

MILITARY SPECIFICATION SHEET
 CABLES RADIO FREQUENCY, FLEXIBLE COAXIAL,
 75 OHMS, M17/29-RG59

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

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

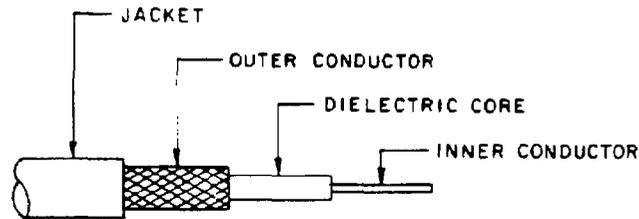


FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Solid, copper-covered, steel wire. Diameter: .0226 inch \pm .0010.
Dielectric core	Type A-1: Solid polyethylene. Diameter: .146 inch \pm .004.
Outer conductor	Single braid of AWG #34, bare copper wire. Diameter: .191 inch maximum. <u>Alternates</u> Coverage: 94.4% nominal 96.7% nominal Carriers: 16 24 Ends: 7 5 Picks/inch: 8.2% \pm 10 12.3% \pm 10
Jacket	Type IIa. Diameter: .242 inch \pm .004.

ENGINEERING INFORMATION:

Continuous working voltage: 1,700 Vrms, maximum.
 Operating frequency: 1 GHz, maximum.
 Velocity of propagation: 65.9 percent, nominal.
 Power rating: See figure 2.
 Operating temperature range: -40° to +85°C.
 Weight: 3.5 pounds per 100 feet, maximum.

Inner conductor properties:
 DC resistance (maximum at 20°C): 4.8 ohm per 100 feet.
 Elongation: 1 percent, minimum.
 Tensile strength: 110 klb_f/inch², minimum.

Engineering notes: This cable useful in low temperature applications.
 (See connector series BNC, TNC per MIL-C-39012. NATO preferred type NWR-11).

REQUIREMENTS:

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

Environmental and mechanical:
 Visual and mechanical examination: Applicable.
 Eccentricity: 10 percent, maximum.
 Adhesion of conductors:
 Inner conductor to core: 4 pounds, minimum; 15 pounds, maximum.
 Aging stability: +98° ±2°C.
 Cold bend: -55° ±2°C.
 Dimensional stability: +85° ±2°C.
 Inner conductor from core: 0.062 inch, maximum.
 Inner conductor from jacket: .125 inch, maximum.
 Contamination: Applicable.

Electrical:
 Spark test: 3,000 Vrms, minimum.
 Voltage withstanding: 7,000 Vrms, minimum.
 Corona extinction voltage: 2,300 Vrms, minimum.
 Characteristic impedance: 75 ohms ±3.
 Attenuation: 9.0 dB per 100 feet, maximum at .4GHz; 16 dB per 100 feet, maximum at 1 GHz.
 Capacitance 20 pF per foot, maximum.

Part number: See table II.

Supersession data: See table II.

TABLE II. Cross reference of part number.

Part Number	Superseded part number or type designation
M17/29-RG59	RG-59B/U

NOTE: Revision letters are not used to denote changes due to the extensiveness of the changes.

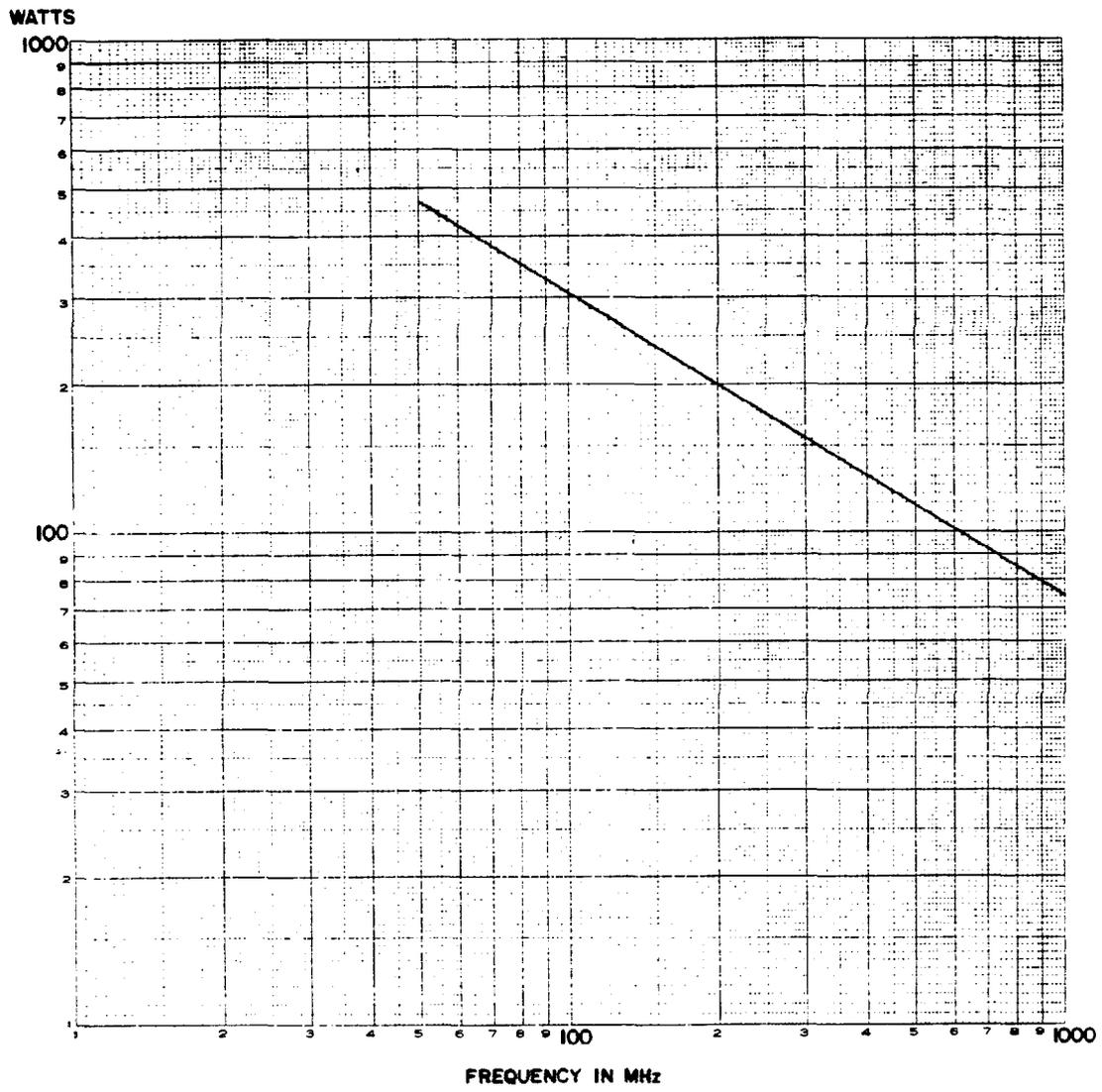


FIGURE 2. Power rating @ 25°C sea level.

Custodians:

Army: EL
Navy - EC
Air Force - 99

Review activities:

Army - MI
Navy - SH
Air Force - 17, 85, 11
DLA - ES, IS

User activities:

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

Preparing activity:
Army - EL

Agent:
DLA - ES

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