



75 ohm BNC PCB Mount Receptacles (Hex Nut Type)

BCJ-FP and RP Series are 75 ohm BNC connectors which have a hex nut and lock washer for front or rear-mounting on a panel.

-Key Features and Benefits

- BCJ-FPLV-12G is specially designed to minimize the return loss for 12G-SDI
- Return loss: BCJ-FPLV-12G: 15 dB @ 6 GHz, 10 dB @ 12 GHz, BCJ-FPLV-L: 26.4 dB @ 3 GHz, Others: 26.4 dB @ 1 GHz.

Note: Any cleaning solvents cannot be used. This leads to insulation problems. Insulation material: m-PPO (m-PPE)







BCJ-FPLVA















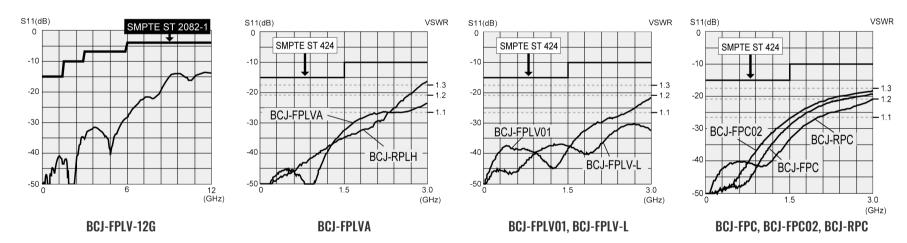
Front Mount

Туре	Model	Description	Stud Position	Panel Mount	Standard package
	BCJ-FPLV-12G	Right Angle, for 12G-SDI			
	BCJ-FPLVA	Right Angle			20pcs / 100pcs
	BCJ-FPLV01	Right Angle, Low Cost	Vertical		
	BCJ-FPLV-L	Right Angle, Long Neck		Front: Hex nut and lock washer	10pcs
	BCJ-FPLHA	Right Angle	Horizontal		
	BCJ-FPC	Straight	-		20pcs / 100pcs
	BCJ-FPC02	Straight, Low Cost	-		

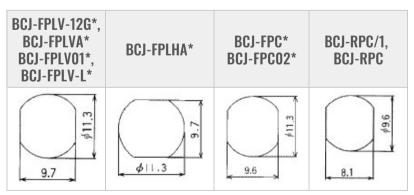
Rear Mount

Туре	Model	Description	Stud Position	Panel Mount	Standard package
	BCJ-RPC	Straight, Through Hole Mount	-	Rear:	00
	BCJ-RPC/1	Straight, Surface Mount	-	Hex nut and lock washer	20pcs / 100pcs

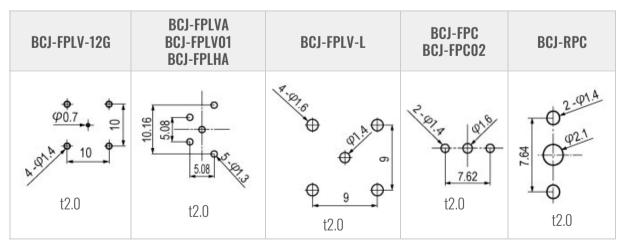
< Return loss >



< Panel Hole Dimensions >



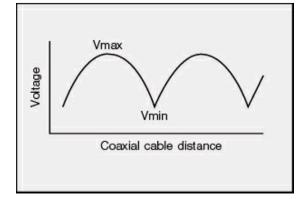
< PC Board Hole Dimensions >



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)



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. 1 Voltage Distribution Over Coaxial Cable

Fig. 2 VSWR to Return Loss Conversion Table

(BCJ-FPLV-12G)

SAB493 Ver. 1.0 CANARE ELECTRIC CO., LTD BNC receptacle.

1. Scope This product specification covers the performance of CANARE 75

- 2. General Specifications
 - (1) Product name 75 BNC receptacle
 - (2) Model name BCJ-FPLV-12G
 - (3) Applicable standard IEC^{*1} 61169-8,JIS^{*2} C 5412
 - (4) Nominal impedance 75 unbalanced
 - (5) Construction As shown in the drawing (BL493).
 - (6) Weight Approx 18.5g(including mouting nut, locked washer and washer)
 - (7) **Designation** Brand name(CANARE) and stamp on the body.
 - (8) Packaging 20pcs/package (150 x 50 x 44mm),100pcs/package (220 x158 x 50mm)
 - *¹International Electrotechnical Commission
 - *²Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature $-40 \sim +85$
 - (2) Operating humidity $\sim 90\%$

4. Characteristics

4.1 Electrical characteristics As shown in Table 1

	Table 1	
Items	Specified values	Test methods
Insulation resistance	5000M 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	1500V a.c. shall be applied for 1 min between
	breakdown etc.	the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts:	Measurement shall be made between the
	6m or less	contacts, with engaging a plug and a receptacle.
	Between external contacts:	(1kHz:1mA a.c.)
	3m or less	
Return loss	26dB or more (0 ~ 1.5GHz)	Terminating with 75 and measured.
	20dB or more (0 ~ 3GHz)	The measuring frequency up to 12GHz.
	15dB or more (0 ~ 6GHz)	
	10dB or more (0 ~ 12GHz)	

4.2 Mechanical characteristics As shown in Table 2

Table 2			
Items	Specified values	Test methods	
Intermatability	To be engaged without any	The receptacle and applicable plug shall be	
	abnormality	engaged.	
Female contact	1.0N or more	Following pin gauge (Fig) shall be inserted the	
retention force		female contact and measurement shall be	
		made.	
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,	
mechanism	deformation shall be made.	after which tensile strength of 250N and rotation	
		strength of 2.5N m shall be applied.	
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis	
	on each part of connector.	and tensile strength of 200N shall be applied to	
		the axial direction.	
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated	
(repeated)		engagement and separation of connector pairs.	
		The number of operations shall be 5000 cycles.	

Items	Specified values	Test methods	
Corrosion resistance	Contact resistance: 50m or less	The connector shall be subjected continuously	
(Salt mist)	Appearance: By visual inspection,	to a fine mist of salt solution at a temperature of	
	without noticeable rust.	35±2 for 48h (Salt solution concentration:	
		5±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.	

