



M&P UltraFlex 7^{1.287"}

ULTRAFLEXIBLE

UV resistant PVC jacket.

PVC Ø 7,3 mm ± 0,15
(0.287 inches ± 0.0059)



RoHS
COMPLIANT
2002/95/EG

High resistance copper screen (**Cu**) made by means of **24 spools** braiding machines. (50% more crossovers if compared to traditional 16 spools machines.) This braid is **HIGHLY EFFECTIVE AGAINST IMPULSIVE NOISES**.
SCREENING PERCENTAGE: 83% 144 wires

High pressure physical injection foamed polyethylene.

TRIPLE LAYER DIELECTRIC

FPE Ø 5 mm ± 0,05

(0.196 inches ± 0.0019)

The copper foil has an applied PE-coating, placed in order to prevent foil cracking due to short radius bends.

SCREENING PERCENTAGE 100%

CU-POL

Inner conductor made of 19x0,38 stranded geometric and concentric copper wires. Purity 99,99% annealed.

(annealed = thermal softening process)

Cu 19x0,38 mm - Ø 1,9 mm ± 0,15

(19x0.015 inches - 0.075 inches ± 0.0059)

SRL

0,3-600 MHz >28 dB

600-1200 MHz >22 dB

1200-2000 MHz >18 dB

ATTENUATION at 20°C/68°F

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,95	0,29
3,5 MHz	1,28	0,39
7,0 MHz	1,6	0,49
10 MHz	1,9	0,58
14 MHz	2,2	0,67
21 MHz	2,6	0,79
28 MHz	3,0	0,91
50 MHz	4,0	1,22
100 MHz	5,8	1,77
144 MHz	6,9	2,10
200 MHz	8,2	2,50
400 MHz	11,8	3,60
430 MHz	12,3	3,75
800 MHz	17,1	5,21
1000 MHz	19,3	5,88
1296 MHz	22,33	6,81
2400 MHz	32,3	9,85
3000 MHz	36,2	11,03
4000 MHz	42,6	12,98
5000 MHz	49,3	15,03
6000 MHz	55,3	16,86
7000 MHz	61,6	18,78
8000 MHz	68,4	20,85

ELECTRICAL DATA

Impedance @200MHz :	50 Ohm ± 3	
Minimum bending radius:		
Multiple bends(15)/single bend	68/34 mm	(2.68/1.34 in)
Temperature:	installation -40°C to + 60°C	(-40°F to +140°F)
	operative -55°C to + 85°C	(-67°F to +185°F)
Capacitance:	75 pF/m ± 2 (22.9 pF/ft)	
Velocity ratio:	83 %	
Screening efficiency:		
100-2000 MHz	>105 dB	
Inner conductor resistance:	7,3 Ohm/Km	(2.2 Ohm/1000ft)
Outer conductor resistance:	9,8 Ohm/Km	(3.0 Ohm/1000ft)
Tension test (spark test):	4 kV	
Weight (100m/100ft):	6,9 Kg	(15.21 lb)
Maximum peak power:	8000 WATT	
Connectors:	C.N.AC7.M-S ; C.UHF.AC7.M-S ; C.TNC.AC7-M-S	

POWER HANDLING (at 40°C/104°F)

FREQUENCY	MAXP	FREQUENCY	MAXP
1,8 MHz	4572 W	430 MHz	353 W
3,5 MHz	3393 W	800 MHz	254 W
7,0 MHz	2714 W	1000 MHz	225 W
10 MHz	2286 W	1296 MHz	195 W
14 MHz	1974 W	2400 MHz	134 W
21 MHz	1670 W	3000 MHz	120 W
28 MHz	1448 W	4000 MHz	102 W
50 MHz	1086 W	5000 MHz	88 W
100 MHz	749 W	6000 MHz	79 W
144 MHz	629 W	7000 MHz	71 W
200 MHz	530 W	8000 MHz	63 W
400 MHz	368 W		



Given a power fed to the X value (any value expressed in Watts), the actual power output of the cable is shown in the table in the form of remaining percentage. (for example, if we use a cable such as M&P-ULTRAFLEX 7, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 57,3% of 1000). **For maximum applicable power, see the Power Handling of the cable concerned.** From these values, have already been deducted the SRL values, typical of each one of our models, for the respective frequencies.

REMEMBER: Make sure to match the line accurately!

