

MILITARY SPECIFICATION SHEET

WAVEGUIDE ASSEMBLIES, MILLIMETER FLEXIBLE, NONTWISTABLE,
CLASS 8

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

The complete requirements for procuring the waveguide assemblies described herein shall consist of this document and the latest issue of Specification MIL-W-287.

REQUIREMENTS. See table I.

Part number See table I.

Extent of qualification: Qualification obtained for one assembly shall constitute qualification for other assemblies as specified in table II

Substitution data See table III

TABLE I Flexible, nontwistable millimeter waveguide assemblies

Group number	1/ Part number M287/8	TE ₁₀ mode frequency range (GHz)	Minimum centerline bending radius (inch)		Insertion loss (dB/in)	Pressurization lb _f /in ² gage	2/ VSWR (max) at				
			E plane	H plane			1"	2 1/4"	6"	12"	>24"
I	01-XXXX	26.5-40.00	26.62	53.2	0.05	60	1.08	---	1.15	1.25	1.30
	02-XXXX	33.0-50.0	13.75	27.0	0.05	15	1.08	1.10	N/A	N/A	N/A
	03-XXXX	40.0-60.0	9.18	18.58	0.08	15	1.08	1.10	N/A	N/A	N/A
II	04-XXXX	50.0-75.0	7.64	15.28	0.11	15	1.08	1.10	N/A	N/A	N/A
	05-XXXX	60.0-90.0	6.88	13.75	0.20	20	1.10	1.12	N/A	N/A	N/A
	06-XXXX	75.0-110	6.88	13.75	0.25	20	1.12	1.15	N/A	N/A	N/A

Flexure (degrees/in) $\times 10^{-3}$ cycles		Jacket material	Retention force (lb _f)	Oper temp range -55 to	Mates with standard rigid waveguide M85/3-	Flanges		
E plane	H plane					Flange 1 M3922/()	Flange 2 I3922/()	Material 3/
10	5	Plastic Polysulfide	N/A	+80°C	006	59-005 (choke)	54-003 (cover)	CU
10	5		N/A	+80°C	010	67-006 (contact)	67-006 (contact)	CU
10	5		N/A	+80°C	014	67-007 (contact)	67-007 (contact)	CU
10	5		N/A	+80°C	017	67-008 (contact)	67-008 (contact)	CU
15	8		N/A	+80°C	020	67-009 (contact)	67-009 (contact)	CU
15	8		N/A	+80°C	023	67-010 (contact)	67-010 (contact)	CU

1/ The complete part number shall be the number shown and a four-digit number indicating the nominal relaxed length in inches

2/ The VSWR value for any length between the lengths specified shall be the next higher value (e.g., for a 1.5-inch length of M287/8-02, the VSWR would be 1.10)

3/ CU = copper alloy

TABLE II Grouping for qualification

Group number	Qualifying dash number	Dash numbers of assemblies qualified
I	02	01 and 03
II	05	04 and 06

TABLE III. Substitution data.^{1/}

Dash number	Manufacturer's code (FSCM)	Manufacturer's part number
01	87864	TS-41093
02	87864	TS-22100 series
03	87864	TS-19000 series
04	87864	TS-15000 series
05	87864	TS-12000 series
06	87864	TS-10000 series

^{1/} Assemblies covered by this specification sheet are substitutable for the manufacturer's part numbers shown. This information in no way implies that the manufacturer's part is substitutable for the military part.

Custodians

Army - EF
Navy - EC
Air Force - 85

Review activities

Army - AV, MI,
Navy - DS
Air Force - 17, 99
DLA - ES

User activities

Army - AR
Navy - AS, CG, MC
Air Force - 11, 19

Preparing activity

Navy - EC

Agent

DLA - ES

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

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No 22-R255

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DOCUMENT IDENTIFIER AND TITLE MIL-W-287/8 - Waveguide Assemblies, Millimeter, Flexible, Nontwistable, Class 8

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT SUBCONTRACT

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

A GIVE PARAGRAPH NUMBER AND WORDING

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YES NO (If "Yes", in what way?)

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