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

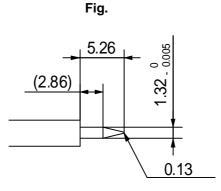
4.4 Other characteristics As shown in Table 4

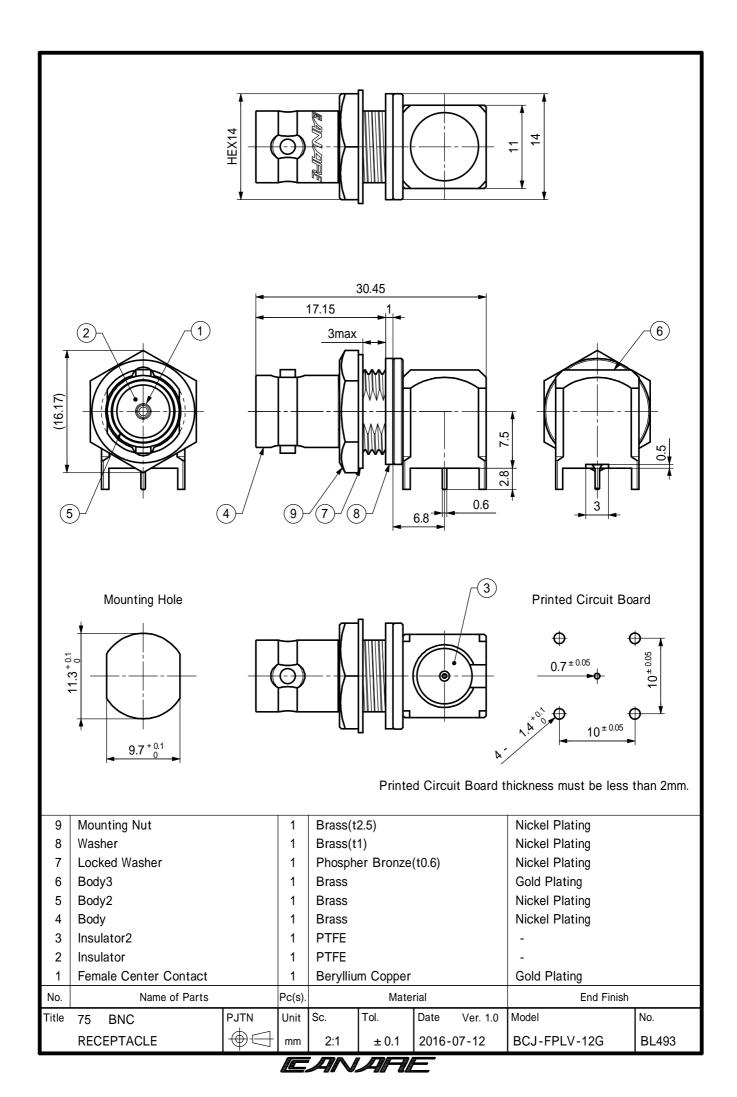
Table 4			
Items	Specified values	Test methods	
Solderability	A new uniform coating of solder	Solder temperature: 245±3	
	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s	
	the surface being immersed.		
Resistance to	There shall be no damage on	Soldering by dipping	
soldering heat	appearance.	Solder temperature: 260±3	
		Immersion time: 9s to 11s	
		Thickness of printed circuit board: 1.6mm	
		Soldering iron method	
		Bit temperature: 380±10	
		Application time of soldering iron: 3s to 4s	

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Tightening nut force: Less than 2.94N·m, when assembling to panel.





(BCJ-FPLVA)

SAB021D Ver. 2.1 CANARE ELECTRIC CO., LTD BNC receptacle.

- **1. Scope** This product specification covers the performance of CANARE 75 **2. General Specifications**

 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name **BCJ-FPLVA**
 - (3) Applicable standard JIS* C 5412 unbalanced
 - (4) Nominal impedance 75
 - (5) Construction As shown in the drawing (BL021D).
 - (6) Weight Approx 12.2g(including mouting nut, locked washer and washer)
 - (7) Designation Brand name(CANARE) and stamp model name(BCJ-FPLVA) on the body.
 - (8) Packaging 100pcs/package (265 x155 x 35mm),20pcs/package (106 x 100 x 44mm) *Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature -40 ~ +100
 - ~ 90% (2) Operating humidity

4. Characteristics

4.1 Electrical characteristics As shown in Table 1

lable 1			
Items	Specified values	Test methods	
Insulation resistance	1000M 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	1500V a.c. shall be applied for 1 min between	
	breakdown etc.	the contacts. Trip current :0.5mA.	
Contact resistance	Between center contacts:	Measurement shall be made between the	
	6m or less	contacts, with engaging a plug and a receptacle.	
	Between external contacts:	(1kHz:1mA a.c.)	
	3m or less		
Voltage standing	1.1 or less (0 ~ 1GHz)	Terminating with 75 and measured.	
wave ratio(V.S.W.R)		The measuring frequency up to 1GHz.	

4.2 Mechanical characteristics As shown in Table 2

Table 2			
Items	Specified values	Test methods	
Intermatability	To be engaged without any	The receptacle and applicable plug shall be	
-	abnormality	engaged.	
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be	
retention force		inserted the female contact and measurement	
		shall be made.	
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the	
contact with lock		axial direction.	
mechanism			
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,	
mechanism	deformation shall be made.	after which tensile strength of 245N and rotation	
		strength of 2.45N m shall be applied.	
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis	
	on each part of connector.	and tensile strength of 200N shall be applied to	
		the axial direction.	
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated	
(repeated)		engagement and separation of connector pairs.	
		The number of operations shall be 5000 cycles.	

4.3 Environmental characteristics As shown in Table 3

l able 3			
Items	Specified values	Test methods	
Corrosion resistance (Salt mist)	Contact resistance: 50m or less Appearance: By visual inspection, without noticeable rust.	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35 ± 2 for 48h (Salt solution concentration: $5\pm1\%$ 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.	

	l able 4	
Items	Specified values	Test methods
Solderability	A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed.	Solder temperature: 245±3 Solder wetting time : 2s to 3s
Resistance to soldering heat	There shall be no damage on appearance.	Soldering by dipping Solder temperature: 260±3 Immersion time: 5s to 6s Number of cycles: 2 cycles Thickness of printed circuit board: 1.6mm Soldering iron method Bit temperature: 380±10 Application time of soldering iron: 3s to 4s

