

FIGURE 1. General configuration.

TABLE I. Description.

Components	Construction details	Diameters
Inner conductor	Solid bare copper	.065 ±.001 inch (1.65 ±0.03 mm)
Dielectric core	Cellular polyethylene	.285 ±.005 inch (7.24 ±0.13 mm)
Inner shield	.003 inch bonded aluminum tape	.291 ±.005 inch (7.39 ±0.13 mm)
Outer conductor	Single braid of 34 AWG, tinned copper wire.  Coverage: 91.2 percent, nominal. Carriers: 24 Ends: 8 Picks/inch: 6.3	.320 ±.005 inch (8.13 ±0.13 mm)
Jacket	Type XIV, crosslinked polyolefin	.405 ±.007 inch (10.29 ±0.18 mm)
Armor	Single braid of aluminum alloy wire.	.475 inch (12.07 mm) maximum.

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**ENGINEERING INFORMATION:**

Continuous working voltage: 1,680 V rms, maximum.

Operating frequency: 2.5 GHz, maximum.

Velocity of propagation: 83 percent, nominal.

Power rating: See figure 2.

Operating temperature range: -30° to +105°C.

Inner conductor properties: DC resistance, maximum, at 20°C: 0.275 ohms per 100 feet.

**REQUIREMENTS:**

Dimensions, configuration and description: See figure 1 and table I.

Requirements of DSCC drawing 86045 shall apply.

Environmental and mechanical:

Visual and mechanical examination: Applicable.

Out-of-roundness: Not applicable.

Eccentricity: 10 percent, maximum.

Adhesion of conductors:

Inner conductor to core: 10 pounds, minimum; 50 pounds maximum.

Aging stability: +98° ±2°C.

Cold bend: -30°C ±2°C.

Dimensional stability: +85°C ±2°C.

Inner conductor from core: 0.62 inch (mm), maximum.

Inner conductor from jacket: .125 inch (mm), maximum.

Contamination: Not applicable.

Flame propagation: Applicable.

Acid gas generation: 2.0 percent, maximum.

Halogen content: 0.2 percent, maximum.

Immersion test:

Tensile strength, percent of unaged minimum, 50.

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Elongation, percent of unaged minimum: 50.

Smoke index: 25 maximum.

Toxicity index: 5 maximum.

Durometer hardness (type A) 80 minimum.

Weathering: Applicable.

Abrasion resistance: 75 cycles minimum (jacket only).

Tear strength: 35 pounds per inch.

Heat distortion: 30 percent maximum.

Physical tests on unaged jacket.

Tensile strength: 1,300 psi, minimum.

Elongation: 160 percent, minimum.

Physical tests on aged jacket:

Air oven:

Tensile strength, percent minimum: 60.

Elongation: percent minimum: 60.

Hot oil immersion:

Tensile strength, percent minimum: 50.

Elongation, percent minimum: 50.

Tensile strength and elongation: 1,300psi, 160 percent minimum.

Weight: 110 Lbs/1000 ft, maximum.

135 Lbs/1000 ft (armored), maximum.

Electrical:

Spark test: 3,000 V rms, minimum.

Voltage withstanding: 3,000 V rms, minimum.

Corona extinction voltage: 2,250 V rms, minimum.

Characteristic impedance: 75  $\pm$ 3 ohms.

Attenuation: See figure 2.

Structural return loss: See figure 3.

