

INCH-POUND

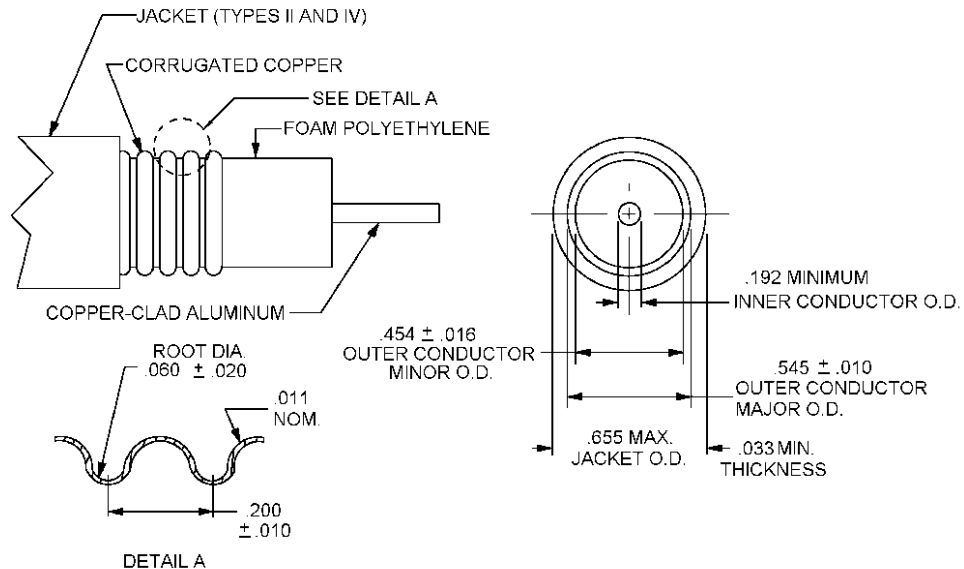
MIL-DTL-28830/3D
w/AMENDMENT 2
7 July 2022
SUPERSEDING
MIL-DTL-28830/3D
w/AMENDMENT 1
25 April 2017

DETAIL SPECIFICATION SHEET

CABLES, RADIO FREQUENCY, COAXIAL, SEMIRIGID, CORRUGATED OUTER
CONDUCTOR, LOW LOSS FOAM DIELECTRIC, .500 INCH NOMINAL, 50 OHMS

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-28830](#).



Inches (mm)	Inches (mm)
.000 (.010)	.002 (.060)
.000 (.011)	.008 (.192)
.001 (.016)	.008 (.200)
.001 (.020)	.018 (.454)
.001 (.033)	.021 (.545)
	.025 (.644)

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.

FIGURE 1. Cable configuration.



ENGINEERING INFORMATION:

Weight:

Type II jacketing: .16 lb/ft, nominal.

Type IV jacketing: .20 lb/ft, nominal.

Minimum in-service bending diameter: 10 inches (0.25 meter).

Average power rating: See figure 2.

REQUIREMENTS:

Dielectric withstanding voltage: 6,000 V dc.

Jacket spark:

Type II jacketing: 8,000 V rms.

Type IV jacketing: 5,000 V rms.

Attenuation: See figure 2.

Voltage standing wave ratio (VSWR): 1.40, maximum.

VSWR frequency range: 100 MHz to 8 GHz.

Impedance: 50 $\pm$ 2 ohms.

Velocity of propagation: 88 percent, nominal.

Capacitance: 23.1 pf/ft, maximum.

Flexibility and cold bend mandrel diameter:

10 inches (0.25 meter), maximum.

Test cable length: 15 feet (4.6 meters).

Acid gas generation (type IV only): 2.0, maximum.

Halogen content (type IV only): 0.2, maximum.

Smoke index (type IV only): 35, maximum.

Toxicity index (type IV only): 5, maximum.

Tensile strength and elongation:

Type II jacketing: 2,100 psi and 700 percent elongation, minimum.

Type IV jacketing: 1,200 psi and 115 percent elongation, minimum.

