

14 April 1978

MILITARY SPECIFICATION SHEET
 CABLE ASSEMBLIES, RADIO FREQUENCY
 (MADE FROM M17/28-RG58 CABLE)

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

The complete requirements for procuring the cable assemblies described herein shall consist of this document and the latest issue of Specification MIL-C-55427.

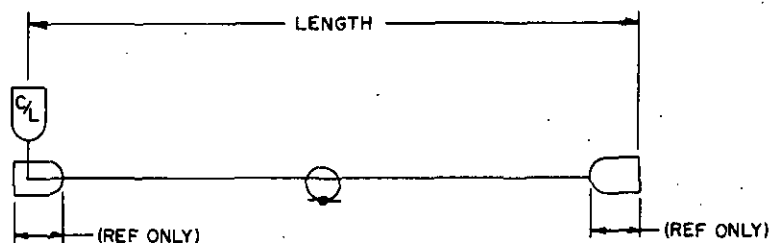


FIGURE 1. General configuration.

REQUIREMENTS:

Configuration: See figure 1.

Cable: Part No. M17/28-RG58 per MIL-C-17/28.

End terminations: See table I.

Length of assembly: As specified in part number.
 Tolerance: +2%, -0%.

Dielectric withstanding voltage:
 1500 volts rms at sea level - BNC and TNC series connectors.
 1000 volts rms at sea level - SMA series connectors.

Thermal shock: MIL-STD-202, method 107, test condition A.

Flexure: 20 pounds minimum.

Cable retention:
 Longitudinal pull - See table I.
 Torque - 2 inch-pounds.

VSWR: 1:1.3 maximum at 0.5 to 1 GHz. See table I.

Insertion loss: 0.5 dB maximum at 1 GHz.

$$\left(\frac{\text{Length of cable}}{\text{Unit length}} \times \frac{\text{Loss}}{\text{Unit length}} \right) + \left(\frac{\text{Connector loss per}}{\text{table I}} \right)$$

TABLE I. Cable assembly characteristics.

MIL-C-39012/ terminations	Cable retention	VSWR	Insertion loss
	Pounds (min)		dB (max)
16A	40	1.30 (50 mHz to 4 GHz)	.2 at 3 GHz
16B	60	↓	↓
16C	60	↓	↓
16D	60	↓	↓
17A	40	↓	↓
17B	60	↓	↓
17C	60	↓	↓
17D	60	↓	↓
20A	40	1.35 (50 mHz to 4 GHz)	.3 at 3 GHz
20B	60	↓	↓
20C	60	↓	↓
20D	60	↓	↓
26A	40	1.30 (50 mHz to 11 GHz)	.18 at 9 GHz
26B	60	↓	↓
26C	60	↓	↓
26D	60	↓	↓
27A	40	↓	↓
27B	60	↓	↓
27C	60	↓	↓
27D	60	↓	↓
30A	40	↓	.21 at 9 GHz
30B	60	↓	↓
30C	60	↓	↓
30D	60	↓	↓
55A	45	1.15 + 0.01 (F) GHz	.06 x $\sqrt{\text{Freq GHz}}$
55B	45	↓	↓
55C	45	↓	↓
55D	45	↓	↓
56A	45	1.15 + 0.02 (F) GHz	.15 x $\sqrt{\text{Freq GHz}}$
56B	45	↓	↓
56C	45	↓	↓
56D	45	↓	↓
57A	45	1.15 + 0.01 (F) GHz	.06 x $\sqrt{\text{Freq GHz}}$
57B	45	↓	↓
57C	45	↓	↓
57D	45	↓	↓

Part number: Consists of "M55427/01", two-letter code denoting end terminations (see table II), and cable length (expressed in centimeters by four digits).

Sample units for group C inspection: Minimum of two sample units per qualification group of table III (total of 12 sample units).

Group qualification: In accordance with table III.

TABLE II. End termination codes and applicable data.

	Category				Termination		Shell material
	A	B 1/	C	D	MIL-C-39012/	Series	
Code - - - - -	A	B	C	D	16	BNC	Brass
Code - - - - -	E	F	G	H	17	BNC	Brass
Code - - - - -	J	K	L	M	20	BNC	Brass
Code - - - - -	N	P	Q	R	26	TNC	Brass
Code - - - - -	S	T	U	V	27	TNC	Brass
Code - - - - -	W	X	Y	Z	30	TNC	Brass
Code - - - - -	a	b	c	---	55	SMA	Corrosion resistant steel
Code - - - - -	d	e	f	---	56	SMA	Corrosion resistant steel
Code - - - - -	g	h	j	---	57	SMA	Corrosion resistant steel
Code - - - - -	---	k	---	---	55	SMA	Copper beryllium
Code - - - - -	---	l	---	---	56	SMA	Copper beryllium
Code - - - - -	---	m	---	---	57	SMA	Copper beryllium

1/ Not for use in airborne applications.

TABLE III. Group qualification.

Qualification group	Qualification of any one of the following terminations:		Qualifies all of the following connector terminations:	
	MIL-C-39012/	Category	MIL-C-39012/	Category
1	16 17 20 26 27 30	A	16 17 20 26 27 30	A
1/ 2	16 17 20 26 27 30	B	16 17 20 26 27 30	B
3	16 17 20 26 27 30	C or D	16 17 20 26 27 30	C or D
4	55 56 57	A	55 56 57	A
1/ 5	55 56 57	B	55 56 57	B
6	55 56 57	C or D	55 56 57	C or D

1/ Not for use in airborne applications.

MIL-C-55427/1

Custodians:

Army - EL
Navy - EC
Air Force - 85

Review activities:

Army - AR, MI
Navy - SH, AS, OS
Air Force - 11, 17
DLA - ES

User activities:

Army - ME, AT, AV
Navy - MC
Air Force - 14, 19

Preparing activity:

Army - EL

Agent:

DLA - ES

(Project 5995-0090-1)

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