

## Type 43 (SMZ)

ITT's wide range of Cannon Type 43 / SMZ connectors are extensively used in 75 ohm communication systems and have become the recognized standard in telecommunications in many parts of the world.

Designed around the requirements of BS9210 F0022 and draft specifications CECC 122 300, these connectors are designed for field installation and feature the 'Posi-Lock' latch to prevent accidental disconnection.

A special feature of the Cannon Type 43 / SMZ range is the QT (Quick Termination) technology for cable connectors. Designed to reduce assembly time and loose parts, the QT termination system incorporates a connector body with a pre-assembled center contact, termination is simple with no loose contact to drop or lose. QT provides a reliable gas tight connection between the inner conductor of the cable and connector contact that meets the most stringent industry standards. For PCB connectors a snap fit feature is incorporated into certain styles to hold the connector in position during soldering.



### Choice of Two Latching Styles – Standard or HDC (High Density)

ITT's Cannon Type 43 / SMZ connectors are available in 2 package sizes, Standard and HDC (High Density). Whilst both configurations have the same interface dimensions and are intermateable, the outer body size of HDC is reduced to facilitate a closer packing density on the equipment or distribution frame.

### Applications

- Switching Equipment • DSX Cross Connects • Base Stations • Routers • Wireless • Telecom • LAN Equipment

### Features and Benefits

High performance gold plated contact areas ensure reliable long term operation

Posi-Lock locking mechanisms ensure secure coupling and ease of engagement and separation

Designed for the most commonly used telecom cables in North America and Europe

Designed for robust and reliable field installation

Available for BT standard and HDC distribution frames

Three-part construction with crimp inner contact and outer ferrule (no soldering required)

PCB Plugs come with offset legs for board locking

QT (Quick termination) technology available for most cable types

Product offering includes U-links and between series adaptors

True 75 ohm characteristic impedance up to 3 GHz (for selected styles)

Most designs require no special tooling

"Teplock" mounting reduces the time needed for fitting to DDF's

RoHS compliant part numbers



# Cannon 75 Ohm Connectors

## Type 43 (SMZ)

### Specifications

ELECTRICAL	Impedance	75 $\Omega$ nominal
	Frequency Range	0 to 3.0 GHz (some styles limited to 1.0GHz)
	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 G $\Omega$ minimum
	Contact Resistance*	Center contact: 5.0m $\Omega$ maximum. Outer contact: 1.0m $\Omega$ maximum
	Reflection Coefficient	Refer to CECC122300
MECHANICAL	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
	Posi-Lock Latch withstand Pull	220 N (50 lbs.)
	Contact and Insulator Retention	21 N (4.7 lbs.)
ENVIRONMENTAL	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 or zinc
	Vibration Severity	(a) Frequency range: 10 Hz to 500 Hz. (b) Displacement**: 0,75 (.029). (c) Acceleration**: 98 m/s <sup>2</sup> (321 ft./s <sup>2</sup> ). (d) Duration: 6 hours. ** Cross over at approx. 60 Hz
	Shock Severity	490 m/s <sup>2</sup> for 11 ms
	Impact Severity (free specimens only)	5 impacts at 1m
GENERAL	Climatic Category	40/100/21
	Bump	4000 total at 390 m/s <sup>2</sup>
	Free Fall (U Link only)	BS2011: Part 2.1 Ed. Procedure 2. Severity: 50 falls
Connector Durability	250 matings minimum	

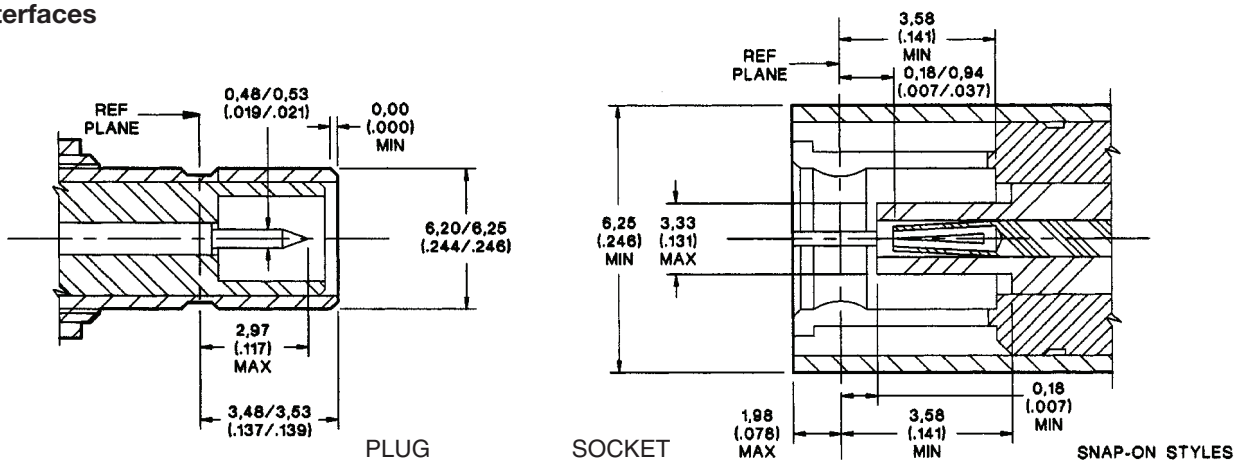
\*Except U Link connectors. See BS9210 F0022 for details.

