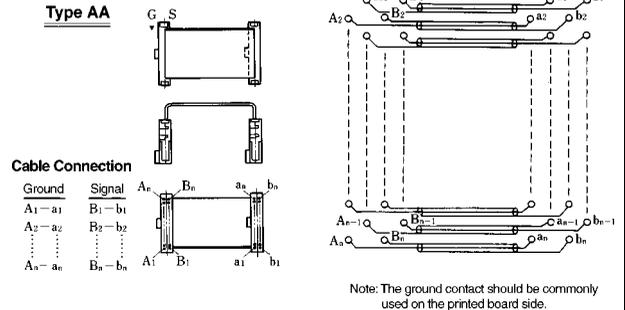


1.27 Pitch Coaxial Ribbon Cable Connector

HIF6R Series



Connection Type



■ Features

1. Coaxial Ribbon Cable Connector

Assemble 1.27mm pitch coaxial ribbon cable AWG#30 in insulation displacement at a time. Usable cable characteristic impedance is 50 ohms.

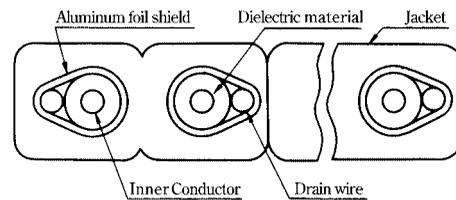
2. Compatibility

The pin header side is HIF3 series.

3. Short Preventive Mechanism

The socket side is equipped with a convex portion in order to prevent false-insertion.

Applicable Coaxial Ribbon Cable



■ Applications

Computers, peripheral and terminal equipment, communication transmission equipment, medical electronic apparatuses, measuring instruments, other various office automation machines, etc.

■ Product Specifications

Rating	Current rating: 0.5A Voltage rating: 30V AC	Operating Temperature Range: -55 to +85°C (Note 1) Operating Humidity Range: 40 to 80%	Storage Temperature Range: -10 to +60°C (Note 2) Storage Humidity Range: 40 to 70%
Item	Specification	Condition	
1. Insulation Resistance	1000M ohms min.	250V DC	
2. Withstanding voltage	No flashover or insulation breakdown.	300V AC/1 minute	
3. Contact Resistance	30m ohms max.	0.1mA	
4. Vibration	No electrical discontinuity of 1μs or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.	
5. Humidity (Steady state)	Insulation resistance: 1000M ohms min.	96 hours at temperature of 40°C and humidity of 90% to 95%	
6. Temperature Cycle	No damage, cracks, or parts looseness.	(-65°C: 30 minutes → 15 to 35°C: 5 minutes max. 125°C: 30 minutes → 15 to 35°C: 5 minutes max.) 5 cycles	
7. Durability (Mating/un-mating)	Contact resistance: signal: 30m ohms max	500 cycles	
8. Resistance to Soldering heat	No deformation of components affecting performance.	Flow: 260°C for 10 seconds Manual soldering: 300°C for 3 seconds	

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

Material

Part	Material	Finish	Remarks
Insulator	PBT	Black	UL94V-0
Socket Contact	Copper alloy	Selective gold plated	—
Metal clamp	Stainless steel	—	—

Ordering Information

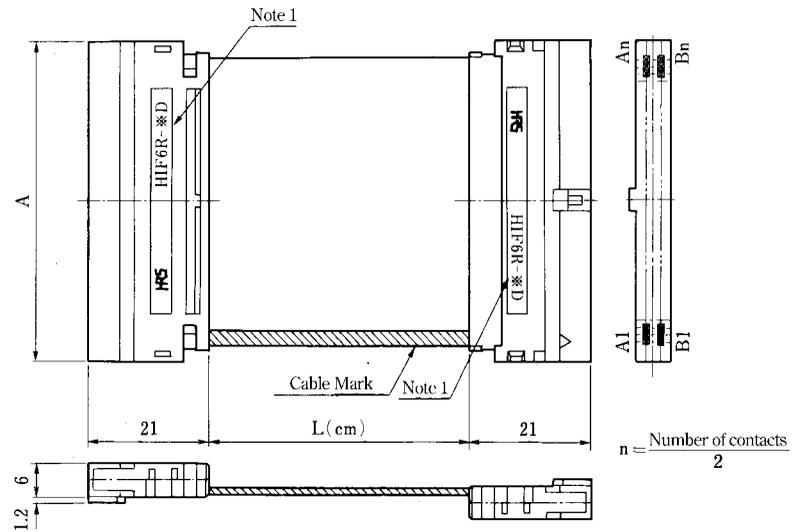
HIF6 **R** - * **S** **D** - **AA** - **L**

① ② ③ ④ ⑤ ⑥ ⑦

①	Series Name: HIF
②	Coaxial ribbon cable: R
③	Number of Contacts: 40, 80, 100
④	S: Socket
⑤	D: Characteristic impedance: 50 ohms
⑥	Cable length (cm) Shortest: 10cm

Socket

● Type AA (50 ohms)



(Note: 1) *indicates the number of contacts.

