NOTICE
OF REACTIVATION

INCH-POUND

MIL-C-17/92D
NOTICE 2
23 October 2000
SUPERSEDING
NOTICE 1
30 August 1991

MILITARY SPECIFICATION SHEET

CABLE, RADIO FREQUENCY, FLEXIBLE, COAXIAL,
50 OHMS, M17/92-RG115, M17/92-00001

MIL-C-17/92D, dated 7 December 1984, is hereby reactivated and may be used for either new or existing design acquisition.

Custodians:
Army – CR
Navy - EC
Air Force – 11
DLA - CC

Preparing activity:
DLA - CC

(Project 6145-2288)

AMSC N/A FSC 6145
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

INCH-POUND

MIL-C-17/92D
NOTICE 1
30 August 1991

NOTICE OF INACTIVATION
FOR NEW DESIGN

**MILITARY SPECIFICATION SHEET**

CABLE, RADIO FREQUENCY, FLEXIBLE COAXIAL, 50 OHMS,
M17/92-RG115, M17/92-00001

MIL-C-17/92D is inactive for new design and is no longer used by the Communications-Electronics Command except for replacement purposes.

Preparing activity:
Army - CR
(Project 6145-1183-11)

AMSC N/A

FSC 6145

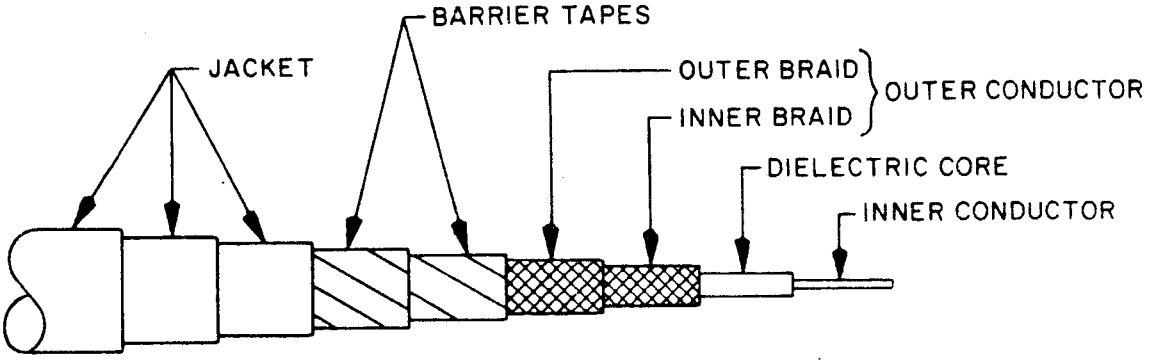
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MILITARY SPECIFICATION SHEET

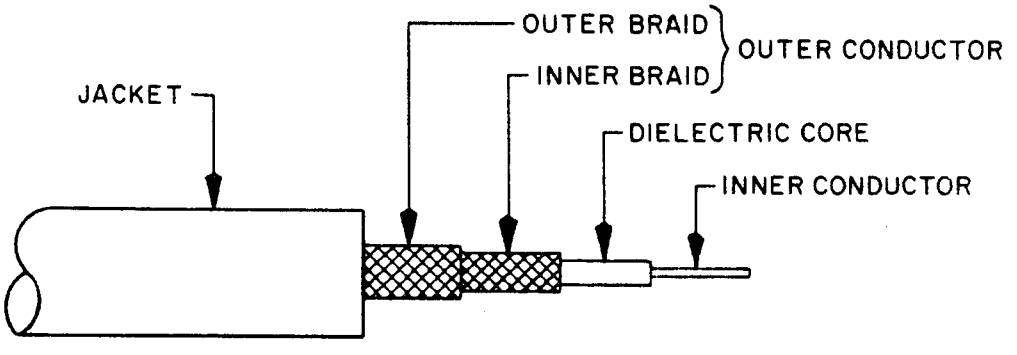
CABLE, RADIO FREQUENCY, FLEXIBLE COAXIAL,
50 OHMS, M17/92-RG115, M17/92-00001

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.




M17/92-RG115




M17/92-00001

FIGURE 1. Configurations.