### NOTES

<sup>1)</sup> Values in this specification are typical for this range. Specific connectors may vary.

<sup>2)</sup> Cannon 75 ohm coaxial connectors are designed to meet or exceed the requirements of BS9210F0022 where applicable. This specification may be superseded by CECC122 300 and the details listed above are subject to change without notice to comply with changes in these specifications.

### Mating Interfaces



Please note that the description of the 2 halves follow the UK telecom format. In other regions a plug may be called a jack, and a socket may be called a plug. Please take care when choosing your connectors.



Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

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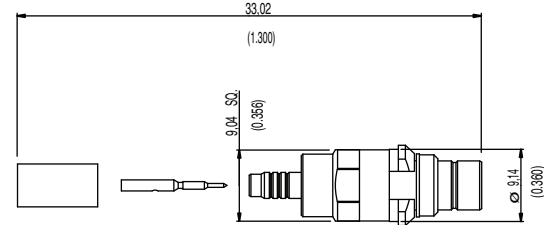
# Cannon 75 Ohm Connectors

## Type 43 (SMZ)

### DDF Crimp Plug

Part Number	Cable Type	Industry Reference
051-127-9739A9A	BT2001	P43/1GTIS
051-127-9749A9A	BT2002	P43/2GTIS
051-127-9759A9A	BT2003	P43/3GTIS
051-127-9769A9A	BT3002 / TZC75024	P43/5GTIS
051-127-9479A9A	RA7000	P43/7GTIS
051-127-9779A9A	RG179B/U	P43/4GTIS

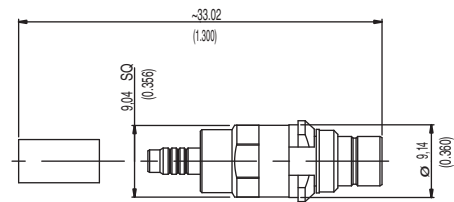
Assembly Instructions: BBAI 1265



### DDF QT Plug

Part Number	Cable Type	Industry Reference
W51-127-9439A9A	BT2003	BT43/3GTIQT
W51-127-9459A9A	BT3002 / TZC75024	BT43/5GTIQT
W51-127-9479A9A	RA7000	
W51-127-9059A9A	RA8000	
W51-127-9289A9A	NCX	
W51-127-9049A9A	735A	
W51-127-9369A9A	ST212 / CT1320/735A (alt)	
W51-127-9789A9A	RG59B	
W51-127-9039A9A	2.5C-2V	
W51-127-9119A9A	0.25/1.3 (mini coax)	

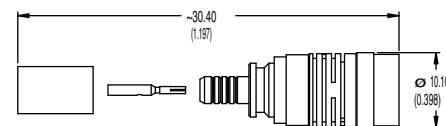
Assembly Instructions: BBAI 1238



### Posilock Straight Crimp Socket

Part Number	Cable Type	Industry Reference
051-124-977991A	BT2002	S43/2FS
051-124-978991A	BT2003	S43/3FS
051-124-979991A	BT3002 / TZC75024	S43/5FS
051-124-983991A	RG179B/U	S43/4FS
051-124-950991A	2.5C-2V	
051-124-943991A	ST212/CT1320/735A	

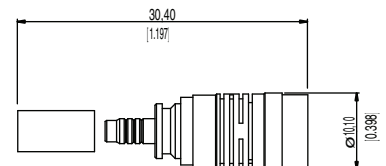
Assembly Instructions: BBAI 1265



### Posilock Straight QT Socket

Part Number	Cable Type	Industry Reference
W51-124-953991A	BT2003	S43/3FQT
W51-124-963991A	BT3002/TZC75024	S43/5FQT
W51-124-960991A	RA7000	S43/7FQT
W51-124-947991A	RA8000	S43/8FQT
W51-124-996991A	735A	
W51-124-944991A	NCX	
W51-124-943991A	ST212 / CT1320/735A (alt)	
W51-124-966991A	RG59U	
W51-124-950991A	2.5C-2V	
W51-124-999991A	0.25/1.3 (mini coax)	