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

6.1 Tightening nut force: Less than 2.94N·m, when assembling to panel.

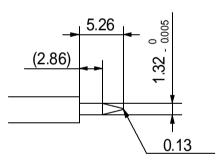
6.2 For soldering

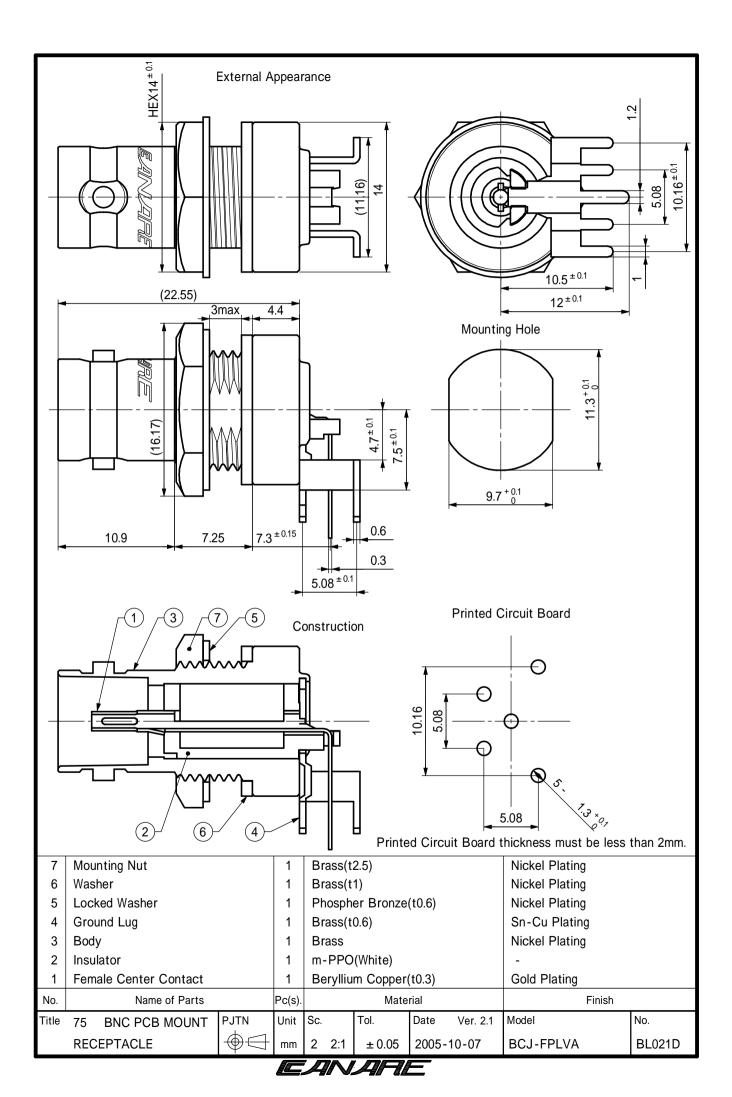
(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.







SAB057A Ver. 2.1 CANARE ELECTRIC CO., LTD BNC receptacle.

(BCJ-FPLV01)

1. Scope This product specification covers the performance of CANARE 75

- 2. General Specifications
 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name BCJ-FPLV01
 - JIS* C 5412 (3) Applicable standard
 - (4) Nominal impedance 75 unbalanced
 - (5) Construction As shown in the drawing (BL057A).
 - (6) Weight Approx 9.4g(including mouting nut, locked washer and washer)
 - (7) Designation Stamp brand name(CANARE) on the body.
 - (8) Packaging 100pcs/package (265 x155 x 35mm),20pcs/package (106 x 100 x 44mm)
 - *Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature -30 ~ +100
 - (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 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	1500V a.c. shall be applied for 1 min between
	breakdown etc.	the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts:	Measurement shall be made between the
	6m or less	contacts, with engaging a plug and a receptacle.
	Between external contacts:	(1kHz:1mA a.c.)
	3m or less	
Voltage standing	1.1 or less (0 ~ 1GHz)	Terminating with 75 and measured.
wave ratio(V.S.W.R)		The measuring frequency up to 1GHz.

4.2 Mechanical characteristics As shown in Table 2

	Table 2		
Items	Specified values	Test methods	
Intermatability	To be engaged without any	The receptacle and applicable plug shall be	
	abnormality	engaged.	
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be	
retention force		inserted the female contact and measurement	
		shall be made.	
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the	
contact with lock		axial direction.	
mechanism			
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,	
mechanism	deformation shall be made.	after which tensile strength of 250N and rotation	
		strength of 2.5N·m shall be applied.	
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis	
	on each part of connector.	and tensile strength of 200N shall be applied to	
		the axial direction.	
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated	
(repeated)		engagement and separation of connector pairs.	
		The number of operations shall be 5000 cycles.	

Table 3			
Items	Specified values		Test methods
Corrosion resistance	Contact resistance: 50m	or less	The connector shall be subjected continuously
(Salt mist)	Appearance: By visual inspe	ection,	to a fine mist of salt solution at a temperature of
	without noticeable rust.		35±2 for 48h (Salt solution concentration:
			5±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.

4.3 Environmental characteristics As shown in Table 3

4.4 Other characteristics As shown in Table 4

Table 4		
Items	Specified values	Test methods
Solderability	A new uniform coating of solder	Solder temperature: 245±3
	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s
	the surface being immersed.	
Resistance to	There shall be no damage on	Soldering by dipping
soldering heat	appearance.	Solder temperature: 260±3
		Immersion time: 5s to 6s
		Number of cycles: 2 cycles
		Thickness of printed circuit board: 1.6mm
		Soldering iron method
		Bit temperature: 380±10
		Application time of soldering iron: 3s to 4s

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

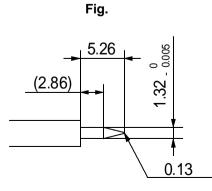
6.1 Tightening nut force: Less than 2.94N·m, when assembling to panel.

