

# M&P

## UltraFlex 10C

Competition / 400"



**J A C K E T :**  
UV-resistant black **PVC**  
overall Ø 10,3mm ± 0,15  
(0.405")

**R E A C T I V E B R A I D :**  
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

**D I E L E C T R I C :**  
High pressure physical injection  
**foamed polyethylene**  
**T R I P L E L A Y E R**  
overall Ø 7,3 mm ± 0,05 (0.287")

### I N N E R C O N D U C T O R :

7x1.0mm **copper** wires - overall Ø 2,9 mm ± 0,15  
(7x0.039" - overall Ø 0.114")

### ATTENUATION (20°C / 68°F)

| FREQUENCY | dB/100m | dB/100ft |
|-----------|---------|----------|
| 1,8 MHz   | 0,7     | 0,2      |
| 3,5 MHz   | 0,9     | 0,3      |
| 7 MHz     | 1,0     | 0,3      |
| 10 MHz    | 1,2     | 0,4      |
| 14 MHz    | 1,4     | 0,4      |
| 21 MHz    | 1,7     | 0,5      |
| 28 MHz    | 1,9     | 0,6      |
| 50 MHz    | 2,6     | 0,8      |
| 100 MHz   | 3,8     | 1,1      |
| 144 MHz   | 4,6     | 1,4      |
| 200 MHz   | 5,5     | 1,7      |
| 400 MHz   | 8,2     | 2,5      |
| 430 MHz   | 8,5     | 2,6      |
| 800 MHz   | 11,8    | 3,6      |
| 1000 MHz  | 13,3    | 4,1      |
| 1296 MHz  | 15,3    | 4,7      |
| 2400 MHz  | 21,7    | 6,6      |
| 3000 MHz  | 24,5    | 7,5      |
| 4000 MHz  | 29,0    | 8,8      |
| 5000 MHz  | 33,0    | 10,0     |
| 5800 MHz  | 34,9    | 10,6     |
| 6000 MHz  | 36,8    | 11,1     |
| 7000 MHz  | 40,6    | 12,3     |
| 8000 MHz  | 44,1    | 13,4     |
| 9000 MHz  | 48,1    | 14,6     |
| 10000 MHz | 52,0    | 15,8     |
| 11000 MHz | 55,8    | 16,9     |
| 12000 MHz | 59,9    | 18,2     |

### ELECTRICAL DATA

|                             |                                                                       |
|-----------------------------|-----------------------------------------------------------------------|
| Impedance @200Mhz:          | 50 Ohm ± 3                                                            |
| Minimum bending radius:     | up to 15 bends: 80mm (3.15 in)<br>single bend (choke): 40mm (1.57 in) |
| Temperature:                | -40°C to +60°C (-40°F to +140°F)                                      |
| Capacitance:                | 78 pF/m ± 2 (23.8 pF/ft ± 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<br>>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

- Extraordinary flexibility that makes it perfect for tighter bendings and rotor antennas.
- Far better performances than RG213, with an additional foil that protects it from electromagnetic interferences.
- Excellent attenuations with limited signal loss even at higher frequencies and long distances.
- Completely made of copper, with a screening efficiency >105dB and a dramatic reduction of the background noise.

## FREQUENCY SUGGESTIONS

### HF (from 3MHz to 30Mhz)

#### example at 14 MHz

**EXCELLENT** up to 100m of cable length  
**GOOD** up to 150m of cable length  
 Choose Ø 12,7mm cable above 150m

#### 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 18m of cable length  
**GOOD** up to 28m of cable length  
 Choose Ø 12,7mm cable above 28m

#### example at 1296 MHz

**EXCELLENT** up to 10m of cable length  
**GOOD** up to 15m of cable length  
 Choose Ø 12,7mm cable above 15m

#### example at 2400 MHz

**EXCELLENT** up to 7m of cable length  
**GOOD** up to 10m of cable length  
 Choose Ø 12,7mm cable above 10m

\*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     | WATT |
|             | 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 LUBRICANT



M&P T-SHIRT



POTA-SPEED



M&P-STRAP



POTA-CASE

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

**EVO**lution



### "UHF" (PL-259) Male Solder

Watch the Assembly

**Video:**

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

**Code:**

CO.UHF.10M-S EVO



### "UHF" (PL-259) Female Solder

Watch the Assembly

**Video:**

[https://youtu.be/vVuTp\\_wYSio](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/DWIKgl6zM\\_8](https://youtu.be/DWIKgl6zM_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/SexpyrfQn6Y>

**Code:**

C.N.BROAD50-SL



### "N" Female Solderless

Watch the Assembly

**Video:**

<https://youtu.be/RJdiLYvtpBk>

**Code:**

C.N.BROAD50-FSL



### "N" Male Solder - 90° Angle

Watch the Assembly

**Video:**

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

**Code:**

C.N.BROAD50-M90

For other connectors and adapters, visit [www.messi.it](http://www.messi.it) or contact us at [web@messi.it](mailto:web@messi.it)

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



### "N" Male Crimp

Watch the Assembly

**Video:**

<https://youtu.be/sggiEZKue8k>

**Code:**

C.N.BROAD50-MCR



### "N" Female Crimp

Watch the Assembly

**Video:**

<https://youtu.be/l9lgcDznJlo>

**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/X1QgKRtlesk>

**Code:**

C.TNC.BROAD50-CR



### "SMA" Male Solder

Watch the Assembly

**Video:**

[https://youtu.be/whXmqoRqj\\_o](https://youtu.be/whXmqoRqj_o)

**Code:**

C.SMA.UF10M-S



7/16

Watch the Assembly

**Video:**

<https://youtu.be/CK12Z7Agi4U>

**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](http://www.messi.it) or contact us at [web@messi.it](mailto:web@messi.it)