Unit: mm

Part Number	CL No.	Number of Contacts	A
HIF6R- 40SD-AA-L	630-7003-8	40	31.25
HIF6R- 80SD-AA-L	630-7002-5	80	56.65
HIF6R-100SD-AA-L	630-7001-2	100	69.35

Pin Header

HIR6R series engages in or from the pin header mounted on the printed board.

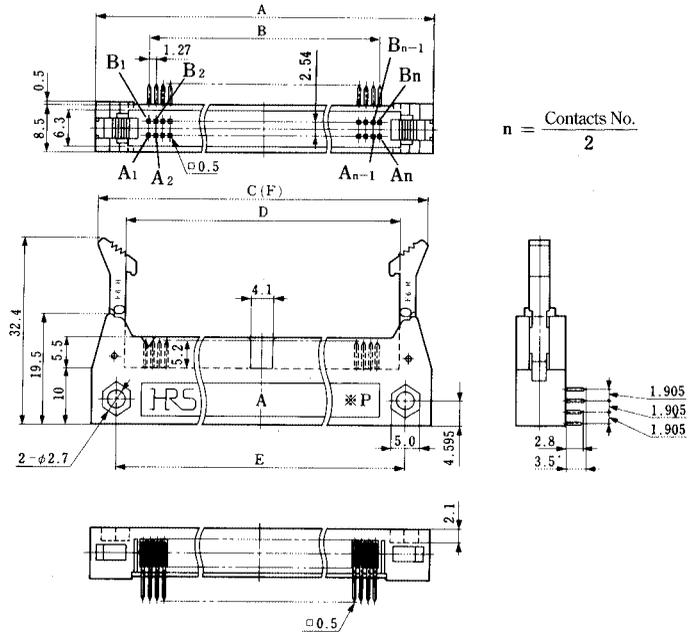
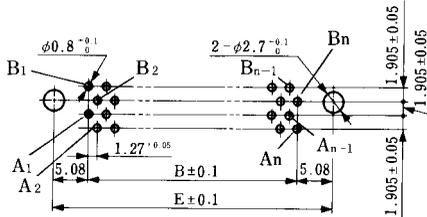
Please use the HIF6H series connector for the pin header.

HIF6H Right Angle Type



PCB mounting pattern

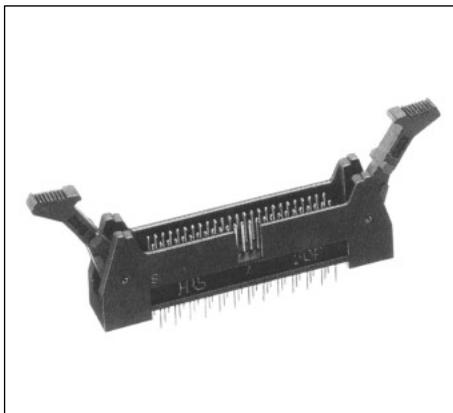
Mating Side



Unit: mm

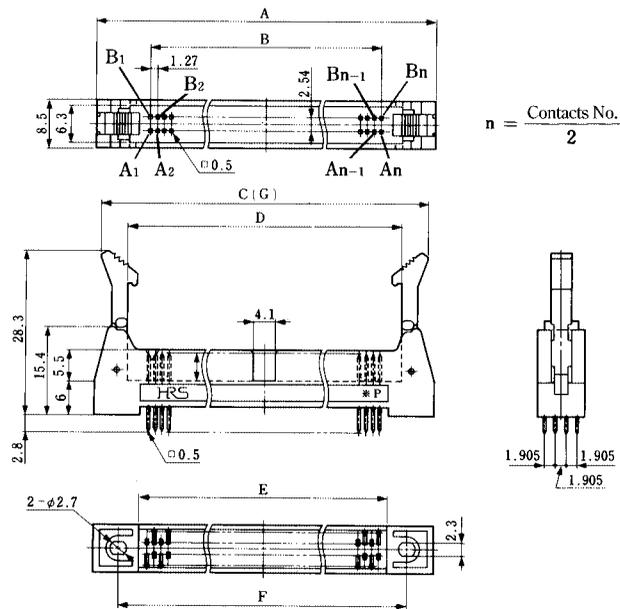
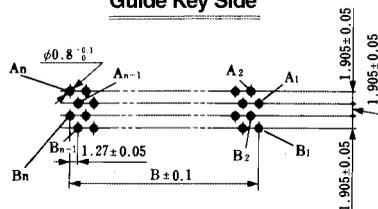
Part Number	CL No.	Number of Contacts	A	B	C	D	E	F
HIF6H- 40PA-1.27DS	630-0161-0	40	43.65	24.13	42.05	31.45	34.29	63.45
HIF6H- 80PA-1.27DS	630-0164-9	80	69.05	49.53	67.45	56.85	59.69	88.85
HIF6H-100PA-1.27DS	630-0165-1	100	81.75	62.23	80.15	69.55	72.39	101.5

