

INCH-POUND

MIL-DTL-17/86C
 10 April 2015
 SUPERSEDING
 MIL-C-17/86B
 12 August 1983

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 requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-17.

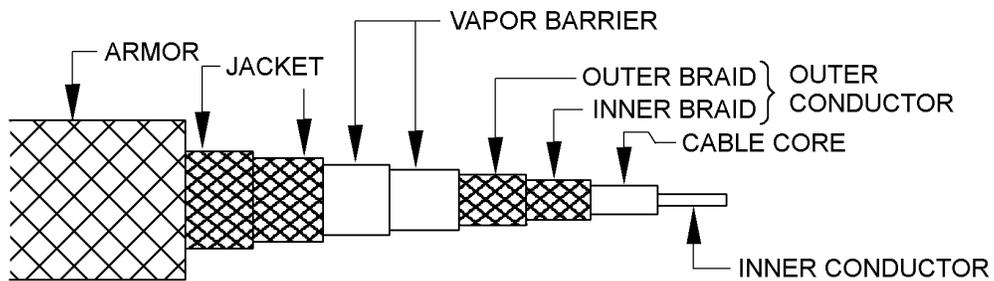


FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Seven strands of silver-covered copper wire. Each strand .0312 inch. Overall diameter: .0936 inch ± .001.
Cable core	Type F-1. Overall diameter: .285 inch ± .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 ±10%
Outer braid	Carriers: 24 Ends: 7 Picks/inch: 15.4 ±10%
Vapor barrier	A vapor barrier, consisting of two wraps of .005 inch ± .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 ± .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: .250 inch, maximum.

Inner conductor from jacket: .312 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 or Identifying Number (PIN): See table II.

Supersession data: See table II.

TABLE II. Cross reference of part number.

PIN	Superseded PIN or type designation
M17/86-00001	RG-225/U
M17/86-00002	RG-227/U (armored)

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. This document references MIL-DTL-17.

CONCLUDING MATERIAL

Custodians:

Army – CR
 Navy – EC
 Air Force – 85
 DLA - CC

Preparing activity:
 DLA - CC

(Project 6145-2015-007)

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>.