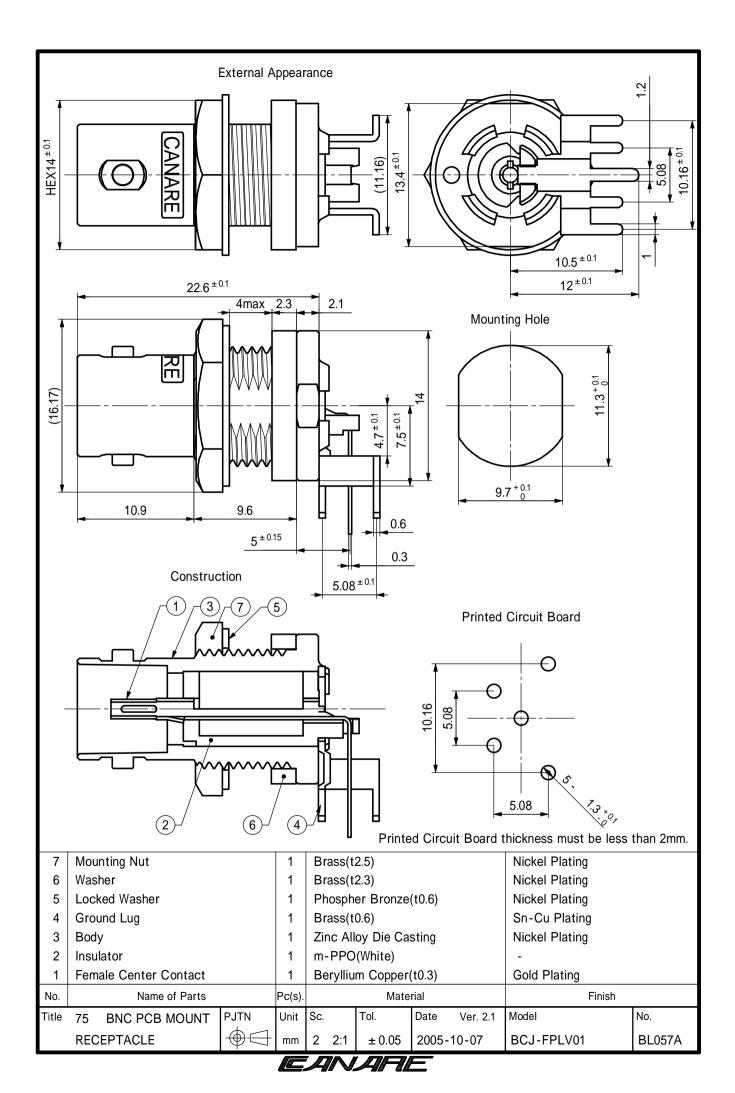
6.2 For soldering

(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.





(BCJ-FPLV-L)

SAT099 Ver. 1.0 CANARE ELECTRIC CO., LTD BNC receptacle.

- **1. Scope** This product specification covers the performance of CANARE 75
- 2. General Specifications
 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name BCJ-FPLV-L
 - (3) Applicable standard JIS* C 5412
 - (4) Nominal impedance 75 unbalanced
 - (5) Construction As shown in the drawing (TL099).
 - (6) Weight Approx 26g (including mounting nut, locked washer and washer)
 - (7) Designation Brand name (CANARE) on the body.
 - (8) Packaging 10pcs/package (150 x 50 x 44mm)
 - *Japanese Industrial Standard

3. Rating

- (1) Operating temperature -40 ~ +100
- (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 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 center contacts: 6m or less Between external contacts: 3m or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)
Voltage standing wave ratio(V.S.W.R)	1.1 or less	Terminating with 75 and measured. The measuring frequency up to 3GHz.

4.2 Mechanical characteristics As shown in Table 2

Table 2		
Items	Specified values	Test methods
Intermatability	To be engaged without any	The receptacle and applicable plug shall be
-	abnormality	engaged.
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be
retention force		inserted the female contact and measurement
		shall be made.
Fixing force of	No displacement more than 0.5mm.	Tensile strength of 19.6N shall be applied to the
contact with		axial direction.
lock mechanism		
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,
mechanism	deformation shall be made.	after which tensile strength of 245N and rotation
		strength of 2.45N·m shall be applied.
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis
	on each part of connector.	and tensile strength of 200N shall be applied to
		the axial direction.
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated
(repeated)		engagement and separation of connector pairs.
		The number of operations shall be 5000 cycles.

1/2 T099

SAT099 Ver. 1.0 2/2

4.3 Other characteristics As shown in Table 3

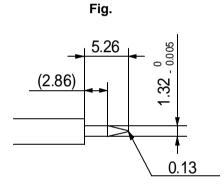
Table 3			
Items	Specified values	Test methods	
Resistance to	There shall be no damage on	Soldering by dipping	
soldering heat	appearance.	Solder temperature: 260±3	
-		Immersion time: 5s to 6s	
		Number of cycles: 2 cycles	
		Thickness of printed circuit board: 1.6mm	
		Soldering iron method	
		Bit temperature: 380±10	
		Application time of soldering iron: 3s to 4s	

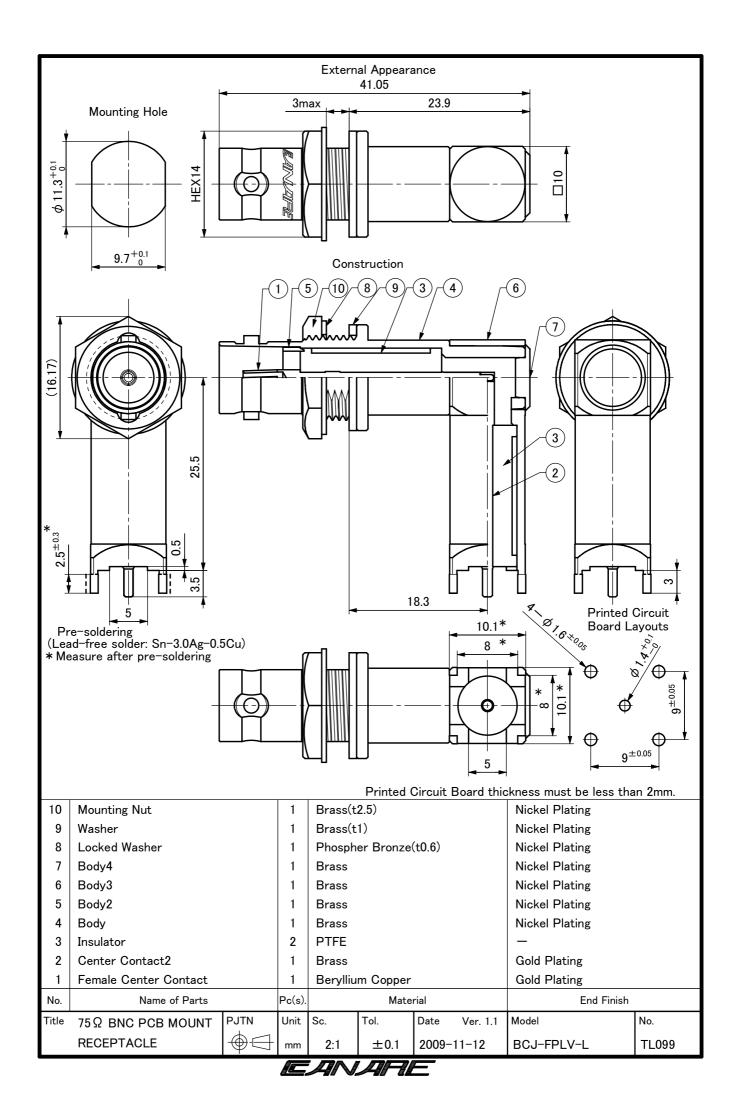
5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

6.1 Tightening nut force: 2.94N·m, when assembling to panel.





(BCJ-FPLHA)

SAB022D Ver. 2.1 CANARE ELECTRIC CO., LTD BNC receptacle.

