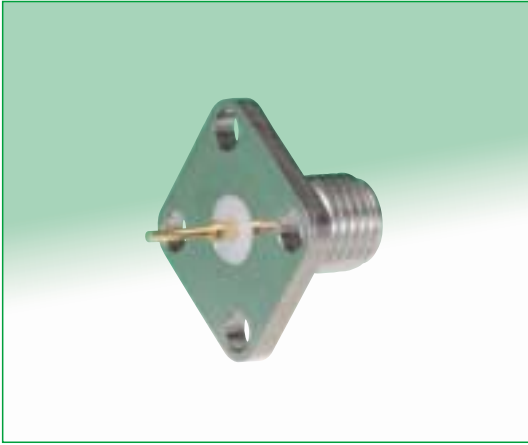
Note 1: Board connectors were measured while mounted to a dedicated adapter.

Materials / Finishes

●Receptacle

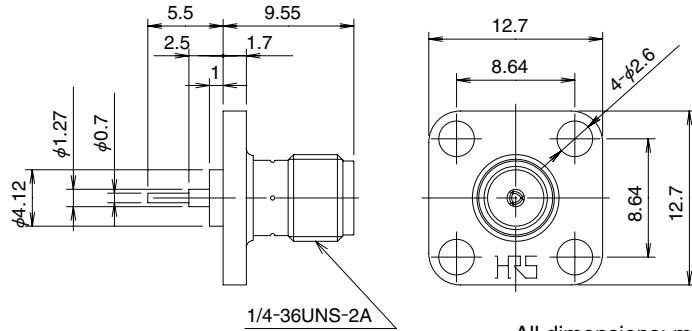
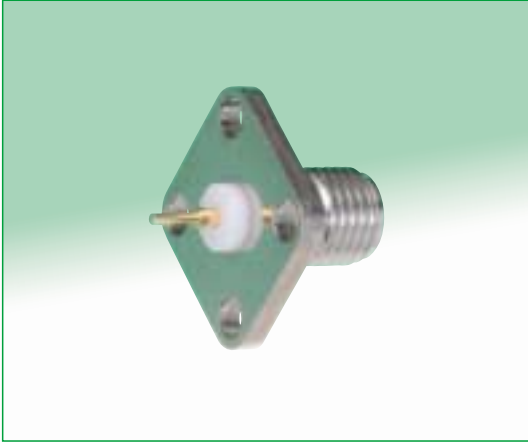
Part	Material	Finish
Shell	Stainless steel	Passivated
Female center contact	Beryllium copper	Gold plated
Center contact	Brass	Gold plated
Insulator	PTFE	—

Receptacles



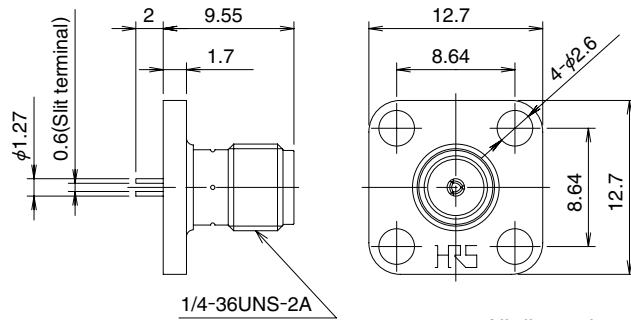
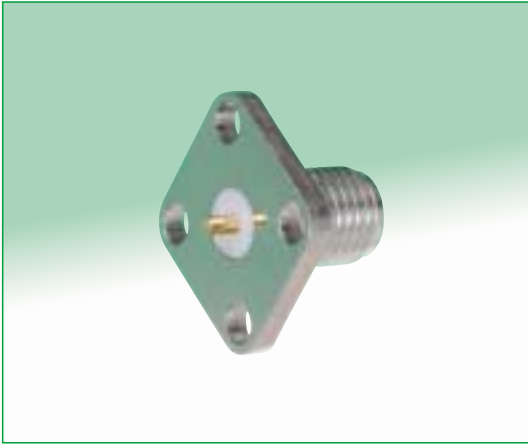
All dimensions: mm

Part Number	CL No.	RoHS
HRM(V)-301S	323-0884-5	YES



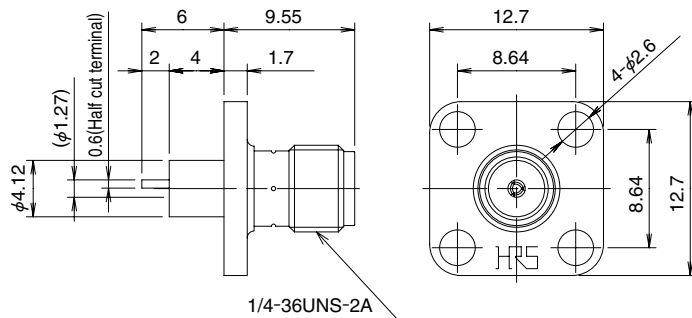
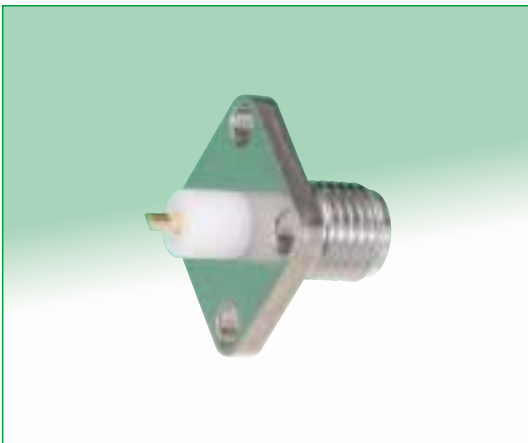
All dimensions: mm

Part Number	CL No.	RoHS
HRM(V)-302S	323-0885-8	YES



All dimensions: mm

Part Number	CL No.	RoHS
HRM(V)-304S	323-0886-0	YES



All dimensions: mm

Part Number	CL No.	RoHS
HRM(V)-306S	323-0879-5	YES