

# COAX

CONNECTORS LTD

## Broadcast connectors

North American edition



[www.coax-connectors.com](http://www.coax-connectors.com)



# Partner with COAX

**COAX Connectors Ltd is the leading UK designer, manufacturer and supplier of high performance RF connectors.**

Our products are underpinned by a high level of design expertise and an unfaltering commitment to service and quality. Having gone through a rigorous development process and extensive testing, the refined design of a COAX connector is sure to deliver the reliable and enduring performance your business needs.

The range shown in this short form brochure includes BNC, Micro BNC (HD BNC), and DIN 1.0/2.3, that can be used with North American standard crimp tooling. COAX also offer a wide range of other 50 & 75 ohm RF connectors and cable assemblies, including SMA, SMB, N Type, TNC, MCX etc.

Many of our connectors are available from stock for fast delivery, but where a bespoke solution is required we have the design capability to deliver a complete end to end service to satisfy your RF connector needs. Our designers can work with you from initial problem solving, through design concepts and prototyping, to supplying a qualified production part.

The full range of 75ohm connectors can be found at [www.coax-connectors.com](http://www.coax-connectors.com)



## COAX in Broadcast

For many years, COAX Connectors Ltd., have focused on developing RF connector solutions to support the increasing demands of the Broadcast equipment and installer markets. If you require a broadcast connector for a 3G application we have many connectors to choose from in our 3G BNC range, including cable connectors and various PCB styles. A small selection of these 3G BNC connectors are featured at the front of this brochure with many more available on our website.

Also in this publication we feature our high performance 12G connectors which will allow your business to stay at the forefront of technological advancements in single channel 12G transmission. Within this brochure you will find 12G DIN 1.0/2.3 connectors, plus our range of 12G BNC and Micro BNC (HD BNC) connectors that are specifically designed to handle 4K, SMPTE ST2082-1 transmissions. These connectors are suitable for a range of cable sizes and are tested to 18GHz. All of our 12G connectors are of course backwardly compatible so provide the flexibility of being suitable for use at 3G all the way up to 12G.

### 3G BNC pages 5-12

The extensive range of 75ohm BNCs includes a selection rated for use up to 3GHz+. These connectors suitable for 3G have a nickel plated outer contact and offer a lower cost solution when compared to the 12GHz versions with gold plated outer contacts.

### 12G BNC pages 14-19

The 'KORUS' 12G BNC range have distinctive black coupling nuts together with gold plated inner and outer contacts. 'KORUS' connectors can be used to easily distinguish new 12G circuits from the existing infrastructure. Permitting 12G transmission over a single channel with low return loss, the KORUS range of connectors includes: straight plugs, straight jacks, right angle plugs, bulkhead jacks, PCB end launch jacks, and adaptors. Nickel plated versions are available for many of these connectors also.

### Micro BNC (HD BNC) pages 20-27

As equipment footprints reduce, the Micro BNC range has been developed to meet the demand for smaller 75ohm RF connectors that save space, yet still provide low loss transmission at high broadcast frequencies. These connectors have been tested up to 18GHz and are suitable for 12G transmissions. Micro BNC, in certain parts of the industry, is referred to as HD BNC and both are fully compatible and intermateable. The Micro BNC from COAX has a unique and patented coupling nut that is extended at the back to make handling easier in confined spaces, United States Patent No. 9,071,013 applies.

### DIN 1.0/2.3 page 28

3G and 12G DIN 1.0/2.3 connectors are available. The small size of these micro miniature connectors makes them suitable for high density mounting. They feature push pull coupling and gold plated inner and outer contacts.

### NEW - microMUSA Patchbay System pages 30-31

The microMUSA video patchbay system delivers 4K performance exceeding SMPTE ST2082-1, and is suitable for composite and component video, 270 Mb/s SDI, uncompressed 1080i or 1080p HD-SDI video and 4K UHD (2160P60) video up to 12GHz. The patchbay part of the system is 1U size and there are 2 variants, 2x32-way and 2x48-way, populated with 12G BNCs and 12G Micro BNCs respectively. MicroMUSA U-Links which are suitable for either panel feature finger grips and positive locking for reliable mating. Patch cords which are made with 12G rated cable complete the system.



## Straight crimp plug

These connectors for applications up to 4.5GHz have a nickel plated outer contact, gold plated inner contact and bright nickel coupling nut.



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
10-005-B36-BH	Belden 735A1, Belden 735C1	BH	0.068" Hex (1.72mm)	0.178" Hex (4.52mm)	3G. Tested to 4.5GHz
10-005-B36-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G. Tested to 4.5GHz
10-005-B36-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G. Tested to 4.5GHz
10-005-B36-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	3G. Tested to 4.5GHz
10-005-B36-FD	Belden 4731R, Belden 7731A, Belden 4731R	FD	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	3G. Tested to 4.5GHz
10-005-B36-FE	Belden 1505F	FE	0.068" Hex (1.72mm)	0.255" Hex (6.48mm)	3G. Tested to 4.5GHz

## What do you do if you need cable assemblies in a hurry?

To complement our extensive range of RF connectors we are pleased to offer a cable assembly service with rapid turnaround. Our service avoids the inconvenience of having to make cable assemblies yourself. Not only can it save you time, it also reduces the need for tooling and testing, eliminates scrap, and ensures correct method of termination.

Whether you want us to do everything for you, or whether you just need us to cut your cables to length ready prepared for your termination we can assist.

**Contact us on +44 (0)20 8538 9090 to discuss your exact requirements.**

## Straight crimp jack

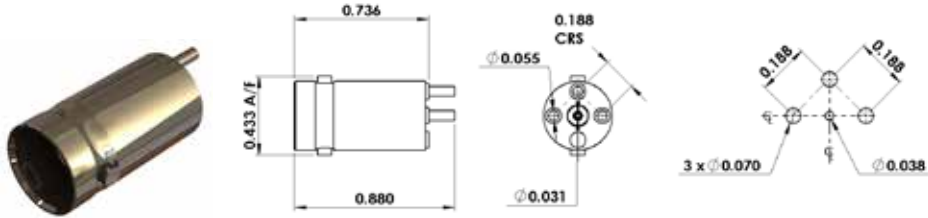
These True 75 ohm straight crimp jacks are for applications up to 4.5GHz. Contact and crimp sleeve are annealed to provide a robust and durable termination, centre contact is gold plated.



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
10-054-B36-EF1	Belden 1855A, Belden 1865A, Belden 4855R Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G. Tested to 4.5GHz
10-054-B36-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G. Tested to 4.5GHz

## Straight PCB True 75ohm with 3 round legs

BNC True 75 ohm straight PCB jack has 3 round legs and is suitable for applications up to 4.5GHz. Gold plated centre contact, nickel plated brass body with a height above board of 0.736".



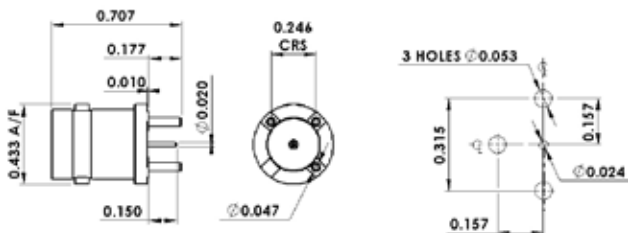
Part Number	Orientation	Specification	Features
10-486-1-B36	Straight	3G	Three round legs - True 75 ohm - 4.5 GHz

## Straight PCB True 75ohm with 3 round solder legs

BNC True 75 ohm straight PCB jack has 3 round legs and is suitable for applications up to 4.5GHz. Gold plated centre contact, nickel plated brass body with a height above board of 0.53".



