



**M&P**

**HyperFlex 10 / .400"**

**EXTRAFLEXIBLE**

UV resistant PVC jacket.  
**PVC Ø 10,3 mm ± 0,15**  
**(0.405 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: 78% 168 wires**

High pressure physical injection foamed polyethylene, **TRIPLE LAYER DIELECTRIC.**  
**FPE Ø 7,3 mm ± 0,05**  
**(0.287 inches ± 0,05)**

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 19x0,59 stranded, geometric and concentric annealed copper wires. Purity 99,99%. (annealed = thermal softening process)

**Cu 19x0,59 mm - Ø 3 mm ± 0,15**  
**(19x0.023 inches - 0.118 inches ± 0.0059)**

**ATTENUATION at 20°C/68°F**

| FREQUENCY  | dB/100m | dB/100ft |
|------------|---------|----------|
| 1,8 MHz    | 0,7     | 0,21     |
| 3,5 MHz    | 0,9     | 0,27     |
| 7,0 MHz    | 1,16    | 0,35     |
| 10 MHz     | 1,34    | 0,41     |
| 14 MHz     | 1,55    | 0,47     |
| 21 MHz     | 1,84    | 0,56     |
| 28 MHz     | 2,07    | 0,63     |
| 50 MHz     | 2,76    | 0,84     |
| 100 MHz    | 3,95    | 1,20     |
| 144 MHz    | 4,76    | 1,45     |
| 200 MHz    | 5,67    | 1,73     |
| 400 MHz    | 8,3     | 2,53     |
| 430 MHz    | 8,6     | 2,62     |
| 800 MHz    | 11,96   | 3,65     |
| 1000 MHz   | 13,47   | 4,11     |
| 1296 MHz   | 15,49   | 4,72     |
| 2400 MHz   | 21,8    | 6,64     |
| 3000 MHz   | 24,66   | 7,52     |
| 4000 MHz   | 29,1    | 8,87     |
| 5000 MHz   | 33,1    | 10,09    |
| 6000 MHz   | 36,9    | 11,25    |
| 7000 MHz   | 40,7    | 12,41    |
| 8000 MHz   | 44,2    | 13,47    |
| 9000 MHz   | 47,5    | 14,48    |
| 10.000 MHz | 50,7    | 15,45    |



**ELECTRICAL DATA**

|                                |                                   |
|--------------------------------|-----------------------------------|
| Impedance @ 200MHz:            | 50 Ohm ± 3                        |
| Minimum bending radius:        |                                   |
| Multiple bends(15)/single bend | 80/40 mm (3.15/1.57 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:                   | 78 pF/m ± 2 (23.8 pF/ft ± 2)      |
| Velocity ratio:                | 87 %                              |
| Screening efficiency:          |                                   |
| 100-2000 MHz                   | >105 dB                           |
| Class                          | A++                               |
| Inner conductor resistance:    | 3,6 Ohm/Km (1.1 Ohm/1000ft)       |
| Outer conductor resistance:    | 12 Ohm/Km (3.7 Ohm/1000ft)        |
| Tension test (spark test):     | 8 kV                              |
| Weight (100m/100ft):           | 11,1 Kg (24.47 lb)                |
| Maximum peak power:            | 13 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)**

| FREQUENCY | MAXP   | FREQUENCY  | MAXP  |
|-----------|--------|------------|-------|
| 1,8 MHz   | 9927 W | 430 MHz    | 808 W |
| 3,5 MHz   | 7721 W | 800 MHz    | 581 W |
| 7,0 MHz   | 5990 W | 1000 MHz   | 516 W |
| 10 MHz    | 5186 W | 1296 MHz   | 449 W |
| 14 MHz    | 4483 W | 2400 MHz   | 319 W |
| 21 MHz    | 3777 W | 3000 MHz   | 282 W |
| 28 MHz    | 3357 W | 4000 MHz   | 239 W |
| 50 MHz    | 2518 W | 5000 MHz   | 210 W |
| 100 MHz   | 1759 W | 6000 MHz   | 188 W |
| 144 MHz   | 1460 W | 7000 MHz   | 171 W |
| 200 MHz   | 1226 W | 8000 MHz   | 157 W |
| 400 MHz   | 837 W  | 10.000 MHz | 137 W |