HIF6H Straight Type



PCB mounting pattern

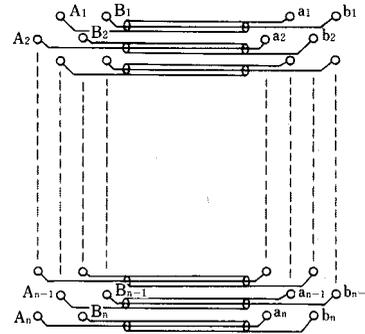
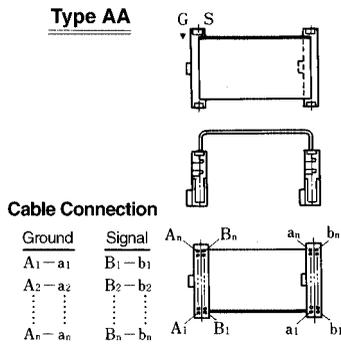
Guide Key Side



Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G
HIF6H-40PA-1.27DSA	630-0171-4	40	43.65	24.13	42.05	31.45	27.65	34.29	63.45
HIF6H-80PA-1.27DSA	630-0174-2	80	69.05	49.53	67.45	56.85	53.05	59.69	88.85
HIF6H-100PA-1.27DSA	630-0175-5	100	81.75	62.23	80.15	69.55	65.75	72.39	101.5

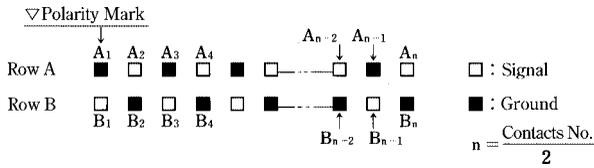
◆ Connection Circuit Diagram



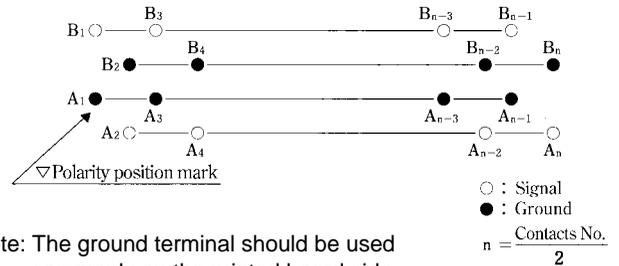
Note: The ground terminal should be used commonly on the printed board side.

◆ Signal Alignment

● Socket (Cable) side

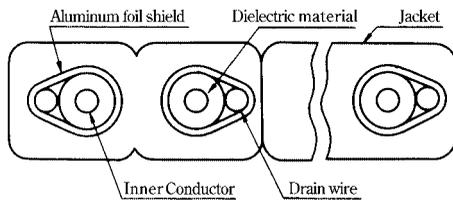


● Pin Header (Board) Side



Note: The ground terminal should be used commonly on the printed board side.

◆ Coaxial Ribbon Cable Specification



● Cautions for Handling Cables

- (1) Don't round the cable.
- (2) Don't fold the cable in two at bending radius R25 or less (180 deg.).
- (3) Don't fold the cable in two in order to change the direction.

Coaxial Ribbon Cable Specification

Electrical Characteristics	Impedance	50±5 ohms
	Static Capacitance	80PF/m
	Delay Time	3.9ns/m
	Max. Conductor Resistance	360 ohms/km
Usable Materials	Inner Conductor	φ0.26mm, silver plated copper wire
	Dielectric material	Foaming fluorine resin
	External conductor	Aluminum foil φ0.26mm, silver plated copper wire
	Jacket	PVC (gray)
Size Construction	Cable mark	Yellow
	Core wire number	20,40,50
	Thickness	1.2mm
	Width	*N×1.27mm
UL Style No.	20182	

Note: N= number of contacts