

MIL-C-27500 Cables | NEMA WC 27500 Part Number Builder

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MIL-C-27500 Wire (M27500 Cable)

MIL Spec Wire

NEMA WC 27500



The M27500 Cable specification is commonly used to describe both shielded and unshielded cable constructions for avionics, aerospace and airframe applications. Circuit identification, conductor size, insulation type, number of conductors, shielding material and jacket compound may all be specified using this document. Single conductor, twisted pairs, and multiconductor cables through 10 components are all included.

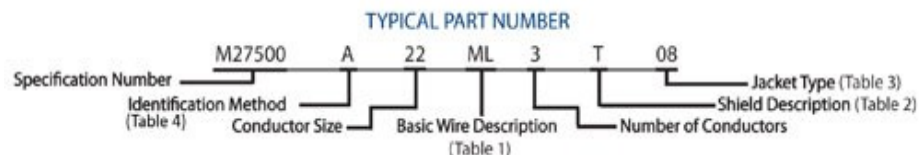


Table 1: Basic M27500 Cable Description

Code	SAE Component	Code	SAE Component	Code	SAE Component
A	AS50861/1	MD	AS81044/5	SM	AS22759/41
AA	AS50861/5	ME	AS81044/6	SN	AS22759/42
AB	AS50861/6	MF	AS81044/7	SP	AS22759/43
AD	AS50861/7	MG	AS81044/8	SR	AS22759/44
B	AS50861/2	MH	AS81044/9	SS	AS22759/45
C	AS50861/3	MJ	AS81044/10	ST	AS22759/46
CA	AS22759/13	MK	AS81044/11	SV	AS22759/47
CB	AS22759/14	MW	AS81381/11	SW	AS22759/48
CC	AS22759/15	ML	AS81044/12	SX	AS22759/49
DB	AS22759/180	MM	AS81044/13	SY	AS22759/50
DC	AS22759/181	MR	M81381/7	TA	AS22759/8
DE	AS22759/182	MS	M81381/8	TE	AS22759/16
DF	M22759/183	MT	M81381/9	TF	AS22759/17
DG	AS22759/184	MV	M81381/10	TG	AS22759/18
DH	AS22759/185	MW	M81381/11	TH	AS22759/19
DJ	AS22759/186	MY	M81381/12	TK	AS22759/20

DK	AS22759/187	NA	M81381/13	TL	AS22759/21
DL	AS22759/188	NB	M81381/14	TM	AS22759/22
DM	AS22759/189	NE	M81381/17	TN	AS22759/23
DN	AS22759/190	NF	M81381/18	VA	AS22759/5
DP	AS22759/191	NG	M81381/19	WA	AS22759/6
DR	AS22759/192	NH	M81381/20	WB	AS22759/80
E	AS22759/2	NK	M81381/21	WC	AS22759/81
EA	AS822759/1	NL	M81381/22	WE	AS22759/82
F	M8777 (MS27110)	P	AS50861/4	WF	AS22759/83
H	M8777 (MS25471)	RA	AS22759/3	WG	AS22759/84
JA	M25038/1	RB	AS22759/4	WH	AS22759/85
JB	AS22759/28	RC	AS22759/11	WJ	AS22759/86
JC	AS22759/29	RE	AS22759/12	WK	AS22759/87
JD	AS22759/30	SA	AS22759/7	WL	AS22759/88
JE	AS22759/31	SB	AS22759/32	WM	AS22759/89
JF	M25038/3/TD>	SC	AS22759/33	WN	AS22759/90
LE	AS22759/9	SD	AS22759/34	WP	AS22759/91
LH	AS22759/10	SE	AS22759/35	WR	AS22759/92



Table 2: M27500 Cable's Shield Description

Single Shield

Code	Double Shield		
Code	Shield Material		
Description for Shield	Max. Temperature		
U	N/A	Not Shielded	N/A
T	V	Tinned Copper, Round	150° C
S	W	Silver-Coated Copper, Round	200° C
N	Y	Nickel-Coated Copper, Round	260° C
F	Z	Stainless Steel, Round	400° C
C	R	Nickel-Clad Copper, Round	400° C
M	K	Silver-Coated High Strength Copper Alloy, Round	200° C
\$	+	Heavy Silver-Coated Copper, Round	200° C
P	L	Nickel-Coated High Strength Copper Alloy, Flat	260° C

