

MILITARY SPECIFICATION SHEET  
 CABLE, RADIO FREQUENCY, FLEXIBLE COAXIAL,  
 75 OHMS, M17/136-00001

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the cable described herein shall consist of this specification and the latest issue of MIL-C-17.

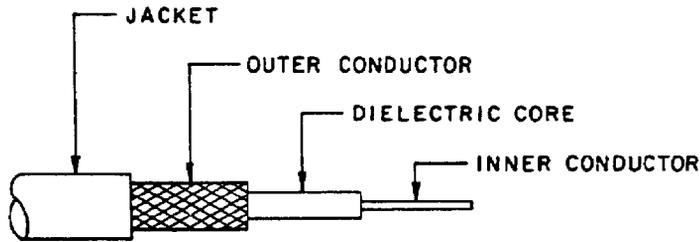


FIGURE 1. Configuration.

TABLE I. Description.

Component	Construction details
Inner conductor	Seven strands of silver-coated, annealed-copper-covered steel wire, .004 inch each. Overall diameter: .012 inch $\pm$ .001.
Dielectric core	Type F-1: Solid extruded PTFE. Diameter: .063 inch $\pm$ .003.
Outer conductor	Single braid of AWG size 38 silver-coated copper wire. Diameter: .084 inch maximum.  Coverage: 92.3% nominal Carriers: 16 Ends: 5 Picks/inch: 12.0 $\pm$ 10%
Jacket	Type XIII. Diameter: .100 inch $\pm$ .005.

ⓑ denotes changes

FSC 6145

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

**ENGINEERING INFORMATION:**

Continuous working voltage: 900 V rms, maximum.

Operating frequency: 3 GHz, maximum.

Velocity of propagation: 69.5 percent, nominal.

Power rating: See figure 2.

Operating temperature range: -55°C to +230°C.

Inner conductor properties:

DC resistance (maximum at 20°C): 34 ohms per 100 feet.

Elongation: 10 percent, minimum.

Tensile strength: 50 klbf/inch<sup>2</sup>, minimum.

Engineering note: This cable useful in general purpose, high temperature applications (see connector series "SMB" and "SMC" per MIL-C-39012).

**REQUIREMENTS:**

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

Environmental and mechanical:

Visual and mechanical:

Out-of-roundness: Not applicable.

ⓑ Eccentricity: 10 percent, maximum.

Adhesion of conductors:

Inner conductor to core: 1 pound, minimum; 4 pounds, maximum.

Aging stability: Not applicable.

Stress crack resistance: +230° ±5°C.

Outer conductor integrity: Not applicable.

Cold bend: -55°C ±2°C.

Dimensional stability: +200°C ±5°C.

Inner conductor from core: .187 inch, maximum.

Inner conductor from jacket: .250 inch, maximum.

Contamination: Not applicable.

Bendability: Not applicable.

