C. BAKER 851KC
G. GRIMM 2633SA

(U) CABLE, R.F., COAXIAL, RG-196A/U /50 OHM/

Drawing Callout: Cable R.F. (RG 196A/U) 8275196-(1).

(1) Insert Control Number Suffix.

CHANGE HISTORY

CONTROL NUMBER	ISSUE	RELEASE/CHANGE NO.	DATE
8275196-00	A		10/25/65
	B	7131549	10/17/67
	C	972098KC	12/97
	D	201800015KC IER 201800042KC	5/19
8275196-01	E	201903047KC	7/19

1. GENERAL

1.1. Scope. This standard covers the requirements for 50 ohm radio frequency cable with the polytetrafluoroethylene (PTFE) core and jacket. This cable has a temperature rating of 200°C.

Material meeting the requirements of this standard will meet the requirements of MIL-DTL-17 Type RG 196A/U.

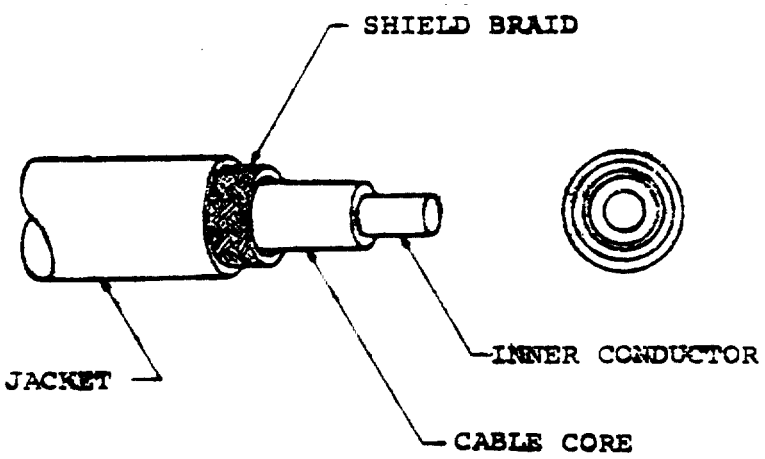
2. DOCUMENTS

1.2. Required Documents. The following documents are applicable to the extent stated elsewhere in this standard.

Military Specification

MIL-DTL-17	CABLES, RADIO FREQUENCY, FLEXIBLE AND SEMIRIGID GENERAL SPECIFICATION FOR

3. REQUIREMENTS



3.1. Required Products. The material shall be one of the products listed on the latest issue of QPL-17, the Military Qualified Products list of materials qualified for use under Military Specification MIL-DTL-17, or material furnished under this standard shall be a product which has been tested by an AEC Integrated Contractor and found to meet all requirements specified herein.

3.2. Materials. Materials shall be as specified herein and defined in MIL-DTL-17.

3.3. Construction. Construction shall be per MIL-DTL-17 and as defined herein.

3.3.1. Construction Details.

3.3.1.1. Inner Conductor. Seven strands of #38 AWG silver-covered, annealed-copper-covered-steel wire. Conductor diameter 0.012 inch nom.

3.3.1.2. Cable Core. Extruded solid polytetrafluoroethylene (Type F1), diameter 0.034 +/- 0.002.

3.3.1.3. Outer Conductor (shield). Shield braid of silver-covered copper wire. Diameter 0.054 inch maximum.

Wire size----------	38 AWG
Ends/carrier----------	3
Carriers----------	16
Picks/inch----------	25, ± 10 percent

3.3.1.4. Jacket (type VII). Extruded or tape wrapped and fused polytetrafluoroethylene. If taped jacket, it shall consist of two wraps of unsintered tape applied in opposite directions with a 50-percent lap and shall be sintered (or fused) during processing. Jacket color shall be white.

3.3.1.4.1. Wall thickness 0.010 inch minimum.

3.3.1.5. Cable diameter 0.080 inch maximum.

3.4. Manufacturer's Identification. None.

3.5. Electrical and Physical Requirements. These characteristics shall be determined on the specimens prepared from the finished cable.

Property	Test Method	Requirements
Voltage Withstanding	4.4.1	2000 volts RMS (min.)
Corona, Extinction Point	4.4.2	1000 volts RMS (min.)
Impedance	4.4.3	50 ± 2 ohms
Attenuation @ 400 MC	4.4.4	33 db/100 feet (max.)
Continuity, Electrical	4.4.5	Continuous on all cable length
Cold Bend	4.4.6	No cracks or flaws in either
Aging Stability or Stress crack resistance	4.4.7	dielectric or jacket

3.6. Workmanship. Workmanship shall be in accordance with the best commercial practices employed in the cable industry today and shall be such as to enable the cable to meet all requirements of this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1. Definitions.

4.1.1. Lot. A homogenous unit of material. A lot may be a quantity of material produced in one manufacturing cycle under one set of conditions or a quantity of material produced in more than one manufacturing cycle under similar conditions and subsequently combined and thoroughly blended, and submitted for acceptance at one time.

