

NOTICE OF  
VALIDATION

INCH-POUND

MIL-C-17/28C  
NOTICE 2  
13 June 2001

**MILITARY SPECIFICATION**

**CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL, 50 OHMS, M17/28-RG058**

MIL-C-17/28C remains inactive for new design, however, the document is valid for use.

**Custodians:**

Army - CR  
Navy - EC  
Air Force - 11

**Preparing activity:**

DLA - CC

**Review Activities:**

Army - AR, AT, CR4, MI  
Navy - AS, MC, OS, SH, TD  
Air Force - 19, 99  
DLA - IS

AMSC N/A

FSC 6145

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

NOTICE OF INACTIVATION  
FOR NEW DESIGN

INCH-POUND

MIL-C-17/28C  
NOTICE 1  
13 August 1993

MILITARY SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL,  
50 OHMS, M17/28-RG058

This notice should be filed in front of MIL-C-17/28C, dated 18 July 1985.

MIL-C-17/28C is inactive for new design. For new designs use specification, MIL-C-17/1839, Cable, Radio Frequency, Flexible, Coaxial, 50 Ohms M17/183-00001.

The Qualified Products List (QPL) associated with this inactive for new design specification will be maintained until acquisition of the product is no longer required whereupon the specification and the QPL will be canceled.

CONCLUDING MATERIAL

Preparing activity:  
Army - CR

Agent:  
DLA - ES

(Project 6145-2039-04)

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release: distribution is unlimited.

FSC 6145

MIL-C-17/28C  
18 July 1985  
SUPERSEDING  
MIL-C-17/288  
15 March 1977

MILITARY SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, FLEXIBLE, COAXIAL,  
50 OHMS, M17/28-RG058

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

NOTE: THE AIR FORCE HAS RESTRICTED THE USE OF PVC IN  
AEROSPACE AND GROUND SUPPORT APPLICATIONS. CABLES  
WITH PVC JACKETING SHALL BE USED FOR RETROFIT PURPOSES  
ONLY UNTIL AN ALTERNATE JACKET IS APPROVED.

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.

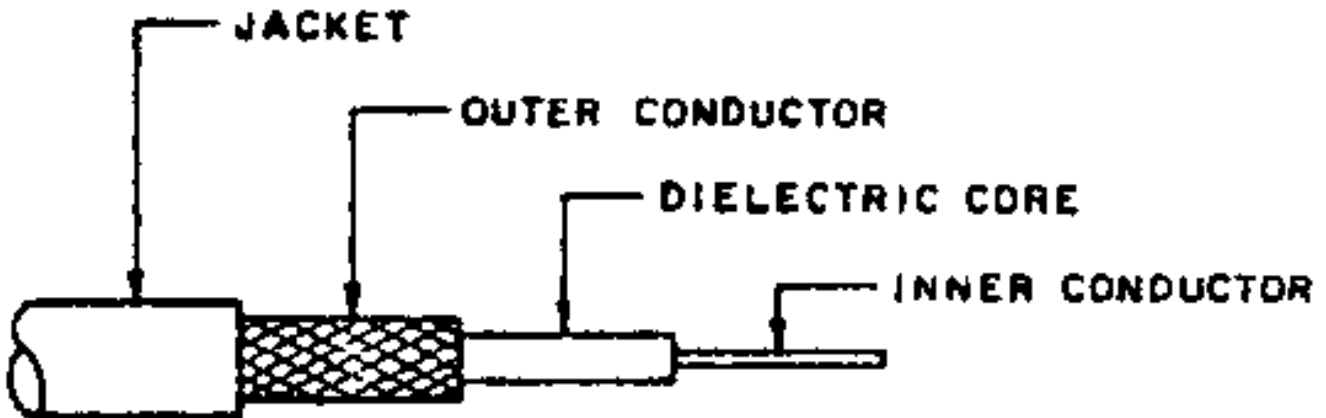


FIGURE 1. Configuration.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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TABLE I. Description.

