M&P

Broad-pro 50C

Competition /.400"

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

CE Pb RoHS Compliant 2002/95/EC

JACKET:
UV-resistant black PVC
overall Ø 10,3mm ± 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 Ø 7,3 mm ± 0,05 (0.287")

INNER CONDUCTOR:
made of 99,9% pure bare copper
overall Ø 2,76 mm ± 0,05 (Ø 0.108")

ATTENUATION (20°C /68°F)

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,6	0,2
3,5 MHz	0,8	0,2
7 MHz	1,0	0,3
10 MHz	1,2	0,3
14 MHz	1,3	0,4
21 MHz	1,7	0,5
28 MHz	1,9	0,5
50 MHz	2,5	0,7
100 MHz	3,6	1,1
144 MHz	4,4	1,3
200 MHz	5,2	1,5
400 MHz	7,5	2,2
430 MHz	7,8	2,3
800 MHz	10,9	3,3
1000 MHz	12,3	3,7
1296 MHz	14,1	4,3
2400 MHz	19,8	6,0
3000 MHz	22,5	6,8
4000 MHz	26,8	8,1
5000 MHz	30,5	9,3
6000 MHz	34,1	10,3
7000 MHz	37,6	11,4
8000 MHz	41,0	12,5
10.000 MHz	46,8	14,2
12.000 MHz	52,2	15,1

ELECTRICAL DATA

Impedence @200Mhz:	50 Ohm ± 3
Minimum bending radius:	up to 15 bends: 103mm (4.05 in) single bend (choke): 65mm (2.56 in)
Temperature:	-40°C to +60°C (-40°F to +140°F)
Capacitance:	74 pF/m ± 2 (22.6 pF/ft ± 2)
Velocity factor:	85%
Screening Efficiency (SA)	100-2000 MHz >105 dB
Inner conductor resistance:	3 Ohm/Km (0.9 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:	13000 WATT
Structural Return Loss:	0,3-600 MHz >30 dB; 600-1200 MHz >25 dB; 1200-2000 MHz >20 dB

POWER HANDLING (40°C/104°F)

FREQUENCY	MAX P.	FREQUENCY	MAX P.
1,8 MHz	10831 W	430 MHz	947 W
3,5 MHz	8471 W	800 MHz	679 W
7 MHz	6667 W	1000 MHz	600 W
10 MHz	6000 W	1296 MHz	522 W
14 MHz	5180 W	2400 MHz	364 W
21 MHz	4114 W	3000 MHz	314 W
28 MHz	3731 W	4000 MHz	261 W
50 MHz	2769 W	5000 MHz	225 W
100 MHz	2045 W	6000 MHz	199 W
144 MHz	1682 W	7000 MHz	178 W
200 MHz	1412 W	8000 MHz	161 W
400 MHz	986 W	10.000 MHz	136 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: MP00105)

WHY CHOOSE THIS CABLE

- Completely made of copper: outstanding attenuations at every frequency (2/3dB less at 2400Mhz than a competitor cable).

- Solid core conductor with bigger diameter (2,76mm) for a better exploitation of the skin effect.

- Top screening efficiency (>105dB) which leads to a dramatic reduction of the background noise.

- Excellent performances with limited signal loss even at the 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 18m of cable length
Choose Ø 12,7mm cable above 17m

