M&P

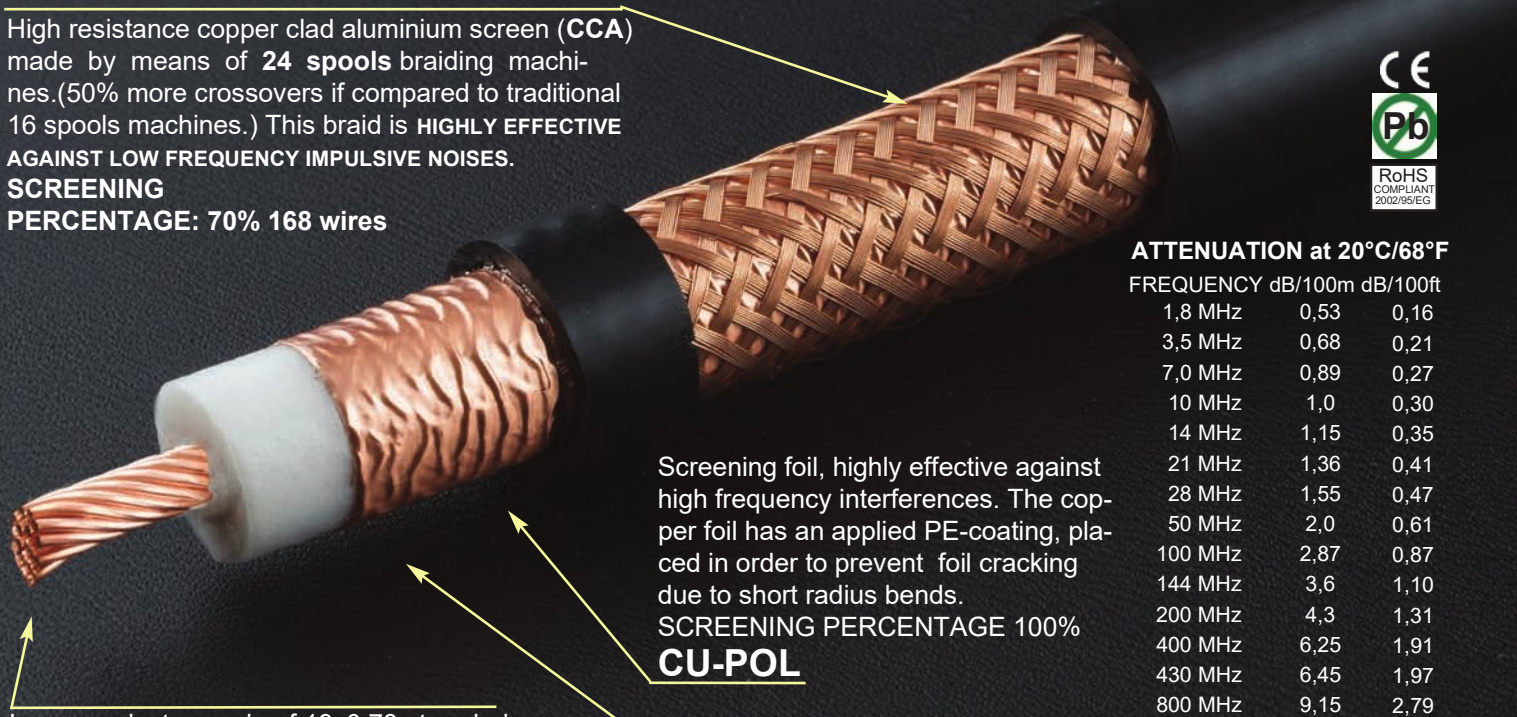
UltraFlex 13 /.500 "

EXTRAFLEXIBLE

UV resistant PVC jacket.