Component	Construction details										
Inner conductor	Nineteen strands of tinned copper wire, each strand 0.0072 inch diameter Overall diameter: 0.0355 inch +/-0.0020.										
Dielectric core	Type A-1: Solid polyethylene Diameter: 0.116 inch +/-0.004.										
Outer conductor	Single braid of AWG No. 36 tinned copper wire. Diameter: 0.150 inch maximum.  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="text-align: center; border-bottom: 1px solid black;">Alternate</th> </tr> </thead> <tbody> <tr> <td>Coverage : 92.8% nominal</td> <td style="text-align: center;">94.2% nominal</td> </tr> <tr> <td>Carriers : 12</td> <td style="text-align: center;">16</td> </tr> <tr> <td>Ends : 9</td> <td style="text-align: center;">7</td> </tr> <tr> <td>Picks/inch: 7.7 +/-10%</td> <td style="text-align: center;">10.3 +/-10%</td> </tr> </tbody> </table>		Alternate	Coverage : 92.8% nominal	94.2% nominal	Carriers : 12	16	Ends : 9	7	Picks/inch: 7.7 +/-10%	10.3 +/-10%
	Alternate										
Coverage : 92.8% nominal	94.2% nominal										
Carriers : 12	16										
Ends : 9	7										
Picks/inch: 7.7 +/-10%	10.3 +/-10%										
Jacket	Type IIa: PVC. Diameter: 0.195 inch +/-0.004.										

## ENGINEERING INFORMATION:

Continuous working voltage: 1,400 V rms, maximum.

Operating frequency: 1 GHz, maximum.

Velocity of propagation: 65.9 percent, nominal.

Power rating: See figure 2.

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

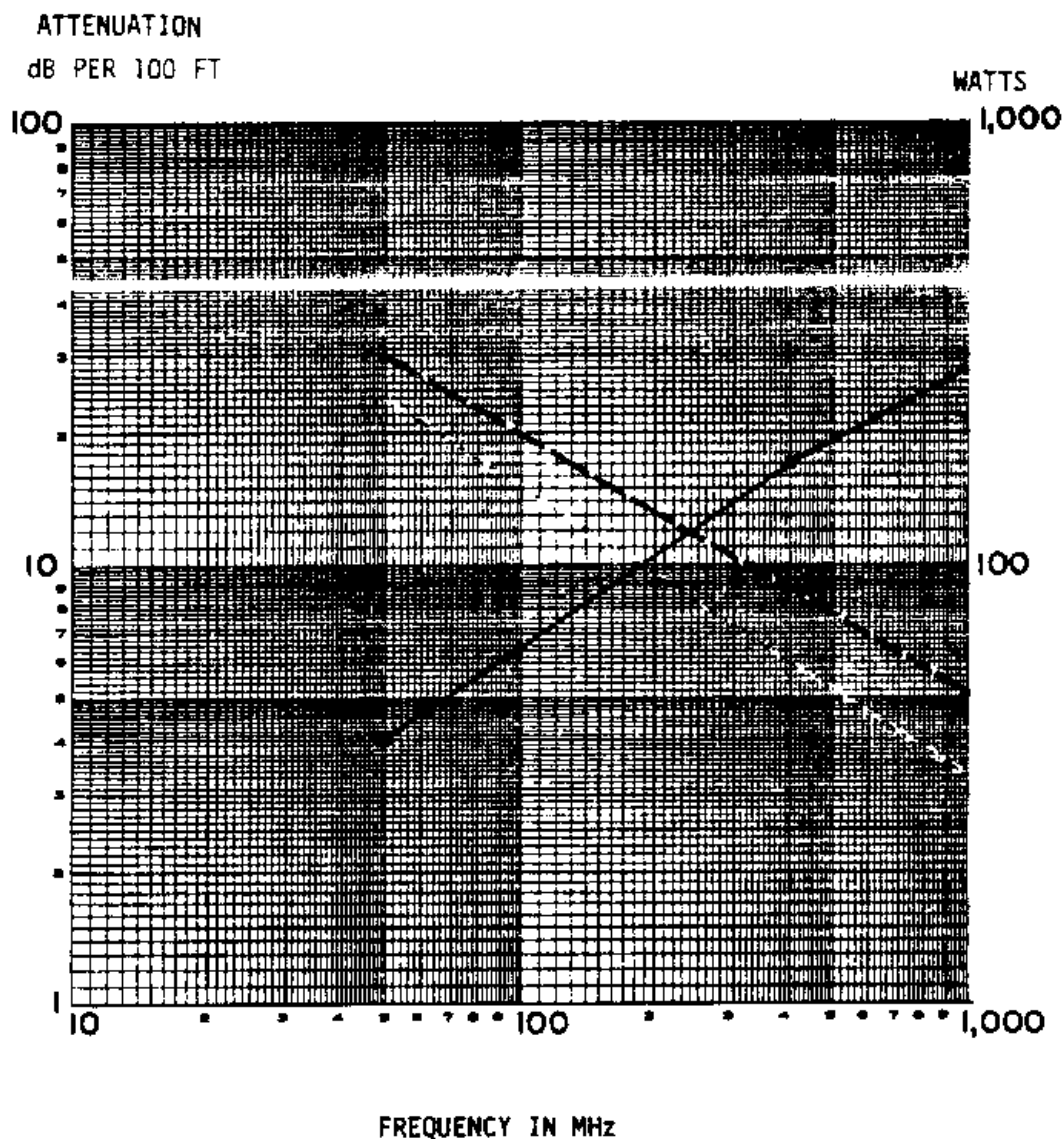
Inner conductor properties:

