M&P UltraFlex 13 /.500"

Ham Radio Pro Cables — M&P — MESSI & PAOLONI

CE PD RoHS Compliant 2002/95/EC

JACKET:
UV-resistant black PVC
overall Ø 12,7mm ± 0,15
(0.500")

REACTIVE BRAID:
75% SCREENING - 192 wires of copper clad aluminium made with 24 spool machines (instead of 16). Thanks to 50% more crossovers, grants exceptional Screening Attenuation (SA) and reacts to twisting and bending like a spring

FOIL: 100% SCREENING
First screen made of copper with an applied PE-layer: prevents cracking due to short radius bends



DIELECTRIC:
High pressure physical injection foamed polyethylene
TRIPLE LAYER
overall Ø 9,9 mm ± 0,05 (0.39")

INNER CONDUCTOR:
19x0,78mm copper wires - overall Ø 3,8 mm ± 0,15
(19x0.30" - overall Ø 0.149")

ATTENUATION (20°C /68°F)

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,5	0,1
3,5 MHz	0,6	0,2
7 MHz	0,8	0,2
10 MHz	1,0	0,3
14 MHz	1,1	0,3
21 MHz	1,3	0,4
28 MHz	1,5	0,4
50 MHz	2,0	0,6
100 MHz	2,8	0,8
144 MHz	3,6	1,1
200 MHz	4,3	1,3
400 MHz	6,2	1,9
430 MHz	6,4	1,9
800 MHz	9,1	2,7
1000 MHz	10,3	3,1
1296 MHz	12,0	3,6
2400 MHz	17,4	5,3
3000 MHz	19,8	6,0
4000 MHz	23,6	7,1
5000 MHz	26,9	8,2
6000 MHz	30,1	9,1
7000 MHz	33,3	10,1
8000 MHz	35,9	10,9
9000 MHz	38,7	11,8
10.000 MHz	41,7	12,7
12.000 MHz	47,3	14,4

ELECTRICAL DATA

Impedence @200Mhz:	50 Ohm ± 3
Minimum bending radius:	up to 15 bends: 140mm single bend (choke): 100mm
Temperature:	-40°C to +60°C (-40°F to +140°F)
Capacitance:	75 pF/m ± 2 (22.9 pF/ft ± 2)
Velocity factor:	86%
Screening Efficiency (SA)	100-2000 MHz >105 dB
Inner conductor resistance:	2 Ohm/Km (0.6 Ohm/1000ft)
Outer conductor resistance:	11 Ohm/Km (3.0 Ohm/1000ft)
Tension test (spark test):	8 kV
Net weight x 100m (100ft):	17,5 Kg (11.6 lb)
Maximum peak power:	20000 WATT
Structural Return Loss:	0,3-600 MHz >30 dB; 600-1200 MHz >25 dB; 1200-2000 MHz >20 dB

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

POWER HANDLING (40°C/104°F)

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

OUR PRODUCTS ARE MANUFACTURED IN COMPLIANCE WITH:
CEI 46-1 (construction parameters); EN 50117 (screening efficiency); CEI EN 50289 (SA test methods); R118 (ISO7622-1); IEC 60332-1-2 (cables with PVC and LSZH jacket); CPR305/11 - **EuroClass Eca** - EN50575:2014 - DoP number: MP00107

WHY CHOOSE THIS CABLE

• The best M&P coax, a must-have for ambitious installations (along with Hyperflex 13).

• Excellent performances with the lowest possible signal loss, even at the highest frequencies and over long distances.

• Despite its half-inch size, it is designed to withstand tight bendings and movement of the rotor antennas.

• Equal attenuations of stiffer and bulkier competitors' cables of 15mm (.600").

• Also, this coax results lighter, more flexible, more manageable and less expensive.

