MILITARY SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL, LOW NOISE, 72 OHMS, M17/126-RG391 (UNARMORED), M17/126-RG392 (ARMORED)

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

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

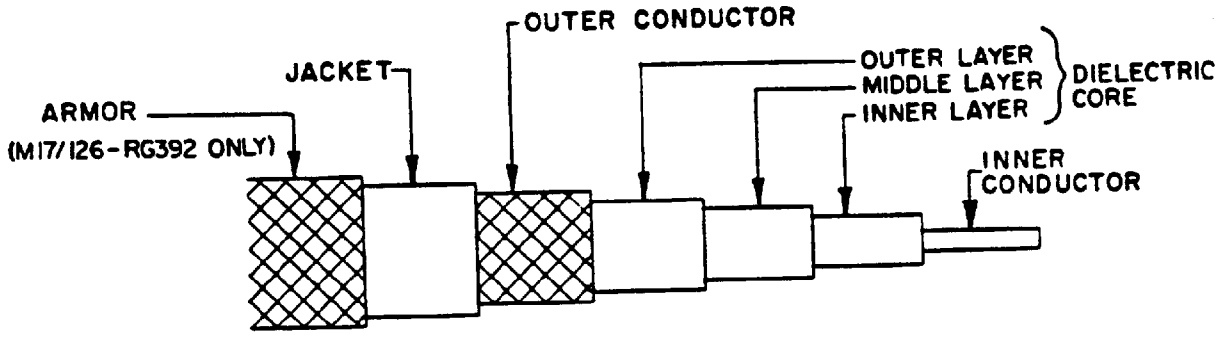

FIGURE 1. Configuration.

TABLE I. Description.

Components	Construction details
Inner conductor	Seven strands of tinned, copper wire. Each strand .0159 inch diameter. Overall diameter: .0477 inch ±.0020 concentric stranding centered within 10 percent of dielectric diameter.
Dielectric core	Composite of three layers. Diameter: .295 inch ±.007.
Inner layer	Type A-5: Semiconducting polyethylene; .003 inch nominal thickness.
Middle layer	Type A-1: Solid polyethylene.
Outer layer	Type A-5: Semiconducting polyethylene; .005 inch nominal thickness.
Outer conductor	Single braid of AWG size 34, tinned, copper wire. Diameter: .340 inch, maximum. Coverage: 97.7%, nominal Carriers: 24 Ends: 7 Picks/inch: 16.3 ±10%
Jacket	Type IIa. Diameter: .405 inch ±.010.
Armor (M17/126-RG392 only)	Single braid of aluminum-alloy wire. Diameter: .475 inch, maximum.

(B) denotes changes.

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ENGINEERING INFORMATION:

Continuous working voltage: 3,700 Vrms, maximum.

Operating frequency: 1 GHz, maximum.

Velocity of propagation: 62 percent, nominal.

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

Inner conductor properties:

DC resistance (maximum at 20°C): 0.65 ohm per 100 feet.

(B) Elongation: 15 percent, minimum.

Tensile strength: 60 $klb_f/inch^2$, minimum.

Engineering notes: This cable useful in low noise temperature applications (see connector series "N" and "SC" per MIL-C-39012).

REQUIREMENTS:

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

Environmental and mechanical:

Adhesion of conductors:

(B) Inner conductor to core: 7 pounds, minimum; 50 pounds, maximum.

Aging stability: +98° ±2°C.

Stress crack resistance: Not applicable.

Outer conductor integrity: Not applicable.

Cold bend: -40° ±2°C.

Dimensional stability: +85° ±2°C.

Inner conductor from core: .062 inch, maximum.

Inner conductor from jacket: .125 inch, maximum.

Bendability: Not applicable.

Flammability: Not applicable.

Weight: 10 pounds per 100 feet (M17/126-RG391).
12.5 pounds per 100 feet (M17/126-RG392).

Electrical:

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

Voltage withstanding: 10,000 Vrms, minimum.

Insulation resistance: 1,000,000 megohms, minimum.

Corona extinction voltage: 5,000 Vrms, minimum.

Characteristic impedance: 72 ±3 ohms.

Attenuation: 15 dB per 100 feet, maximum at 400 MHz.

Structural return loss: Not applicable.

(B) Capacitance: 23 ±1 pF per foot.

Capacitance unbalance: Not applicable.

Transmission unbalance: Not applicable.

Mechanically induced noise voltage: 320 microvolts peak to peak, maximum.

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
M17/126-RG391	RG391/U
M17/126-RG392	RG392/U

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

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

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

Preparing activity:
Navy - EC

Agent:
DLA - ES

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