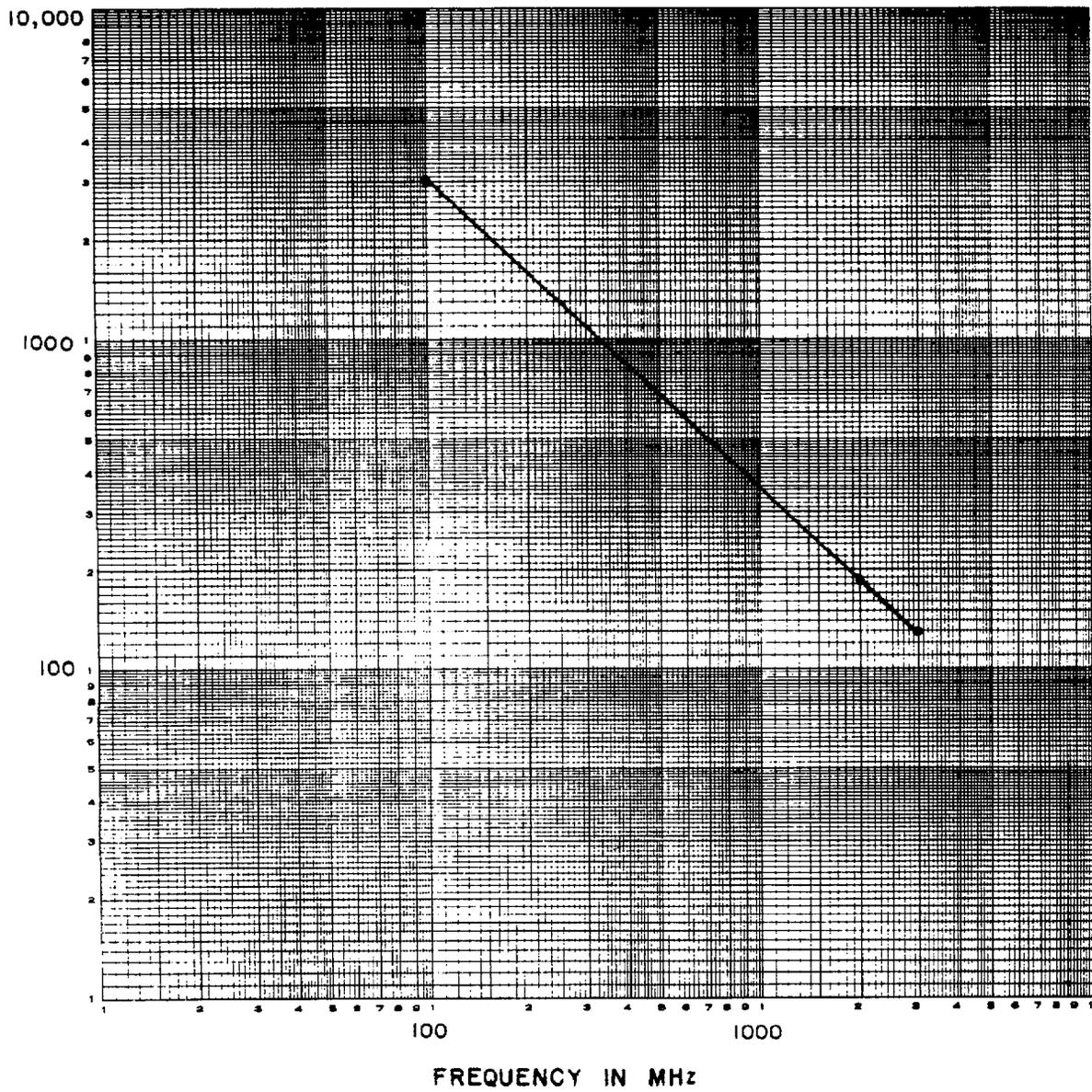
Flammability: Applicable.

Weight: 1.2 pounds per 100 feet, maximum.

Electrical:

Continuity: Applicable.

WATTS  
PER 100 FT



Maximum power at 25°C, sea level

MHz	Watts
100	3000
400	1400
1000	250
2000	190
3000	130

FIGURE 2. Power rating.

- Ⓑ Spark test: 2,000 V rms, +10%, -0%.
  - Ⓑ Voltage withstanding: 1,500 V rms, +10%, -0%.
    - Insulation resistance: Not applicable.
    - Corona extinction voltage: 1,200 V rms, minimum.
    - Characteristic impedance: 75 ohms  $\pm$ 3.
    - Attenuation: 21.0 dB per 100 feet, maximum, at .4 GHz.
    - Structural return loss: Not applicable.
    - Capacitance: 22 pF per foot, maximum.
    - Capacitance unbalance: Not applicable.
    - Transmission unbalance: Not applicable.
    - Mechanically induced noise voltage: Not applicable.
    - Time delay: Not applicable.
- Part number: M17/136-00001.

Custodians:  
Army - CR  
Navy - EC  
Air Force - 85

Preparing activity:  
Army - CR  
(Project 6145-0911-30)

Review activities:  
Army - MI  
Navy - SH, TD  
Air Force - 11, 17, 99  
DLA - ES, IS

User activities:  
Army - AR, AT, ME  
Navy - AS, MC, OS  
Air Force - 19

Agent:  
DLA - ES