FREQUENCY SUGGESTIONS*

HF (from 3MHz to 30Mhz)

example at 14 MHz
EXCELLENT up to 150m of cable length
GOOD up to 250m of cable length

example 28 MHz
EXCELLENT up to 100m of cable length
GOOD up to 150m of cable length

VHF (from 30MHz to 300Mhz)

example at 50 Mhz
EXCELLENT up to 75m of cable length
GOOD up to 100m of cable length

example at 144 Mhz
EXCELLENT up to 50m of cable length
GOOD up to 75m of cable length

UHF (from 300MHz to 3000Mhz)

example at 430 MHz
EXCELLENT up to 25m of cable length
GOOD up to 40m of cable length

example at 1296 MHz
EXCELLENT up to 20m of cable length
GOOD up to 30m of cable length

example at 2400 MHz
EXCELLENT up to 10m of cable length
GOOD up to 18m of cable length

*data valuable for Power Application (trasmission)
**you can find Watt / MAX POWER in the datasheet above.

RESIDUAL POWER PERCENTAGE (Cable Run Efficiency)

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"												
	feet		16,4	32,8	49,2	65,6	82	114,8	164	246	328	426,5	524,9	656,2	984,2
	meters		5	10	15	20	25	35	50	75	100	130	160	200	300
	Wave length	MHz	Useful signal output (residual power %)												
Frequencies	85.71 m	3,5	99,1	98,3	97,6	96,8	96,1	94,6	92,4	88,8	85,4	81,5	77,7	73,0	62,4
	42.85 m	7	98,9	97,9	96,9	95,9	94,9	93,0	90,2	85,7	81,4	76,5	71,9	66,3	54,0
	21.42 m	14	98,6	97,3	96,0	94,7	93,5	91,0	87,5	81,9	76,6	70,8	65,4	58,8	45,1
	10.71 m	28	98,1	96,4	94,7	93,0	91,4	88,2	83,6	76,4	69,9	62,8	56,4	48,9	34,2
	6 m	50	97,6	95,4	93,2	91,1	89,0	85,0	79,3	70,7	63,0	54,9	47,8	39,7	25,0
	2 m	144	95,8	91,8	88,1	84,4	80,9	74,7	65,6	53,1	43,1	33,4	26,0	18,5	7,9
	69 cm	430	92,7	86,0	79,9	74,1	68,8	59,3	47,4	32,7	22,5	14,3	9,1	5,0	
	23.1 cm	1296	86,5	75,2	65,4	56,9	49,5	37,4	24,5	12,0	5,7				
	12.5 cm	2400	81,2	66,4	54,2	44,2	36,1	24,0	12,9	4,3					
	10 cm	3000	78,6	62,4	49,5	39,2	31,0	19,3	9,2						
	7.5 cm	4000	75,2	57,1	43,3	32,7	24,7	13,9	5,6						
	6 cm	5000	72,4	52,8	38,5	28,0	20,3	10,4	3,5						
	5 cm	6000	69,1	48,4	33,7	23,4	16,1	7,2							
	3.75 cm	8000	64,6	42,2	27,4	17,6	11,1	4,0							
	3 cm	10.000	58,7	35,1	20,5	11,5	5,9								
	2.5 cm	12.000	54,8	30,5	16,4	8,2	3,4								

