

Introduction

The ITT Cannon range of SMZ connectors are extensively used in 75Ω communication systems and have become the recognised standard in telecommunications in many parts of the world.

Designed around the requirements of BS 9210 F0022 and draft specifications CECC 122 300, a wide range of connectors featuring some of the latest innovations are now available.

The **new** ITT Cannon developed QT™ (Quick Termination) technique for terminating coaxial cables to connectors is a feature of this range. The QT connector provides a high performance termination of the center conductor, without the use of crimp or solder tooling and reduces termination time significantly.

The range also offers the popular Posi-Lock™ locking connector together with recently developed PCB connectors that are a snap fit to the board, overcoming the need for jiggling and possible re-work.

A full range of connectors for use with HDC and BT TEP 1E racking systems are available.

SMZ Connectors feature:

- Styles to suit most popular 75Ω coaxial cables
- Center contact termination using crimp, solder or the **new** QT™ termination method to reduce installed costs
- Performance in accordance with BS 9210 F0022 and CECC 122 300 (Draft at the time of this publication)
- Available for BT standard and HDC distribution frames
- Gold Plated contact surfaces
- Locking options prevent accidental disconnection, or ease of disconnection for testing
- “Teplock” mounting reduces the time needed for fitting to DDFs



Choice of Three Latching Styles

ITT Cannon 75Ω connectors employ three forms of latching mechanism. Standard types have a snap-on mechanism permitting easy push-on, pull-off. Posi-Lock plugs mate with all jacks but employ a sliding latch mechanism.

1) Snap-On

There are no external moving parts on either jack or plug. To connect push plug onto jack until retaining mechanism snaps together. To disconnect pull firmly on plug body.

2) Posi-Lock

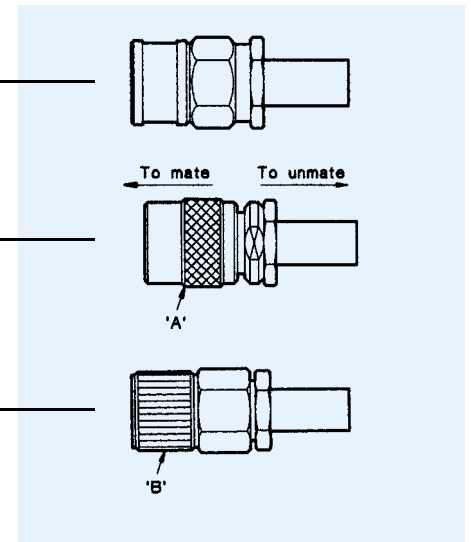
The knurled, nickel plated sleeve 'A' locks the connector. This is released by pushing the sleeve forward when connecting and pulling the sleeve back when disconnecting.

3) Screw-Lock

To connect push plug onto jack until retaining mechanism snaps together. Then rotate the knurled, nickel plated nut 'B' clockwise to lock. Disconnection is the reverse of this sequence.

In addition to the three latching styles described, ITT Cannon also supplies a number of screw-on (75Ω SMC) connectors. Please contact ITT Cannon Technical Sales for details.

Screw-Lock jacks and plugs use the basic snap-on engagement with the addition of a finger operated locking nut. Both Posi-Lock and Screw-Lock provide security against accidental disconnection.



