

**MIL-C-7078/5**

12 August 1970

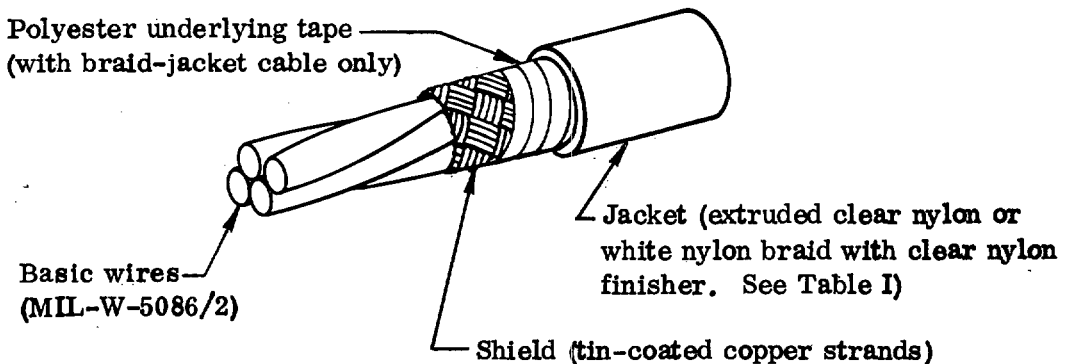
**SUPERSEDING****MILITARY SPECIFICATION SHEET**

See "Supersession Data"

**CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/2 BASIC WIRES,  
COPPER SHIELD, NYLON JACKET, 600-VOLT, 105° C**

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

The complete requirements for procuring the cable described herein shall consist of this document and the issues in effect of Specification MIL-C-7078 and Specification Sheet MIL-W-5086/2.

**SIZES 22 THROUGH 10 INACTIVE FOR NEW DESIGN IN  
AIRCRAFT APPLICATIONS AFTER DATE OF ISSUE****SHIELDED JACKETED CABLE****REQUIREMENTS:****CONSTRUCTION DETAILS:** See above Figure and Table I**VOLTAGE RATING:** 600 Volts (rms)**TEMPERATURE RATING:** 105° C (221° F) max conductor temperature**COLD BEND:** Required for extruded-jacket cable only**WET DIELECTRIC TEST AFTER COLD BEND:** Not required**THERMAL SHOCK TEST:** Required for extruded-jacket cable only.**HEAT RESISTANCE:** Required for extruded-jacket cable only. Test temperature 130 ±2° C (266 ±3.6° F). Supplementary wet dielectric test not required**JACKET FLAWS (SPARK TEST):** 1000 volts (rms)**DRY DIELECTRIC:** 1500 volts (rms)

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PART NUMBER: Part numbers in this specification sheet are coded as in the following example:

M7078/5     -     22     -     1  
 specification     size number     quantity of conductors  
 sheet number     of basic wires     (basic wires) in cable

TABLE I

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket 1/ (in.)(min)	Major diameter of shielded jacketed cable (in.)(max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) 2/	(max)
M7078/5-22-1	36 ↓	.005	.120	11.3	12.1
M7078/5-22-2		.006	.202	20.2	21.7
M7078/5-22-3		.006	.214	26.7	28.4
M7078/5-22-4		.006	.235	33.0	35.0
M7078/5-22-5		.007	.260	40.4	43.0
M7078/5-22-6		.007	.284	47.1	50.1
M7078/5-22-7		.007	.284	.284	51.9
M7078/5-20-1	36 ↓	.005	.130	14.0	15.2
M7078/5-20-2		.006	.222	24.6	26.8
M7078/5-20-3		.007	.238	33.8	37.1
M7078/5-20-4		.007	.261	42.6	46.1
M7078/5-20-5		Braid	.284	51.5	54.8
M7078/5-20-6		↓	.311	60.4	64.3
M7078/5-20-7		↓	.311	.311	67.3
M7078/5-18-1	36 ↓	.005	.140	17.0	18.4
M7078/5-18-2		.007	.244	31.7	34.4
M7078/5-18-3		.007	.259	44.2	47.8
M7078/5-18-4		.007	.285	54.7	58.9
M7078/5-18-5		Braid	.311	66.6	70.9
M7078/5-18-6		↓	.341	78.5	83.5
M7078/5-18-7		↓	.341	.341	88.0
M7078/5-16-1	36 ↓	.005	.150	19.9	21.8
M7078/5-16-2		.007	.264	37.6	41.0
M7078/5-16-3		.007	.281	51.6	56.1
M7078/5-16-4		Braid	.307	64.1	68.9
M7078/5-16-5		↓	.338	79.8	85.3
M7078/5-16-6		↓	.371	94.2	100.8
M7078/5-16-7		↓	.371	.371	106.1

TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket $\frac{1}{(in.)}$ (min)	Major diameter of shielded jacketed cable (in.)(max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) $\frac{2}{(in.)}$	(max)
M7078/5-14-1	36	.005	.172	26.8	29.6
M7078/5-14-2	↓	Braid	.305	51.4	55.9
M7078/5-14-3	↓	↓	.325	70.4	76.9
M7078/5-14-4	↓	↓	.360	90.0	98.4
M7078/5-14-5	↓	↓	.398	112.5	122.9
M7078/5-14-6	↓	↓	.437	133.4	145.8
M7078/5-14-7	↓	↓	.437	151.2	165.2
M7078/5-12-1	36	.006	.192	36.3	39.0
M7078/5-12-2	↓	Braid	.341	69.6	74.1
M7078/5-12-3	↓	↓	.364	98.4	103.7
M7078/5-12-4	↓	↓	.403	126.2	134.2
M7078/5-12-5	↓	↓	.446	156.4	166.4
M7078/5-12-6	↓	↓	.491	186.2	198.1
M7078/5-12-7	↓	↓	.491	212.1	225.6
M7078/5-10-1	36	.007	.240	55.4	60.3
M7078/5-10-2	↓	Braid	.433	111.5	117.4
M7078/5-10-3	↓	↓	.463	159.8	168.2
M7078/5-10-4	↓	↓	.514	207.6	218.5
M7078/5-10-5	↓	↓	.570	255.3	268.7
M7078/5-10-6	↓	↓	.629	304.1	320.1
M7078/5-10-7	↓	↓	.629	349.0	367.4
M7078/5-8-1	36	Braid	.288	86.9	90.7
M7078/5-8-2	↓	↓	.535	170.2	177.3
M7078/5-8-3	↓	↓	.573	246.4	256.7
M7078/5-8-4	↓	↓	.637	321.5	334.9
M7078/5-6-1	36	Braid	.341	127.7	134.8
M7078/5-6-2	↓	↓	.641	255.6	266.2
M7078/5-6-3	↓	↓	.687	373.2	388.8
M7078/5-6-4	34	↓	.770	499.9	520.7
M7078/5-4-1	36	Braid	.406	187.4	193.2
M7078/5-4-2	34	↓	.776	385.1	397.0
M7078/5-4-3	↓	↓	.832	563.5	580.9
M7078/5-4-4	↓	↓	.927	738.8	761.7
M7078/5-2-1	36	Braid	.476	279.9	285.8
M7078/5-2-2	34	↓	.916	570.3	581.9
M7078/5-1-1	36	Braid	.521	337.4	342.6
M7078/5-1-2	34	↓	1.006	687.3	701.3

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TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket <sup>1/</sup> (in.) (min)	Major diameter of shielded jacketed cable (in.) (max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) <sup>2/</sup>	(max)
M7078/5-01-1	36	Braid	.581	427.3	443.5
M7078/5-01-2	34	↓	1.126	886.7	904.8
M7078/5-02-1	36	Braid	.646	538.6	549.6
M7078/5-03-1	36	Braid	.706	661.0	674.5
M7078/5-04-1	36	Braid	.776	828.2	845.1

- <sup>1/</sup> When thickness of extruded jacket is specified in the above table, the cable shall be made with an extruded jacket. When braid is indicated, the cable shall be made with an underlying tape and a braid jacket.
- <sup>2/</sup> Nominal values for weight of shielded jacketed cable are given for information only. Nominal values are not requirements.

**SUPERSESSION DATA:** This specification sheet includes the requirements for the "B" dash number cables of MS25313. The individual cables of the specification sheet replace and supersede the "B" dash numbers of corresponding basic wire size and quantity of conductors in MS25313. Examples: Part number M7078/5-22-1 cable of this specification sheet replaces and supersedes dash number -B221 cable of MS25313; part number M7078/5-20-7 cable of the specification sheet replaces and supersedes dash number -B207 cable of MS25313.

**Custodians:**

Navy - AS  
Army - EL

**Preparing activity:**

Navy - AS  
(Project No. 6145-0506)

**Review activities:**

Navy - EC, OS  
Army - EL, MI  
DSA - IS

**User activities:**

Army - AV, MU

Review/user information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current Federal Supply Classification Listing of DOD Standardization Documents.

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p><b>INSTRUCTIONS:</b> This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p>SPECIFICATION <b>CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/2</b>  <b>MIL-C-7078/5 BASIC WIRES, COPPER SHIELD, NYLON JACKET, 600-VOLT,</b></p>		
<p>ORGANIZATION <b>105° C</b></p>		
CITY AND STATE		CONTRACT NUMBER
<p>MATERIAL PROCURED UNDER A  <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT      <input type="checkbox"/> SUBCONTRACT</p>		
<p>1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?  A. GIVE PARAGRAPH NUMBER AND WORDING.</p>		
<p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
<p>2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</p>		
<p>3. IS THE SPECIFICATION RESTRICTIVE?  <input type="checkbox"/> YES      <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p>4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)</p>		
SUBMITTED BY (Printed or typed name and activity - Optional)		DATE

DD FORM 1426  
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.