G	A	Silver-Coated Copper, Flat	200° C
H	B	Silver-Coated High Strength Copper Alloy, Flat	260° C
*	#	Nickel-Coated Copper, Flat	260° C
J	D	Tinned Copper, Flat	150° C
E	X	Nickel-Coated High Strength Copper Alloy, Flat	260° C
I	Q	Nickel-Chromium Alloy, Flat	400° C

Table 3: M27500 Cable Jacket Type

Single Jacket Code	Double Jacket Code	Jacket Material	Max. Temperature
00	00	No Jacket	N/A
01	51	Extruded PVC, White	90° C
02	52	Extruded Nylon, Clear	105° C
03	53	White Nylon Braid over Mylar	105° C
04	54	Polyester Braid over Mylar	150° C
05	55	Extruded FEP, Clear	200° C
06	56	Extruded or Taped PTFE, White	260° C
07	57	PTFE Coated Glass Braid over PTFE	260° C
08	58	Extruded XL-PVDF, White	150° C
09	59	Extruded FEP, White	150° C
10	60	Extruded PVDF, Clear	125° C
11	61	Polyimide Tape, FEP	200° C
12	62	Polyimide Tape, FEP, Polyimide	200° C
14	64	Extruded ETFE, White	150° C
15	65	Extruded ETFE, Clear	150° C
16	66	Nylon Braid, PTFE Tape	200° C
17	67	Extruded ECTFE, White	150° C
18	68	Extruded ECTFE, Clear	150° C
20	70	Extruded PFA, White	260° C
21	71	Extruded PFA, Clear	260° C
22	72	Polyimide Tape, FEP Wrap, Polyimide	200° C



23	73	Extruded XL-ETFE, White	200° C
24	74	PTFE Tape over TFE/Polyimide	200° C
25	75	Smooth PTFE Tape over TFE/Polyimide	260° C
26	76	Extruded Low Fluoride XL-ETFE, White	200° C

Table 4: M27500 Cable's Shield Covering and Color Coding



85% Shield Coverage Code		90% Shield Coverage Code	
Coverage Code	ID Method	M27500 Cable Terminology	Component Wire
-		C	Preferred Method, Table 4A te wire with colored stripes per Table 4A. Wire 1 has no stripe. Wires 11-15 have double strip
F		H	Preferred Method, Table 4B wire with colored stripes per Table 4B. Wire 5 has no stripe. For wires 11-15, insulation is first color, stripe is second
A		D	Optional Method A, Table 4A Solid Colored Wire. Wires 11-15 have a stripe in a lighter shade of base color.
G		J	Optional Method A, Table 4B Solid Colored Wire. Wires 11-15, insulation is first color, stripe is second color.
B		E	Optional Method B, Table 4C Wire insulation color is based on AWG size. Bands of contrasting color denote wire number (per table 4D)
K		M	Optional Method C, Table 4Cs are all same color based on AWG size. Numbers of contrasting color printed to denote wire nu
L		N	Optional Method D White wires with numbers of contrasting color printed to denote wire number

Table 4A: M27500 Cable's Color Code Chart

Wire Number	Color	Wire Number	Color
1	White	6	Black
2	Blue	7	Yellow
3	Orange	8	Violet
4	Green	9	Gray
5	Red	10	Brown
		11	Blue/Blue
		12	Orange/Orange
		13	Green/Green
		14	Red/Red
		15	Black/Black

Table 4B: M27500 Cable's Color Code Chart

Wire Number	Color	Wire Number	Color
1	Red	6	Black
2	Blue	7	Brown
3	Yellow	8	Orange
4	Green	9	Violet
5	White	10	Gray