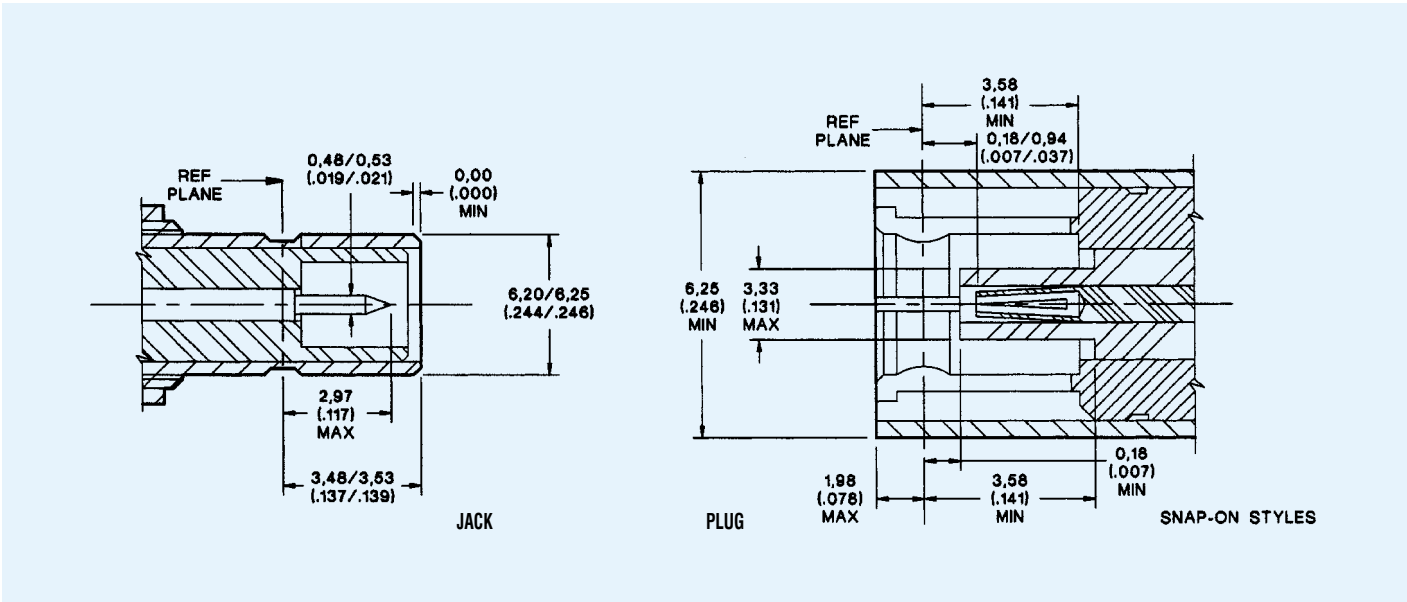
Specifications

ELECTRICAL	Impedance	75 Ω nominal
	Frequency Range	0 to 3.0 GHz
	Working Voltage (dc or ac peak)	At sea level, inner conductor to shell = 500 V
	Proof Voltage (dc or ac peak)	At sea level = 1500 V
	Insulation Resistance	5 GΩ minimum
	Contact Resistance*	Center contact: 5.0 mΩ maximum. Outer contact: 1.0 mΩ maximum
	Reflection Coefficient	Refer to CECC122300
	Current Rating	1.5 A dc maximum
	Engagement Forces	All snap-on, Screw-Lock & Posi-Lock styles except U Links = 60 N (13.5 lbs.) maximum U Links (reduced force snap-on) = 40 N (9 lbs.) maximum
	Separation Forces	All snap-on, Screw-Lock & Posi-Lock styles except U Links = 60 N (13.5 lbs.) max, 8 N (1.8 lbs.) min. U Links (reduced force snap-on) = 40 N (9 lbs.) maximum, 20 N (4.5 lbs.) minimum
MECHANICAL	Posi-Lock Latch withstand Pull	220 N (50 lbs.)
	Contact and Insulator Retention	21 N (4.7 lbs.)
	Materials	Body components: Copper or zinc alloy. Center contacts (male/female): Copper alloy. Insulators: PTFE or thermoset plastic. Crimp ferrules: Annealed copper alloy
	Finish/Plating	Center contacts: Gold. Outer contacts: Gold. Other metal parts: Nickel, tin/lead or zinc
ENVIRONMENTAL	Vibration Severity	(a) Frequency range: 10 Hz to 500 Hz. (b) Displacement**: 0,75 (.029). (c) Acceleration**: 98 m/s² (321 ft./s²). (d) Duration: 6 hours. ** Cross over at approx. 60 Hz
	Shock Severity	490 m/s² for 11 ms
	Impact Severity (free specimens only)	5 impacts at 1 m
	Climatic Catagory	40/100/21
	Bump	4000 total at 390 m/s²
GENERAL	Free Fall (U Link only)	BS2011: Part 2.1 Ed. Procedure 2. Severity: 50 falls
	Connector Durability	250 matings minimum
		*Except U Link connectors. See BS9210 F0022 for details.

NOTES

¹⁾ Values in this specification are typical for this range. Specific connectors may vary.
²⁾ ITT Cannon's 75 ohm coaxial connectors are designed to meet or exceed the requirements of BS9210 F0022 where applicable. This specification will be superseded by CECC 122 300 and the details listed above are subject to change without notice to comply with changes in these specifications.