Part Number	Orientation	Specification	Features
10-486-B36	Straight	3G	Three round legs - True 75 ohm - 4.5 GHz



## Straight PCB through hole solder

A selection of straight PCB connectors with a range of performance levels including True 75 ohm versions for use up to and beyond 3GHz.

Body styles with differing heights and base thickness, and one with the legs rotated through 45 degrees are included. Centre contacts are all gold plated.



Part Number	Orientation	Drawing dimension A	Drawing dimension B	Specification	Features
10-450-B36-13.8	Straight	0.543"	0.177"	3G	Figure 1 - 3GHz True 75 ohm
10-450-B6	Straight	0.543"	0.177"	3G	Figure 1
10-491-B6	Straight	0.736"	0.177"	3G	Figure 1
10-491-B6-45	Straight	0.736"	0.177"	3G	As Figure 1 with legs 45° rotated relative to lugs
10-452-B6	Straight	0.787"	0.17"	3G	Figure 2

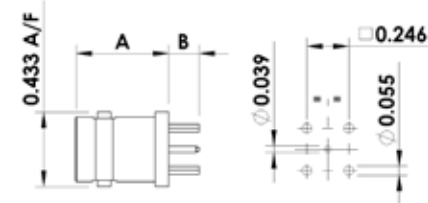


Figure 1

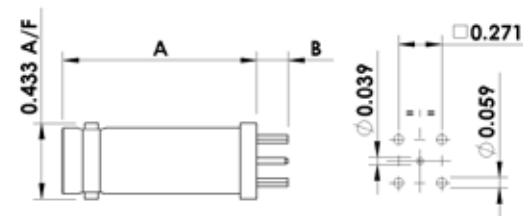


Figure 2



## Right angle PCB through hole solde bulkhead mount

This selection of right angle PCB connectors includes low profile and insulated versions.

Through hole solder pegs on the main body provide support to the connector which can be bulkhead mounted using the supplied nut and lock washer. Slotted circular fixing nuts (100-075) are also available, see our website for details.

Connectors are supplied complete with nut and lock washer. Centre contacts are gold plated, metallic body parts are nickel plated.

To assist during assembly 10-466-1-A8 is fitted with boardlock pegs that hold the connector firmly in place before soldering.



Figure 1

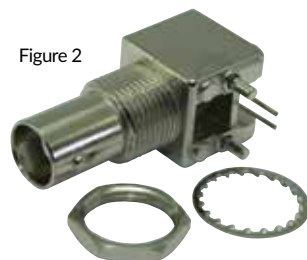


Figure 2



Figure 3

Part Number	Dimension A	Dimension B	Orientation	Mounting Type	Specification	Features
10-466-A8	0.28"	0.508"	Right angle	Bulkhead	3G	Figure 1 - Low Profile
10-468-A8	0.323"	0.598"	Right angle	Bulkhead	3G	Figure 2
10-466-1-A8	0.323"	0.598"	Right angle	Bulkhead	3G	Figure 2 *
10-471-K1	0.272"	0.516"	Right angle	Bulkhead	3G	Figure 3 - White insulated body
10-471-K6	0.272"	0.516"	Right angle	Bulkhead	3G	Figure 3 - Black insulated body

\*10-466-1-A8 is fitted with Board Locks in place of solder pegs that are not shown in the picture

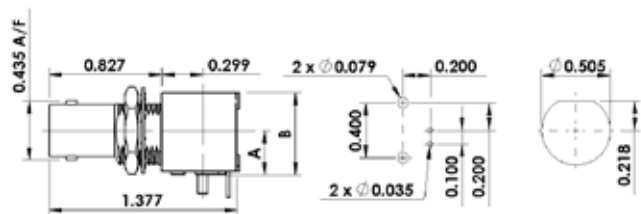


Figure 1, 2, 3

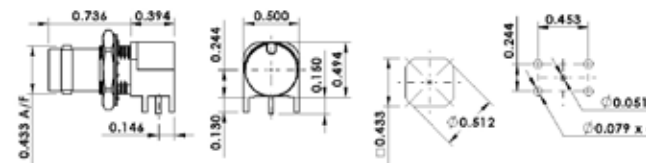


## Right angle PCB bulkhead mount

This right angle PCB connector is designed to give True 75 ohm performance offering low return loss across the frequency range. The fully machined body, with either gold or nickel plating, and swept gold plated centre contact ensures optimum performance.

This connector is ideal for use in High Definition broadcast routers performing to SMPTE 424M, and other 75 ohm low loss signal applications.

Part Number	Orientation	Mounting Type	Specification	Features
10-470-B36	Right angle	Bulkhead	3G	3GHz Nickel plated
10-416-D66	Right angle	Bulkhead	3G	3GHz Gold plated

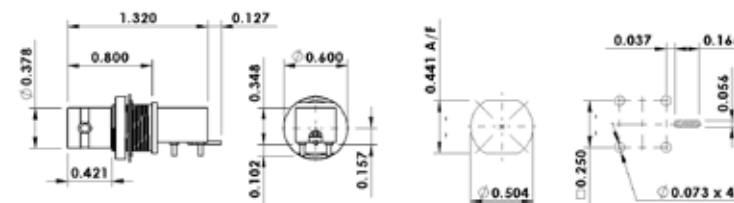


## Right angle PCB bulkhead mount, with surface mount centre contact



This right angle PCB connector is designed to give True 75 ohm performance offering exceptional low return loss up to 4.5GHz. This connector has a gold plated surface mount centre contact and has a fully machined main body. Supplied with a slotted circular fixing nut, suitable tooling can be found in the Tooling section of this catalogue.

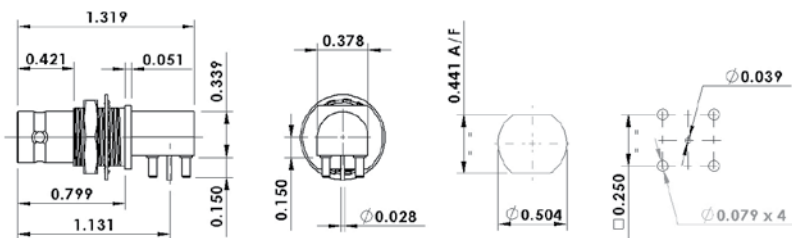
Part Number	Orientation	Mounting Type	Specification	Features
10-482-B36	Right Angle	Bulkhead	3G	4.5 GHz nickel plated, SMT contact.



## Right angle PCB - 3GHz ultra low profile bulkhead mount

This right angle PCB connector is designed to give True 75 ohm performance offering exceptional low return loss across the frequency range. The fully machined body, with nickel plating, and swept gold plated centre contact ensures optimum performance up to 3GHz and beyond. Slotted circular fixing nuts are also available.

The right angle body has a very low profile, with a height of only 0.394" above the board. Fixing is through hole solder pegs.

