

MILITARY SPECIFICATION SHEET

CABLE, RADIO FREQUENCY, FLEXIBLE COAXIAL,
 50 OHMS, M17/86-00001 AND M17/86-00002 (ARMORED)

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.

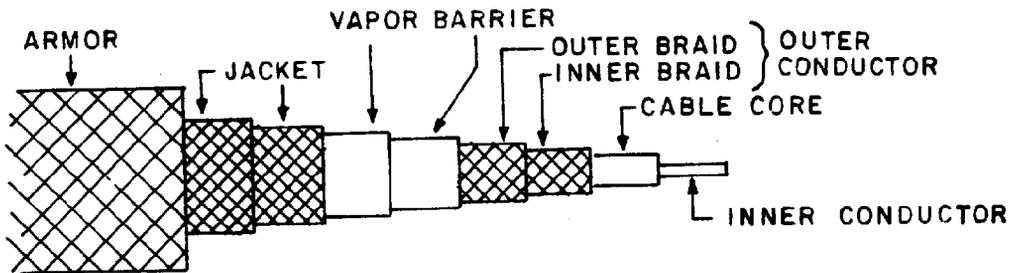


FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Seven strands of silver-covered copper wire. Each strand .0312 inch. Overall diameter: .0936 inch \pm .001.
Cable core	Type F-1. Overall diameter: .285 inch \pm .005.
Outer conductor	Double braid, AWG size 34 silver-covered copper wire. Overall diameter: .360 inch maximum.
Inner braid	Carriers: 24 Ends: 6 Picks/inch: 16.6 \pm 10%
Outer braid	Carriers: 24 Ends: 7 Picks/inch: 15.4 \pm 10%
Vapor barrier	A vapor barrier, consisting of two wraps of .005 inch \pm .001 by 1-inch polytetrafluoroethylene tape, with an approximate lay of 24 turns per foot and with a 50 percent overlap shall be applied over the outer conducting braid. The vapor barrier shall be applied tightly and in the best commercial manner.
Jacket	Type V double braid. Overall diameter: .430 inch \pm .010.
Armor	Overall diameter: .490 inch maximum.

ENGINEERING INFORMATION:

Continuous working voltage: 3,700 V rms, maximum.

Velocity of propagation: 69.0 percent, nominal.

Operating temperature range: -55°C to +200°C.

Inner conductor properties:

DC resistance (maximum at 20°C): 0.173 ohm per 100 feet, maximum.

Elongation: 25 percent, minimum.

Engineering notes: This cable is useful in general purpose medium low temperature applications.

REQUIREMENTS:

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

Environmental and mechanical:

Visual and mechanical inspection: Applicable.

Out-of-roundness: Applicable.

Eccentricity: 10 percent, maximum.

Adhesion of conductors:

Inner conductor to core: 10 pounds, minimum; 50 pounds, maximum.

Aging stability: +250°C ±5°C.

Stress crack resistance: Not applicable.

Outer conductor integrity: Not applicable.

Cold bend: -40°C ±2°C.

Dimensional stability: +200°C ±5°C.

Inner conductor from core: .062 inch, maximum.

Inner conductor from jacket: .125 inch, maximum.

Contamination: Not applicable.

Bendability: Not applicable.

Weight: 195 pounds per thousand feet, maximum.

Electrical:

Continuity: Applicable.

Spark test: 5,000 V rms, +25 percent, -0 percent.

Voltage withstanding: 10,000 V rms, minimum.

Insulation resistance: 5,000 megohms, minimum.

Corona extinction voltage: 5,000 V rms, minimum.

Characteristic impedance: 50 ±2 ohms.

Attenuation: 5 dB per 100 feet maximum at 400 MHz.

Structural return loss: Not applicable.

Capacitance: 32.4 pF per foot, maximum.

Capacitance stability: Not applicable.

Capacitance unbalance: Not applicable.

Transmission unbalance: Not applicable.

Phase stability: Not applicable.

Mechanically induced noise voltage: Not applicable.

Time delay: Not applicable.

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
M17/86-00001	RG-225/U
M17/86-00002	RG-227/U (armored) per MIL-C-17/88

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

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

Preparing activity:
Army - CR

(Project 6145-0853-5)

Review activities:
Navy - SH
Air Force - 11, 17, 99
DLA - ES, IS

User activities:
Navy - AS, MC, OS
Air Force - 19

Agent:
DLA - ES