- **1. Scope** This product specification covers the performance of CANARE 75 **2. General Specifications**

 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name **BCJ-FPLHA**
 - (3) Applicable standard JIS* C 5412 unbalanced
 - (4) Nominal impedance 75
 - (5) Construction As shown in the drawing (BL022D).
 - (6) Weight Approx 12.2g(including mouting nut, locked washer and washer)
 - (7) Designation Stamp brand name(CANARE) and model name(BCJ-FPLHA) on the body.
 - (8) Packaging 100pcs/package (265 x155 x 35mm),20pcs/package (106 x 100 x 44mm) *Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature -40 ~ +100
 - ~ 90% (2) Operating humidity

4. Characteristics

4.1 Electrical characteristics As shown in Table 1 abla 1

l adie 1		
Items	Specified values	Test methods
Insulation resistance	1000M 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	1500V a.c. shall be applied for 1 min between
	breakdown etc.	the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts:	Measurement shall be made between the
	6m or less	contacts, with engaging a plug and a receptacle.
	Between external contacts:	(1kHz:1mA a.c.)
	3m or less	
Voltage standing	1.1 or less (0 ~ 1GHz)	Terminating with 75 and measured.
wave ratio(V.S.W.R)		The measuring frequency up to 1GHz.

4.2 Mechanical characteristics As shown in Table 2

	Table 2		
Items	Specified values	Test methods	
Intermatability	To be engaged without any	The receptacle and applicable plug shall be	
-	abnormality	engaged.	
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be	
retention force		inserted the female contact and measurement	
		shall be made.	
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the	
contact with lock		axial direction.	
mechanism			
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,	
mechanism	deformation shall be made.	after which tensile strength of 245N and rotation	
		strength of 2.45N m shall be applied.	
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis	
	on each part of connector.	and tensile strength of 200N shall be applied to	
		the axial direction.	
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated	
(repeated)		engagement and separation of connector pairs.	
		The number of operations shall be 5000 cycles.	

4.3 Environmental characteristics As shown in Table 3

l able 3		
Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Contact resistance: 50m or less Appearance: By visual inspection, without noticeable rust.	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of 35 ± 2 for 48h (Salt solution concentration: $5\pm1\%$ 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.

	I able 4		
Items	Specified values	Test methods	
Solderability	A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed.	Solder temperature: 245±3 Solder wetting time : 2s to 3s	
Resistance to soldering heat	There shall be no damage on appearance.	Soldering by dipping Solder temperature: 260±3 Immersion time: 5s to 6s Number of cycles: 2 cycles Thickness of printed circuit board: 1.6mm Soldering iron method Bit temperature: 380±10 Application time of soldering iron: 3s to 4s	

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

6.1 Tightening nut force: Less than 2.94N·m, when assembling to panel.

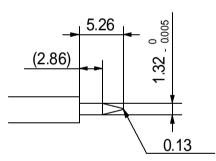
6.2 For soldering

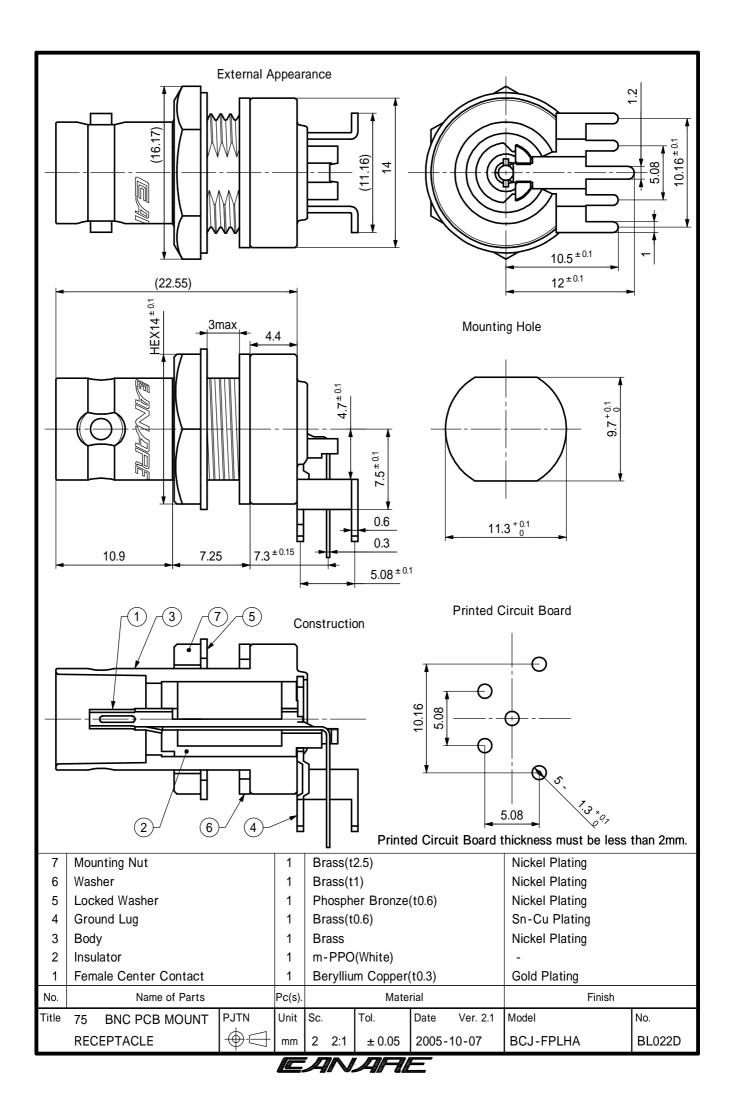
(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.







(BCJ-FPC)

SAB024F Ver. 2.1 CANARE ELECTRIC CO., LTD BNC receptacle.

1. Scope This product specification covers the performance of CANARE 75

- 2. General Specifications
 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name BCJ-FPC
 - (3) Applicable standard JIS* C 5412
 - (4) Nominal impedance 75 unbalanced
 - (5) Construction As shown in the drawing (BL024B).
 - (6) Weight Approx 10g (including mounting nut, locked washer and washer)
 - (7) Designation Stamp model name (BCJ-FPC) and brand name (CANARE) on the body.
 - (8) Packaging 100pcs/package (220 x155 x 37mm), 20pcs/package (150 x 50 x 31mm) *Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature $-40 \sim +100$
 - (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 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	1500V a.c. shall be applied for 1 min between
	breakdown etc.	the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts:	Measurement shall be made between the
	6m or less	contacts, with engaging a plug and a receptacle
	Between external contacts:	(1kHz:1mA a.c.)
	3m or less	
Voltage standing	1.1 or less	Terminating with 75 and measured.
wave ratio(V.S.W.R)		The measuring frequency up to 1GHz.

