

**MIL-C-7078/4**

12 August 1970

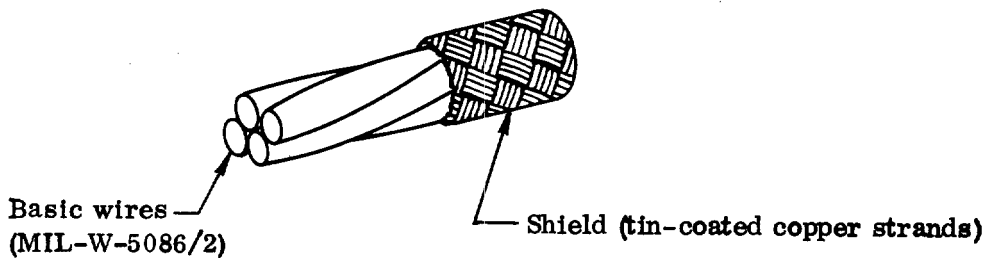
**SUPERSEDING****MILITARY SPECIFICATION SHEET See "Supersession Data"**

**CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/2 BASIC WIRES,  
COPPER SHIELD, 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 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:** Not applicable

**THERMAL SHOCK TEST:** Not applicable

**HEAT RESISTANCE:** Not applicable

**JACKET FLAWS (SPARK TEST):** Not applicable

**DRY DIELECTRIC:** 1500 volts (rms)

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

<u>M7078/4</u>	-	<u>22</u>	-	<u>1</u>
specification sheet number		size number of basic wires		quantity of conductors (basic wires) in cable

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TABLE I

Gable part no.	Gage of shield strands (AWG)	Major diameter of shielded cable (in.)(max)	Weight of shielded cable (lb/1000 ft)	
			(nom.) <u>1</u> /	(max)
M7078/4-22-1	36 ↓	.102	10.2	10.6
M7078/4-22-2		.182	18.1	18.8
M7078/4-22-3		.194	24.4	25.4
M7078/4-22-4		.215	30.6	31.9
M7078/4-22-5		.238	37.5	39.1
M7078/4-22-6		.262	44.0	45.8
M7078/4-22-7		.262	48.9	50.9
M7078/4-20-1	36 ↓	.112	12.8	13.6
M7078/4-20-2		.202	22.2	23.7
M7078/4-20-3		.216	30.5	33.4
M7078/4-20-4		.239	39.6	42.2
M7078/4-20-5		.265	48.6	51.7
M7078/4-20-6		.292	57.2	60.8
M7078/4-20-7		.292	64.0	68.1
M7078/4-18-1	36 ↓	.122	15.7	16.6
M7078/4-18-2		.222	28.7	30.6
M7078/4-18-3		.237	41.4	43.8
M7078/4-18-4		.263	51.4	54.6
M7078/4-18-5		.292	63.4	67.4
M7078/4-18-6		.322	74.8	79.6
M7078/4-18-7		.322	84.4	89.8
M7078/4-16-1	36 ↓	.132	18.5	19.9
M7078/4-16-2		.242	34.4	36.9
M7078/4-16-3		.259	48.1	51.7
M7078/4-16-4		.288	60.8	65.6
M7078/4-16-5		.319	75.8	81.5
M7078/4-16-6		.352	89.8	96.6
M7078/4-16-7		.352	101.6	109.2
M7078/4-14-1	36 ↓	.154	25.2	27.4
M7078/4-14-2		.286	48.1	52.6
M7078/4-14-3		.306	66.8	73.2
M7078/4-14-4		.341	86.2	94.6
M7078/4-14-5		.379	108.3	118.4
M7078/4-14-6		.418	128.8	140.8
M7078/4-14-7		.418	146.6	160.2

TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Major diameter of shielded cable (in.)(max)	Weight of shielded cable (lb/1000 ft)		
			(nom.) <u>1</u> /	(max)	
M7078/4-12-1	36	.172	34.3	36.3	
M7078/4-12-2	↓	.322	65.8	70.2	
M7078/4-12-3		.345	94.3	99.5	
M7078/4-12-4		.384	121.8	129.6	
M7078/4-12-5		.427	151.5	161.2	
M7078/4-12-6		.472	181.0	192.5	
M7078/4-12-7		.472	206.7	219.9	
M7078/4-10-1		36	.218	52.5	56.6
M7078/4-10-2	↓	.414	105.7	112.4	
M7078/4-10-3		.444	153.1	162.9	
M7078/4-10-4		.495	199.8	212.5	
M7078/4-10-5		.551	246.4	262.1	
M7078/4-10-6		.610	295.0	313.8	
M7078/4-10-7		.610	338.4	360.0	
M7078/4-8-1		36	.269	83.7	87.5
M7078/4-8-2	↓	.516	162.6	171.2	
M7078/4-8-3		.554	237.6	250.1	
M7078/4-8-4		.618	311.1	327.5	
M7078/4-6-1		36	.322	123.9	131.0
M7078/4-6-2	↓	.622	245.8	258.7	
M7078/4-6-3		.668	361.8	380.8	
M7078/4-6-4		<u>34</u>	.751	486.1	511.7
M7078/4-4-1		36	.387	182.5	188.5
M7078/4-4-2	↓	.757	376.3	387.9	
M7078/4-4-3		.813	554.0	571.1	
M7078/4-4-4		.908	728.3	750.8	
M7078/4-2-1		36	.457	274.4	280.2
M7078/4-2-2	34	.897	559.7	571.1	
M7078/4-1-1	36	.502	331.4	336.6	
M7078/4-1-2	34	.987	675.7	689.5	
M7078/4-01-1	36	.562	420.4	436.5	
M7078/4-01-2	34	1.107	873.7	891.5	
M7078/4-02-1	36	.627	526.7	539.3	
M7078/4-03-1	36	.687	668.1	675.0	
M7078/4-04-1	36	.757	855.1	869.9	

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1/ Nominal values for weight of shielded cable are given for information only.  
Nominal values are not requirements.

**SUPERSESSON DATA:** This specification sheet includes the requirements for the "B" dash number cables of MS25192. The individual cables of the specification sheet replace and supersede the "B" dash number cables of corresponding basic wire size and quantity of conductors in MS25192. Examples: Part number M7078/4-22-1 cable of this specification sheet replaces and supersedes dash number -B221 cable of MS25192; part number M7078/4-20-7 cable of the specification sheet replaces and supersedes dash number -B207 cable of MS25192.

**Custodians:**  
Navy - AS  
Army - EL

**Preparing activity:**  
Navy - AS  
(Project No. 6145-0505)

**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

**INSTRUCTIONS:** 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.

SPECIFICATION **CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/2**  
**MIL-C-7078/4 BASIC WIRES, COPPER SHIELD, 600-VOLT, 105° C**

ORGANIZATION

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

 DIRECT GOVERNMENT CONTRACT       SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

YES       NO (If "yes", in what way?)

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).

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.