4.2. Qualification Procedure. The qualification requirements of Specification MIL-DTL-17 shall apply, except that evaluation may also be performed by any AEC Integrated Contractor or Design Agency. If the evaluation is performed by an AEC Integrated Contractor or Design Agency, and the product is found to meet all qualification requirements, it shall be approved for listing in 6.1. Subsequent evidence of non-conformance of a product to any qualification requirement may cause loss of qualification approval.

4.3. Acceptance Inspection.

4.3.1. Acceptance Requirements. Each lot of stock material in the shipment shall be inspected and tested for conformance to the acceptance requirements below.

Material Verification
Dimensional Requirements
Continuity, Electrical
Voltage Withstanding
Corona Extinction Point
Impedance
Attenuation

4.3.2. Testing Responsibility. Inspection and testing of lot material shall be performed by a capable laboratory operated by the buyer, the supplier, or the material manufacturer, or by an independent laboratory found capable by any of these organizations. When the inspections and tests are performed by other than the buyer, the required data shall accompany the material. If the inspection and testing has been done by other than the buyer or an AEC Integrated Contractor, the validity of the data supplied shall be periodically verified by inspections and tests performed by the buyer, or by a different laboratory selected by the buyer. Verification data may be exchanged between AEC Integrated Contractors.

4.3.3. Sampling Procedure. Acceptance testing of this material requires approximately 100 feet selected from each lot.

4.4. Test Methods.

4.4.1. Voltage Withstanding. The withstanding voltage shall be tested per paragraph 4.8.4 of MIL-DTL-17.

4.4.2. Corona. The corona extinction point shall be tested per paragraph 4.8.6 of MIL-DTL-17.

4.4.3. Impedance. The impedance shall be tested paragraph 4.8.7 of MIL-DTL-17.

4.4.4. Attenuation. The attenuation shall be tested per paragraph 4.8.8 of MIL-DTL-17, except that the interfaces of the connectors terminating the specimen do not have to conform to MIL-STD-348. The test frequency shall be 400 MC.

4.4.5. Continuity, Electrical. The continuity shall be tested per paragraph 4.8.2 of MIL-DTL-17 of each length of cable.

4.4.6. Cold Bend. The cold bend shall be tested per paragraph 4.8.19 of MIL-DTL-17.

4.4.7. Aging Stability or Stress Crack Resistance. The aging stability shall be tested per paragraph 4.8.16 of MIL-DTL-17. The Stress Crack Resistance shall be tested per paragraph 4.8.17 of MIL-DTL-17.

5. PACKAGING, HANDLING AND STORAGE

The requirements defined in this section apply upon acceptance only at the Procution Agency (PA) location. Prior to PA use, site-specific processes to control shelf life, storage condition, labeling, packaging, handling and additional documentation are to be established by the PA site. Individual PA site-specific processes do not have to be identical.

5.1. Production Agency site-specific processes to control sehlf life, storage condition, labeling, packaging, handling and additional documentation shall implement the technical requirements and specific controls to maintain design intent as defined in Section 5.2 & 5.3.

5.2. Controls to maintain design intent:

5.2.1. Except as noted in 5.3, shelf life and storage should be based on the manufacturer's recommendations, or previous PA experience with similar materials, storage facilities, and available environments.These recommendations are documented in Section 6.

5.2.2. When a PA plans to deviate from the recommendations outlined in Section 6, the PA site shall document objective evidencefor the deviation in an administrative IER.

5.3. Design Agency technical shelf life, storage condition and labeling, packaging and handling requirements:

5.3.1. Shelf Life

5.3.1.1. The shelf life shall be unlimited.

5.3.2. Storage Condition

5.3.2.1. Materials shall be storedas a noncombutible solid at temperatures ranging from 45 to 100°F.

5.3.3. Labeling

5.3.3.1. Not Applicable

5.3.4. Packaging

5.3.4.1. Not Applicable

5.3.5. Handling

5.3.5.1. Not Applicable

6. NOTES

This section is supplied for the convenience of the users of this specification and contains no mandatory provisions.

6.1. Packaging Handling and Storage Recommendations

6.1.1. Manufacturer did not provide recommendations.

6.1.2. Packaging and labeling recommendations as of June, 2019 are given in this section for the convenience of the Production Agency.

6.1.3. Labeling

6.1.3.1. It is recommended that each container of material be marked with the following information:

Material Specification Number
Manufacturer's Product Designation
Name of Manufacturer
Manfuacturer's Lot Number
Date of Manufacture
Storage Condition: G1-4
Shelf Life

6.1.4. Packaging

6.1.4.1. The cable shall be put up on spools or reels with only one continuous length per spool. Both ends of every length shall be spooled out and the ends shall be sealed to protect them from moisture, the atmosphere and shipping damage. The minimum continuous length shipped shall be 200 feet.

6.2. Approved Suppliers.

a) Any listed in QPL-17.
b) Others to be determined.

END OF TEXT