C DC resistance (maximum at 20 deg. C): 1.240 ohms per 100 feet.

Elongation: 10 percent, minimum.

Tensile strength: Not applicable.

Engineering note: This cable is useful in general purpose low temperature applications. (See connector series "TNC", "BNC", and "SMA" per MIL-C-39012. NATO preferred type NWR-2.)



MAXIMUM POWER \_\_\_\_\_ AT 25°C SEA LEVEL

MAXIMUM ATTENUATION \_\_\_\_\_

Tabulated values are for reference only.  
The values on the chart represent the requirements.

FREQUENCY MHz	ATTENUATION dB	POWER WATTS
50	4.0	300
100	6.5	200
400	17.0	90
1000	28.0	55

FIGURE 2. Power rating and attenuation.

REQUIREMENTS:

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

Environmental and mechanical:

Visual and mechanical examination:

Out-of-roundness: Not applicable.

Eccentricity: 10 percent, maximum.

Adhesion of conductors:

[C] Inner conductor to core: 5 pounds, minimum; 15 pounds, maximum.

Aging stability: -98 deg. C +/- 2 deg. C.

Stress crack resistance: Not applicable.

Outer conductor integrity: Not applicable.

[C] Cold bend: -55 deg. C +/-2 deg. C.

Dimensional stability: +85 deg. C +/-20 deg. C.

Inner conductor from core: 0.062 inch, maximum.

Inner conductor from jacket: 0.125 inch, maximum.

Contamination: Applicable.

Bendability: Not applicable.

Flammability: Not applicable.

[C] Weight: 0.026 pound per foot, maximum.

Electrical:

Continuity: Applicable.

[C] Spark test: 5,000 V rms, +10%, -0%.

[C] Voltage withstanding: 5,000 V rms, +10%, -0%.

Insulation resistance: Not applicable.

Corona extinction voltage: 1,900 V rms, minimum.

Characteristic impedance: 50 ohms +/-2.

Attenuation: See figure 2.

Structural return loss: See figure 3.

[C] Capacitance: 32.2 pF per foot, maximum.

Capacitance stability: Not applicable.

Capacitance unbalance: Not applicable.

Transmission unbalance: Not applicable.

Mechanically induced noise voltage: Not applicable.

Time delay: Not applicable.

Part number: M17/28-RG056.