TABLE I. Description.

| Components | Construction details |
|---|---|
| Inner conductor | Seven strands of silver-coated, copper wire .028 inch each.<br>Overall diameter: .084 inch ±.001. |
| Dielectric core | Type F-2:<br>Diameter: .255 inch ±.005. |
| Outer conductor | Double braid of AWG 34, silver-coated, copper wire.<br>Diameter: .325 inch maximum |
| Inner braid | Coverage: 91.8% nominal<br>Carriers: 24<br>Ends: 6<br>Picks/inch: 14.0% ±10 |
| Outer braid | Coverage: 91.9% nominal<br>Carriers: 24<br>Ends: 6<br>Picks/inch: 15.5% ±10 |
| Barrier tapes | Type FF-2: Two wraps of PTFE tape, .005 inch thick each, by 1-inch wide. Each wrap of PTFE tape is to be applied with a 50% minimum overlap. |
| Jacket | M17/92-RG115 type V. Three braids<br>Diameter: .415 inch ±.015.<br><br>M17/92-00001 type FEP.<br>Diameter: .344 ±.010 applied directly over outer braid, barrier tapes not required. |

ENGINEERING INFORMATION:

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

Operating frequency: 12.4 GHz, maximum.

Velocity of propagation: 70 percent, nominal.

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

Inner conductor properties:

DC resistance (maximum at 20°C): .199 ohm per 100 feet.

Elongation: 25 percent, minimum.

Tensile strength: Not applicable.

Engineering note: This cable useful in high temperature applications.

REQUIREMENTS:

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

Environmental and mechanical:

Visual and mechanical examination: Applicable.

Out-of-roundness: Not applicable.

Eccentricity: 10 percent, maximum.

Adhesion of conductors:

Inner conductor to core: Not applicable.

Aging stability:

M17/92-RG115: +230°C ±5°C.

M17/92-00001: Not applicable.

Stress crack resistance:

M17/92-RG115: Not applicable.

M17/92-00001: +230°C ±5°C for 96 hours, mandrel size 7-1/2 times the jacket diameter.

Outer conductor integrity: Not applicable.

Cold bend: -35°C ±2°C.

Dimensional stability: +200°C ±5°C.

Inner conductor from core:

M17/92-RG115: Not applicable.

M17/92-00001: Not applicable.

Inner conductor from jacket:

M17/92-RG115: Not applicable.

M17/92-00001: 0.312 inch, maximum.

Contamination: Not applicable.

Bendability: Not applicable.

Flammability: Applicable.

Weight: 18.5 pounds per 100 feet, maximum.

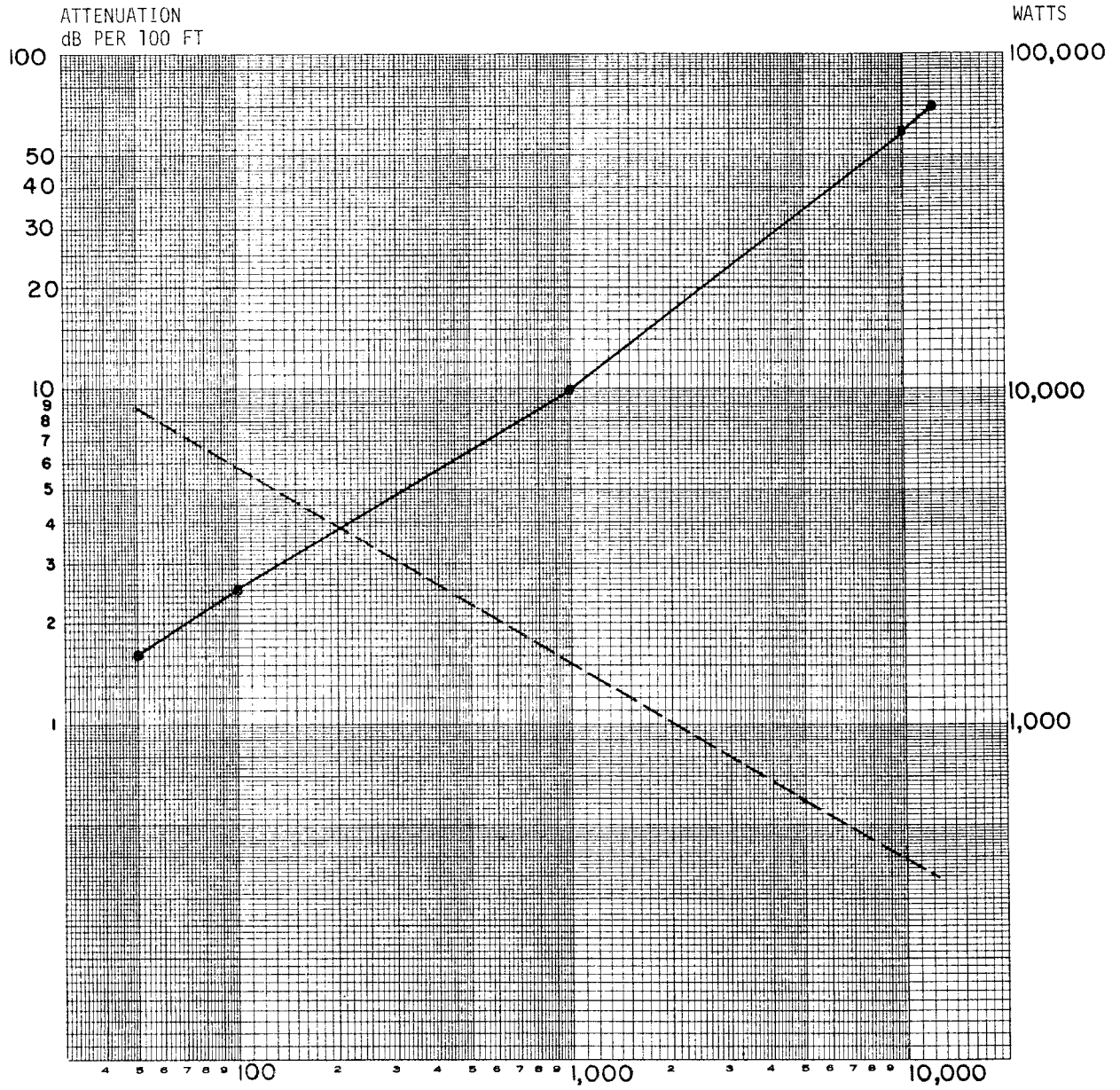
Electrical:

Continuity: Applicable.

Spark test:

M17/92-RG115: Not applicable.

M17/92-00001: 2,000 V rms +25 percent, -0 percent.



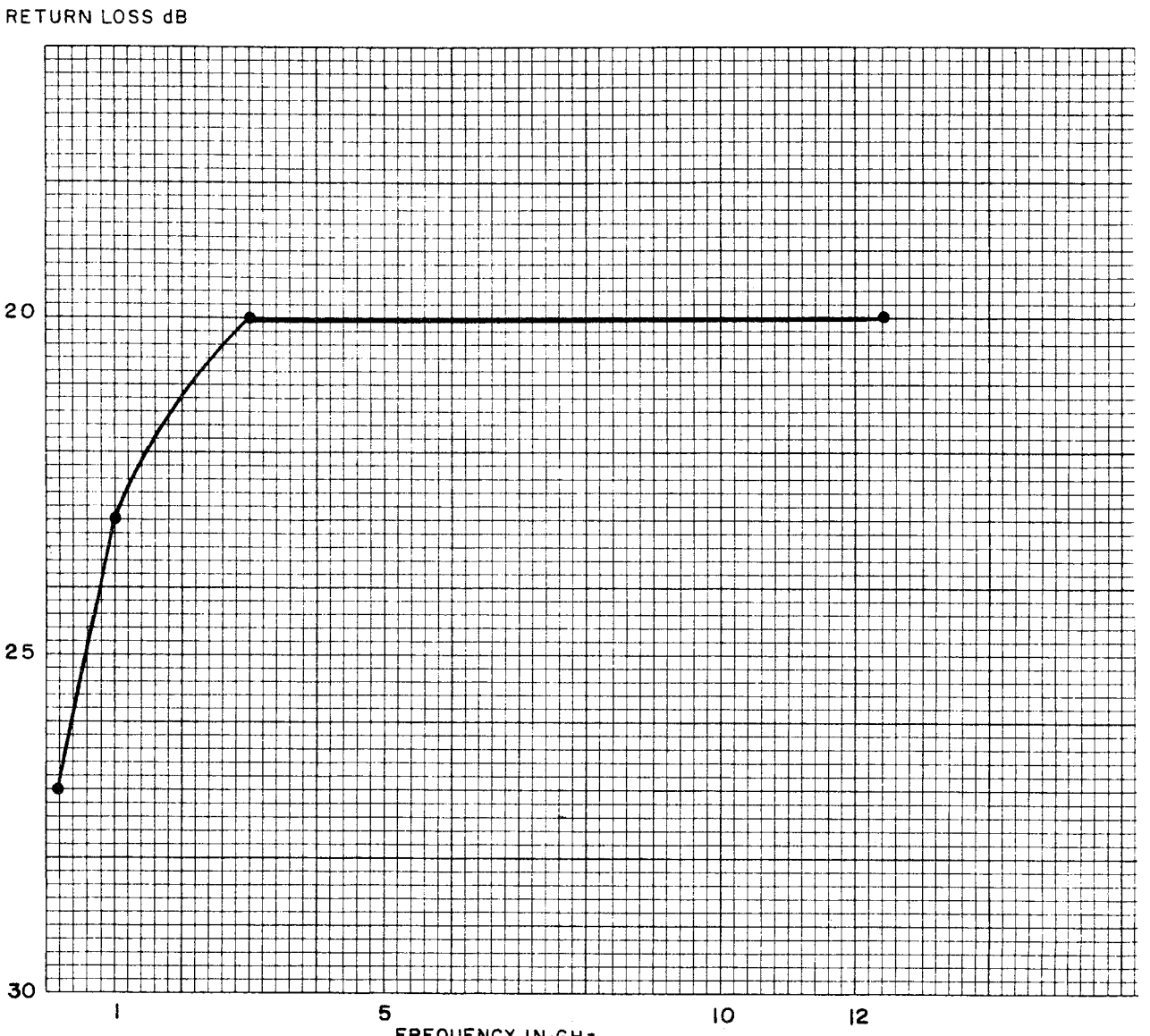

MAXIMUM POWER_ _ _ _AT 25°C SEA LEVEL

MAXIMUM ATTENUATION_____

Tabulated values are for reference only. The values on the graph represent the requirements for attenuation. The data regarding power rating are for information only.

| FREQUENCY MHz | ATTENUATION dB | POWER WATTS |
|---|---|---|
| 50 | 1.6 | 9000 |
| 100 | 2.5 | 6000 |
| 1000 | 9.8 | 1600 |
| 10000 | 58 | 450 |
| 12400 | 70 | 400 |

FIGURE 2. Power rating and attenuation.




| SWR | Reflection coefficient | Return loss dB | SWR | Reflection coefficient | Return loss dB |
|---|---|---|---|---|---|
| 17.3910 | .8913 | 1 | 1.3767 | .1585 | 16 |
| 8.7242 | .7943 | 2 | 1.3290 | .1413 | 17 |
| 5.8480 | .7079 | 3 | 1.2880 | .1259 | 18 |
| 4.4194 | .6310 | 4 | 1.2528 | .1122 | 19 |
| 3.5698 | .5623 | 5 | 1.2222 | .1000 | 20 |
| 3.0095 | .5012 | 6 | 1.1957 | .0891 | 21 |
| 2.6146 | .4467 | 7 | 1.1726 | .0794 | 22 |
| 2.3229 | .3981 | 8 | 1.1524 | .0708 | 23 |
| 2.0999 | .3548 | 9 | 1.1347 | .0631 | 24 |