Red/White
 Blue/White
 Yellow/White
 Green/White
 Black/White

Table 4C: M27500 Cable's Color Code By AWG Size

AWG Size	Color	AWG Size	Color	AWG Size	Color	AWG Size	Color
26	Black	24	Blue	22	Green	20	Red
18	White	16	Blue	14	Green	12	Yellow
10	Brown	8	Red	6	Blue	4	Yellow
2	Red	1	White	1/0	Blue	2/0	Green

Table 4D: M27500 Cable's Color Code Band Configuration

Wire Number	Band Configuration	Wire Number	Band Configuration
1	None	6	6 Narrow
2	2 Narrow	7	7 Narrow
3	3 Narrow	8	1 Wide, 1 Narrow
4	4 Narrow	9	1 Wide, 2 Narrow
5	5 Narrow	10	1 Wide, 3 Narrow
		11	1 Wide, 4 Narrow
		12	1 Wide, 5 Narrow
		13	2 Wide, 1 Narrow
		14	2 Wide, 2 Narrow
		15	2 Wide, 3 Narrow

M27500 RC-06 Cables

M27500-10RC4S06

MIL-C-27500 RC-06 Cables

NEMA WC 27500 Type RC-06 Cables

M27500 RC-06 Approvals:

NEMA WC 27500 Type RC-06

Mil-C-27500

Components: SAE-AS 22759/11

M27500 RC-06 Applications:

NEMA WC 27500 Type RC-06 Cables are commonly used in aerospace applications, and more specifically, in flight vehicles.

M27500 RC-06 Construction:

Conductor: Stranded Silver-Coated Copper

Insulation: Polytetrafluoroethylene (PTFE)

Shield: Silver-Coated Copper Braid, 85% Coverage

Jacket: Polytetrafluoroethylene (PTFE)Tape

M27500 RC-06 Ratings:

Temperature: 200° C

Voltage: 600V

Part Number	AWG Size	Conductor Stranding	No. of Cond.	Nom. O.D. of Cable (in)	Approx LBS/MFT
M27500-26RC1S06	26	19/38	1	.072	6
M27500-26RC2S06	26	19/38	2	.116	10
M27500-26RC3S06	26	19/38	3	.123	13
M27500-26RC4S06	26	19/38	4	.135	16
M27500-24RC1S06	24	19/36	1	.085	7
M27500-24RC2S06	24	19/36	2	.128	13
M27500-24RC3S06	24	19/36	.010	.134	16
M27500-24RC4S06	24	19/36	4	.144	19
M27500-22RC1S06	22	19/34	1	.090	10
M27500-22RC2S06	22	19/34	2	.141	15
M27500-22RC3S06	22	19/34	3	.143	20



M27500-22RC4S06	22	19/34	4	. 159	25
M27500-20RC1S06	20	19/32	1	. 098	11
M27500-20RC2S06	20	19/32	2	. 158	20
M27500-20RC3S06	20	19/32	3	. 164	27
M27500-20RC4S06	20	19/32	4	. 181	35
M27500-18RC1S06	18	19/30	1	. 109	15
M27500-18RC2S06	18	19/30	2	. 176	28
M27500-18RC3S06	18	19/30	3	. 188	38
M27500-18RC4S06	18	19/30	4	. 207	47
M27500-16RC1S06	16	19/29	1	. 117	17
M27500-16RC2S06	16	19/29	2	. 192	33
M27500-16RC3S06	16	19/29	3	. 202	46
M27500-16RC4S06	16	19/29	4	. 224	59
M27500-14RC1S06	14	19/27	1	. 131	23
M27500-14RC2S06	14	19/27	2	. 221	45
M27500-14RC3S06	14	19/27	3	. 237	62
M27500-14RC4S06	14	19/27	4	. 263	79
M27500-12RC1S06	12	19/25	1	. 151	33
M27500-12RC2S06	12	19/25	2	. 262	68



M27500 RC-06 Cables

M27500-10RC4S06

MIL-C-27500 RC-06 Cables

NEMA WC 27500 Type RC-06 Cables

M27500 RC-06 Approvals:

NEMA WC 27500 Type RC-06

Mil-C-27500

Components: SAE-AS 22759/11

M27500 RC-06 Applications:

NEMA WC 27500 Type RC-06 Cables are commonly used in aerospace applications, and more specifically, in flight vehicles.