RETURN LOSS dB

MINIMUM STRUCTURAL RETURN LOSS

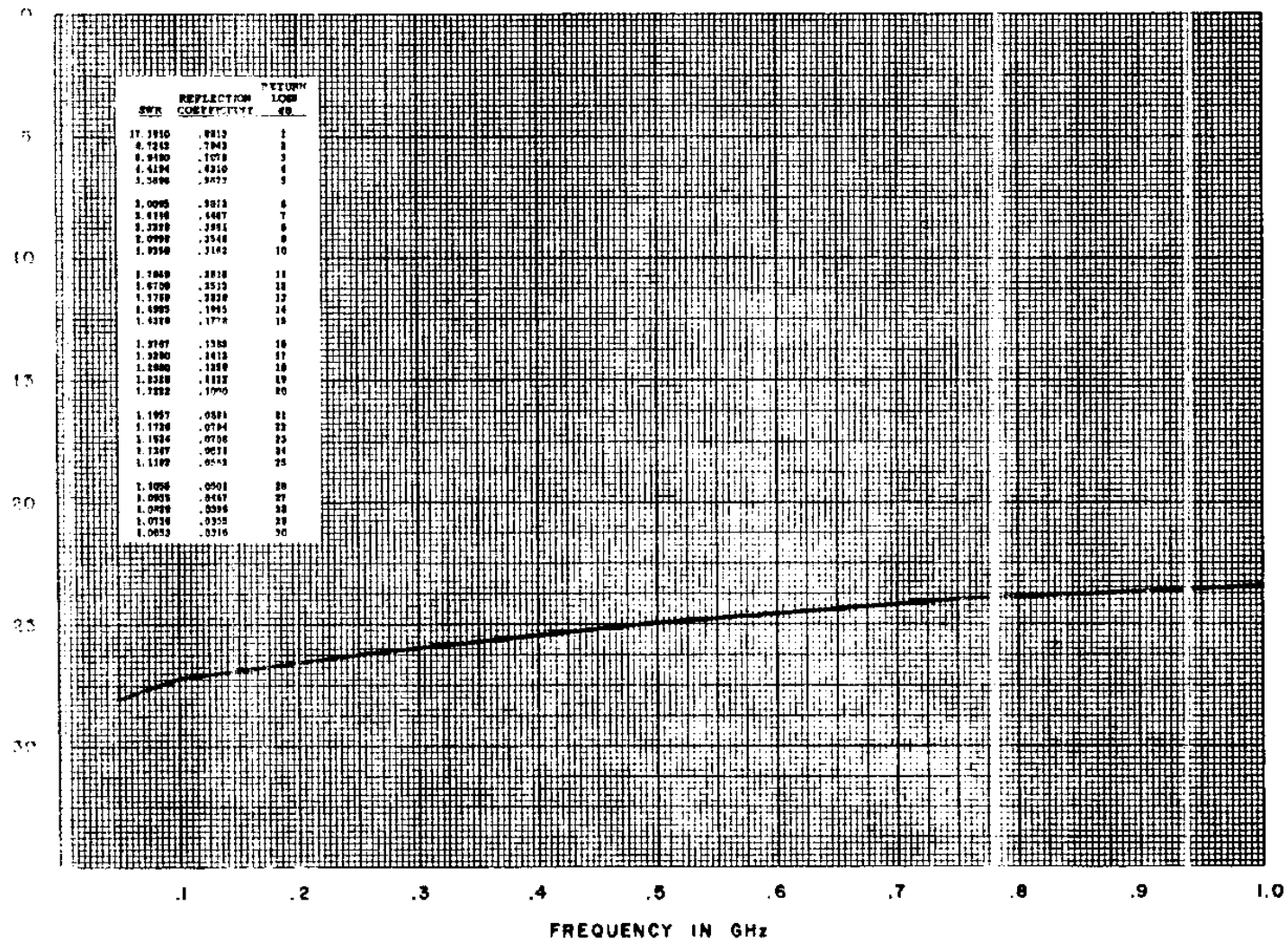


FIGURE 3. Structural return loss.

Custodians:

Army - CR  
Navy - EC  
Air Force - 85

Preparing activity:

Army - CR

(Project 6145-0911-5)

Review activities:

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

User activities:

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

Agent:

DLA - ES