Ham Radio Pro Cables

M&P

MESSI & PAOLONI

**( Double - Jacket )**

# Broad-Pro 50 Biguaina


Pb RoHS COMPLIANT 2002/95/EG

High resistance copper screen (**Cu**) made by means of **24 spools** braiding machines. This braid is **HIGHLY EFFECTIVE AGAINST LOW FREQUENCY IMPULSIVE NOISES.**

**SCREENING PERCENTAGE: 71%**

**144 wires**

High pressure physical injection foamed polyethylene **TRIPLE LAYER DIELECTRIC**

**FPE Ø 7,3 ± 0,05 mm**

* Black protective PVC jacket, waterproof and UV resistant. This cable can be laid underground. The red PE jacket clearly shows potential cracks on the above external sheath. (wich might occur during rough pulling inside the pipes)

Inner conductor : 99,99% pure electrolitic annealed bare copper.
(annealed = thermal softening process)

**Cu Ø 2,7 mm**

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**

## ATTENUATION at 20°C

| FREQUENCY | dB/100m | dB/100ft |
|---|---|---|
| 1,8 MHz | 0,60 | 0,19 |
| 3,5 MHz | 0,80 | 0,25 |
| 7,0 MHz | 1,05 | 0,32 |
| 10 MHz | 1,21 | 0,37 |
| 14 MHz | 1,39 | 0,42 |
| 21 MHz | 1,75 | 0,51 |
| 28 MHz | 1,93 | 0,59 |
| 50 MHz | 2,60 | 0,79 |
| 100 MHz | 3,70 | 1,12 |
| 144 MHz | 4,59 | 1,40 |
| 200 MHz | 5,40 | 1,64 |
| 400 MHz | 8,00 | 2,43 |
| 430 MHz | 8,20 | 2,50 |
| 800 MHz | 11,60 | 3,53 |
| 1000 MHz | 13,00 | 3,96 |
| 1200 MHz | 14,49 | 4,42 |
| 2400 MHz | 21,50 | 6,56 |
| 3000 MHz | 24,70 | 7,53 |

## MAXIMUM POWER

| FREQ. | MAXP |
|---|---|
| 1,8 MHz | 7470 W |
| 3,5 MHz | 7130 W |
| 7,0 MHz | 6730 W |
| 10 MHz | 6490 W |
| 14 MHz | 6230 W |
| 21 MHz | 5730 W |
| 28 MHz | 5500 W |
| 50 MHz | 4710 W |
| 100 MHz | 3660 W |
| 144 MHz | 2980 W |
| 200 MHz | 2470 W |
| 400 MHz | 1360 W |
| 430 MHz | 1300 W |
| 800 MHz | 640 W |
| 1000 MHz | 490 W |
| 1200 MHz | 470 W |
| 2400 MHz | 260 W |
| 3000 MHz | 110 W |

## ELECTRICAL DATA

| | | |
|---|---|---|
| Impedance: | | 50 Ohm ± 3 |
| Minimum bending radius: | | |
| Multiple bends/single bend | | 124/80 mm |
| Temperature: | installation | -40° to +60° C |
| | operative | -55° to +85° C |
| Capacitance: | | 74 pF/m ± 2 |
| Velocity ratio: | | 85 % |
| Screening efficiency: | | |
| 100-2000 MHz | | >105 dB |
| Class | | A++ |
| Inner conductor resistance: | | 3,2 Ohm/Km |
| Outer conductor resistance: | | 9,2 Ohm/Km |
| Tension test (spark test): | | 8 kV |
| Weight (100m): | | 16,8 Kg |

Connettori: C.N.BROAD50-M - C.UHF.BROAD50 - C.BROAD.PL259
C.BNC.BROAD50-M

Maximum peak power: 8500 WATT

### STRUCTURAL RETURN LOSS

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

**HINTS ABOUT POWER HANDLING**:
The cable length is negatively related to the power handling: the longer is the cable length the higher the electrical resistance will be, which turns into heat to dissipate. Moreover unwanted stationary waves ratios, are making the situation even worse. In SSB operations a 5/6 seconds transmission time, followed by the same reception lag, is giving the chance to consider the power handling values in the chart as doubled.