MILITARY SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL, 50 OHMS, M17/072-RG211

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.

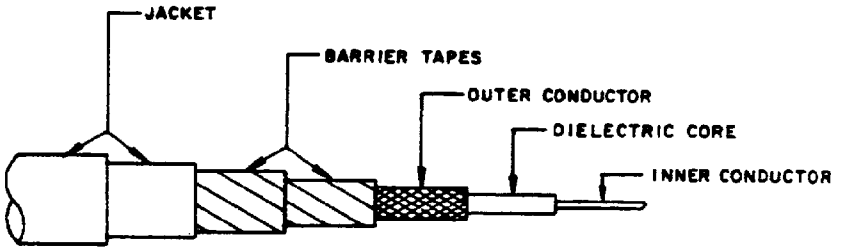

FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Solid bare copper wire. Diameter: 0.192 inch ±0.002.
Dielectric core	Type F-1: Solid extruded PTFE Diameter: 0.620 inch ±0.005.
Outer conductor	Single braid of AWG #32 bare copper wire. Diameter: 0.670 inch maximum Coverage : 96.8% nominal. — Alternate: 97.1% nominal. Carriers : 36 — Alternate: 48 Ends : 10 — Alternate: 8 Picks/inch : 5.6 ±10% — Alternate: 5.6 ±10%
Barrier tapes	Type FF-2: Two wraps of PTFE tapes, 0.006 inch thick each, by 1 to 1-1/4 inch wide, with an approximate lay of 24 turns per foot and with 1/2 inch lap.
Jacket	Type V: Double braid of fiberglass. Diameter: 0.730 inch ±0.015.

ENGINEERING INFORMATION:

Capacitance: 29.3 pF per foot, nominal.
Continuous working voltage: 5,200 Vrms, maximum.
Operating frequency: 1 GHz, maximum.
Velocity of propagation: 69.5 percent, nominal.
Power rating: See figure 2.
Operating temperature range: -55° to +250°C.
Weight: 0.516 pound per foot, nominal.
Inner conductor properties:
DC resistance (maximum at 20°C): 0.0293 ohm per 100 feet.
Elongation: 25 percent, minimum.
Engineering notes: This cable useful in general purpose, high temperature applications. (See connector series "C" and "SC" per MIL-C-39012, and "LT" per MIL-C-26637. NATO preferred type NWR-13.)

REQUIREMENTS:

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

Environmental and mechanical:
Visual and mechanical examination:
Eccentricity: 10 percent, maximum.
Adhesion of conductors:
Inner conductor to core: 4 pounds, minimum; 15 pounds, maximum.
Aging stability: +250° ±5°C.
Dimensional stability: ±250° ±5°C.
Inner conductor from core: 0.062 inch, maximum.
Inner conductor from jacket: 0.125 inch, maximum.
Flammability: Applicable.

Electrical:
Test frequency: 50 MHz to 1 GHz.
Voltage withstanding: 10,000 Vrms, minimum.
Corona extinction voltage: 7,000 Vrms, minimum.
Characteristic impedance: 50 ohms ±2.
Attenuation: See figure 2.
Structural return loss: See figure 3.

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
M17/072-RG211	RG-211A/U; RG-117A/U per MIL-C-17/50 (canceled)