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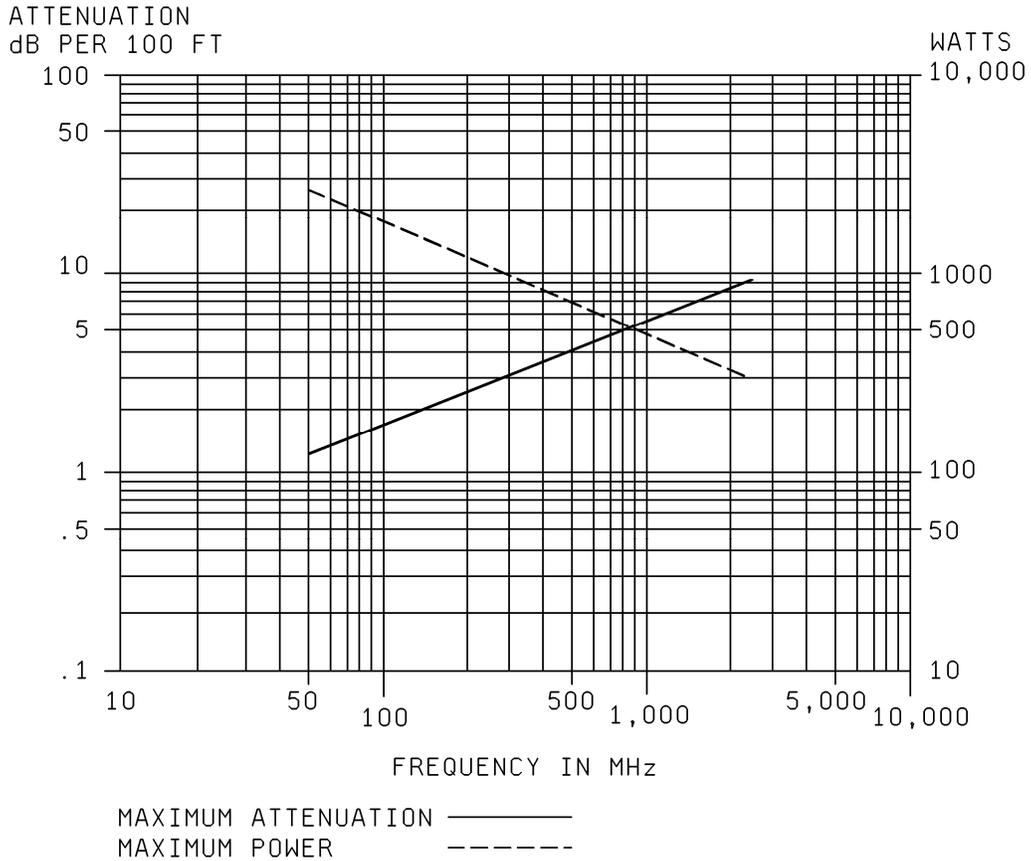
Capacitance: 18.0 pF per feet, maximum.

Capacitance unbalance: Not applicable.

Transmission unbalance: Not applicable.

Mechanically induced noise: Not applicable.

Time delay: Not applicable.



Tabulated values are for reference only. The values on the graph represent the requirements for attenuation. The data regarding power rating are for information only.

Frequency MHz	Attenuation dB	Power Watts
50	1.25	2310
150	2.05	1320
450	3.73	740
900	5.38	520
1500	7.03	390
2000	8.28	330
2500	9.38	300

FIGURE 2. Attenuation and power.

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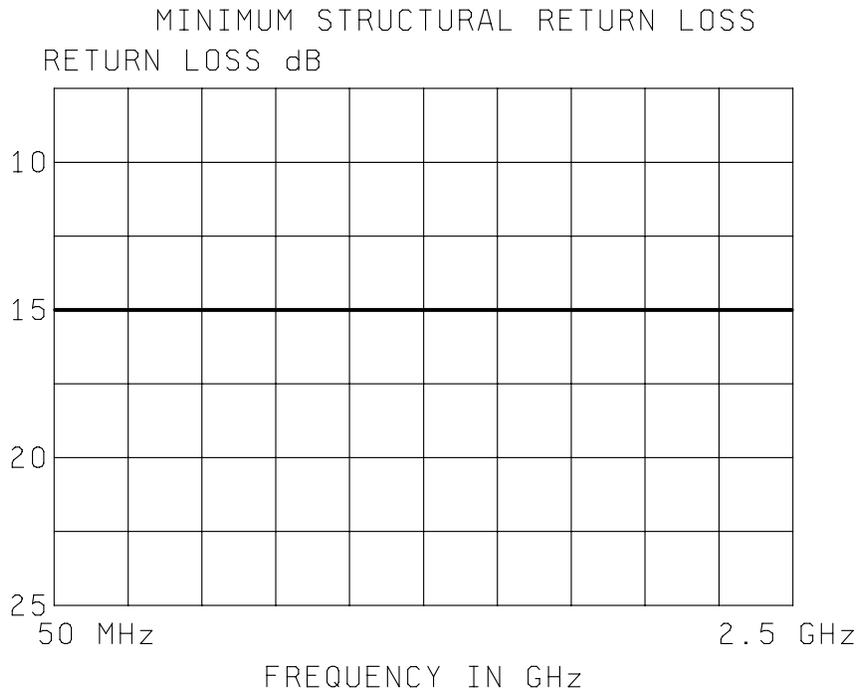


FIGURE 3. Structural return loss.

Part or Identifying Number (PIN): 08009CF75XX or 08009CF75XX-1 (armored).

Approved sources of supply are listed herein. Additional sources will be added as they become available. The vendors listed on the requirements drawing have agreed to this drawing and a certificate of compliance has been submitted to DSCC-VAI.

DSCC drawing PIN <sup>1/</sup>	Vendor CAGE Number	Vendor reference PIN
08009CF75XX	68999	AA-9647
08009CF75XX-1	68999	AA-9651

<sup>1/</sup> Parts must be purchased to this DSCC PIN to assure that all performance requirements and tests are met.

Vendor CAGE  
number

68999

Vendor name and  
address

Times Microwave Systems  
358 Hall Ave.  
Wallingford, CT 06492

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