M27500 RC-06 Construction:

Conductor: Stranded Silver-Coated Copper
 Insulation: Polytetrafluoroethylene (PTFE)
 Shield: Silver-Coated Copper Braid, 85% Coverage
 Jacket: Polytetrafluoroethylene (PTFE)Tape
 M27500 RC-06 Ratings:



Temperature: 200° C
 Voltage: 600V

Part Number	AWG Size	Conductor Stranding	No. of Cond.	Nom. O.D. of Cable (in)	Approx LBS/MFT
M27500-26RC1S06	26	19/38	1	.072	6
M27500-26RC2S06	26	19/38	2	.116	10
M27500-26RC3S06	26	19/38	3	.123	13
M27500-26RC4S06	26	19/38	4	.135	16
M27500-24RC1S06	24	19/36	1	.085	7
M27500-24RC2S06	24	19/36	2	.128	13
M27500-24RC3S06	24	19/36	.010	.134	16
M27500-24RC4S06	24	19/36	4	.144	19
M27500-22RC1S06	22	19/34	1	.090	10
M27500-22RC2S06	22	19/34	2	.141	15
M27500-22RC3S06	22	19/34	3	.143	20
M27500-22RC4S06	22	19/34	4	.159	25
M27500-20RC1S06	20	19/32	1	.098	11
M27500-20RC2S06	20	19/32	2	.158	20
M27500-20RC3S06	20	19/32	3	.164	27
M27500-20RC4S06	20	19/32	4	.181	35
M27500-18RC1S06	18	19/30	1	.109	15
M27500-18RC2S06	18	19/30	2	.176	28
M27500-18RC3S06	18	19/30	3	.188	38
M27500-18RC4S06	18	19/30	4	.207	47
M27500-16RC1S06	16	19/29	1	.117	17
M27500-16RC2S06	16	19/29	2	.192	33
M27500-16RC3S06	16	19/29	3	.202	46
M27500-16RC4S06	16	19/29	4	.224	59
M27500-14RC1S06	14	19/27	1	.131	23
M27500-14RC2S06	14	19/27	2	.221	45
M27500-14RC3S06	14	19/27	3	.237	62

M27500-14RC4S06	14	19/27	4	.263	79
M27500-12RC1S06	12	19/25	1	.151	33
M27500-12RC2S06	12	19/25	2	.262	68



M27500 TE-14 Cables

Sample Shown: M27500-16TE3T14
 MIL-C-27500 TE-14 Cables
 NEMA WC 27500 Type TE-14 Cables

M27500 TE-14 Approvals:

NEMA WC 27500 Type TE-14
 Mil-C-27500
 Components: SAE-AS 22759/16
 M27500 TE-14 Applications:

NEMA WC 27500 Type TE-14 Cables are commonly used in aerospace applications, and more specifically, in flight vehicles.
 M27500 TE-14 Construction:

Conductor: Stranded Tinned Copper
 Insulation: Extruded Ethylene tetrafluoroethylene (ETFE)
 Shield: Tinned Copper Braid, 85% Coverage
 Jacket: Extruded Ethylene tetrafluoroethylene (ETFE)
 M27500 TE-14 Ratings:

Temperature: 150° C
 Voltage: 600V

Part Number	AWG Size	Conductor Stranding	Nom. O.D. (in)	Nom. O.D. of Shield (in)	Nom. O.D. of Cable (in)
M27500-24TE1T14	24	19/36	.045	.061	.077
M27500-24TE2T14	24	19/36	.045	.106	.122
M27500-24TE3T14	24	19/36	.045	.113	.130
M27500-24TE4T14	24	19/36	.045	.125	.143
M27500-22TE1T14	22	19/34	.052	.068	.084
M27500-22TE2T14	22	19/34	.052	.120	.134
M27500-22TE3T14	22	19/34	.052	.128	.145