Connectors: C.BNC.BROAD50-M ; C.N.BROAD50-M ; C.UHF.BROAD50-M ; C.BROAD.PL259-A ; C.TNC.BROAD50-M-S



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-HYPERFLEX 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-HYPERFLEX 10 /.400" |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| length in meters        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                         | 5    | 10   | 15   | 20   | 25   | 35   | 50   | 75   | 100  | 130  | 160  | 200  | 300  |      |
| Frequencies (MHz)       | 3,5  | 99,0 | 97,9 | 96,9 | 95,9 | 95,0 | 93,0 | 90,2 | 85,6 | 81,3 | 76,4 | 71,8 | 66,1 | 53,7 |
|                         | 7    | 98,7 | 97,4 | 96,1 | 94,8 | 93,5 | 91,1 | 87,5 | 81,8 | 76,6 | 70,7 | 65,2 | 58,6 | 44,9 |
|                         | 14   | 98,2 | 96,5 | 94,8 | 93,1 | 91,5 | 88,3 | 83,7 | 76,5 | 70,0 | 62,9 | 56,5 | 49,0 | 34,3 |
|                         | 28   | 97,6 | 95,3 | 93,1 | 90,9 | 88,8 | 84,6 | 78,8 | 69,9 | 62,1 | 53,8 | 46,6 | 38,5 | 23,9 |
|                         | 50   | 96,9 | 93,8 | 90,9 | 88,1 | 85,3 | 80,1 | 72,8 | 62,1 | 53,0 | 43,8 | 36,2 | 28,1 | 14,9 |
|                         | 144  | 94,7 | 89,6 | 84,8 | 80,3 | 76,0 | 68,1 | 57,8 | 44,0 | 33,4 | 24,1 | 17,3 | 11,2 | 3,7  |
|                         | 430  | 90,6 | 82,0 | 74,3 | 67,3 | 61,0 | 50,0 | 37,2 | 22,6 | 13,8 | 7,6  | 4,2  |      |      |
|                         | 1200 | 83,7 | 70,0 | 58,6 | 49,0 | 41,0 | 28,7 | 16,8 | 6,9  |      |      |      |      |      |
|                         | 2400 | 77,8 | 60,5 | 47,1 | 36,6 | 28,5 | 17,3 | 8,1  |      |      |      |      |      |      |
|                         | 3000 | 75,3 | 56,7 | 42,7 | 32,1 | 24,2 | 13,7 | 5,8  |      |      |      |      |      |      |
|                         | 4000 | 71,5 | 51,2 | 36,6 | 26,2 | 18,7 | 9,6  | 3,5  |      |      |      |      |      |      |
|                         | 5000 | 68,3 | 46,7 | 31,9 | 21,8 | 14,9 | 6,9  |      |      |      |      |      |      |      |
|                         | 6000 | 65,3 | 42,7 | 27,9 | 18,2 | 11,9 | 5,1  |      |      |      |      |      |      |      |
|                         | 8000 | 60,1 | 36,1 | 21,7 | 13,1 | 7,9  |      |      |      |      |      |      |      |      |
| 10.000                  | 55,8 | 31,1 | 17,4 | 9,7  | 5,4  |      |      |      |      |      |      |      |      |      |
| 12.000                  | 51,8 | 26,8 | 13,9 | 7,2  | 3,7  |      |      |      |      |      |      |      |      |      |

Useful signal output (residual power %)

### M&P-HYPERFLEX 10 /.400" (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      | 12000   | 12000  | 12000   | 11980   | 11178   | 10710    | 9927     | 8468     | 7008     | 5559 |
|                               | 3,5      | 11720   | 11450  | 11211   | 10500   | 9667    | 8678     | 7721     | 6586     | 5451     | 4324 |
|                               | 7        | 9273    | 8962   | 8698    | 8147    | 7500    | 6733     | 5990     | 5110     | 4229     | 3355 |
|                               | 10       | 8027    | 7758   | 7530    | 7053    | 6492    | 5829     | 5186     | 4423     | 3661     | 2904 |
|                               | 14       | 6940    | 6707   | 6509    | 6097    | 5613    | 5039     | 4483     | 3824     | 3165     | 2511 |
|                               | 21       | 5846    | 5650   | 5484    | 5136    | 4728    | 4245     | 3777     | 3221     | 2666     | 2115 |
|                               | 28       | 5196    | 5022   | 4874    | 4565    | 4203    | 3773     | 3357     | 2863     | 2370     | 1880 |
|                               | 50       | 3897    | 3766   | 3656    | 3424    | 3152    | 2830     | 2518     | 2148     | 1777     | 1410 |
|                               | 100      | 2723    | 2632   | 2554    | 2392    | 2203    | 1977     | 1759     | 1501     | 1242     | 985  |
|                               | 144      | 2260    | 2184   | 2120    | 1985    | 1828    | 1641     | 1460     | 1245     | 1031     | 818  |
|                               | 200      | 1897    | 1833   | 1779    | 1667    | 1534    | 1378     | 1226     | 1045     | 865      | 686  |
|                               | 400      | 1296    | 1252   | 1216    | 1139    | 1048    | 941      | 837      | 714      | 591      | 469  |
|                               | 430      | 1251    | 1209   | 1173    | 1099    | 1012    | 908      | 808      | 689      | 570      | 452  |
|                               | 800      | 899     | 869    | 844     | 790     | 727     | 653      | 581      | 496      | 410      | 325  |
|                               | 1000     | 799     | 772    | 749     | 702     | 646     | 580      | 516      | 440      | 364      | 289  |
|                               | 1296     | 694     | 671    | 651     | 610     | 562     | 504      | 449      | 383      | 317      | 251  |
|                               | 2400     | 493     | 477    | 463     | 434     | 399     | 358      | 319      | 272      | 225      | 179  |
|                               | 3000     | 436     | 422    | 409     | 383     | 353     | 317      | 282      | 240      | 199      | 158  |
| 4000                          | 370      | 357     | 347    | 325     | 299     | 268     | 239      | 204      | 169      | 134      |      |
| 5000                          | 325      | 314     | 305    | 286     | 263     | 236     | 210      | 179      | 148      | 118      |      |
| 6000                          | 291      | 281     | 273    | 256     | 235     | 211     | 188      | 160      | 133      | 105      |      |
| 7000                          | 264      | 255     | 248    | 232     | 214     | 192     | 171      | 146      | 121      | 96       |      |
| 8000                          | 243      | 235     | 228    | 214     | 197     | 177     | 157      | 134      | 111      | 88       |      |
| 10000                         | 212      | 205     | 199    | 186     | 172     | 154     | 137      | 117      | 97       | 77       |      |

WATT