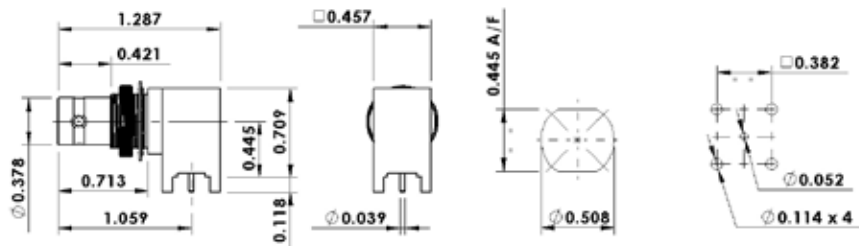


Part Number	Orientation	Mounting Type	Specification	Features
10-470-2-B36	Right angle	Bulkhead	3G	3GHz nickel plated

## Right angle PCB through hole solder bulkhead mount

True 75 ohm right angle bulkhead jack for applications up to 3GHz. The machined body is nickel plated and the contact is gold plated.

This connector is supplied complete with nickel plated lock washer and slotted circular nut. Suitable tooling can be found in the Tooling section of this catalogue.



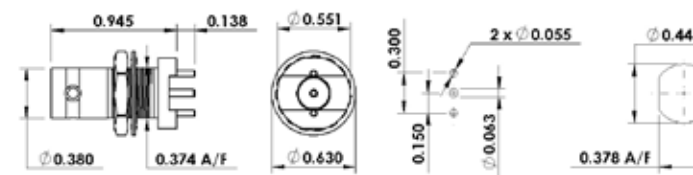
Part Number	Orientation	Mounting Type	Specification	Features
10-468-B36	Right angle	Bulkhead	3G	True 75 ohm - 3GHz

## Straight bulkhead PCB solder jack

PCB mounted jack that can be bulkhead fixed with the supplied nut and lock washer. Slotted circular fixing nuts (100-075) are also available, see our website for details.

This connector has 3 legs (2 ground + centre) in a straight line and double D flats to provide anti-rotation when bulkhead mounted.

Suitable for use in applications up to 6GHz.



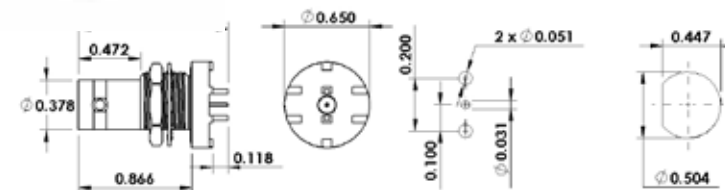
Part Number	Orientation	Mounting Type	Specification	Features
10-487-B36	Straight	Bulkhead	3G & 6G	True 75 ohm - 6 GHz

## Straight bulkhead PCB jack with panel seal

PCB mounted jack that can be bulkhead fixed with the supplied nut and lock washer. Slotted circular fixing nuts (100-075) are also available, see COAX website for details.

This connector has 3 legs (2 ground + centre) in a straight line and single D flats to provide anti-rotation when bulkhead mounted.

Suitable for use in applications up to 3GHz.

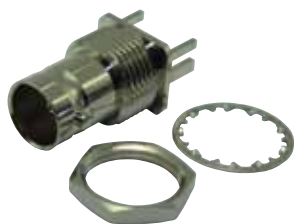


Part Number	Orientation	Mounting Type	Specification	Features
10-455-B36	Straight	Bulkhead	3G	True 75 ohm - 3GHz with panel seal

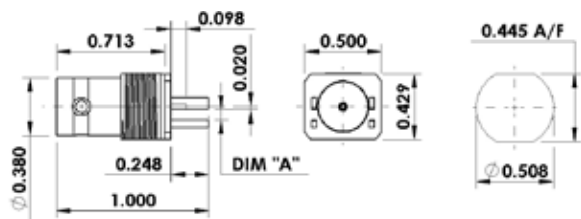
## PCB end launch bulkhead mount

PCB edge mount connectors for a range of board thicknesses. These connectors are soldered directly to solder pads on the edge of the board, offering significant space saving when compared with right angle through hole soldered versions.

Supplied with or without nut and lock washer for panel mounting. Alternative slotted circular fixing nuts (100-075) are also available, see accessories section on COAX website for details.



Part Number	Orientation	Mounting Type	Dimension A	Contact length	Specification	Features
10-462-B36-1.6	End launch	Bulkhead	0.067"	0.079"	3G	0.063" board 3GHz, nickel plated body
10-462-B36-1.85	End launch	Bulkhead	0.076"	0.098"	3G	0.073" board 3GHz, nickel plated body



## Custom Designs

At COAX, we understand that not all customer applications can be satisfied using standard and off the shelf products. Our design and engineering specialists can evaluate such applications and propose solutions.

Typical examples of our successful resolution of customer problems include -

- New connector designs for saving space
- Adapting standard connectors to fit customer's housings
- Creating custom modules to improve handling
- Reducing insertion loss to improve bandwidth
- Ruggedized housing to seal and protect standard connectors

If you have an interconnect problem, please contact us to discuss how we might help.



Fibre from 'COAX'!  
Fully sealed shroud for fibre cable leads



Multi-way housings  
(2-11+) to make connections faster and more secure



## Straight crimp plug

The 12G BNC plugs are available with either the 'KORUS' black coupling nuts or standard nickel.

Whilst designed specifically for 12G use these high performance plugs can equally be used for a range of applications from 3G to 12G.

Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
10-005-W126-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	'KORUS' Black Coupling Nut
10-005-W126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	'KORUS' Black Coupling Nut
10-005-W126-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	'KORUS' Black Coupling Nut
10-005-W126-FD	Belden 7731A, 4731R	FD	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	'KORUS' Black Coupling Nut
10-005-W126-FI	Belden 1794A, Belden 4794R	FI	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	Nickel Coupling Nut
10-005-D126-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	Nickel Coupling Nut
10-005-D126-FB1	Belden 1505A, Belden 4505R, Belden 70081NH, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	Nickel Coupling Nut
10-005-D126-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	Nickel Coupling Nut
10-005-D126-FI	Belden 1794A, Belden 4794R	FI	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	Nickel Coupling Nut

## Right angle crimp plug

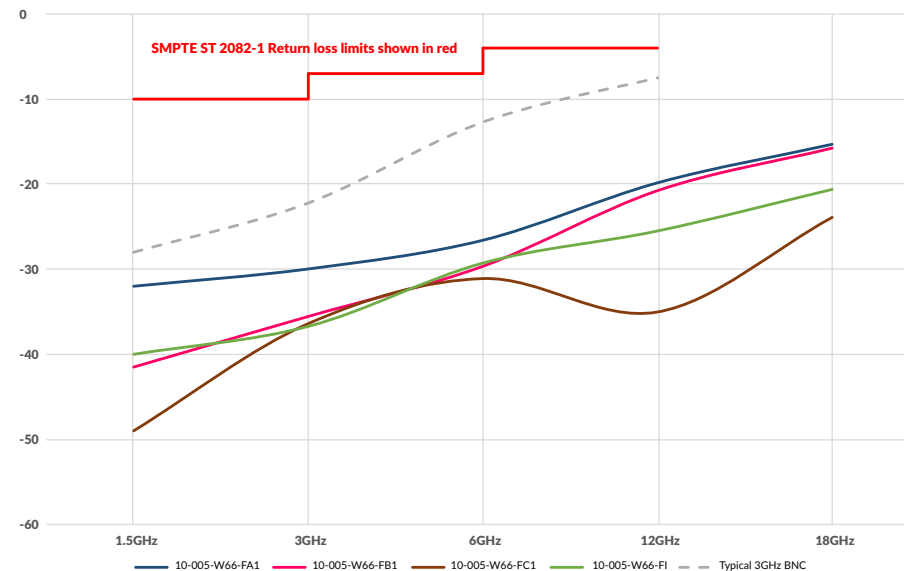
The 12G BNC plugs are available with either the 'KORUS' black coupling nuts or standard nickel.