M27500-22TE4T14	22	19/34	.052	.142	.160
M27500-20TE1T14	20	19/32	.060	.076	.092
M27500-20TE2T14	20	19/32	.060	.136	.152
M27500-20TE3T14	20	19/32	.060	.145	.161
M27500-20TE4T14	20	19/32	.060	.161	.183
M27500-18TE1T14	18	19/30	.071	.087	.103
M27500-18TE2T14	18	19/30	.071	.158	.180
M27500-18TE3T14	18	19/30	.071	.169	.193
M27500-18TE4T14	18	19/30	.071	.187	.211
M27500-16TE1T14	16	19/29	.079	.095	.111
M27500-16TE2T14	16	19/29	.079	.174	.198
M27500-16TE3T14	16	19/29	.079	.180	.208
M27500-16TE4T14	16	19/29	.079	.207	.231
M27500-14TE1T14	14	19/27	.093	.109	.127
M27500-14TE2T14	14	19/27	.093	.202	.226
M27500-14TE3T14	14	19/27	.093	.216	.240
M27500-14TE4T14	14	19/27	.093	.241	.265
M27500-12TE1T14	12	19/25	.114	.130	.148
M27500-12TE2T14	12	19/25	.114	.244	.268
M27500-12TE3T14	12	19/25	.114	.262	.292
M27500-12TE4T14	12	19/25	.114	.295	.325



M27500 TG-14 Cables

Sample Shown: M27500-16TG2T14
 MIL-C-27500 TG-14 Cables
 NEMA WC 27500 Type TG-14 Cables
 TG Cable

M27500 TG-14 Cable Approvals:

NEMA WC 27500 Type TG-14
 Mil-C-27500
 Components: SAE-AS 22759/18
 M27500 TG-14 Cable Applications:

NEMA WC 27500 Type TG-14 Cables are commonly used in aerospace applications, and more specifically, in flight vehicles.
M27500 TG-14 Cable Construction:

Conductor: Stranded Tinned Copper

Insulation: Extruded Ethylene tetrafluoroethylene (ETFE)

Shield: Tinned Copper Braid, 85% Coverage

Jacket: Extruded Ethylene tetrafluoroethylene (ETFE)

M27500 TE-14 Cable Ratings:

Temperature: 150° C

Voltage: 600V

Part Number	AWG Size	Conductor Stranding	Nom. O.D. (in)	Nom. O.D. of Shield (in)	Nom. O.D. of Cable (in)
M27500-24TG1T14	24	19/36	.036	.052	.068
M27500-24TG2T14	24	19/36	.036	.088	.094
M27500-24TG3T14	24	19/36	.036	.094	.109
M27500-24TG4T14	24	19/36	.036	.103	.121
M27500-22TG1T14	22	19/34	.043	.059	.075
M27500-22TG2T14	22	19/34	.043	.102	.118
M27500-22TG3T14	22	19/34	.043	.109	.125
M27500-22TG4T14	22	19/34	.043	.120	.136
M27500-20TG1T14	20	19/32	.051	.067	.073
M27500-20TG2T14	20	19/32	.051	.118	.134
M27500-20TG3T14	20	19/32	.051	.133	.144
M27500-20TG4T14	20	19/32	.051	.139	.155
M27500-18TG1T14	18	19/30	.061	.077	.092
M27500-18TG2T14	18	19/30	.061	.138	.154
M27500-18TG3T14	18	19/30	.061	.147	.164
M27500-18TG4T14	18	19/30	.061	.163	.187
M27500-16TG1T14	16	19/29	.070	.086	.092
M27500-16TG2T14	16	19/29	.070	.158	.179
M27500-16TG3T14	16	19/29	.070	.167	.190
M27500-16TG4T14	16	19/29	.070	.185	.209
M27500-14TG1T14	14	19/27	.085	.101	.117
M27500-14TG2T14	14	19/27	.085	.186	.211
M27500-14TG3T14	14	19/27	.085	.199	.223
M27500-14TG4T14	14	19/27	.085	.221	.245



M27500-12TG1T14	12	19/25	. 107	. 123	. 139
M27500-12TG2T14	12	19/25	. 107	. 230	. 252
M27500-12TG3T14	12	19/25	. 107	. 247	. 265
M27500-12TG4T14	12	19/25	. 107	. 278	. 302

