# F-to-BNC "Between Series" Connector Adapter Brochure













## New F-to-BNC Adapter Delivers Carrier Class Performance From Any Cable Appliance, Instantly!

Whether you are dealing with a set-top box or a cable modem, there is now a simple solution that instantly elevates system performance to an entirely new level. It is easy to install, permanent, low cost - and available in quantity, today!

## **Lose the F Connector - Gain Performance.**

The single largest performance deficiency in the hybrid fiber coax (HFC) delivery network used by CATV providers occurs at the F connector where the signal meets the appliance. When the cable television system was originally designed as a one-way home entertainment transmission line, a connector meeting minimum performance needs at a low cost made sense. Today, that same network is delivering broadband two-way Internet content, which can involve such critical transactions as monetary transfers, stock purchases, home security, and business management. Additional new demands being made include accommodating advances in television screen size and resolution, along with various innovative high tech media that is now commonplace in the home.

## How Does The Standard F to F Connection Degrade The Signal?

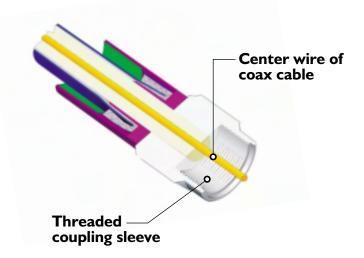
ш

A number of technical features in the design cause performance breakdown. Foremost is utilization of the center wire of the coaxial cable as the "pin" contact.

- This center wire "pin" is either un-plated or plated with metals which do not provide an optimum mating surface.
- It is of a diameter to match the other characteristics of the cable for 75 ohm performance. The specification allows for a wire diameter for the center conductor to be 0.022 to 0.052 inches – a range that, when mated to a female socket, is not appropriate for impedance matching for broadband applications.
- When a large diameter wire is used and then followed by a smaller diameter wire, the socket is distorted by the larger wire and no longer makes intimate contact

An additional problem is that the F design uses a threaded coupling sleeve to ensure ground. In conditions of temperature fluctuations, threaded connectors can work loose due to differing co-efficients of thermal expansion, causing signal loss and/or interference.

## Legacy Traditional F-Connector



## What Makes a "Carrier Class" BNC Better for Broadband Signal Transmission?

There are unique RF problems associated with the combination of high data rate digital traffic and high frequency transmissions. The unique design of Trompeter's Carrier Class BNC allows for an impedance-matched (true 75 ohm) transition through the connector, taking advantage of the electromagnetic effects that are unique to high frequency transmission lines. The signal is safely contained within the inside surface of the outer shield through the connector, in much the same way the braid of the coax cable contains the electromagnetic energy of the signal within the cable dielectric itself.

THE SOLUTI

These effects are more and more pronounced as the installed cable television infrastructure is utilized for Internet, HDTV, DTV and various high-end applications where signal integrity is critical to the performance of the device

#### Carrier Class BNC Features:

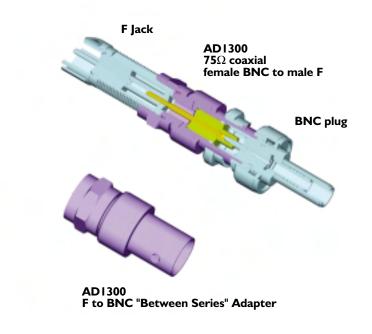
- 100% reliability and performance features,
- True 75 ohm design and return loss attributes, and
- · Industry standard strip dimensions and tooling.

## **New F-to-BNC Connection Solution**

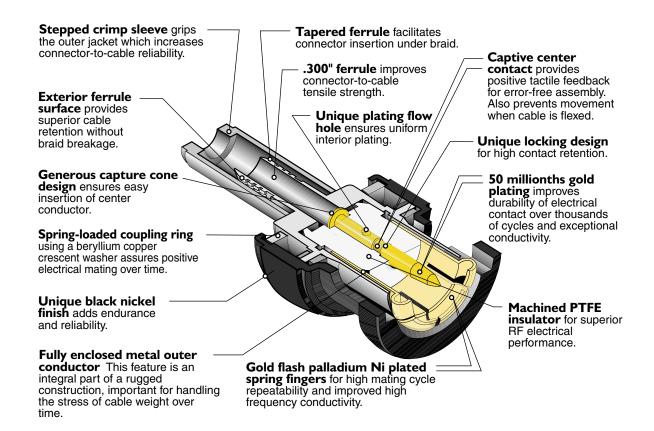
Now there is a simple, small adapter for converting the low performance F connector to a high frequency BNC connection. This fast, sure solution from Trompeter enables Carrier Class performance from appliances featuring legacy F-connector technology - at a cost that anyone can afford.

All that is required is three quick steps:

- A. Clip off and discard the F connector attached to the coax cable and replace it with a high performance Trompeter BNC plug,
- B. Attach the AD1300 "Between Series" Adapter,
- C. Plug it into the appliance!



# The "Carrier Class" CATV BNC 17 Specific Features For Improved Performance:



## ISO 9001 registered company

## Trompeter - Products and Service Levels You Can Count On

Trompeter understands that the best connector and the best cable selection are only effective if the comparable installation techniques and tools are used. The company provides customers with Best-in-Class installation hand tools as well as CD-Rom, Video, and On Site installation technique instruction.

Product ordering is available 24/7 via the company's e-commerce website. We offer industry-best on time delivery and short lead times.

For more information on this product or others, visit the Trompeter website or call the Sales Team at 1-800-982-2629. For a quick answer from a factory expert on a specific question, e-mail us at info@ trompeter .com.



# Other Products 75 ohm BNC, M-BNC, F and DIN Connectors Distribution Panels Patching Products Cross Connect Network Systems Co-Location Panels Custom Coax Cable Assemblies Custom FiberOptic Cable Assemblies



**Installation and Testing Tools** 

## **Emerson Network Power Connectivity Solutions**

Trompeter 5550 E. McDowell Road Mesa, AZ 85215 USA

Tel: 480.985.9000 Fax: 480.985.0334

www.trompeter.com

## **About Emerson Network Power** Connectivity Solutions

Emerson Network Power Connectivity Solutions, an Emerson business, serves the needs of wireless communications, telephony and data networks, CATV, security systems, health care and industrial facilities with a full spectrum of broadband copper and fiber optic connectivity products. For more information, visit www.EmersonNetworkPower.com/Connectivity.

#### **About Emerson**

Emerson (NYSE: EMR), based in St. Louis, is a global leader in bringing technology and engineering together to provide innovative solutions to customers through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses. For more information,

www.EmersonNetworkPower.com

## Emerson Network Power.

The global leader in enabling business-critical continuity.

AC Power Systems Embedded Power

Outside Plant

Connectivity Inbound Power Precision Cooling

DC Power Systems Integrated Cabinet Solutions Site Monitoring and Services

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2007 Emerson Electric Co. rev.08/07