M&P-ULTRAFLEX 7 / .287" (HIGHFLEX 7)														
length in meters														
	5	10	15	20	25	35	50	75	100	130	160	200	300	
Frequencies (MHz)	3,5	98.8	97.9	96.9	95.9	94.9	93	90.1	85.6	81.3	76.4	71.7	66	53.7
	7	98.5	97.2	95.9	94.6	93.3	90.8	87.1	81.5	75.8	69.8	64.2	57.5	43.6
	14	97.6	95.2	93	90.8	86.6	84.4	78.5	69.6	61.6	53.3	46.1	38	23.4
	28	96.5	93.3	90.1	87.1	84.1	78.5	70.7	59.5	50	40.6	33	25	12.5
	50	95.4	91.1	87.1	83.1	79.3	72.9	63	50	39.7	30.1	22.8	15.7	6.2
	144	92.3	85.2	78.7	72.7	67.2	57.3	45.1	30.8	20.3	12.6	7.8	4.1	
	430	86.6	75	65.2	56.6	49	37	24.1	11.7	5.7				
	1200	77.6	60.6	47.3	36.9	28.9	17.3	8						
	2400	67.4	45.9	31.2	21	14	5.8							
	3000	63.4	40.9	26.1	16.4	9.9								
	4000	58.1	34.3	19.8	10.9	5.4								
	5000	52.7	28.2	14.2	6.3									
	6000	48.9	24	10.8	3.9									

Useful signal output (residual power %)

M&P-ULTRAFLEX 7 / .287" (Power Handling/Temperature)

Temperature C° / F°											
	-10 / 14	-5 / 23	0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	60 / 140	70 / 158	
Frequencies / Frequenze (MHz)	1,8	6838	6838	6638	6217	5724	5138	4572	3900	3228	2560
	3,5	5252	5076	4927	4614	4248	3814	3393	2894	2395	1900
	7	4202	4061	3941	3692	3398	3051	2714	2315	1916	1520
	10	3538	3420	3319	3109	2862	2569	2286	1950	1614	1280
	14	3056	2953	2866	2685	2472	2219	1974	1684	1394	1105
	21	2586	2499	2425	2272	2091	1878	1670	1425	1179	935
	28	2241	2166	2102	1969	1812	1627	1448	1235	1022	811
	50	1681	1624	1577	1477	1359	1220	1086	926	767	608
	100	1159	1120	1087	1018	937	842	749	639	529	419
	144	974	942	914	856	788	707	629	537	444	352
	200	820	792	769	720	663	595	530	452	374	297
	400	570	551	534	501	461	414	368	314	260	206
	430	547	528	513	480	442	397	353	301	249	198
	800	393	380	369	345	318	285	254	217	179	142
	1000	348	337	327	306	282	253	225	192	159	126
	1296	301	291	283	265	244	219	195	166	137	109
	2400	208	201	195	183	168	151	134	115	95	75
3000	186	179	174	163	150	135	120	102	85	67	
4000	158	153	148	139	128	115	102	87	72	57	
5000	136	132	128	120	110	99	88	75	62	49	
6000	122	117	114	107	98	88	79	67	55	44	
7000	109	105	102	96	88	79	71	60	50	39	
8000	98	95	92	86	79	71	63	54	45	36	

WATT

Connector assembly

Connector "N" type : C.N.AC7.M-S



1 Insert in the cable components A, B, C and immediately after, make a circular cut on the jacket at the indicated length shown in the caliber. (in mm) Subsequently remove it.

2 Insert component D after having opened the braid as shown in the picture.

3 Push component D between the foil and the braid until it stops against the jacket. Flatten the wires as shown in the picture and cut the excess.

4 Cut and remove the tape and dielectric for a length as illustrated in the caliber (mm).

Insert one of the two teflon discs and subsequently the central pin. Solder the pin to the inner conductor, inserting tin in the provided hole. Avoid heating the pin for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)



6 Insert the second teflon disc as shown in the picture.

7 Insert the connector and fasten accurately until the o-ring present in component A, will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.

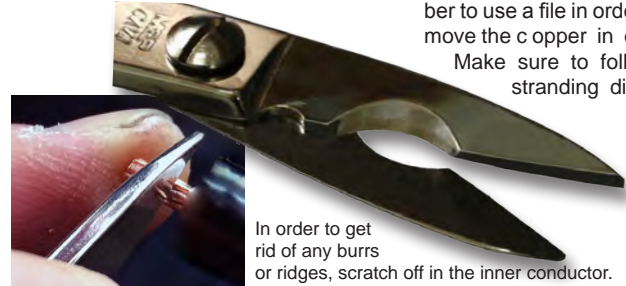


Cut made with special M&P scissors.



Common scissors: remember to use a file in order to remove the copper in excess.

Make sure to follow the stranding direction.



In order to get rid of any burrs or ridges, scratch off in the inner conductor.

Connector "UHF" type : C.UHF.AC7.M-S



1 Insert in the cable components A, B, C and immediately after, make a circular cut on the jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

2 Insert component D after having opened the braid as shown in the picture.

3 Push component D between the foil and the braid until it stops against the jacket. Flatten the wires as shown in the picture and cut the excess.

4 Cut and remove the tape and dielectric for a length as shown in the picture.



5 Insert the connector and solder it with tin to the inner conductor (see picture above). Avoid heating for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)

6 Fasten together the connector and component A, until it will be pressed against the connector body. Inside, the rubber component C (pic 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.



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CONNECTORS AVAILABLE FOR M&P-ULTRAFLEX 7 / .287"

C.N.AC7.M-S



C.UHF.AC7.M-S



C.TNC.AC7-M-S



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