

MILITARY SPECIFICATION SHEET
 CABLE, RADIO FREQUENCY, FLEXIBLE, COAXIAL,
 50 OHMS, M17/67-RG177

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.

NOTE: THIS CABLE USES PVC MATERIAL AND IS NOT TO BE USED IN AEROSPACE APPLICATIONS.

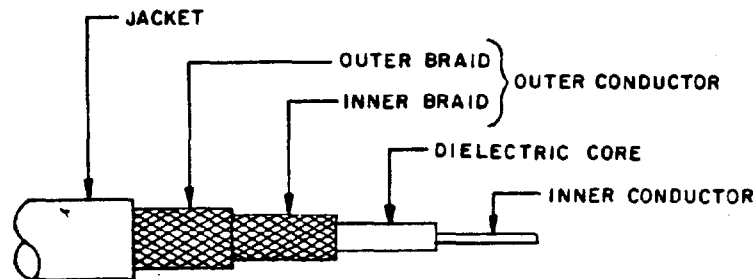


FIGURE 1. Configuration.

TABLE 1. Description.

Components	Construction details
Inner conductor	Solid bare copper wire. Diameter: .195 inch $\pm$.002.
Dielectric core	Type A-1: Solid polyethylene. Diameter: .680 inch $\pm$.010.
Outer conductor	Double braid of AWG size #34 silver-coated copper wire. Diameter: .760 inch, maximum.
Inner braid	Coverage: 93.5%, nominal Carriers: 48 Ends: 10 Picks/inch: 5.2 $\pm$ 10%
Outer braid	Coverage: 90.4% nominal Carriers: 48 Ends: 10 Picks/inch: 4.1 $\pm$ 10%
Jacket	Type IIa: PVC. Diameter: .895 inch $\pm$.015.

(C) denotes changes

ENGINEERING INFORMATION:

Continuous working voltage: 8,000 V rms, maximum.

Operating frequency: 5.6 GHz, maximum.

Velocity of propagation: 65.9 percent, nominal.

Power rating: See figure 2.

Operating temperature range: -40°C to +85°C.

Inner conductor properties:

DC resistance (maximum at 20°C): 0.0278 ohm per 100 feet.

Elongation: 30 percent, minimum.

Engineering notes: This cable is useful in general purpose, medium-low temperature applications (see connector series "H" per MIL-C-39012, "HH" per MIL-C-3643, and "LC" per MIL-C-3650).

REQUIREMENTS:

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

Environmental and mechanical:

Visual and mechanical examination:

Eccentricity: 5 percent, maximum.

Adhesion of conductors:

③ Inner conductor to core: 60 pounds, minimum; 600 pounds, maximum.

Aging stability: +98°C ±2°C.

Dimensional stability: +85°C ±2°C.

Inner conductor from core: .200 inch, maximum.

Inner conductor from jacket: .400 inch, maximum.

③ Weight: 0.595 pound per foot, maximum.

Electrical:

Test frequency: 50 MHz to 5.6 GHz.

Spark test: 8,000 V rms, minimum.

Voltage withstanding: 22,000 V rms, minimum.

Corona extinction voltage: 11,000 V rms, minimum.

Characteristic impedance: 50 ±2 ohms.