| 1.9250 | .3162 | 10 | 1.1192 | .0562 | 25 |
| 1.7849 | .2818 | 11 | 1.1055 | .0501 | 26 |
| 1.6709 | .2512 | 12 | 1.0935 | .0447 | 27 |
| 1.5769 | .2239 | 13 | 1.0829 | .0398 | 28 |
| 1.4985 | .1995 | 14 | 1.0736 | .0355 | 29 |
| 1.4326 | .1778 | 15 | 1.0653 | .0316 | 30 |

| Frequency MHz | Min SRL dB |
|---|---|
| 50 | 26.9 |
| 400 | 25.8 |
| 1000 | 23.0 |
| 3000 | 20 |
| 10000 | 20 |
| 12400 | 20 |

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

FIGURE 3. Structural return loss.

Voltage withstanding: 10,000 V rms, minimum.

Insulation resistance: Not applicable.

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

Characteristic impedance: 50 ohms, ±2 ohms.

Attenuation: See figure 2.

Structural return loss: See figure 3.

Capacitance: 32 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 numbers:

M17/92-RG115.

M17/92-00001.

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

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

Review activities:
Army - MI
Navy - SH
Air Force - 11, 17, 99, 80
DLA - ES, IS

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

Agent:
DLA - ES

Preparing activity:
Army - CR

(Project 6145-0891)