4.2 Mechanical characteristics As shown in Table 2

Table 2		
Items	Specified values	Test methods
Intermatability	To be engaged without any	The receptacle and applicable plug shall be
	abnormality	engaged.
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be
retention force		inserted the female contact and measurement
		shall be made.
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the
contact with lock		axial direction.
mechanism		
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,
mechanism	deformation shall be made.	after which tensile strength of 250N and rotation
		strength of 2.5N·m shall be applied.
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis
	on each part of connector.	and tensile strength of 200N shall be applied to
		the axial direction.
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated
(repeated)		engagement and separation of connector pairs.
		The number of operations shall be 5000 cycles.

Table 3		
Items	Specified values	Test methods
Corrosion resistance	Contact resistance: 50m or less	The connector shall be subjected continuously
(Salt mist)	Appearance: By visual inspection,	to a fine mist of salt solution at a temperature of
	without noticeable rust.	35±2 for 48h (Salt solution concentration:
		5±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.

4.3 Environmental characteristics As shown in Table 3

4.4 Other characteristics As shown in Table 4

Table 4		
Items	Specified values	Test methods
Solderability	A new uniform coating of solder	Solder temperature: 245±3
	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s
	the surface being immersed.	
Resistance to	There shall be no damage on	Soldering by dipping
soldering heat	appearance.	Solder temperature: 260±3
		Immersion time: 5s to 6s
		Number of cycles: 2 cycles
		Thickness of printed circuit board: 1.6mm
		Soldering iron method
		Bit temperature: 380±10
		Application time of soldering iron: 3s to 4s

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

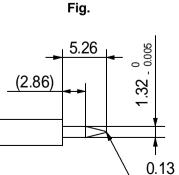
6.1 Tightening nut force: 2.94N·m, when assembling to panel.

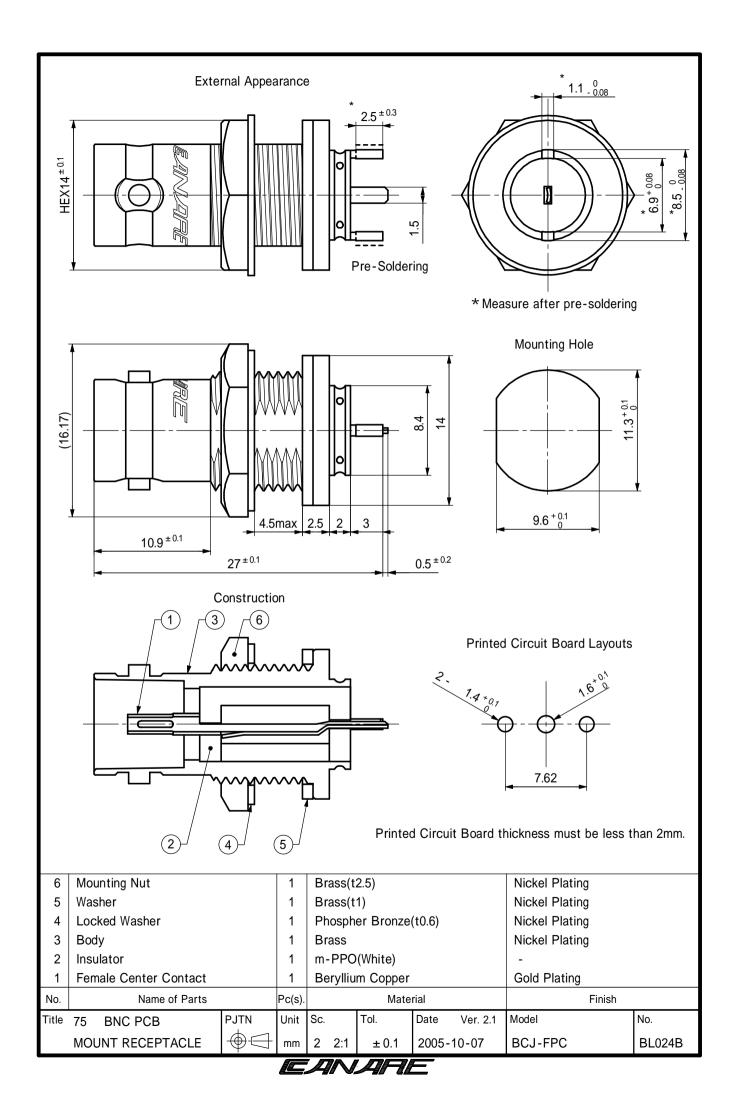
6.2 For soldering

(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.





(BCJ-FPC02)

SAB056A Ver. 2.1 CANARE ELECTRIC CO., LTD

1. Scope This product specification covers the performance of CANARE 75 BNC receptacle.

- 2. General Specifications
 - (1) Product name 75 BNC PCB mount receptacle
 - (2) Model name BCJ-FPC02
 - (3) Applicable standard JIS* C 5412
 - (4) Nominal impedance 75 unbalanced
 - (5) Construction As shown in the drawing (BL056A).
 - (6) Weight Approx 10.8g (including mounting nut, locked washer and washer)
 - (7) **Designation** Stamp brand name (CANARE) on the body.
 - (8) Packaging 100pcs/package (220 x155 x 37mm), 20pcs/package (150 x 50 x 31mm)
 - *Japanese Industrial Standard
- 3. Rating
 - (1) Operating temperature $-40 \sim +100$
 - (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 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	1500V a.c. shall be applied for 1 min between
	breakdown etc.	the contacts. Trip current :0.5mA.
Contact resistance	Between center contacts:	Measurement shall be made between the
	6m or less	contacts, with engaging a plug and a receptacle.
	Between external contacts:	(1kHz:1mA a.c.)
	3m or less	
Voltage standing	1.1 or less	Terminating with 75 and measured.
wave ratio(V.S.W.R)		The measuring frequency up to 1GHz.

4.2 Mechanical characteristics As shown in Table 2

Table 2		
Items	Specified values	Test methods
Intermatability	To be engaged without any	The receptacle and applicable plug shall be
	abnormality	engaged.
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be
retention force		inserted the female contact and measurement
		shall be made.
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the
contact with lock		axial direction.
mechanism		
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,
mechanism	deformation shall be made.	after which tensile strength of 250N and rotation
		strength of 2.5N·m shall be applied.
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis
	on each part of connector.	and tensile strength of 200N shall be applied to
		the axial direction.
Mechanical operation	Contact resistance: 10m or less	The endurance test consists of repeated
(repeated)		engagement and separation of connector pairs.
		The number of operations shall be 5000 cycles.