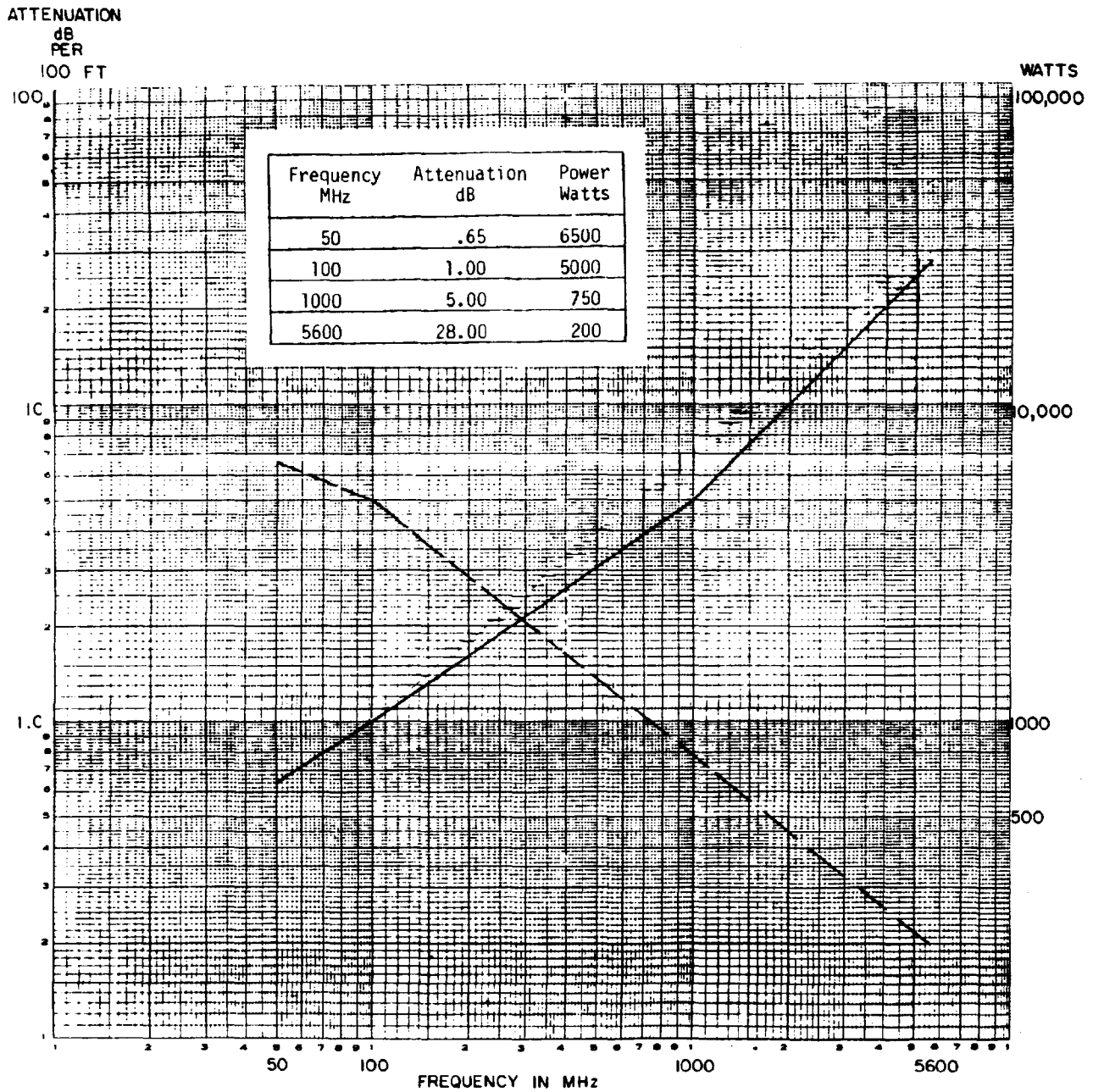
Attenuation: See figure 2.

③ Structural return loss: See figure 3.

③ Capacitance: 32.2 pF per foot, maximum.

Capacitance unbalance: Not applicable.