Whilst designed specifically for 12G use these high performance right angle plugs can equally be used for a range of applications from 3G to 12G.



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
10-104-W126-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	'KORUS' Black Coupling Nut
10-104-W126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	'KORUS' Black Coupling Nut
10-104-W126-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	'KORUS' Black Coupling Nut
10-104-D126-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	Nickel Coupling Nut
10-104-D126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	Nickel Coupling Nut
10-104-D126-FC1	Belden 1694A, Belden 1694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	Nickel Coupling Nut

## 12G BNC Plug return loss



### Testing notes

The above data was derived from the tests carried out on the connector part numbers indicated, and where possible using a cable rated by the manufacturer for 12G use. Where no suitable 12G cable was available, the best performing equivalent was used.

## Cables & cable groups

COAX Cable Group	Typical Cable Dimensions			Typical Cable Types for more information visit <a href="http://www.coax-connectors.com">www.coax-connectors.com</a>
	Conductor	Insulation	Jacket	
EF	0.023" / 0.58mm	0.102" / 2.59mm	0.159" / 4mm	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD
FB	0.032" / 0.81mm	0.145" / 3.68mm	0.234" / 5.94mm	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD
FC	0.04" / 1.02mm	0.18" / 4.57mm	0.275" / 7mm	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD
FI	0.051" / 1.29mm	0.225" / 5.72mm	0.32" / 8.13mm	Belden 1794A, Belden 4794R

Cables shown are typical of those that can be used with a COAX connector in a specified 'Cable Group'. The inclusion of any cable above does not necessarily indicate that it is suitable for any specific application, 12G or otherwise. Please check cable manufacturer specification for suitability.



## Straight crimp jack

These True 75 ohm straight crimp jacks which include a gold plated body and inner contact are suitable for use up to 12GHz. The true 75 ohm options are specially designed to give improved performance when used at higher frequencies or in Ultra High Definition Broadcast systems.

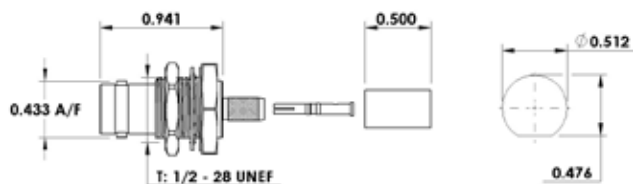
See table below for crimp sizes; suitable tooling can be found in the Accessories & Tooling section of this catalogue.

**Whilst designed specifically for 12G use these high performance jacks can equally be used for a range of applications from 3G to 12G.**

Part Number	Typical Cable Types (For more visit website)	Cable Group	Centre Contact	Outer Contact	Features
10-054-D126-BH	Belden 735A1, Belden 735C1	BH	0.042" Square (1.07mm)	0.213" Hex (5.41mm)	3G, 6G and 12G compliant
10-054-D126-EF1	Belden 1855A, Belden 1865A, Belden 4855R Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G, 6G and 12G compliant
10-054-D126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G, 6G and 12G compliant
10-054-D126-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	3G, 6G and 12G compliant
10-054-D126-FD	Belden 4731R Belden 7731A	FD	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	3G, 6G and 12G compliant
10-054-D126-FI	Belden 1794A, Belden 4794R	FI	0.10" Hex (2.54mm)	0.429" Hex (10.9mm)	3G, 6G and 12G compliant



## Straight bulkhead jack insulated



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
10-258-D126-EF1	Belden 1855A, Belden 1865A, Belden 4855R Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G, 6G and 12G compliant
10-258-D126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G, 6G and 12G compliant
10-258-D126-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	3G, 6G and 12G compliant

## PCB end launch bulkhead mount

PCB edge mount connectors for a range of board thicknesses. These connectors are soldered directly to solder pads on the edge of the board, offering significant space saving when compared with right angle through hole soldered versions.

Supplied with or without nut and lock washer for panel mounting. Alternative slotted circular fixing nuts (100-075) are also available, see accessories section on COAX website for details.

**Whilst designed specifically for 12G use these high performance connectors can equally be used for a range of applications from 3G to 12G.**



Figure 1



Figure 2

Part Number	Centre Contact	Outer Contact	Dimension A	Contact length	Features
10-462-D126-1.6	Solder	Solder	0.067"	0.098"	Figure 1 for 0.067" board 12GHz, gold plated body
10-462-1-D126-1.6	Solder	Solder	0.067"	0.098"	As above, without nut and washer
10-462-D126-2.2	Solder	Solder	0.087"	0.098"	Figure 1 for 0.087" board 12GHz, gold plated body
10-462-1-D126-2.2	Solder	Solder	0.087"	0.098"	As above, without nut and washer
10-462-B126-1.6	Solder	Solder	0.067"	0.098"	Figure 2 for 0.067" board 12GHz, nickel plated body

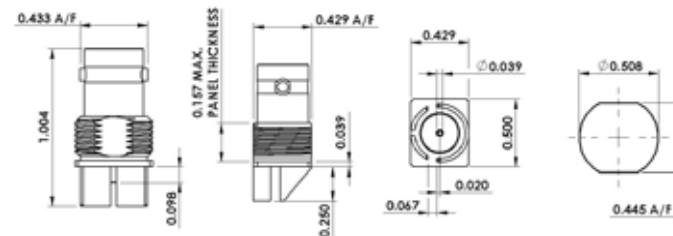


Figure 1

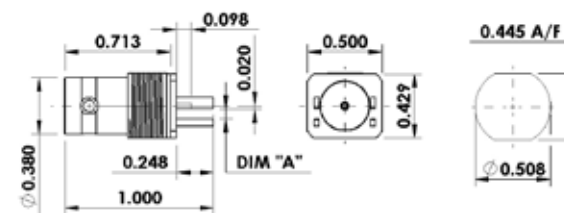


Figure 2



# Adaptors

Adaptors in a range of configurations for connection within the BNC series. All adaptors have gold plated centre contacts. For connecting BNC to other coaxial connector types, see our range of Inter Series Adaptors.

