

75 ohm BNC Extension Adapter

Extension adapter (jack to jack) for 12G-SDI.

— Key Features and Benefits

- BNC Jack to Jack Extension Adapter
- Gold plated beryllium copper center contact.
- Return loss for BCJ-JK: 15 dB @ 12GHz



For inquiries about this products



BCJ-JK

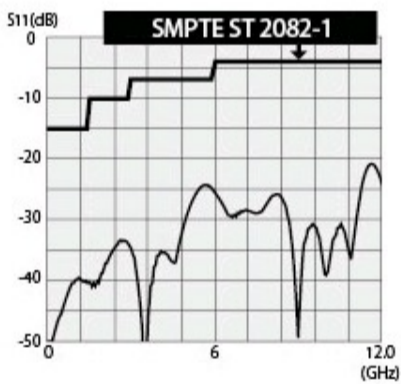
Tech Data

Downloads

// 75 ohm BNC Extension Adapter 12G-SDI

Type	Model	Description	Standard package
	BCJ-JK	Jack to Jack, for 12G-SDI	20pcs / 100pcs

< Return loss >



BCJ-JK

Technical Note

Voltage Standing - wave Ratio (VSWR) and Return Loss

Terminating the receiving end of a limited length coaxial cable using a resistance value not equal to its characteristic impedance creates a reflected wave that returns back down the cable to the sending end. The result is interference developing between the travelling wave and the return wave which results in a standing wave that causes voltage levels to fluctuate. The degree to which terminating resistance matches the characteristic impedance is indicated using the VSWR or voltage standing-wave ratio standard shown in Fig. 1. Going hand in hand with the VSWR ratio is the return loss factor which measures the size of the reflected wave current in relation to the travelling wave current. (See Fig. 2)

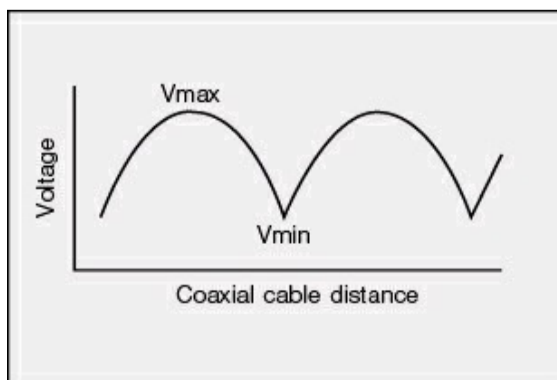


Fig. 1 Voltage Distribution Over Coaxial Cable

VSWR	Return Loss (dB)
2	9.54
1.5	13.98
1.2	20.83
1.1	26.44
1.05	32.26
1.02	40.09
1.01	46.06

Fig. 2 VSWR to Return Loss Conversion Table

PRODUCT SPECIFICATIONS

(BCJ-JK)

SAB499

Ver. 1.0

CANARE ELECTRIC CO., LTD

1. **Scope** This product specification covers the performance of CANARE 75 Ω BNC adapter.

2. General Specifications

- (1) **Product name** 75 Ω BNC adapter
 (2) **Model name** BCJ-JK
 (3) **Applicable standard** IEC*¹ 61169-8, JIS*² C 5412
 (4) **Nominal impedance** 75 Ω unbalanced
 (5) **Construction** As shown in the drawing (BL499).
 (6) **Weight** Approx 14g
 (7) **Designation** Stamp model name (BCJ-JK) and brand name (CANARE) on the body.
 (8) **Packaging** 20pcs/package (150 x 50 x 44mm), 100pcs/package (220 x 158 x 50mm)

*¹International Electrotechnical Commission*²Japanese Industrial Standard

3. Rating

- (1) **Operating temperature** -40 $^{\circ}\text{C}$ ~ +85 $^{\circ}\text{C}$
 (2) **Operating humidity** ~ 90%

4. Characteristics

4.1 Electrical characteristics As shown in Table 1

Table 1

Items	Specified values	Test methods
Insulation resistance	1000M Ω or more	Measurement shall be made between the contacts, after an electrification time of 1min with a d.c. voltage of 500V.
Voltage proof	Without any damage such as electric breakdown etc.	1500V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.
Contact resistance	Between external contacts: 3m Ω or less Between center contacts: 6m Ω or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
Return loss	26dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz) 15dB or more(0 ~ 12GHz)	Terminated with 75 Ω . The measurement frequency up to 12GHz.