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

	Wave length		Temperature C° / F°									
		MHz	-10 / 14	-5 / 23	0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	60 / 140	70 / 158
Frequencies	166.66 m	1,8	18000	18000	18000	1800	17278	15511	13800	11771	9743	7728
	85.71 m	3,5	18000	17946	17418	16314	15019	13483	11996	10232	8469	6718
	42.85 m	7	14479	13993	13581	12721	11710	10513	9353	7978	6603	5238
	30 m	10	12301	11888	11539	10807	9949	8932	7947	6778	5610	4450
	21.42 m	14	10512	10159	9860	9235	8502	7632	6790	5792	4794	3803
	14.28 m	21	8873	8574	8322	7795	7176	6442	5732	4889	4047	3210
	10.71 m	28	7527	7274	7060	6613	6088	5465	4862	4148	3433	2723
	6 m	50	5786	5591	5427	5083	4679	4201	3738	3188	2639	2093
	3 m	100	4297	4153	4031	3775	3475	3120	2776	2368	1960	1554
	2.08 m	144	3658	3535	3431	3214	2958	2656	2363	2016	1668	1323
	1.5 m	200	3312	3201	3107	2910	2679	2405	2140	1825	1511	1198
	75 cm	400	2279	2202	2137	2002	1843	1655	1472	1256	1039	824
	69 cm	430	2208	2134	2071	1940	1786	1603	1426	1217	1007	799
	37.5 cm	800	1556	1504	1460	1367	1259	1130	1005	858	710	563
	30 cm	1000	1383	1336	1297	1215	1118	1004	893	762	631	500
	23.1 cm	1296	1187	1147	1113	1043	960	862	767	654	541	429
	12.5 cm	2400	818	791	768	719	662	594	529	451	373	296
	10 cm	3000	719	695	675	632	582	522	465	396	328	260
	7.5 cm	4000	603	583	566	530	488	438	390	333	275	218
	6 cm	5000	529	512	497	465	428	384	342	292	241	192
	5 cm	6000	473	457	443	415	382	343	305	260	216	171
	4.2 cm	7000	428	413	401	376	346	311	276	236	195	155
	3.75 cm	8000	397	383	372	349	321	288	256	219	181	144
	3.3 cm	9000	368	356	345	323	298	267	238	203	168	133
	3 cm	10.000	342	330	320	300	276	248	221	188	156	124

WATT

Do not use the cable as power supply for both direct current and 50-60 HZ mains

GENERIC COAXIAL CABLE APPLICATIONS*

- Aircraft communications
- Amateur Radio
- Antenna
- Antenna Analyzer
- Beacons Base Station
- Broadcast Radios
- CB Radio (Citizen Band)
- CB Radio Scanner
- Dummy Load
- Land Mobile Communications
- Maritime Mobile Communications
- Military Communications
- Microwave Relay System
- Moon Bouncing Trasmission EME
- Mobile Transmission Applications (Car, Van, Caravans, Trucks, etc.)
- Motorhome
- Network Analyzer
- Portable Handheld Radio (Walkie Talkie - PMR antenna extension)
- Radar
- Radio Astronomy and Telescope
- Radio Receivers
- Router connections
- Satellite Radio
- Scanner
- Switch connections
- SWR Meter connections
- Transceiver
- Tuner connections
- Weather Radio Antenna Extension

*See “Frequency Suggestions” for a correct correlation

PRE-ASSEMBLED COAX JUMPERS

YOU’VE NO TIME FOR ASSEMBLING THE CONNECTORS YOURSELF?
GRAB OUR FACTORY MADE COAX JUMPERS **“LAB TESTED”** ONE BY ONE!
LAB CERTIFICATE ENCLOSED IN EACH PACKAGING.







USEFUL ACCESSORIES



SPECIAL COAX SCISSORS



ADHESIVE REUSABLE VELCRO



CABLE PULLING LUBRIFICANT



M&P T-SHIRT



POTA-SPEED





POTA-CASE

CONNECTORS for 12,7mm (.500”) Coaxial Cables



EVOlution

“UHF” Male Solder / Solderless

Watch the Assembly Video: https://youtu.be/vIX7sNiYKug

Code: CO.UHF.13M-SL EVO



“N” Male Solder / Solderless

Watch the Assembly Video: https://youtu.be/JacfJYrZVjM

Code: CO.N.13M-SL



“N” Female Solder / Solderless

Watch the Assembly Video: https://youtu.be/eGoROD85eec

Code: C.N.UF13F-SL



7/16

Watch the Assembly Video: https://youtu.be/CK12Z7Agj4U

Code: C.7-16.13M-S

HEAT SUPPRESSOR



Pairing to our ‘’N’’ or ‘’UHF’’ connectors, the Heat Suppressor represents an extension of the operational life of your valuable cables and a greater homogeneity of their performance in hot enviroments.

The benefits will also be more evident for those who use high power linear amplifiers for prolonged periods during contests. Cooling and stabilizing the cable, could be the ace in your sleeve!

For other connectors and adapters, visit **www.messi.it** or contact us at **web@messi.it**