example at 2400 MHz
EXCELLENT up to 8m of cable length
GOOD up to 12m 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-BROAD-PRO 50/c, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 70% 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-BROAD PRO 50C /.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	98,0	97,0	96,1	95,1	93,3	90,6	86,2	82,1	77,4	73,0	67,5	55,5
	42.85 m	7	98,7	97,4	96,2	95,0	93,9	91,6	88,2	82,9	77,9	72,3	67,1	60,7	47,3
	21.42 m	14	98,3	96,8	95,2	93,7	92,2	89,3	85,1	78,6	72,5	65,9	59,8	52,6	38,2
	10.71 m	28	97,7	95,6	93,5	91,4	89,4	85,5	80,0	71,6	64,0	56,0	49,0	41,0	26,3
	6 m	50	97,1	94,3	91,6	89,0	86,5	81,7	74,9	64,8	56,1	47,2	39,7	31,5	17,7
	2 m	144	95,0	90,3	85,8	81,6	77,5	70,0	60,2	46,7	36,2	26,7	19,7	13,1	4,7
	69 cm	430	91,3	83,4	76,2	69,7	63,7	53,2	40,6	25,8	16,4	9,5	5,5		
	23.1 cm	1296	84,4	71,6	60,8	51,6	43,8	31,5	19,1	8,1	3,3				
	12.5 cm	2400	78,6	62,4	49,5	39,2	31,0	19,3	9,2						
	10 cm	3000	76,2	58,6	45,0	34,5	26,4	15,3	6,5						
	7.5 cm	4000	71,9	52,4	38,0	27,5	19,8	9,9	3,0						
	6 cm	5000	68,8	48,0	33,3	23,0	15,7	7,0							
	5 cm	6000	65,9	44,0	29,2	19,2	12,5	4,8							
	3.75 cm	8000	59,9	36,4	22,7	12,6	6,9								
	3 cm	10.000	52,0	27,7	13,6	5,3									
	2.5 cm	12.000	48,5	23,8	10,2										

M&P-BROAD-PRO 50C 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	13300	13300	13300	13300	12900	12174	10831	9239	7647	6065
	85.71 m	3,5	13112	12672	12299	11520	10605	9521	8471	7225	5980	4744
	42.85 m	7	10320	9973	9680	9067	8347	7493	6667	5687	4707	3733
	30 m	10	9288	8976	8712	8160	7512	6744	6000	5118	4236	3360
	21.42 m	14	8018	7749	7521	7045	6485	5822	5180	4418	3657	2901
	14.28 m	21	6369	6155	5974	5595	5151	4624	4114	3509	2905	2304
	10.71 m	28	5775	5581	5417	5074	4671	4193	3731	3182	2634	2089
	6 m	50	4287	4143	4021	3766	3467	3113	2769	2362	1955	1551
	3 m	100	3166	3060	2970	2782	2561	2299	2045	1745	1444	1145
	2.08 m	144	2604	2517	2443	2288	2106	1891	1682	1435	1188	942
	1.5 m	200	2185	2112	2050	1920	1768	1587	1412	1204	997	791
	75 cm	400	1527	1476	1432	1341	1235	1109	986	841	696	552
	69 cm	430	1467	1417	1376	1288	1186	1065	947	808	669	531
	37.5 cm	800	1051	1016	986	924	850	763	679	579	480	380
	30 cm	1000	929	898	871	816	751	674	600	512	424	336
	23.1 cm	1296	808	781	758	710	653	586	522	445	368	292
	12.5 cm	2400	563	544	528	495	455	409	364	310	257	204
	10 cm	3000	487	470	457	428	394	353	314	268	222	176
	7.5 cm	4000	404	390	379	355	327	293	261	223	184	146
	6 cm	5000	348	337	327	306	282	253	225	192	159	126
	5 cm	6000	308	298	289	270	249	224	199	170	140	111
	4.2 cm	7000	275	266	258	242	223	200	178	152	126	100
	3.75 cm	8000	249	241	234	219	202	181	161	137	114	90
	3.3 cm	9000	227	220	213	200	184	165	147	125	104	82
	3 cm	10.000	211	204	198	185	171	153	136	116	96	76

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 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/DWIKgI62M_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/Sexpy1fQn6Y

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/8NY0a-v7h74

Code: C.N.BROAD50-M90

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

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/l9lgcDznJlo

Code: C.N.BROAD50-FCR



“BNC” Male Solder

Watch the Assembly **Video:** https://youtu.be/tsaUjVnIPkI

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_0

Code: C.SMA.UF10M-S



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

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 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