Assembly Instructions: BBAI 1238



Dimensions shown in mm (inch)

Specifications and dimensions subject to change

Contact Customer Service for other cable types

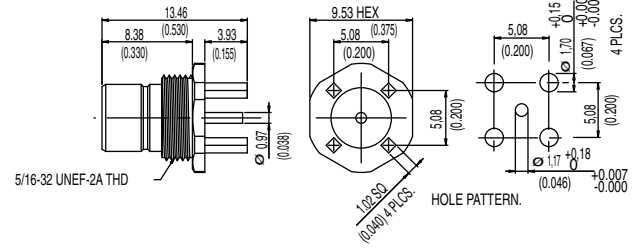




## Type 43 (SMZ)

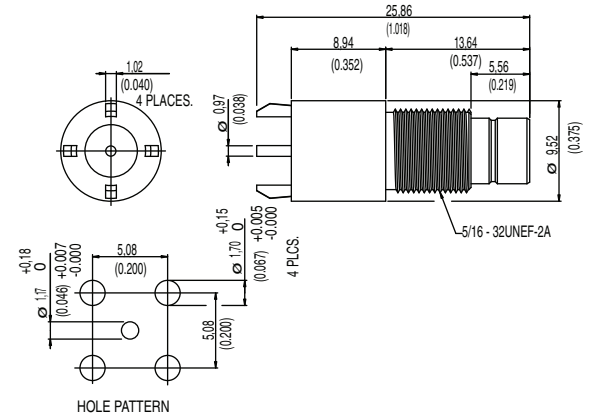
### Straight Screw-lock PCB Plug

Part Number  
051-151-9029A9A



### Straight Bulkhead PCB Plug

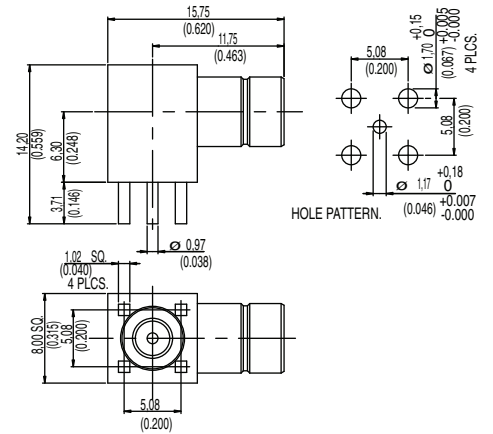
Part Number  
051-151-9079A9A



A0023384 Panel Mounting Hardware kit  
(Washer and Lock Nut)

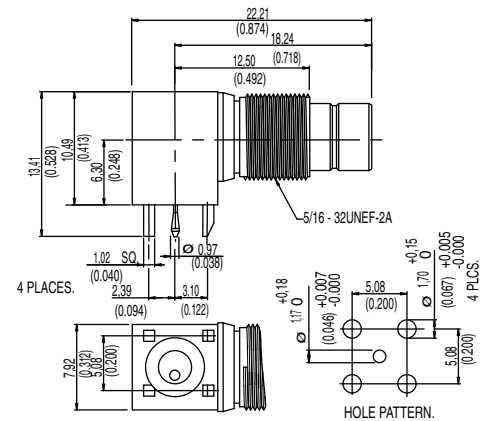
### Right Angle PCB Plug

Part Number  
051-153-9089A9A      Plug 43/1E



### Right Angle Bulkhead PCB Plug with board retaining legs

Part Number  
051-153-9119EAA



B0023382 Panel Mounting Hardware Kit  
(Spacer, Washer, Lock Washer, Lock Nut)

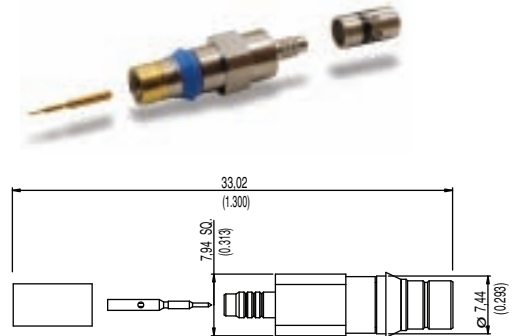
# Cannon 75 Ohm Connectors

## HDC 43 (SMZ)

### HDC43 DDF Crimp Plug

Part Number	Cable Type	Industry Reference
051-127-9849A9A	BT2002	HDC43/2GTIS
051-127-9859A9A	BT2003	HDC43/3GTIS
051-127-9879A9A	RG179B/U	HDC43/4GTIS
051-127-9869A9A	BT3002/TZC75024	HDC43/5GTIS
051-127-9609A9A	RA7000	HDC43/7GTIS