PVC Ø 12,7 mm ± 0,15

(0.500 inches ± 0.0059)



High resistance copper clad aluminium screen (**CCA**) made by means of **24 spools** braiding machines.(50% more crossovers if compared to traditional 16 spools machines.) This braid is **HIGHLY EFFECTIVE AGAINST LOW FREQUENCY IMPULSIVE NOISES.**

SCREENING PERCENTAGE: 70% 168 wires

Screening foil, highly effective against high frequency interferences. 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 19x0,78 stranded, geometric and concentric annealed copper wires. Purity 99,99%.

(annealed = thermal softening process)

Cu 19x0,78 mm - Ø 3,8 mm ± 0,15

(19x0.30 inches - 0.149 inches ± 0.0059)

High pressure physical injection foamed polyethylene, **TRIPLE LAYER DIELECTRIC. FPE Ø 9,9 mm ± 0,05**

(0.39 inches ± 0.0019)

ATTENUATION at 20°C/68°F

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,53	0,16
3,5 MHz	0,68	0,21
7,0 MHz	0,89	0,27
10 MHz	1,0	0,30
14 MHz	1,15	0,35
21 MHz	1,36	0,41
28 MHz	1,55	0,47
50 MHz	2,0	0,61
100 MHz	2,87	0,87
144 MHz	3,6	1,10
200 MHz	4,3	1,31
400 MHz	6,25	1,91
430 MHz	6,45	1,97
800 MHz	9,15	2,79
1000 MHz	10,3	3,14
1296 MHz	12,0	3,66
2400 MHz	17,4	5,30
3000 MHz	19,8	6,04
4000 MHz	23,6	7,19
5000 MHz	26,9	8,20
6000 MHz	30,14	9,19
7000 MHz	33,3	10,15
8000 MHz	35,9	10,94
9000 MHz	38,7	11,80
10.000 MHz	41,7	12,71
12.000 MHz	47,3	14,42

ELECTRICAL DATA

Impedance @200MHz:	50 Ohm ± 3	
Minimum bending radius:		
Multiple bends(15)/single bend	127/80 mm	(5/3.15 in)
Temperature range:		
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 ± 2)
Velocity ratio:	86 %	
Screening efficiency:		
100-2000 MHz	>105 dB	
Class	A++	
Inner conductor resistance:	2 Ohm/Km	(0.6 Ohm/1000ft)
Outer conductor resistance:	12 Ohm/Km	(3.7 Ohm/1000ft)
Tension test (spark test):	8 kV	
Weight (100m/100ft):	17,4 Kg	(11.69 lb)
Maximum peak power:	20 KWATT	

SRL

0,3-600 MHz	>30 dB
600-1200 MHz	>25 dB
1200-2000 MHz	>20 dB

POWER HANDLING (at 40°C/104°F)

FREQUENZE	PMAX	FREQUENZE	PMAX
1,8 MHz	13800 W	800 MHz	1005 W
3,5 MHz	11996 W	1000 MHz	893 W
7,0 MHz	9353 W	1296 MHz	767 W
10 MHz	7947 W	2400 MHz	529 W
14 MHz	6790 W	3000 MHz	465 W
21 MHz	5732 W	4000 MHz	390 W
28 MHz	4862 W	5000 MHz	342 W
50 MHz	3738 W	6000 MHz	305 W
100 MHz	2776 W	7000 MHz	276 W
144 MHz	2363 W	8000 MHz	256 W
200 MHz	2140 W	9000 MHz	238 W
400 MHz	1472 W	10.000 MHz	221 W
430 MHz	1426 W	12.000 MHz	195 W

DUE TO THE DIMENSIONAL PARAMETERS OF THIS CABLE, THE FREQUENCY OF 2500 MHZ +/- 15 MHZ IS NOT USABLE.