4.2 Mechanical characteristics As shown in Table 2

Table 2

Items	Specified values	Test methods
Intermatability	To be engaged without any abnormality	The receptacle and applicable plug shall be engaged.
Female contact retention force	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be inserted the female contact and measurement shall be made.
Fixing force of contact with lock mechanism	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the axial direction.
Strength of coupling mechanism	Body shall not be disconnected or no deformation shall be made.	The plug and a receptacle shall be engaged, after which tensile strength of 250N and rotation strength of 2.5N·m shall be applied.
Mechanical operation (repeated)	Contact resistance: 10m Ω or less	The endurance test consists of repeated engagement and separation of connector pairs. The number of operations shall be 5000 cycles.

4.3 Environmental characteristics As shown in **Table 3****Table 3**

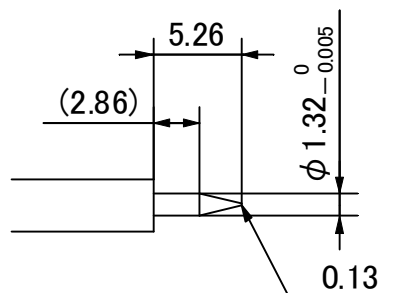
Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Contact resistance: 50m Ω or less Appearance: By visual inspection, without noticeable rust. Voltage proof: 1500V a.c. shall be applied for 1min, Without any damage such as electric breakdown etc.	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35 ± 2 °C for 48h (Salt solution concentration: $5\pm 1\%$ by weight). Then it shall be subjected to standard atmospheric conditions. After removing the salt deposits by water, the appearance of the connector shall be checked.

5. Measurement conditions

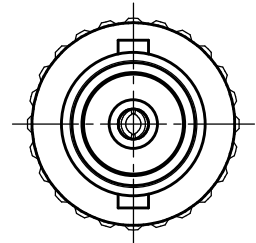
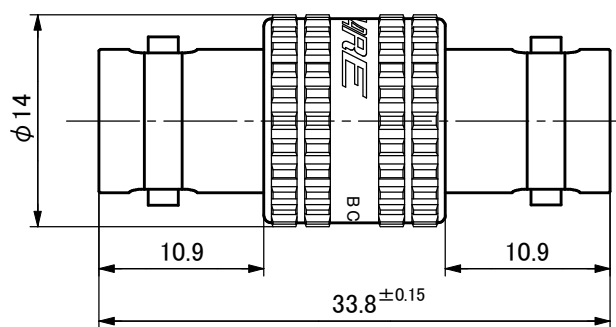
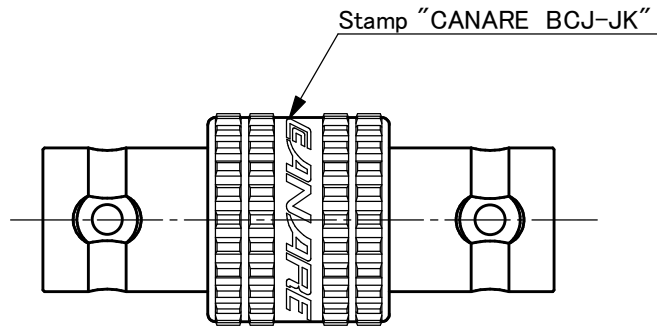
Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 °C to 35 °C), Relative humidity (25% to 75%), Air pressure (86kPa to 106kPa). If there is any doubt about the results, measurements shall be made within the following limits: Ambient temperature (20 ± 1 °C), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

Fig.

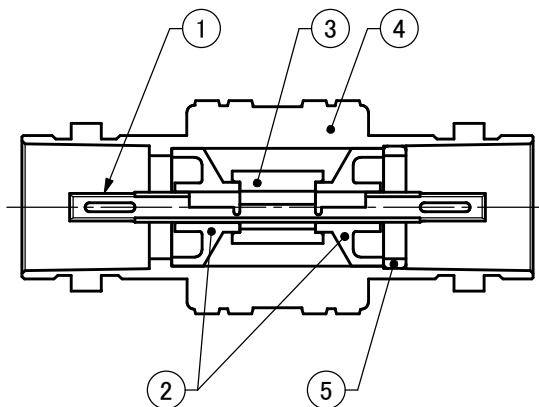
Unit: mm



External Appearance



Construction



5	Body 2	1	Brass				Nickel Plating	
4	Body	1	Brass				Nickel Plating	
3	Insulator 2	1	PBT				—	
2	Insulator	2	COC(Gray)				—	
1	Female Center Contact	1	Beryllium Copper				Gold Plating	
No.	Name of Parts	Pc(s).	Material				Finish	
Title	75 Ω BNC ADAPTER	PJTN 	Unit mm	Sc. 2:1	Tol. \pm 0.1	Date 2017-05-02	Ver. 1.0 Model BCJ-JK	No. BL499