Figure 1

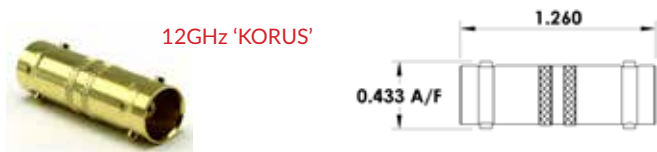


Figure 2

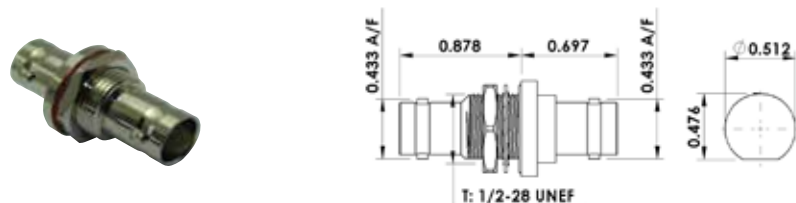


Figure 3

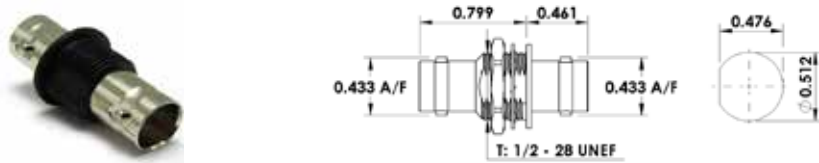


Figure 4

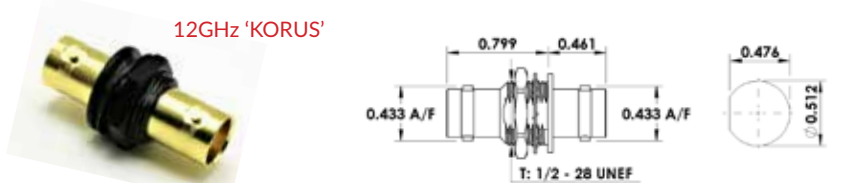


Figure 5

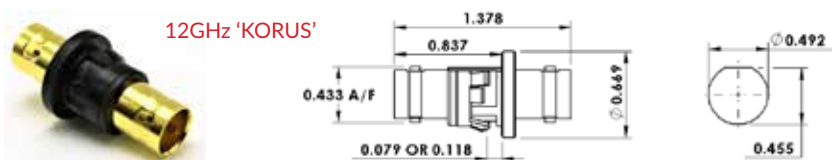


Figure 6



Figure 7

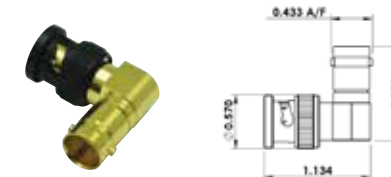


Figure 8

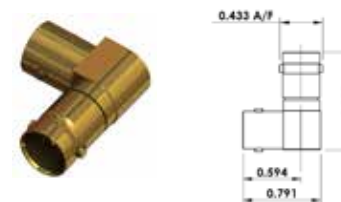
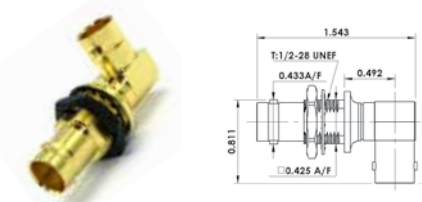


Figure 9



Part Number	Figure	Description	Interface Arrangement		Features
			Left	Right	
10-500-B36	Fig. 1	Straight Adaptor	Jack	Jack	3GHz nickel plated
10-500-B66	Fig. 1	Straight Adaptor	Jack	Jack	6GHz nickel plated
10-500-D66	Fig. 1	Straight Adaptor	Jack	Jack	'KORUS' 6GHz gold plated
10-500-W126	Fig. 1	Straight Adaptor	Jack	Jack	'KORUS' 12GHz gold plated
10-501-A6	Fig. 2	Straight Bulkhead Adaptor	Jack	Jack	Bulkhead seal - nickel plated
10-501-B36	Fig. 2	Straight Bulkhead Adaptor	Jack	Jack	Bulkhead seal - 4.5GHz nickel plated
10-503-A6	Fig. 3	Straight Bulkhead Insulated Adaptor	Jack	Jack	Nickel plated Also available in pack of 50
10-503-B36	Fig. 3	Straight Bulkhead Insulated Adaptor	Jack	Jack	4.5GHz nickel plated
10-503-W126	Fig. 4	Straight Bulkhead Insulated Adaptor	Jack	Jack	'KORUS' 12GHz gold plated
10-550-B36	Fig. 5	Straight Bulkhead Insulated Adaptor	Jack	Jack	Push-Fit to panel 4.5GHz nickel plated
10-550-W126	Fig. 5	Straight Bulkhead Insulated Adaptor	Jack	Jack	Push-Fit to panel 'KORUS' 12GHz gold plated.
10-520-A0	Fig. 6	Right Angle Adaptor	Plug	Jack	Nickel plated
10-520-B66	Fig. 6	Right Angle Adaptor	Plug	Jack	6GHz nickel plated
10-520-W66	Fig. 7	Right Angle Adaptor	Plug	Jack	'KORUS' 6GHz gold plated
10-519-B66	Fig. 8	Right Angle Adaptor	Jack	Jack	6GHz nickel plated
10-519-D66	Fig. 8	Right Angle Adaptor	Jack	Jack	'KORUS' 6GHz gold plated
10-538-W66	Fig. 9	Right Angle Bulkhead Adaptor	Jack	Jack	'KORUS' 6GHz gold plated



## Micro BNC (HD BNC)

Micro BNC (also known as HD BNC) connectors are used extensively in the Broadcast industry as a smaller alternative to the standard BNC connector. Where high performance in a high density package is required, the Micro BNC is the ideal solution. Micro BNC connectors are fully intermateable and interchangeable with other series of HD-BNC/High density BNC.

These Micro BNCs meet the requirements of SMPTE ST 2082-1, for used in 12G UHD-SDI and Ultra HD 4K applications.

With a diameter of only 0.31" (7.8mm), mounting density is increased by more than 4 times when compared with a standard BNC. If space allows, the extended coupling nut (US Patent No. 9,071,013) enables the connectors to be mated and unmated without the use of a tool.

### Key features:

- True 75 ohm
- Tested to 18 GHz
- Patented coupling nut for easy connection
- Meets SMPTE ST 2082-1 for 12G-SDI

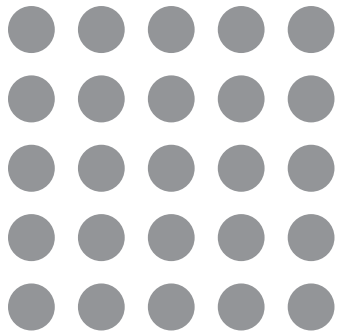
## Straight crimp plug



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact	Outer Contact	Features
67-005-B66-AB	Belden 179DT	AB	0.0375" Square (0.95mm)	0.128" Hex (3.25mm)	3G, 6G and 12G compliant
67-005-B66-BH	Belden 735A1, Belden 735C1	BH	0.0375" Square (0.95mm)	0.178" Hex (4.25mm)	3G, 6G and 12G compliant
67-005-B66-EF	Belden 1855A, Belden 1865A Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G, 6G and 12G compliant
67-005-B66-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G, 6G and 12G compliant
67-005-B66-FC	Belden 1694A, Belden 1694F, Belden 4694F Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	3G, 6G and 12G compliant
67-005-B66-FI	Belden 1794A, Belden 4794R	FI	0.068" Hex (1.72mm)	0.324" Hex (8.23mm)	3G, 6G and 12G compliant

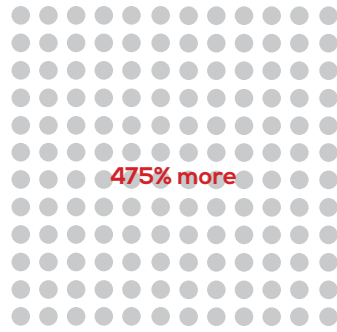
### Standard BNC

3.8" (96mm) Square Area



25 Connectors

### Micro BNC (HD BNC)



144 Connectors  
0.315" (8mm) Pitch

## Straight crimp jack



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact	Outer Contact
67-054-B66-EF	Belden 1855A, Belden 1865A Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)
67-054-B66-FB1	Belden 1505A, Belden 70081NH' Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)
67-054-B66-FC	Belden 1694A, Belden 1694F Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)



