

M&P UltraFlex 10C Sahara



JACKET :
UV-resistant **white PVC**
overall \varnothing 10,3mm \pm 0,15
(0.405")

REACTIVE BRAID :
71% SCREENING - 144 wires of **copper**
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 \varnothing 7,3 mm \pm 0,05 (0.287")

INNER CONDUCTOR :
7x1.0mm **copper** wires - overall \varnothing 2,9 mm \pm 0,15
(7x0.039" - overall \varnothing 0.114")

ATTENUATION (20°C/68°F)

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,7	0,1
3,5 MHz	0,8	0,2
7 MHz	1,1	0,3
10 MHz	1,3	0,3
14 MHz	1,4	0,4
21 MHz	1,7	0,5
28 MHz	2,0	0,6
50 MHz	2,7	0,8
100 MHz	3,8	1,1
144 MHz	4,6	1,4
200 MHz	5,4	1,6
400 MHz	7,9	2,4
430 MHz	8,1	2,4
800 MHz	11,4	3,4
1000 MHz	12,8	3,8
1296 MHz	14,7	4,4
2400 MHz	20,8	6,3
3000 MHz	23,7	7,1
4000 MHz	28,0	8,4
5000 MHz	31,9	9,6
6000 MHz	35,7	10,8
7000 MHz	39,3	11,9
8000 MHz	42,6	13,0

ELECTRICAL DATA

Impedence @200Mhz:	50 Ohm \pm 3		
Minimum bending radius:	up to 15 bends: 80mm (3.15 in)		
	single bend (choke): 40mm (1.57 in)		
Temperature:	-40°C to +60°C (-40°F to +140°F)		
Capacitance:	78 pF/m \pm 2 (23.8 pF/ft \pm 2)		
Velocity factor:	87%		
Screening Efficiency (SA)	100-2000 MHz >105 dB		
Inner conductor resistance:	3,2 Ohm/Km (1.0 Ohm/1000ft)		
Outer conductor resistance:	9,2 Ohm/Km (2.8 Ohm/1000ft)		
Tension test (spark test):	8 kV		
Net weight x 100m (100ft):	13 Kg (8.7 lb)		
Maximum peak power:	12000 WATT		
Structural Return Loss:	0,3-600 MHz	600-1200 MHz	1200-2000 MHz
	>30 dB	>25 dB	>20 dB

POWER HANDLING (40°C/104°F)

FREQUENCY	MAX P.	FREQUENCY	MAX P.
1,8 MHz	6427 W	430 MHz	587 W
3,5 MHz	5142 W	800 MHz	419 W
7 MHz	4285 W	1000 MHz	372 W
10 MHz	3955 W	1296 MHz	321 W
14 MHz	3428 W	2400 MHz	223 W
21 MHz	2856 W	3000 MHz	193 W
28 MHz	2437 W	4000 MHz	158 W
50 MHz	1849 W	5000 MHz	135 W
100 MHz	1275 W	6000 MHz	117 W
144 MHz	1049 W	7000 MHz	104 W
200 MHz	883 W	8000 MHz	93 W
400 MHz	610 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: MP00102

WHY CHOOSE THIS CABLE

- The most flexible 10,3mm cable, perfect for tight bendings and rotor antennas.
- The best attenuations for a stranded core 10,3mm coaxial cable.
- Best velocity ratio in the coax range
- Excellent performances with limited signal loss even at higher frequencies and long distances.

FREQUENCY SUGGESTIONS

HF (from 3MHz to 30Mhz)

example at 14 MHz

EXCELLENT up to 100m of cable length

GOOD up to 160m of cable length

Choose Ø 12,7mm cable above 160m

example 28 MHz

EXCELLENT up to 75m of cable length

GOOD up to 120m of cable length

Choose Ø 12,7mm cable above 120m

VHF (from 30MHz to 300Mhz)

example at 50 Mhz

EXCELLENT up to 60m of cable length

GOOD up to 80m of cable length

Choose Ø 12,7mm cable above 80m

example at 144 Mhz

EXCELLENT up to 35m of cable length

GOOD up to 60m of cable length

Choose Ø 12,7mm cable above 60m

UHF (from 300MHz to 3000Mhz)

example at 430 MHz

EXCELLENT up to 20m of cable length

GOOD up to 30m of cable length

Choose Ø 12,7mm cable above 28m

example at 1296 MHz

EXCELLENT up to 12m of cable length

GOOD up to 17m of cable length

Choose Ø 12,7mm cable above 17m

example at 2400 MHz

EXCELLENT up to 8m of cable length

GOOD up to 10m of cable length

Choose Ø 12,7mm cable above 12m

*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 10, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 68.1 % 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 10 / .400"													
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	98,9	97,8	96,8	95,8	94,9	92,9	90,1	85,5	81,2	76,3	71,7	66,0	53,6
	42.85 m	7	98,6	97,3	96,0	94,8	93,5	91,1	87,6	82,0	76,8	71,0	65,6	59,1	44,8
	21.42 m	14	98,1	96,3	94,6	92,8	91,2	87,9	83,2	75,9	69,2	62,0	55,6	48,0	34,2
	10.71 m	28	97,5	95,1	92,8	90,5	88,3	84,1	78,1	69,0	61,0	52,6	45,4	37,2	23,8
	6 m	50	96,8	93,7	90,8	88,0	85,2	80,0	72,7	62,0	52,9	43,7	36,1	28,0	14,8
	2.08 m	144	94,6	89,6	84,8	80,3	76,0	68,1	57,8	44,0	33,5	24,1	17,3	11,2	3,6
	69 cm	430	90,4	81,8	74,0	67,0	60,6	49,6	36,8	22,3	13,5	7,3	4,0	1,7	
	23.1 cm	1296	82,2	67,9	56,1	46,4	38,3	26,0	14,5	5,3					
	12.5 cm	2400	74,5	56,3	42,4	31,9	23,9	13,2	4,9						
	10 cm	3000	71,0	51,3	37,0	26,4	18,8	9,1							
	7.5 cm	4000	65,3	43,7	28,9	18,8	11,9	3,9							
	6 cm	5000	57,6	34,5	19,8	10,4	4,3								
	5 cm	6000	49,9	25,9	11,5										
	3.75 cm	8000	42,6	17,7	4,6										
	3 cm	10.000	36,3	11,5											
2.5 cm	12.000	31,0	6,8												