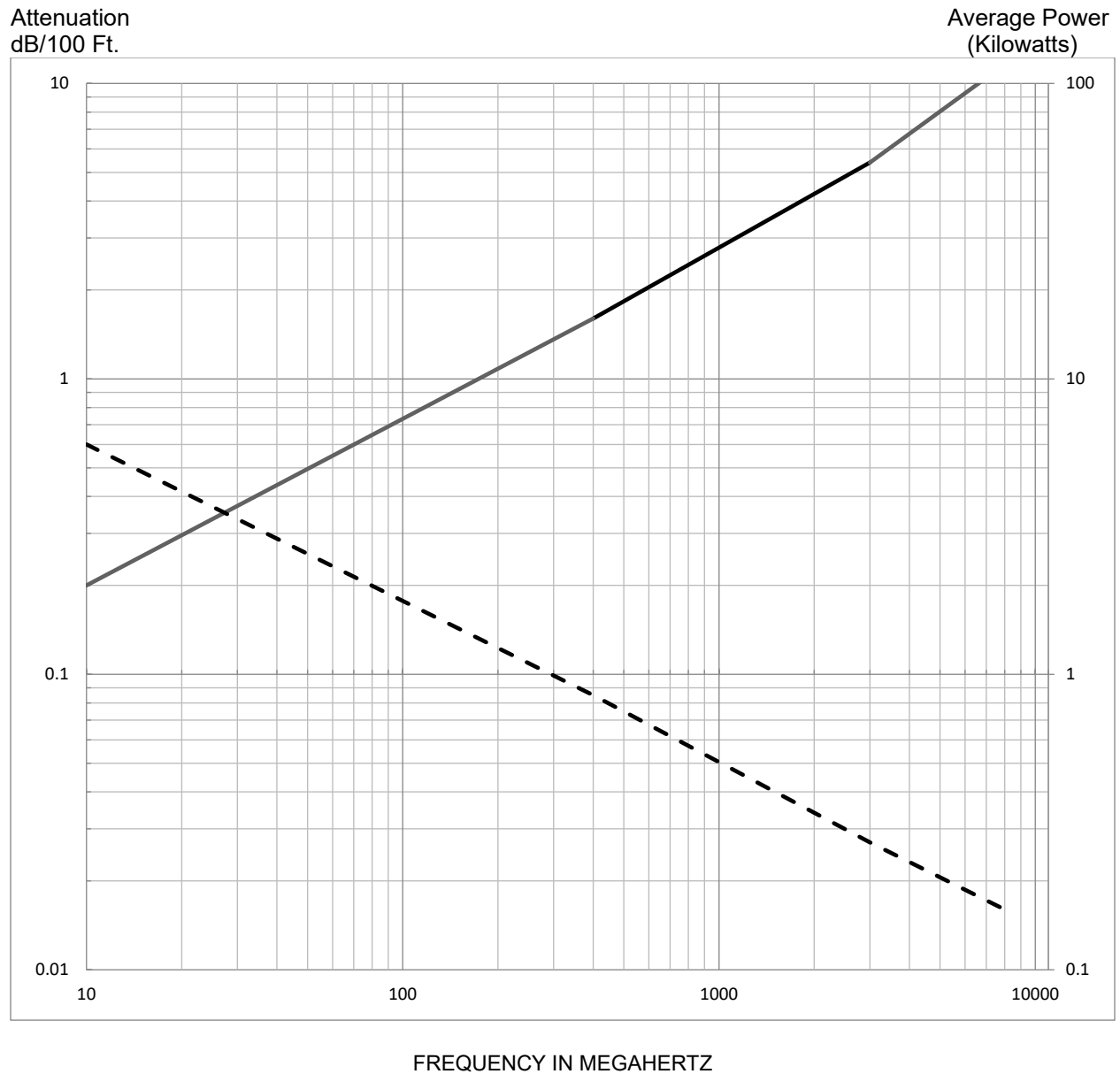
Design and construction: See figure 1.

Part or Identifying Number (PIN):

M28830/3-II

M28830/3-IV

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Standard conditions for average power and attenuation:

For average power: -----

VSWR: 1.0

Ambient temperature: 40°C

Inner conductor temperature: 100°C

For attenuation: _____

VSWR: 1.0

Ambient temperature: 24°C

Frequency
(MHz)

400

3,000

8,000

Attenuation
(Maximum dB)

1.6

5.4

11.6

FIGURE 2. Attenuation and power.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents: This documents references [MIL-DTL-28830](#).

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA – CC

(Project 6145-2022-019)

Review activities:

Navy – AS, MC, SH
Air Force – 19

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>.