OUR PRODUCTS ARE MANUFACTURED IN COMPLIANCE WITH: CEI 46-1 (construction parameters); EN 50117(screening efficiency); CEI EN 50289(SA test methods); IEC 60332-1-2(cables with PVC and (FRNC)LSZH jacket); CPR305/11(EN50575:2014 - DoP number: MP0107); R118(ISO7622-1)

Messi & Paoloni coaxial cables
www.messi.it

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 13, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 74.7 % 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 13 /.500"

Frequencies (MHz) \ length in meters	5	10	15	20	25	35	50	75	100	130	160	200	300
3,5	99,3	98,6	98,0	97,4	96,8	95,6	93,8	90,8	88,0	84,7	81,6	77,5	68,3
7	99,1	98,3	97,5	96,7	95,9	94,3	92,1	88,4	84,8	80,8	76,9	72,0	61,1
14	98,8	97,6	96,5	95,4	94,3	92,2	89,0	84,0	79,3	74,0	69,1	63,0	50,0
28	98,2	96,6	95,0	93,4	91,8	88,8	84,4	77,6	71,3	64,5	58,3	51,0	36,4
50	97,7	95,6	93,5	91,4	89,4	85,5	80,0	71,6	64,0	56,0	49,0	41,0	26,3
144	95,8	91,9	88,2	84,6	81,2	74,7	66,0	53,6	43,6	33,9	26,4	19,0	8,2
430	92,7	86,1	80,0	74,3	69,0	59,5	47,6	32,9	22,7	14,5	9,3	5,1	
1200	86,8	75,8	66,1	57,7	50,4	38,3	25,4	12,6	6,1				
2400	81,9	67,5	55,6	45,8	37,7	25,4	14,0	5,0					
3000	79,4	63,7	51,1	40,9	32,7	20,8	10,4						
4000	76,2	58,6	45,1	34,6	26,5	15,4	6,5						
5000	73,3	54,1	39,9	29,4	21,6	11,5	4,1						
6000	69,7	49,3	34,7	24,3	16,9	7,8							
8000	65,0	42,7	27,9	18,0	11,5	4,2							
10.000	58,7	35,1	20,5	11,5	5,9								
12.000	54,4	30,0	16,0	7,9	3,2								

Useful signal output (residual power %)

M&P-ULTRAFLEX 13 /.500" (Power Handling/Temperature)

Frequencies / Frequenze (MHz) \ Temperature C° / F°	-10 / 14	-5 / 23	0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	60 / 140	70 / 158
1,8	16500	16500	16500	16500	16123	15066	13404	11434	9463	7506
3,5	16500	16500	16100	15708	14461	12982	11550	9852	8154	6468
7	13965	13496	13099	12269	11294	10140	9021	7695	6369	5052
10	11760	11365	11031	10332	9512	8539	7597	6480	5364	4254
14	10077	9739	9453	8854	8151	7317	6510	5553	4596	3646
21	8101	7829	7599	7117	6552	5882	5233	4464	3695	2931
28	7014	6778	6579	6162	5673	5093	4531	3865	3199	2537
50	5474	5290	5135	4809	4427	3975	3536	3016	2497	1980
100	3951	3818	3706	3471	3195	2869	2552	2177	1802	1429
144	3386	3273	3176	2975	2739	2459	2188	1866	1544	1225
200	3038	2936	2850	2669	2457	2206	1963	1674	1386	1099
400	2101	2030	1970	1846	1699	1525	1357	1158	958	760
430	2029	1960	1903	1782	1641	1473	1310	1118	925	734
800	1445	1396	1355	1269	1169	1049	933	796	659	523
1000	1282	1239	1203	1127	1037	931	828	707	585	464
1296	1111	1074	1042	976	899	807	718	612	507	402
2400	780	753	731	685	631	566	504	430	356	282
3000	688	665	645	604	556	500	444	379	314	249
4000	579	560	543	509	468	421	374	319	264	210
5000	503	486	472	442	407	365	325	277	229	182
6000	443	428	416	389	358	322	286	244	202	160
7000	398	384	373	349	322	289	257	219	181	144
8000	367	355	345	323	297	267	237	202	168	133
10000	312	301	292	274	252	226	201	172	142	113
12000	271	262	255	238	220	197	175	150	124	98

WATT