

MIL-DTL-17/94G  
 19 June 2015  
 SUPERSEDING  
 MIL-C-17/94F  
 18 July 1985

MILITARY SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL, 75 OHMS, M17/94-RG179

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.

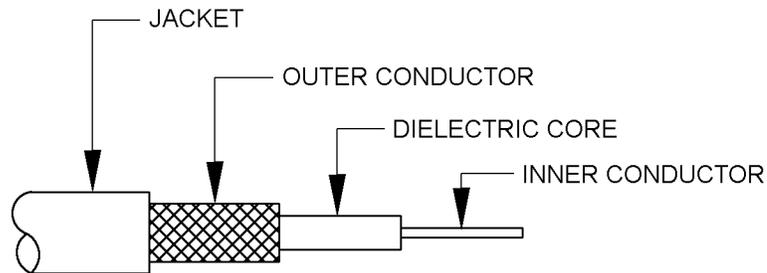


FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Seven strands of silver-coated, annealed-copper-covered, steel wire, each strand, .004 inch diameter. Overall diameter: 0.012 inch $\pm$ 0.001
Dielectric core	Type F-1: Solid, extruded PTFE. Diameter: 0.063 inch $\pm$ 0.003.
Outer conductor	Single braid of AWG No. 38 silver-coated copper wire. Diameter: 0.084 inch, maximum.  Coverage: 92.3%, nominal Carriers: 16 Ends: 5 Picks/inch: 12.0 $\pm$ 10%
Jacket	Type IX: FEP. Diameter: 0.100 inch $\pm$ 0.005.



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 +200°C.

Inner conductor properties:

DC resistance (maximum at 20°C): 24.45 ohms per 100 feet.

Elongation: 8 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. NATO preferred type MWR-33).

REQUIREMENTS:

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

Environmental and mechanical:

Visual and mechanical examination:

Out-of-roundness: Not applicable.

Eccentricity: 10 percent, maximum.

Adhesion of conductors:

Inner conductor to core: 1.5 pounds, 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: 0.0108 pound per foot, maximum.

Electrical:

Continuity: Applicable.

Spark test: 2,000 V rms, + 10%, -0%.

Voltage withstanding: 2,000 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 0.4 GHz.

Structural return loss: Not applicable.

Capacitance: 23.0 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.

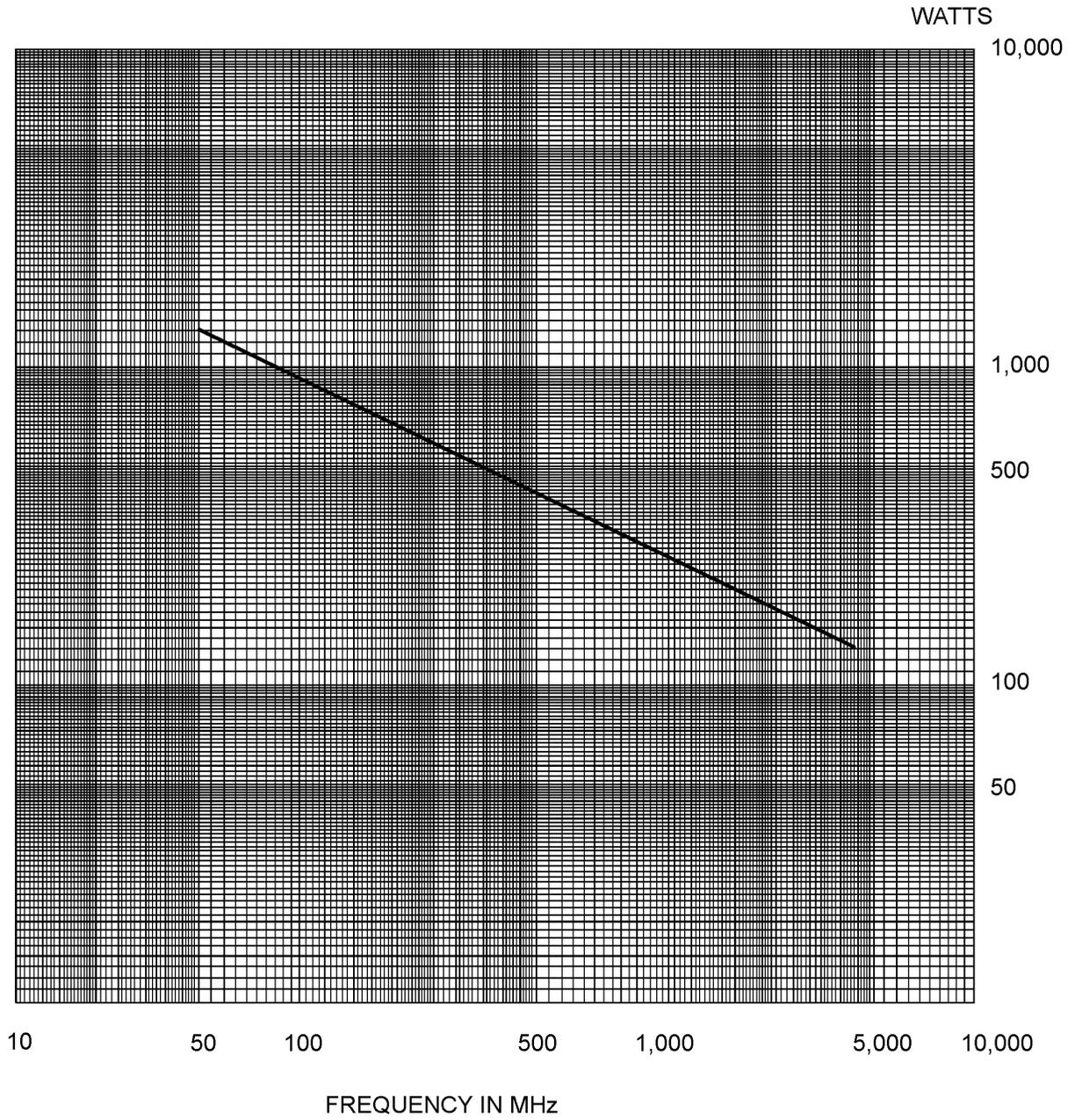


FIGURE 2. Power rating.

Part or Identifying Number (PIN): M17/94-RG179.

Supersession data: See table II.

TABLE II. Cross reference of part number.

PIN	Superseded PIN or type designation
M17/94-RG179	RG-1798/U; RG-187A/U

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 6145-2015-013)

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>.