INCH-POUND

MIL-DTL-17/137A
19 June 2015
SUPERSEDING
MIL-C-17/137
24 April 1978

MILITARY SPECIFICATION SHEET

CABLE, RADIO FREQUENCY, FLEXIBLE COAXIAL, 95 OHMS, M17/137-00001

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.

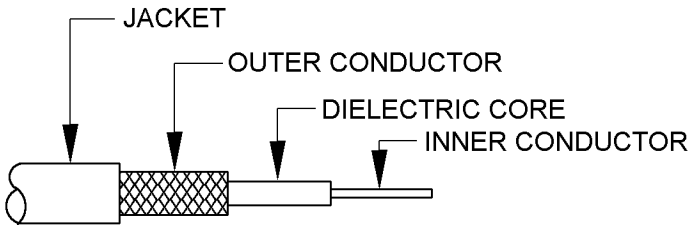

FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Seven strands of silver-coated, annealed-copper-covered steel wire, .004 inch each. Overall diameter: 0.012 inch ± 0.001.
Dielectric core	Type F-1: Solid extruded PTFE. Diameter: 0.102 inch ± 0.003.
Outer conductor	Single braid of AWG #38, silver-coated copper wire. Diameter: 0.124 inch maximum. Coverage: 91.0% nominal Carriers: 16 Ends: 7 Picks/inch: 12.0% ± 10
Jacket	Type XIII: PFA. Diameter: 0.141 inch ±0.004.

AMSC N/A

FSC 6145

ENGINEERING INFORMATION:

Continuous working voltage: 1,100 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 +200°C.
Weight: 2 pounds per 100 feet, maximum.
Inner conductor properties:
DC resistance (maximum at 20°C): 24.45 ohms per 100 feet.
Elongation: 10 percent, minimum.
Tensile strength: 50 $klb_f/inch^2$, minimum.

Engineering note: This cable useful in high temperature applications (see connector series “TNC” and “BNC” per MIL-PRF-39012.)

REQUIREMENTS:

Dimensions, configuration, and descriptions: See figure 1 and table I.
Environmental and mechanical:
Visual and mechanical: Applicable.
Eccentricity: 10 percent, maximum.
Adhesion of conductors:
Inner conductor to core: 1.5 pounds, minimum; 4 pounds, maximum.
Stress-crack resistance: +250°C ± 5°C.
Cold bend: -55° ± 2°C.

Dimensional stability: +200°C ± 5°C.
Inner conductor from core: .250 inch, maximum.
Inner conductor from jacket: .187 inch, maximum.
Flammability: Applicable.

ELECTRICAL:

Spark test: 2,000 V rms, minimum.
Voltage withstanding: 2,000 V rms, minimum.
Corona extinction voltage: 1,500 V rms, minimum.
Characteristic impedance: 95 ohms ± 5.
Attenuation: 17.0 dB per 100 feet, maximum at .4 GHz.
Capacitance: 15.4 pF per foot, maximum.

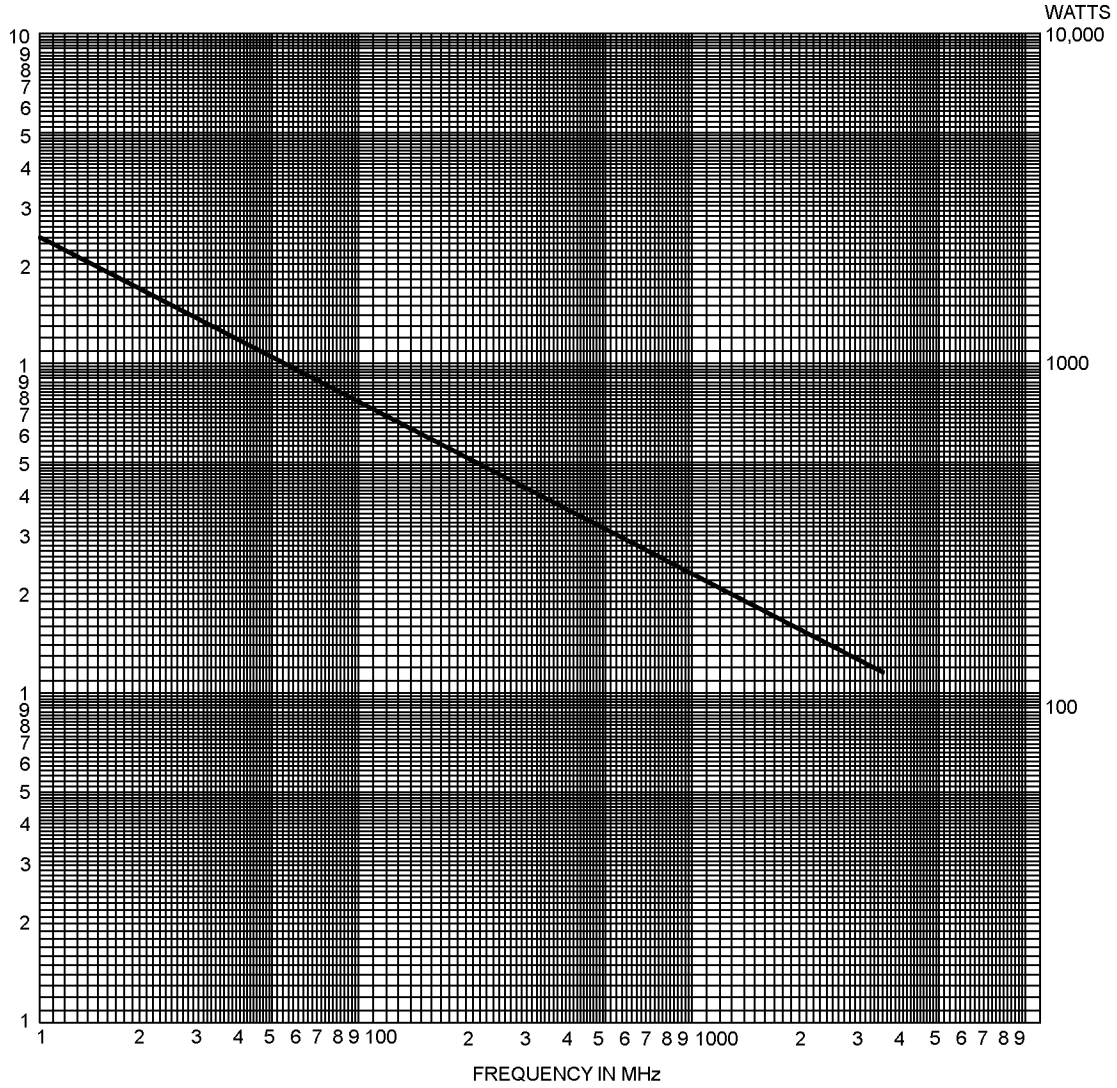

FIGURE 2. Power rating @ 25°C sea level.

Part or Identifying Number (PIN): M17/137-00001.

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 6145-2015-024)

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.