Table 3			
Items	Specified values		Test methods
Corrosion resistance	Contact resistance: 50m	or less	The connector shall be subjected continuously
(Salt mist)	Appearance: By visual inspe	ection,	to a fine mist of salt solution at a temperature of
	without noticeable rust.		35±2 for 48h (Salt solution concentration:
			5±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.

4.3 Environmental characteristics As shown in Table 3

4.4 Other characteristics As shown in Table 4

Table 4		
Items	Specified values	Test methods
Solderability	A new uniform coating of solder	Solder temperature: 245±3
	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s
	the surface being immersed.	
Resistance to	There shall be no damage on	Soldering by dipping
soldering heat	appearance.	Solder temperature: 260±3
		Immersion time: 5s to 6s
		Number of cycles: 2 cycles
		Thickness of printed circuit board: 1.6mm
		Soldering iron method
		Bit temperature: 380±10
		Application time of soldering iron: 3s to 4s

5. Measurement conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15 to 35), 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), Relative humidity (63% to 67%), Air pressure (86kPa to 106kPa).

6. Note

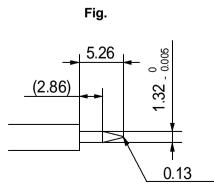
6.1 Tightening nut force: 2.94N·m, when assembling to panel.

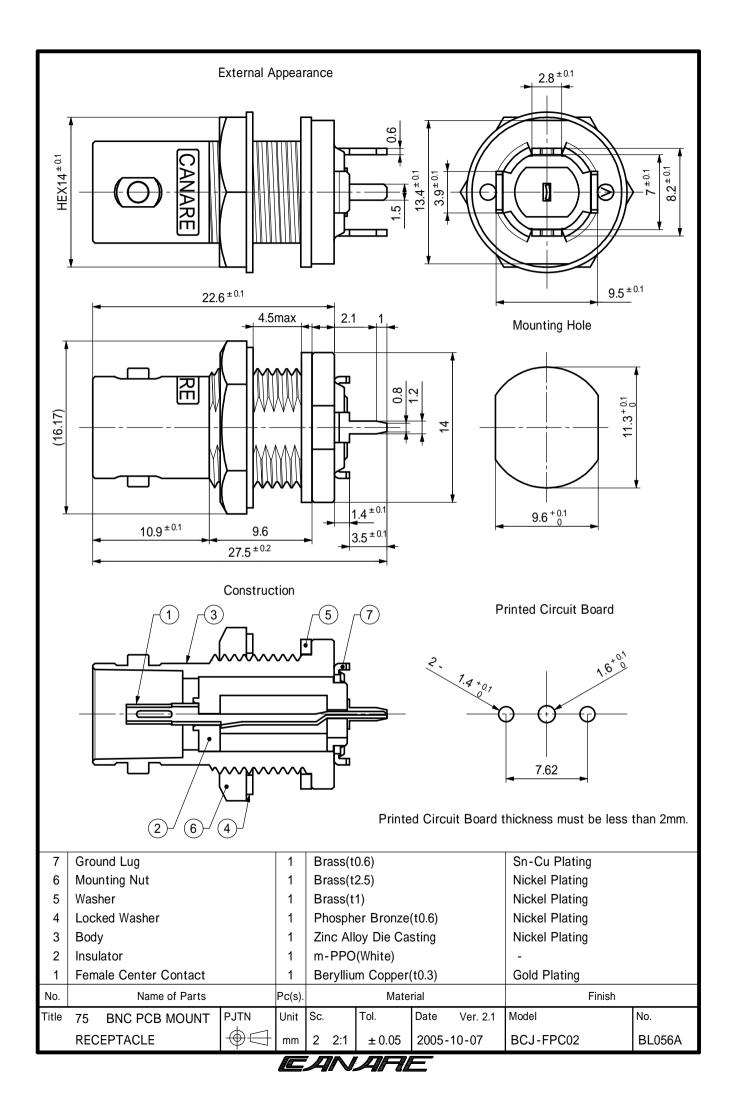
6.2 For soldering

(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.





(BCJ-RPC)

Ver. 1.2 CANARE ELECTRIC CO., LTD

- **1. Scope** This product specification covers the performance of CANARE 75 Ω BNC receptacle.
- 2. General Specifications
 - (1) Product name 75 Ω BNC PCB mount receptacle
 - (2) Model name BCJ-RPC
 - (3) Applicable standard JIS* C 5412
 - (4) Nominal impedance 75 Ω unbalanced
 - (5) Construction As shown in the drawing (BL012).
 - (6) Weight Approx 7.19g(including mouting nut and locked washer)
 - (7) Designation Stamp brand name(CANARE) and model name(BCJ-FPLVA) on the body.
 - (8) Packaging 20pcs/package(150mmx50mmx44mm),100pcs/package(220mmx158mmx50mm) *Japanese Industrial Standard

3. Rating

- (1) Operating temperature $-40 \degree C \sim +100 \degree C$
- (2) Operating humidity $\sim 90\%$

4. Characteristics

4.1 Electrical characteristics As shown in Table 1

Items	Specified values	Test methods	
Insulation resistance	1000MΩ 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: $3m\Omega$ or less Between center contacts: $6m\Omega$ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)	
Voltage standing wave ratio(V.S.W.R)	1.1 or less (0 ~ 1GHz)	Terminating with 75 Ω and measured. The measuring frequency up to 1GHz.	

4.2 Mechanical characteristics As shown in Table 2

Table 2		
Items	Specified values	Test methods
Intermatability	To be engaged without any	The receptacle and applicable plug shall be
-	abnormality	engaged.
Female contact	1.5 ~ 3.9N	Following JIS C 5412 pin gauge (Fig.) shall be
retention force		inserted the female contact and measurement
		shall be made.
Fixing force of	No displacement more than 0.5 mm.	Tensile strength of 19.6N shall be applied to the
contact with lock		axial direction.
mechanism		
Strength of coupling	Body shall not be disconnected or no	The plug and a receptacle shall be engaged,
mechanism	deformation shall be made.	after which tensile strength of 245N and rotation
		strength of 2.45N m shall be applied.
Attachment strength	There shall be no break or damage	The receptacle shall be attached on the chassis
-	on each part of connector.	and tensile strength of 200N shall be applied to
		the axial direction.
Mechanical operation	Contact resistance: 10m Ω or less	The endurance test consists of repeated
(repeated)		engagement and separation of connector pairs.
· · ·		The number of operations shall be 5000 cycles.