Figure 1

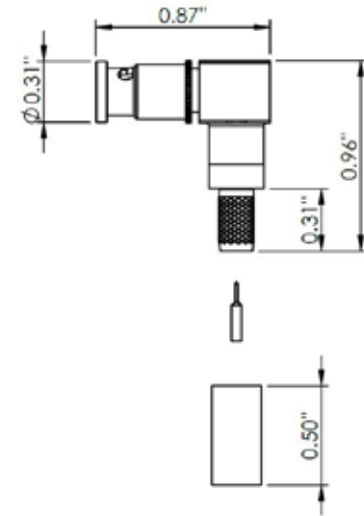


Figure 2

## PCB push-on plug (without bayonet nut)

These PCB plugs do not have the bayonet locking nut fitted so are ideal for board to board applications or for situations where locking is not required.

## Right angle crimp plug



Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
67-104-B126-EF1	Belden 1855A, Belden 1865A Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	3G, 6G and 12G compliant
67-104-B126-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	3G, 6G and 12G compliant
67-104-B126-FC1	Belden 1694A, Belden 1694F Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	3G, 6G and 12G compliant



### New Connectors

We are regularly designing new connectors to enhance our range, if you can not find what you need please contact us.

Figure 1

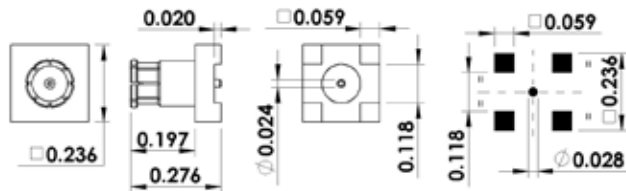
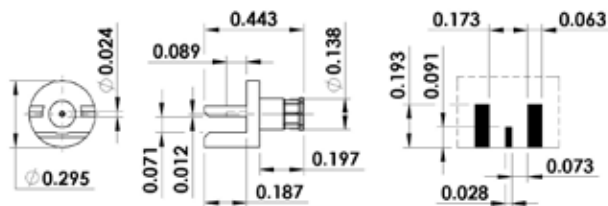


Figure 2



Part Number	Figure	Features
67-403-D126	Figure 1	Straight, surface mount, PCB jack
67-409-D126-1.6	Figure 2	End launch, PCB jack, for 0.623" Board



# Straight and Right angle PCB jacks



Figure 1



Figure 2



Figure 3

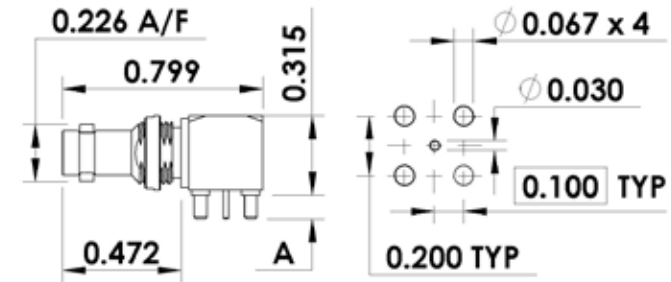


Figure 2

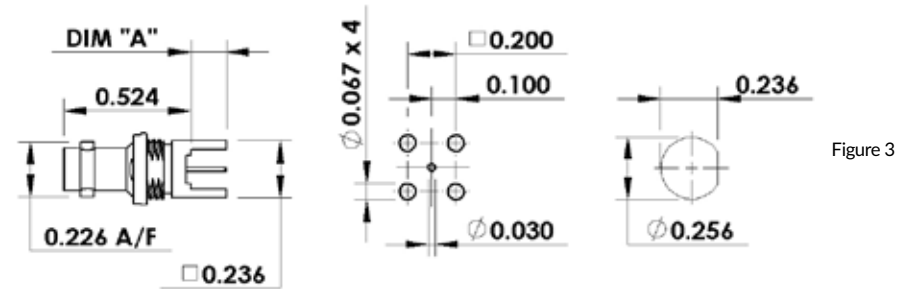


Figure 3

Part Number	Orientation	Mounting Type	Dimension A	Specification	Features
67-410-B126	End Launch	Bulkhead	-	3G, 6G and 12G compliant	SMT Centre Contact. Locking Legs. Available in tape and reel for pick and place assembly.
67-454-D66	Straight	Bulkhead	0.146"	3G and 6G compliant	Figure 3
67-454-1-D66	Straight	Bulkhead	SMT	3G, 6G and 12G compliant	Surface mount. Figure 3
67-454-2-D66	Straight	-	0.118"	3G and 6G compliant	Figure 3
67-454-3-D66	Straight	Bulkhead	0.063"	3G, 6G and 12G compliant	Figure 3
67-476-D66 12.25	Straight	-	0.490"	3G and 6G compliant	Figure 1 - 3 Leg + Centre contact 12GHz
67-476-D66-8.3	Straight	-	0.327"	3G, 6G and 12G compliant	Figure 1 - 3 Leg + Centre contact 12GHz
67-468-D66	Right angle	Bulkhead	0.094"	3G, 6G and 12G compliant	Figure 2
67-468-1-D66	Right angle	Bulkhead	0.146"	3G, 6G and 12G compliant	Figure 2 - Centre contact - plated 15µ"
67-468-2-D66	Right angle	Bulkhead	0.079"	3G, 6G and 12G compliant	Figure 2
67-468-3-D66	Right angle	Bulkhead	0.146"	3G, 6G and 12G compliant	Figure 2

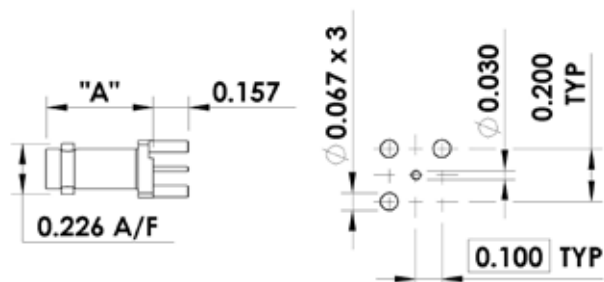
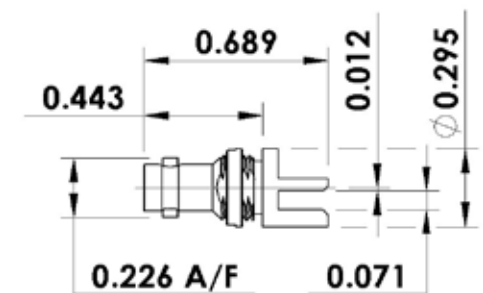


Figure 1

## End launch PCB jack



Part Number	Orientation	Mounting Type	Specification	Features
67-463-D66 1.6	End Launch	Bulkhead	12G	Board edge fitting to 0.0623" Board 12GHz

