

INCH-POUND

MIL-DTL-17/136C  
19 June 2015  
SUPERSEDING  
MIL-C-17/136B  
18 July 1985

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 requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-17.

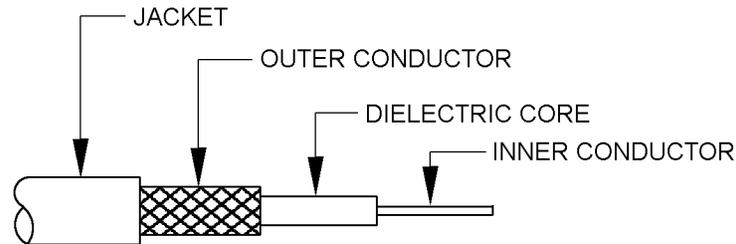


FIGURE 1. Configuration.

TABLE I. Description.

Components	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.

AMSC N/A

FSC 6145



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° to +230°C.  
Inner conductor properties:  
    DC resistance (maximum at 20°C): 34 ohms per 100 feet.  
    Elongation: 10 percent, minimum.  
    Tensile strength: 50 klb<sub>f</sub>/inch<sup>2</sup>, minimum.

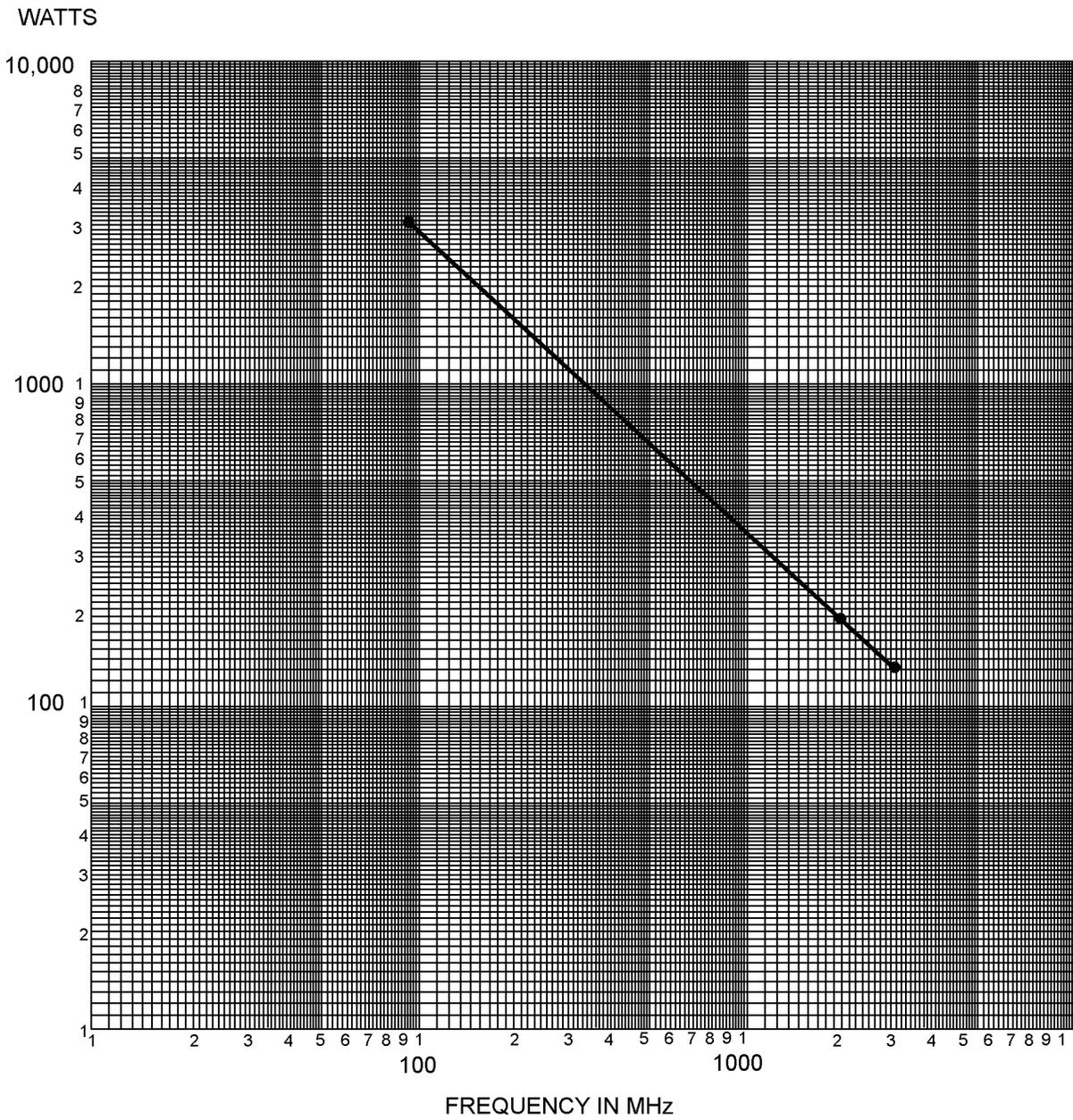
Engineering note: This cable useful in general purpose, high temperature applications (see connector series "SMB" and "SMC" per MIL-PRF-39012.)

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°C ± 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.  
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 ± 3.  
Attenuation: 21.0 dB per 100 feet, maximum at .4 GHz.  
Structural return loss: Not applicable.  
Capacitance: 22 pF per foot, maximum.  
Capacitance stability: Not applicable.  
Capacitance unbalance: Not applicable.  
Transmission unbalance: Not applicable.  
Mechanically induced noise voltage: Not applicable.  
Time delay: Not applicable.



Maximum power at 25°C, sea level.

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

FIGURE 2. Power rating.

Part or Identifying Number (PIN): M17/136-00001.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Referenced documents. In addition to MIL-DTL-17, this document references the following:

MIL-PRF-39012

#### CONCLUDING MATERIAL

Custodians:

Army – CR  
Navy – EC  
Air Force – 85  
DLA - CC

Preparing activity:

DLA - CC

(Project 6145-2015-023)

Review activities:

Army – AT, CR4, MI  
Navy – AS, MC, OS, SH  
Air Force – 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.