Mating Interfaces



Plugs

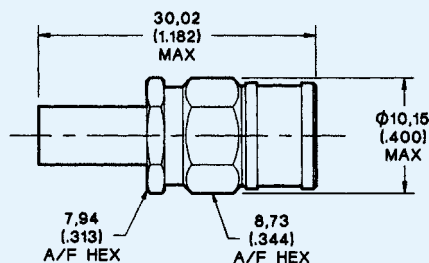
Straight Plug, Snap-On

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-124-9569A90	SKT43/1E	BT2001
051-124-9579A90	SKT43/2E	BT2002
051-124-9589A90	SKT43/3E	BT2003
051-124-9649A90	SKT43/5E	BT3002, TZC75024
051-124-9599A90	—	RG179B/U, 187A/U

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-124-9269A90	SKT43/1A	BT2001
051-124-9279A90	SKT43/2A	BT2002
051-124-9289A90	SKT43/3A	BT2003
051-124-9349A90	—	BT3002, TZC75024
051-124-9129A90	—	RG59/U, 62/U, 140/U
051-124-9309A90	SKT43/4A	RG179B/U, 187A/U
051-124-0000A90	—	RG180/U, 195A/U
051-124-9399A90	—	RD179



Crimp Contact — Assembly Instruction BBAI-1119 (Page 133)

Solder Contact — Assembly Instruction BBAI-1040 (Page 131)

Straight Plug, Posi-Lock

With QT Contact (packed in trays of 25)

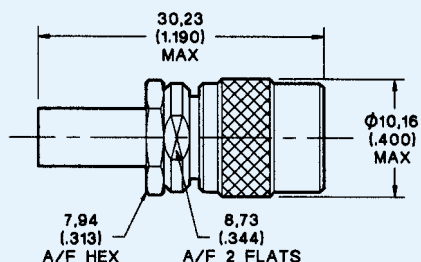
Part Number	Replaces BT Ref.	Cable Numbers
U51-124-953991A	S43/3F & 3B	BT2003
U51-124-963991A	S43/5F	BT3002, TZC75024

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-124-9519910	SKT43/1F	BT2001
051-124-9529910	SKT43/2F	BT2002
051-124-9539910	SKT43/3F	BT2003
051-124-9639910	SKT43/5F	BT3002, TZC75024
051-124-9669S9A	—	RG59B/U
051-124-9549910	—	RG179B/U, 187A/U

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-124-9219910	SKT43/1B	BT2001
051-124-9229910	SKT43/2B	BT2002
051-124-9239910	SKT43/3B	BT2003
051-124-9339910	—	BT3002, TZC75024
051-124-9139A90	—	RG59/U, 62/U, 140/U
051-124-9249910	SKT43/4B	RG179B/U, 187A/U
051-124-9499910	—	RD179



QT™ Contact — Assembly Instruction BBAI-1238 (Page 138)

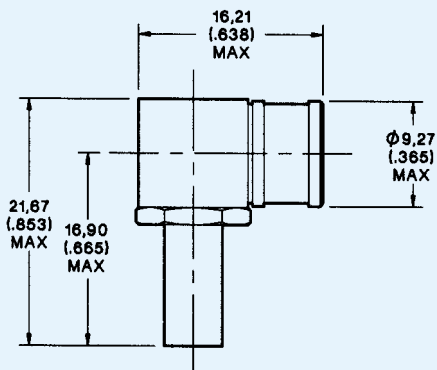
Crimp Contact — Assembly Instruction BBAI-1119 (Page 133)

Solder Contact — Assembly Instruction BBAI-1040 (Page 131)

Plugs

Right Angle Plug, Snap-On

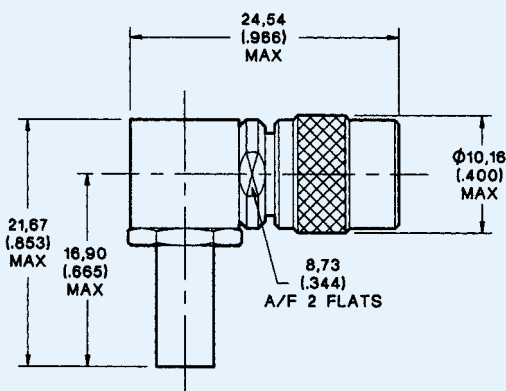
Part Number	BT Ref.	Cable Numbers
051-128-9369910	SKT43/1D	BT2001
051-128-9379910	SKT43/2D	BT2002
051-128-9389910	SKT43/3D	BT2003
051-128-9639910	SKT43/5D	BT3002, TZC75024
051-128-9299910	–	RG59/U, 62/U, 140/U
051-128-9409910	SKT43/4D	RG179B/U, 187A/U
051-128-9511910	–	RG180/U, 195A/U



Assembly Instruction BBAI-1041 (Page 132)

Right Angle Plug, Posi-Lock

Part Number	BT Ref.	Cable Numbers
051-128-9219910	SKT43/1C	BT2001
051-128-9229910	SKT43/2C	BT2002
051-128-9239910	SKT43/3C	BT2003
051-128-9239910	SKT43/5C	BT3002, TZC75024
051-128-9159910	–	RG59/U, 62/U, 140/U
051-128-9249910	SKT43/4C	RG179B/U, 187A/U



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