4.3 Environmental characteristics As shown in Table 3

lable 3		
Items	Specified values	Test methods
(Salt mist)	Contact resistance: 50m Ω or less Appearance: By visual inspection, without noticeable rust.	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: $5\pm1\%$ 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.

1/2 SAB012B

Table 4		
Items	Specified values	Test methods
Solderability	A new uniform coating of solder	Solder temperature: 245±3°C
-	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s
	the surface being immersed.	
Resistance to	There shall be no damage on	Soldering by dipping
soldering heat	appearance.	Solder temperature: 260±3 °C
-		Immersion time: 5s to 6s
		Number of cycles: 2 cycles
		Thickness of printed circuit board: 1.6mm
		Soldering iron method
		Bit temperature: 380±10 °C
		Application time of soldering iron: 3s to 4s

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).

6. Note

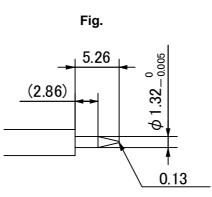
6.1 Tightening nut force: Less than 2.94N·m, when assembling to panel.

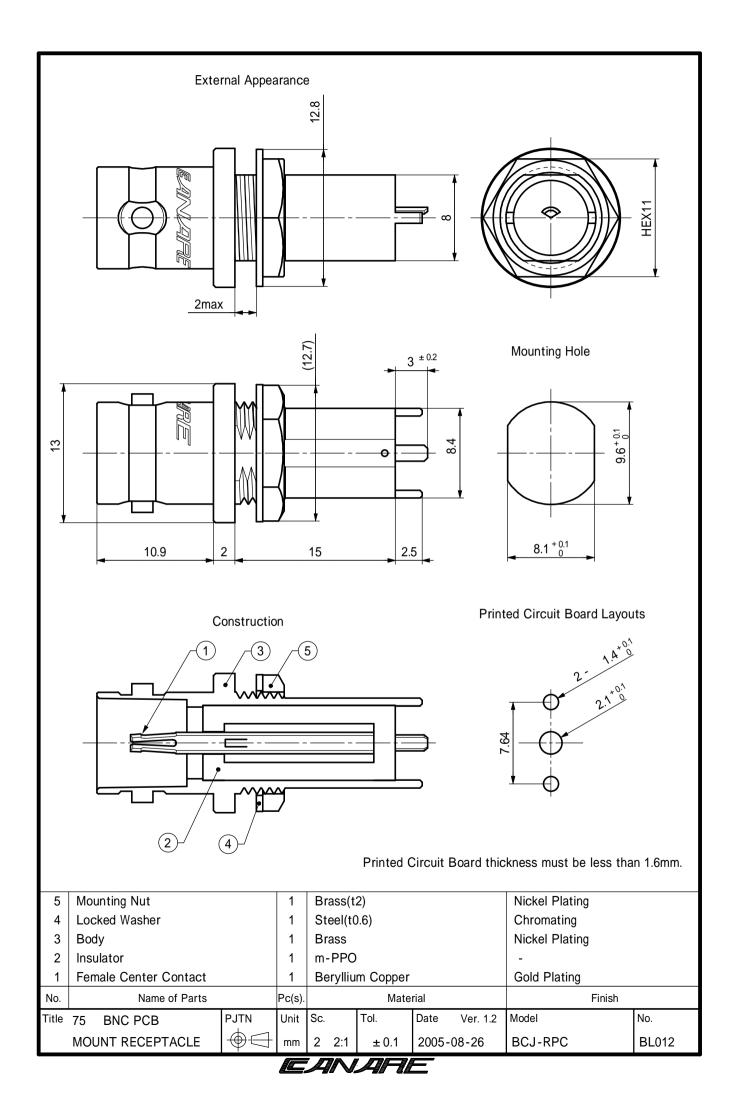
6.2 For soldering

(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.





(BCJ-RPC/1)

Ver. 1.2 CANARE ELECTRIC CO., LTD

- **1. Scope** This product specification covers the performance of CANARE 75 Ω BNC receptacle.
- 2. General Specifications
 - (1) Product name 75 Ω BNC PCB mount receptacle
 - (2) Model name BCJ-RPC/1
 - (3) Applicable standard JIS* C 5412
 - (4) Nominal impedance 75 Ω unbalanced
 - (5) Construction As shown in the drawing (BL013). (6) Weight
 - Approx 7.19g(including mouting nut and locked washer)
 - 20pcs/package(150mmx50mmx44mm),100pcs/package(220mmx158mmx50mm) (7) Packaging *Japanese Industrial Standard

3. Rating

- (1) Operating temperature $-40 \degree C \sim +100 \degree C$
- (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: $3m\Omega$ or less Between center contacts: $6m\Omega$ or less	Measurement shall be made between the contacts, with engaging a plug and a receptacle. (1kHz:1mA a.c.)		
Voltage standing wave ratio(V.S.W.R)	1.1 or less (0 ~ 1GHz)	Terminating with 75 Ω and measured. The measuring frequency up to 1GHz.		

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 245N and rotation strength of 2.45N m shall be applied.
Attachment strength	There shall be no break or damage on each part of connector.	The receptacle shall be attached on the chassis and tensile strength of 200N shall be applied to the axial direction.
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	Contact resistance: 50m Ω or less	The connector shall be subjected continuously	
(Salt mist)	Appearance: By visual inspection, without noticeable rust.	to a fine mist of salt solution at a temperature of 35 ± 2 °C for 48h (Salt solution concentration: $5\pm1\%$ 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.	

1/2 SAB013B

Table 4				
Items	Specified values	Test methods		
Solderability	A new uniform coating of solder	Solder temperature: 245±3°C		
	shall cover a minimum of 90% of	Solder wetting time : 2s to 3s		
	the surface being immersed.			
Resistance to	There shall be no damage on	Soldering by dipping		
soldering heat	appearance.	Solder temperature: 260±3 °C		
		Immersion time: 5s to 6s		
		Number of cycles: 2 cycles		
		Thickness of printed circuit board: 1.6mm		
		Soldering iron method		
		Bit temperature: 380±10 °C		
		Application time of soldering iron: 3s to 4s		

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).

6. Note

6.1 Tightening nut force: Less than 2.94N·m, when assembling to panel.

6.2 For soldering

(1) **Soldering by dipping:** Be aware that this type of process needs to be done quickly. If connector body is touching the solder wave for longer periods, there is a possibility that the connector's insulator could melt. To help heat dissipation you can use aluminum tape over the connector body.

(2) Washing : Do not wash connector after soldering. This product contains modified PPO.

Please check with detergent manufacture if washing is mandatory.