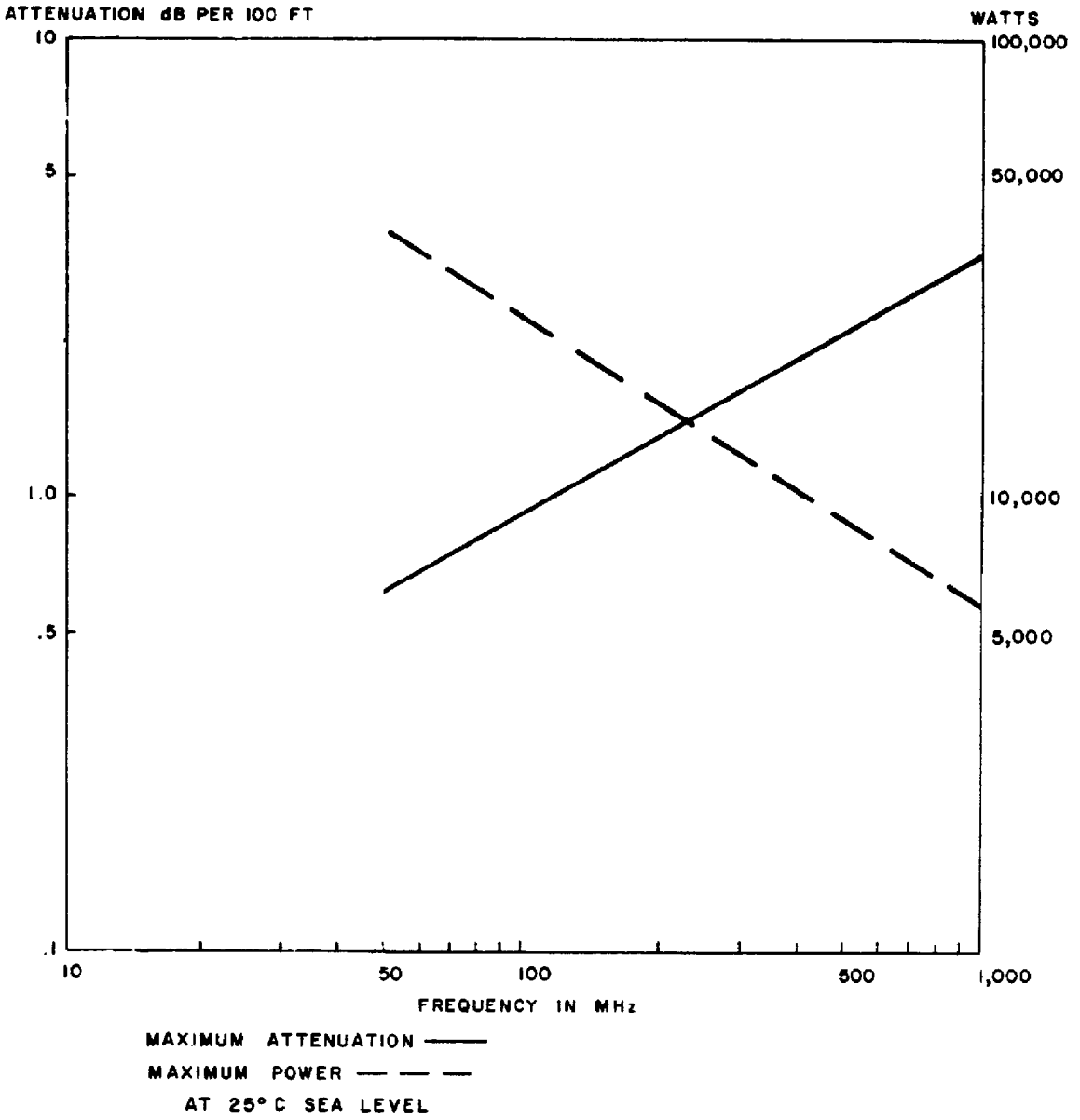

FIGURE 2. Power rating and attenuation.

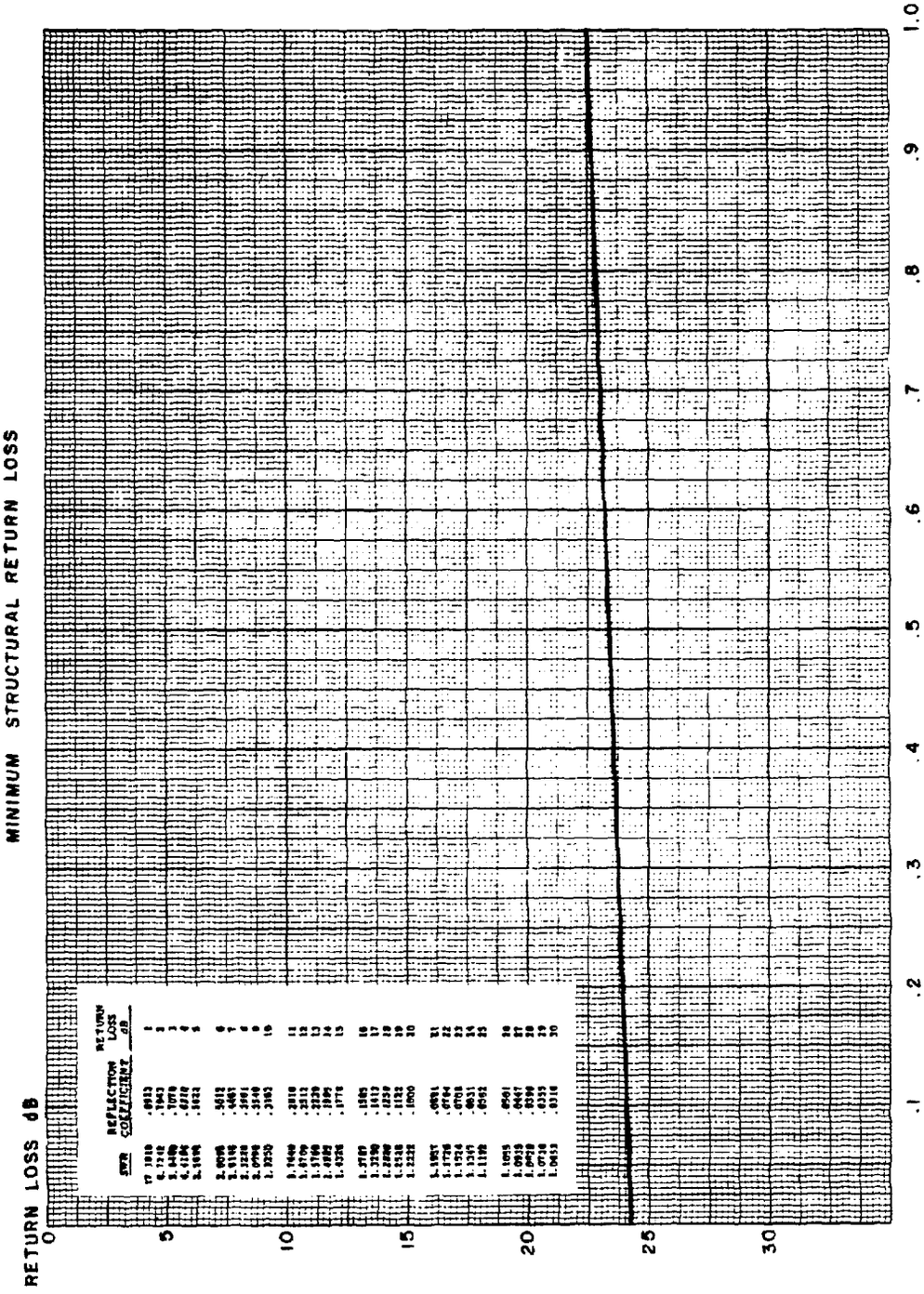

FIGURE 3. Structural return loss.

Custodians:
Army - EL
Navy - EC
Air Force - 85

Review activities:
Army - EL, MU, MI
Navy - SH, EC
Air Force - 11, 17, 99, 85
DLA - ES

User activities:
Army - ME, AT, SG
Navy - AS, OS, MC
Air Force - 19

Preparing activity:
Army - EL

Agent:
DLA - ES

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