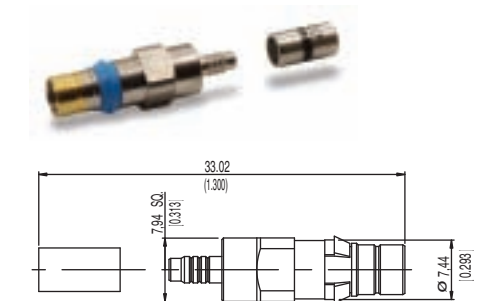
Assembly Instructions: BBAI 1265



### HDC43 DDF QT Plug

Part Number	Cable Type	Industry Reference
W51-127-9929A9A	BT2003	HDC43/3GTIQT
W51-127-9909A9A	BT3002 / TZC75024	HDC43/5GTIQT
W51-127-9609A9A	RA7000	HDC43/7GTIQT
W51-127-9069A9A	RA8000	HDC43/8GTIQT
W51-127-9019A9A	NCX	
W51-127-9029A9A	735A	
W51-127-9379A9A	ST212 / CT1320/735A (alt)	
W51-127-9109A9A	0.25/1.3 (mini coax)	

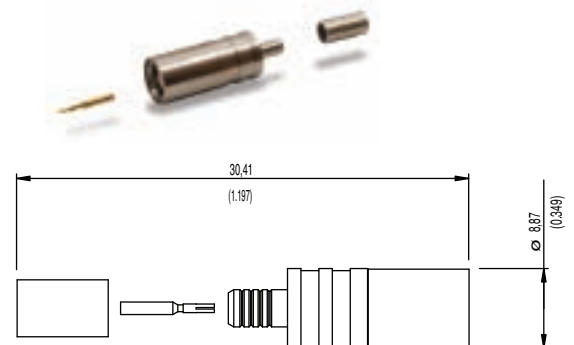
Assembly Instructions: BBAI 1238



### HDC Posilock Straight Crimp Socket

Part Number	Cable Type	Industry Reference
051-124-937991A	BT3002/TZC75024	HDC43/5FS
051-124-929991A	RA7000	HDC43/7FS
051-124-984991A	RG179B/U	HDC43/4FS
051-124-9489C9A	ST212 / CT1320/735A	nickel plated outer contact
051-124-9849C9A	RG179B/U	nickel plated outer contact
051-124-9859C9A	RD179	nickel plated outer contact

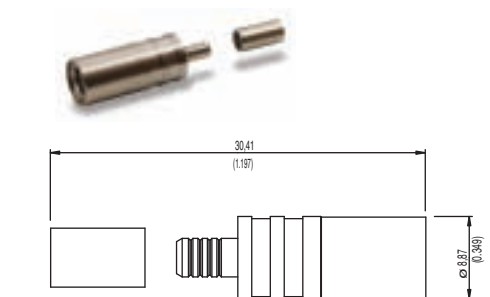
Assembly Instructions: BBAI 1265



### HDC Posilock Straight QT Socket

Part Number	Cable Type	Industry Reference
W51-124-937991A	BT3002/TZC75024	HDC43/5FQT
W51-124-929991A	RA7000	HDC43/7FQT
W51-124-9489C9A	ST212 / CT1320 / 735A	nickel plated outer contact

Assembly Instructions: BBAI 1238



Contact Customer Service for other cable types



Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

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## HDC 43 (SMZ)

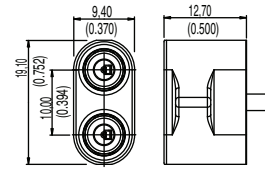
### HDC Coaxial U Links

Part Number

Industry Reference

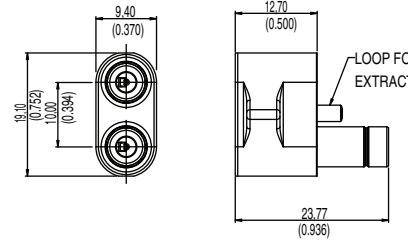
055-181-9129AZ0

HDC Link 10A (without monitor port)



055-181-9139AZ0

HDC Link 10B (with -30dB monitor port)



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Specifications and dimensions subject to change

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