## Twin right angle PCB jack Offset & vertical stacked



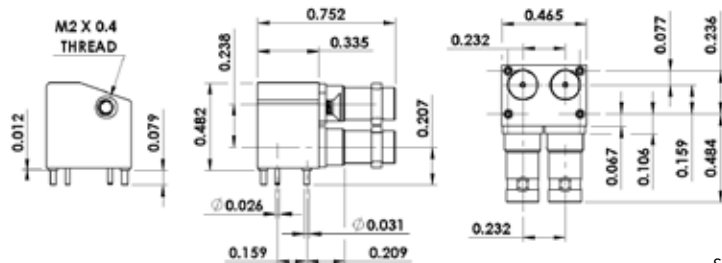
Figure 1



Figure 2

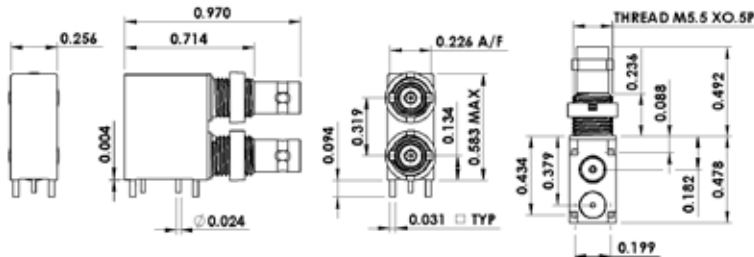
Part Number	Orientation	Mounting Type	Specification	Features
92-67-468-3	Right angle	-	3G, 6G and 12G compliant	Offset stacked with screw fix to panel. 0.079" PCB legs, Gold front body, Figure 1
92-67-468-3-BSN126	Right angle	-	3G, 6G and 12G compliant	Offset stacked with screw fix to panel. 0.079" PCB legs, Nickel front body, Figure 1
92-67-468-2-B126	Right angle	Bulkhead	3G, 6G and 12G compliant	Vertical stacked with bulkhead nut fixing to panel. 0.094" PCB legs Figure 2

Figure 1



See data sheet for mounting details

Figure 2



## Adaptors

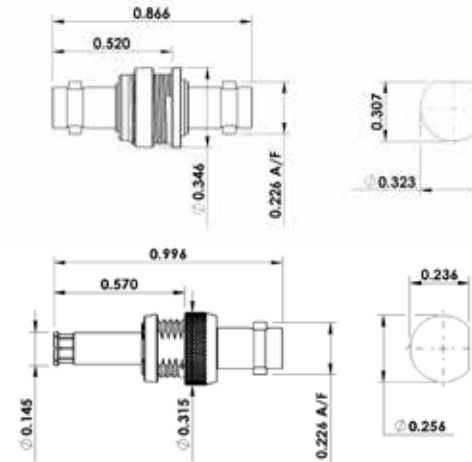


Figure 1



Figure 2



Part Number	Orientation	Mounting	Specification	Features
67-503-D126	Straight	Bulkhead	3G, 6G and 12G compliant	Bulkhead Jack to Jack with isolated metal threaded bush - Figure 1
67-512-B66	Straight	Bulkhead	3G, 6G and 12G compliant	Bulkhead Plug to Jack - without coupling nut on jack, for quick test applications - Figure 2

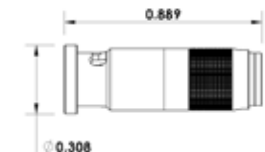
## 75 ohm termination

This plug device provides a 75 ohm termination for any unused jack port.

This part has the same rear extended coupling nut (sleeve) used for the plug connectors. The sleeve incorporates a feature that allows it to be connected and disconnected with the standard tool (96-1132) used for cable plugs.



Part Number	Features
67-863-B36	Return Loss: 26dB @ 12GHz



## General information and product safety notice.

This short form publication contains only limited information on a selected range of products. Information on safety, warranty, handling and full product details are contained in our catalogues, data sheets, website or can be supplied on request. Failure to observe this information and the operating conditions specified could result in hazardous conditions.

COAX Connectors Limited continuously works to improve their products, therefore products may deviate from the description, technical data and shape as shown in this catalogue and data sheets.



## Straight crimp plug (12G)

Push-Pull crimp plugs are connected by simply pushing onto the mating half, and to remove, pull back on the latching sleeve either by hand, or where space is restricted, by using removal tool (96-1023). Body parts are nickel plated and braid is terminated with a hexagon crimp.

Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
52-005-B6-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	12G. Tested to 18GHz
52-005-B6-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	12G. Tested to 18GHz
52-005-B6-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	12G. Tested to 18GHz



## Straight crimp jack (12G)

These cable jacks have crimped inner and outer gold plated contact and body. Depending on cable type, connectors are available for use up to 12GHz

Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
52-054-D6-EF1	Belden 1855A, Belden 1865A, Belden 4855R, Canare L-2.5CFB, Canare L-2.5CHD	EF	0.042" Square (1.07mm)	0.178" Hex (4.52mm)	12G. Tested to 18GHz
52-054-D6-FB1	Belden 1505A, Belden 70081NH, Belden 4505R, Canare L-4CFB, Canare L-4CHD	FB	0.042" Square (1.07mm)	0.255" Hex (6.48mm)	12G. Tested to 18GHz
52-054-D6-FC1	Belden 1694A, Belden 1694F, Belden 4694F, Belden 4694R, Canare L-5CFB, Canare L-4.5CHD	FC	0.042" Square (1.07mm)	0.278" Hex (7.06mm)	12G. Tested to 18GHz



## Right angle Push-Pull crimp plug (3G)

All right angle cable plugs have gold plated inner and outer contacts. The inner centre conductor is soldered through the hole in the rear body, and the outer conductor is crimped. Plugs can be connected and disconnected by hand, or where space is restricted, a removal tool is available (96-1023).

Part Number	Typical Cable Types (for more visit website)	Cable Group	Centre Contact Crimp	Outer Contact Crimp	Features
52-104-B6-AB	Belden 179DT	AB	Solder	0.128" Hex (3.25mm)	3G. Tested to 4.5GHz
52-104-B6-FA	Belden 1855A, Belden 1855ENH, Belden 1865A, Belden 4855R	FA	Solder	0.213" Hex (5.41mm)	3G. Tested to 4.5GHz

# Tooling

See page 32





### microMUSA video patchbay

The microMUSA video patchbay system delivers 4K performance exceeding SMPTE ST2082-1, and is suitable for composite and component video, 270 Mb/s SDI, uncompressed 1080i or 1080p HD-SDI video and 4K UHD (2160P60) video up to 12GHz.

The patchbay part of the system is 1U size and there are two variants. The rear of the 2x32 version is populated with 64 12G BNC connectors, and uniquely the 2x48 way version is populated with amazing 96 high density True 75ohm Micro BNC connectors.



Part Number	Panel size	Rear interface	Colour	Specification
99-609-BK	1U 2x32	BNC	Black	3G, 6G and 12G compliant
99-610-BK	1U 2x48	Micro BNC	Black	3G, 6G and 12G compliant

### microMUSA U-link

U-link bodies are made of cast metal and include finger grips for ease of insertion or extraction. The detent feature on the microMUSA gives tactile feedback to ensure 100% mating. The machined and formed U-link male contact provides a seamless repeatable signal path.

Different colour variants are available to assist with identification within a patchbay panel.



