## PRODUCT SPECIFICATIONS

## (BCP-D55UHD)

Ver. 1.0 CANARE ELECTRIC CO., LTD

**1. Scope** This product specification covers the performance of CANARE crimp type 75  $\Omega$  BNC plug.

- 2. General specifications
  - (1) Product name (2) Model name Crimp type 75 Ω BNC plug BCP-D55UHD

  - IEC\*1 61169-8, JIS\*2 C 5412 (3) Applicable standard
  - 75  $\Omega$  unbalanced (4) Nominal impedance
  - (5) Construction (6) Weight As shown in the drawing (BL497).
  - Approx 14.5g (including center contact and crimp sleeve) Stamp model name (BCP-D55UHD) on washer and brand name (CANARE) on (7) Designation coupling sleeve.
    - 100pcs/package (220 x 158 x 50mm), 20pcs/package (150 x 50 x 44mm) L-5.5CUHD (CANARE)
  - (8) Packaging (9) Applicable cable Frame: TC-1, Die: TCD-55UHD
- (10) Crimp tool

3. Ratings

- (1) Operating temperature  $-40 \degree C \sim +85 \degree C$
- (2) Operating humidity ~ 90%
  - \*<sup>1</sup>International Electrotechnical Commission

\*<sup>2</sup>The Japanese Electric Wire & Cable Maker's Association Standard

4. Characteristics

4.1 Electrical characteristics As shown in Table 1

Between center contacts: $6m \Omega$ or less $(1kHz:1mA a.c.)$ Return loss26.4dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .					
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			Test methods		
Voltage proofWithout any damage such as electric breakdown etc.with a d.c. voltage of 500V.Contact resistanceWithout any damage such as electric breakdown etc.1500V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.Contact resistanceBetween external contacts: $3m\Omega$ or less Between center contacts: $6m\Omega$ or lessMeasurement shall be made between the contacts, with engaging a plug and a receptach (1kHz:1mA a.c.)Return loss26.4dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .	Insulation resistance	5000MΩ or more	Measurement shall be made between the		
Voltage proofWithout any damage such as electric breakdown etc.1500V a.c. shall be applied for 1 min between the contacts. Trip current :0.5mA.Contact resistanceBetween external contacts: $3m \Omega$ or less Between center contacts: $6m \Omega$ or lessMeasurement shall be made between the contacts, with engaging a plug and a receptach (1kHz:1mA a.c.)Return loss26.4dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .			contacts, after an electrification time of 1min		
breakdown etc.the contacts. Trip current :0.5mA.Contact resistanceBetween external contacts: $3m\Omega$ or less Between center contacts: $6m\Omega$ or lessMeasurement shall be made between the contacts, with engaging a plug and a receptach (1kHz:1mA a.c.)Return loss26.4dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .					
breakdown etc.the contacts. Trip current :0.5mA.Contact resistanceBetween external contacts: $3m\Omega$ or less Between center contacts: $6m\Omega$ or lessMeasurement shall be made between the contacts, with engaging a plug and a receptach (1kHz:1mA a.c.)Return loss26.4dB or more(0 ~ 3GHz) 20dB or more(0 ~ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .	Voltage proof	Without any damage such as electric	1500V a.c. shall be applied for 1 min between		
$\begin{array}{c c} & 3m \Omega \text{ or less} \\ Between center contacts: \\ & 6m \Omega \text{ or less} \end{array} \end{array} \begin{array}{c} contacts, with engaging a plug and a receptacle (1kHz:1mA a.c.) \\ \hline & 8m \Omega \text{ or less} \end{array}$			the contacts. Trip current :0.5mA.		
Between center contacts: $6m \Omega$ or less(1kHz:1mA a.c.)Return loss26.4dB or more(0 $\sim$ 3GHz) 20dB or more(0 $\sim$ 6GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .	Contact resistance	Between external contacts:	Measurement shall be made between the		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		$3m\Omega$ or less	contacts, with engaging a plug and a receptacle.		
Return loss26.4dB or more( $0 \sim 3$ GHz)An applied cable shall be attached to the plug, then it shall be terminated with 75 $\Omega$ .		Between center contacts:	(1kHz:1mA a.c.)		
20dB or more ( $0 \sim 6$ GHz) then it shall be terminated with 75 $\Omega$ .		$6m\Omega$ or less			
	Return loss	26.4dB or more(0 $\sim$ 3GHz)	An applied cable shall be attached to the plug,		
15dB or more $(0 \sim 12 \text{GHz})$ The measurement frequency up to 12GHz		20dB or more( $0 \sim 6$ GHz)	then it shall be terminated with 75 $\Omega$ .		
		15dB or more( $0 \sim$ 12GHz)	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 plug and an applicable receptacle shall be engaged.
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	Coupling sleeve 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 $2.5N \cdot m$ shall be applied.
Cable connecting force	200N or more for L-5.5CUHD	An applied cable shall be attached to the plug, after which tensile strength shall be applied.
Mechanical operation (repeated)	Contact resistance: $10m \Omega$ or less	The endurance test consists of repeated engagement and separation of connector pairs. The measurement shall be made after 5000 cycles.

## 4.3 Environmental characteristics As shown in Table 3

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Items	Specified values	Test methods
Corrosion resistance (Salt mist)	Appearance: By visual inspection, without noticeable rust. Contact resistance: 50m Ω or less	The connector shall be subjected continuously to a fine mist of salt solution at a temperature of $35\pm2$ °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.

5. Measurement conditions Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows: Ambient temperature (15  $^{\circ}$ C to 35  $^{\circ}$ 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).

1/1

**SAB497**