ULTRAFLEX 10/.400" Power Handling/Temperature (in Continuous Carrier - 50% Duty Cycle)

		Temperature C° / F°										
Wave length	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	9949	9615	9332	8741	8047	7224	6427	5482	4537	3599
	85.71 m	3,5	7960	7692	7466	6993	6438	5780	5142	4386	3630	2880
	42.85 m	7	6633	6410	6222	5828	5365	4816	4285	3655	3025	2400
	30 m	10	6122	5917	5743	5379	4952	4445	3955	3374	2792	2215
	21.42 m	14	5307	5128	4977	4662	4292	3853	3428	2924	2420	1920
	14.28 m	21	4421	4273	4147	3884	3576	3210	2856	2436	2016	1599
	10.71 m	28	3772	3646	3539	3314	3051	2739	2437	2079	1721	1365
	6 m	50	2862	2766	2685	2515	2315	2078	1849	1577	1305	1035
	3 m	100	1974	1907	1851	1734	1596	1433	1275	1088	900	714
	2.08 m	144	1624	1569	1523	1427	1313	1179	1049	895	741	587
	1.5 m	200	1367	1321	1282	1201	1106	992	883	753	623	494
	75 cm	400	944	913	886	830	764	686	610	520	431	342
	69 cm	430	909	878	852	798	735	660	587	501	414	329
	37.5 cm	800	649	627	608	570	525	471	419	357	296	235
	30 cm	1000	576	557	540	506	466	418	372	317	263	208
	23.1 cm	1296	497	480	466	437	402	361	321	274	227	180
	12.5 cm	2400	345	334	324	303	279	251	223	190	157	125
10 cm	3000	299	289	280	262	242	217	193	165	136	108	
7.5 cm	4000	245	236	229	215	198	178	158	135	112	88	
6 cm	5000	209	202	196	184	169	152	135	115	95	76	
5 cm	6000	181	175	170	159	146	132	117	100	83	66	
4.2 cm	7000	161	156	151	141	130	117	104	89	73	58	
3.75 cm	8000	144	139	135	126	116	105	93	79	66	52	

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 Transmission 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



M&P-STRAP



POTA-CASE

CONNECTORS for 10,3mm (.400") Coaxial Cables

EVOlution



“UHF” (PL-259) Male Solder

Watch the Assembly

Video:

<https://youtu.be/35SWUllkVjw>

Code:

CO.UHF.10M-S EVO



“UHF” (PL-259) Female Solder

Watch the Assembly

Video:

https://youtu.be/vVuTp_wYSio

Code:

C.UHF.BROAD50F-S



“UHF” Male Solder - 90° Angle

Watch the Assembly

Video:

<https://youtu.be/qQoZT4TqF4w>

Code:

C.UHF.BROAD50-M90



“PL259” Male Solder (standard)

Watch the Assembly

Video:

https://youtu.be/DWIKgl62M_8

Code:

C.BROAD.PL259



“N” Male Solder

Watch the Assembly

Video:

<https://youtu.be/c6Z8jHE3gC4>

Code:

CO.N.10M-S



“N” Female Solder

Watch the Assembly

Video:

<https://youtu.be/P18ViE8Exhk>

Code:

C.N.BROAD50-FS



“N” Male Solderless

Watch the Assembly

Video:

<https://youtu.be/SexpyifQn6Y>

Code:

C.N.BROAD50-SL



“N” Female Solderless

Watch the Assembly

Video:

<https://youtu.be/RJdiLYtpBk>

Code:

C.N.BROAD50-FSL



“N” Male Solder - 90° Angle

Watch the Assembly

Video:

<https://youtu.be/8NYoa-v7h74>

Code:

C.N.BROAD50-M90

CONNECTORS for 10,3mm (.400") Coaxial Cables



"N" Male Crimp

Watch the Assembly

Video:

<https://youtu.be/sggjEZKue8k>

Code:

C.N.BROAD50-MCR



"N" Female Crimp

Watch the Assembly

Video:

<https://youtu.be/l9JcDznJlo>

Code:

C.N.BROAD50-FCR



"BNC" Male Solder

Watch the Assembly

Video:

<https://youtu.be/tsaUjVnIPkl>

Code:

C.BNC.BROAD50-M



"BNC" Female Solder

Watch the Assembly

Video:

<https://youtu.be/46SLt5mODJg>

Code:

C.BNC.BROAD50-FS



"TNC" Male Solder

Watch the Assembly

Video:

<https://youtu.be/A-ayPwR-epY>

Code:

C.TNC.BROAD50-MS



"TNC" Male Crimp

Watch the Assembly

Video:

<https://youtu.be/X1QgKRtiesk>

Code:

C.TNC.BROAD50-CR



"SMA" Male Solder

Watch the Assembly

Video:

https://youtu.be/whXmqoRqj_o

Code:

C.SMA.UF10M-S



7/16

Watch the Assembly

Video:

<https://youtu.be/CK1zZ7Agi4U>

Code:

C.7-16.10M-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 environments.

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