Part Number	Colour	Specification
64-564-D126-BK	Black	3G, 6G and 12G compliant
64-564-D126-BR	Brown	3G, 6G and 12G compliant
64-564-D126-RE	Red	3G, 6G and 12G compliant
64-564-D126-OR	Orange	3G, 6G and 12G compliant
64-564-D126-YE	Yellow	3G, 6G and 12G compliant
64-564-D126-GN	Green	3G, 6G and 12G compliant
64-564-D126-BL	Blue	3G, 6G and 12G compliant
64-564-D126-VI	Violet	3G, 6G and 12G compliant
64-564-D126-GY	Grey	3G, 6G and 12G compliant
64-564-D126-WH	White	3G, 6G and 12G compliant

### microMUSA patchcords

Patchcords for the microMUSA use 12G rated cable, and come in a range of different lengths to suit your requirements. Different boot colours are also available to help with identification.



Part Number	Length	Colour Boot	Specification
515-64XX-12	12"	See list below	3G, 6G and 12G compliant
515-64XX-24	24"	See list below	3G, 6G and 12G compliant
515-64XX-36	36"	See list below	3G, 6G and 12G compliant
515-64XX-48	48"	See list below	3G, 6G and 12G compliant
515-64XX-72	72"	See list below	3G, 6G and 12G compliant

XX denotes boot colour

- BK = Black
- BR = Brown
- RE = Red
- OR = Orange
- YE = Yellow
- GN = Green
- BL = Blue
- VI = Violet
- GY = Grey
- WH = White



## Crimp tools

A range of hand held crimp tools for centre contacts and/or crimp sleeves for the crimp connectors supplied by COAX Connectors.



Part Number	Description	Crimp die sizes
96-HTS-75A	Ratchet Crimp Tool	0.0375" Square (0.95mm), 0.042" Square (1.07mm), 0.068" Hex (1.72mm), 0.213" Hex (5.41mm), 0.324" Hex (8.23mm)
96-HTS-76	Ratchet Crimp Tool	0.0375" Square (0.95mm), 0.068" Hex (1.72mm), 0.213" Hex (5.41mm), 0.255" Hex (6.48mm)
96-HTS-77	Ratchet Crimp Tool	0.042" Square (1.07mm), 0.178 Hex (4.52mm), 0.255" Hex (6.48mm), 0.278" Hex (7.06mm)
96-HTS-43	Ratchet Crimp Tool	0.0375" Square (0.95mm), 0.128" Hex (3.25mm), 0.178" Hex (4.52mm), 0.204" Hex (5.18mm)
96-336K	Ratchet Crimp Tool	0.10" Hex (2.54mm), 0.128" Hex (3.25mm), 0.429" Hex (10.9mm)

## Extraction / insertion tools

Tools designed for extracting and or inserting connectors used in high density applications where there is insufficient room for finger access.



Part Number	Description
96-1023	1.0/2.3 extractor tool
96-1132	Micro BNC plug insertion & extractor tool
96-1137	Micro BNC plug insertion & extractor tool (for use with larger cables)
96-1132-150	Micro BNC plug insertion & extractor tool - 150mm long version
96-2208	BNC insertion & extractor tool 8" (200mm)

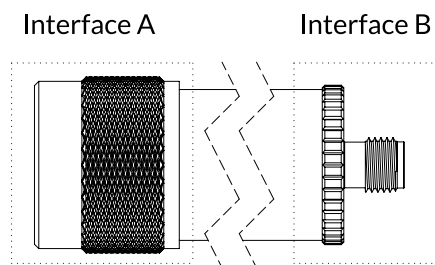


## Inter-Series Adaptors

A wide selection of adaptors are available to connect between the different connector series.

Select Interface A and B from the table to find the appropriate part number. Adaptors for interconnection within the same connector series (e.g. BNC to BNC) are shown in the pages for that type.

Part Number	Features
74-1067-500	Micro BNC Jack to BNC Jack Straight Adaptor
74-1067-511	Micro BNC Jack to BNC Plug Straight Adaptor
74-1067-514	Micro BNC Plug to BNC Plug Straight Adaptor
74-1067-534	Micro BNC Plug to BNC Jack Straight Adaptor
74-1052-500	BNC Jack to Din 1.0/2.3 Jack 75 Ohm 6G Straight Adaptor
74-1052-534-B36	BNC Jack to Din 1.0/2.3 Plug 75 Ohm 6G Straight Adaptor
74-1052-511-B36	BNC Plug to Din 1.0/2.3 Jack 75 Ohm 6G Straight Adaptor
52-503-D66	DIN 1.0/2.3 Insulated Metal Thread Bulkhead Jack to Jack Adaptor 12G



Example only - please select the required configuration from the table.

## Product safety notice.

The following warning statement must be read in conjunction with the product data sheet or catalogue. Failure to observe this information and the operating conditions specified could result in hazardous conditions.

## Application.

RF connectors are generally used in low voltage circuits, however care should be taken to ensure that any connector with an exposed contact is not used when hazardous voltages are possible and the touching of a contact could cause an electric shock. Voltages in excess of 30 Vac or 42.5 Vdc are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. Before making live, the connector and wiring should be checked for no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to ensure that there are no high resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheet or Catalogue. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

## Materials & form.

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and are usually manufactured from either: copper, copper alloys, nickel, zinc, alumel, chromel or steel. In special applications, other alloys may be specified.

## Fire & electric shock hazard.

There is no fire hazard when the connector is correctly wired and used within the specified parameters. Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the product Data Sheet or Catalogue are exceeded and can cause breakdown of insulation and hence electric shock. If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires and leakage currents through carbonisation of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

## Handling.

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

## Disposal.

Burning of certain materials may release noxious or toxic fumes.

## Important information.

Operating voltage: The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason, operating voltages, where quoted, are reference values only.

## General information.

COAX Connectors Limited continuously works to improve their products. Therefore, COAX Connectors Limited products may deviate from the description, technical data and shape as shown in this catalogue and data sheets.

## Product warranty.

COAX Connectors Limited manufactures high quality products; however these products are intended to be used in accordance with the product data sheet and assembly procedure. Any use or application that deviates from the stated operating specifications is not recommended and may be unsafe. No information and data contained in this publication shall be construed to create any liability on the part of COAX Connectors Limited. A limited warranty applies to COAX Connectors Limited products. Except for obligations assumed by COAX Connectors Limited under this warranty, COAX Connectors Limited shall not be liable for any loss, damage, cost of repairs, incidental or consequential damages of any kind, whether or not based on express or implied warranty contract, negligence or strict liability arising in connection with the design, manufacture, sale, use or repair of the products. This publication is not to be construed as an offer, it is intended merely as an invitation to make an offer. By this publication, COAX Connectors Limited does not assume responsibility or any liability for any patent infringements or other rights of third parties which may result from its use. Reprinting this publication is generally permitted by indicating the source, however, prior consent must be obtained from COAX Connectors Limited, in all cases.

# Quality Performance Reliability

Whether you need advice on connectors, cable assemblies, wish to place an order or discuss a bespoke solution, our team of experienced engineers, technical advisors and designers are here to take your call.

+44 (0)20 8538 9090

info@coax-connectors.com

**COAX**  
CONNECTORS LTD

# COAX

CONNECTORS LTD

[www.coax-connectors.com](http://www.coax-connectors.com)

COAX Connectors Ltd.  
6-8 Colne Road  
Twickenham  
Middlesex TW1 4JR  
United Kingdom

t : +44 (0)20 8538 9090  
f : +44 (0)20 8538 9890

e: [info@coax-connectors.com](mailto:info@coax-connectors.com)



95Q13579 & 95E13579