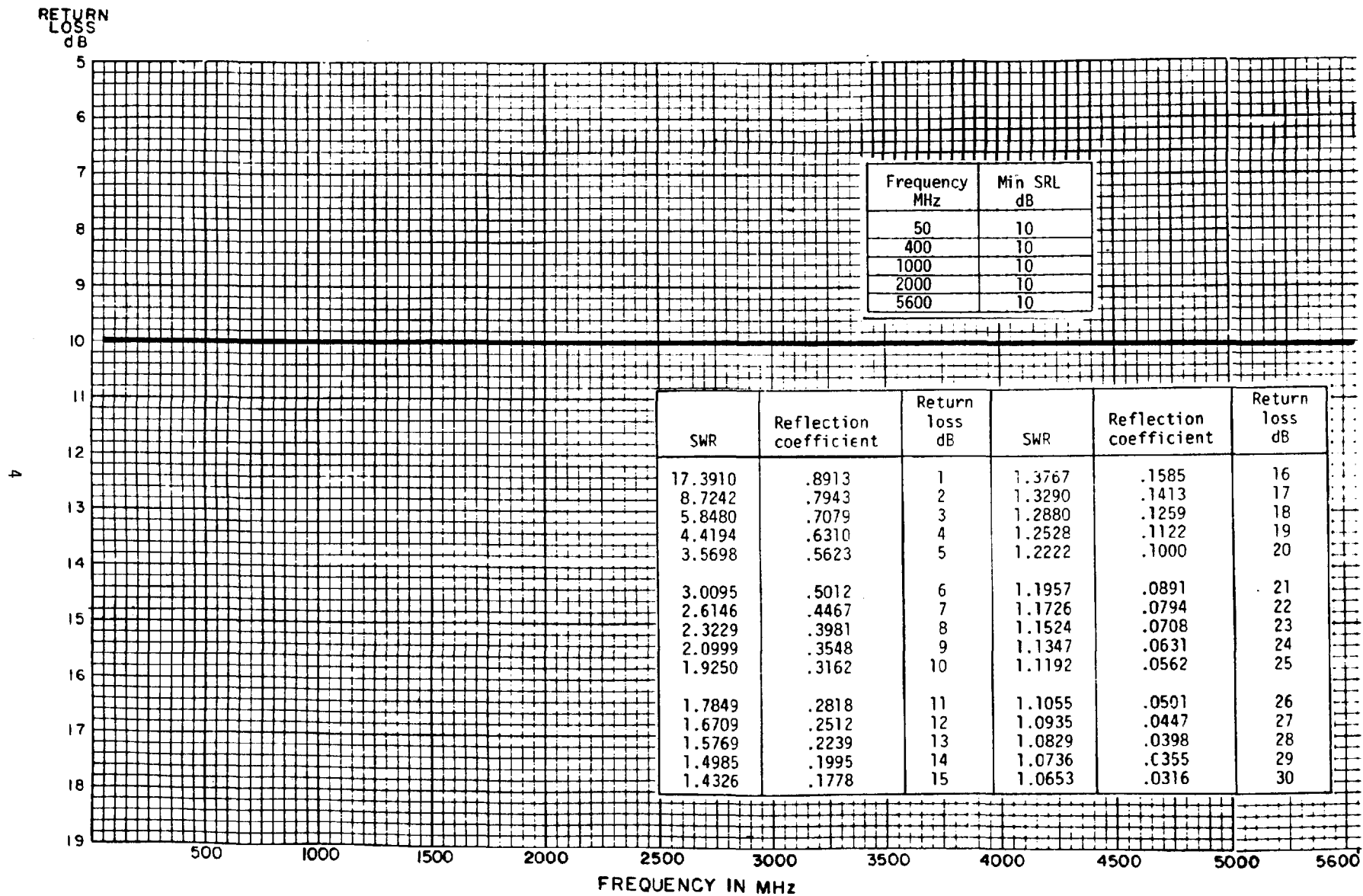
Transmission unbalance: Not applicable.



Maximum power - - - - - at 25°C sea level

Maximum attenuation _____

FIGURE 2. Power rating and attenuation.



(C)

FIGURE 3. Structural return loss.

Mechanically induced noise voltage: Not applicable.

Time delay: Not applicable.

Contamination: Applicable.

Ⓒ Part number: M17/67-RG177.

Custodians:

Army - CR
Navy - EC
Air Force - 85

Preparing activity:

Army - CR

Project (6145-0887-1)

Review activities:

Army - AR, MI
Navy - SH
Air Force - 11, 17, 99
DLA - ES, IS

User activities:

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

Agent:

DLA - ES