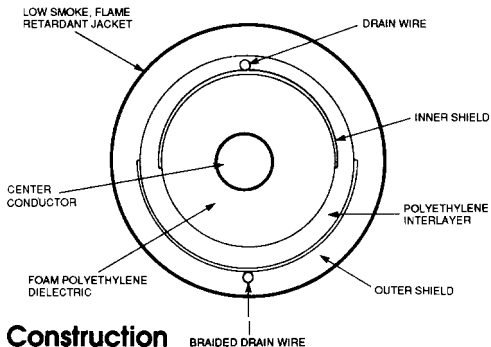


# TRC-875



## Construction

- Center Conductor:
  - Copper Tube
- Dielectric:
  - Low Loss Foam Polyethylene
- Inner Shield:
  - Aluminum/Polyester
- Interlayer:
  - Solid Polyethylene
- Outer Shield:
  - Aluminum/Polyester
- Drain Wires:
  - Braided Tinned Copper
- Jacket:
  - Low Smoke, Non-Halogen Polyolefin
  - Wall Thickness: .100" Nominal

## Physical and Environmental Properties

Halogen Content	0.06% (MIL-C-17)
Smoke Index	11.4 (NES 711)
Toxicity Index	<2.2 (NES 715)
Acid Gas Generation	0.20 (MIL-C-17)
Weathering	Pass (ASTM D-2565)
IEEE 383 Flame Test	Pass
Abrasion Resistance	175 Cycles (MIL-C-17)
Temperature Range (°C)	-40 to +80

## Mechanical Specifications

Diameter, in (mm)	1.240	(31.5)
Weight, lb/ft (kg/m)	0.491	(0.73)
Crush Strength, lb/in, (kg/mm)	250	(4.4)
	Max 2 ohm imp change	
Tensile Strength, lb (Kg)	800	(360)
Minimum Bend Radius, in (mm)	6.5	(165)

## Electrical Specifications

Impedance, ohms	50
Velocity of Propagation, %	88
VSWR, Typical 150-900 MHz	1.2
Attenuation, dB/100ft (dB/100m) at	
150 MHz	0.55 (1.8)
450 MHz	1.0 (3.3)
900 MHz	1.8 (5.9)
Coupling Loss, dB at 20 ft (6.1 m)	
150 MHz	75
450 MHz	80
900 MHz	80

The data presented is for a cable mounted to a reinforced concrete surface, secured with stainless steel clamps, to approximate a realistic installation,

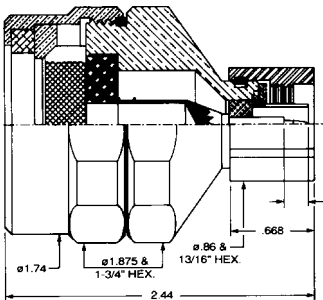
## Applications

nu-TRAC TRC-875 triaxial antenna cable is designed to provide controlled coverage in areas where RF propagation from a point source antenna is ineffective. Examples of common installations are tunnels, ships, metal framed buildings and subways. The cable can function as both a transmit and receive antenna over a broad range of frequencies,

## System Design

The probability graphs below are intended as a guide to system design using nu-TRAC cable. By determining all passive system losses including radiating cable attenuation, splitters, etc. and subtracting this number in dB from the difference between the transmitter power and the receiver sensitivity, a number called Systems Available Power (SAP) is found. This can be looked up on the appropriate graph and the probability of communication can be read.

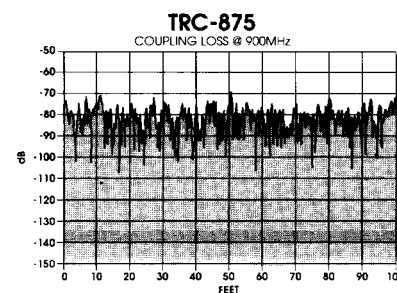
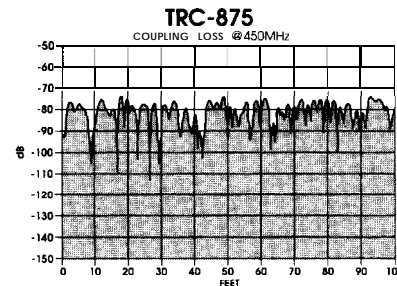
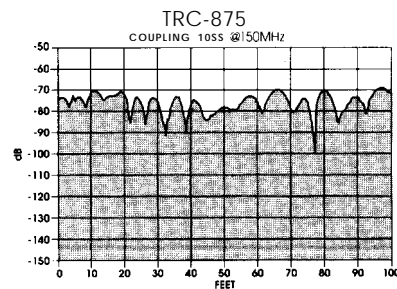
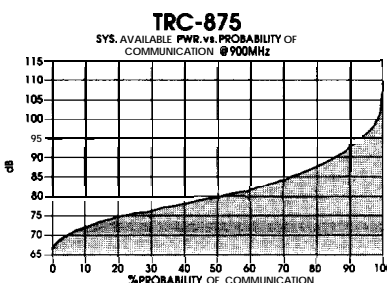
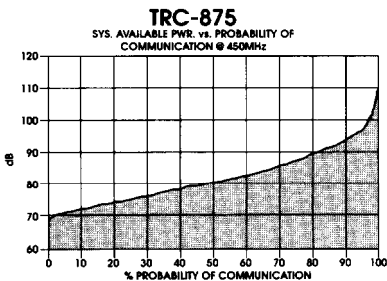
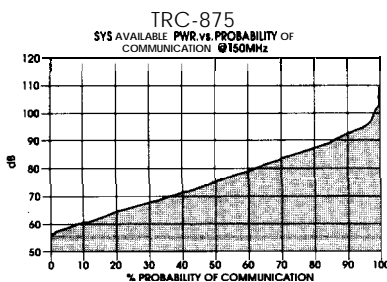
## Connectors



The TRB-875 is a N-male connector designed for TRC-875 cable. It features easy installation with no special tools required and all brass construction. Connection is made to the center conductor using a self-tapping contact. The outer conductor is connected by clamping the drain wires, which makes continuous contact with the outer shield along the length of the cable.

## Jacket Options

TRC-875 cable is also available with a black polyethylene jacket for direct burial and with a cross-linked fire retardant jacket that complies with the requirements of MIL-C-17



TIMES

MICROWAVE SYSTEMS

P.O. Box 5039, Wallingford, CT 06492  
(203) 949-8400 • FAX: (203) 949-8423