



1,4 Kg/100m
lighter than RG58

3,6 dB/100m better
@50 MHz than RG58

M&P

AIRBORNE 5 1.200"

MESSI & PAOLONI

We recommend to use our connectors only, as they are designed to avoid the welding on the braid. (the braid being made of an extra light and sturdy alloy, cannot be soldered)

High resistance screen made of a sturdy Aluminium-Magnesium alloy **BRAID (ALMg)**. The braiding process is operated by means of **24 spools** braiding machines. (50% more intersections if compared to traditional 16 spools machines.) This braid is **HIGHLY EFFECTIVE AGAINST LOW FREQUENCY IMPULSIVE NOISES**.

Trampling-resistant, UV shielded PE jacket to be used in particular for underground and outdoor installations.

PE Ø 5 mm ± 0,15
(0.197 inches ± 0.0059)



SCREENING

PERCENTAGE: 82% 96 wires

Triple layer screening tape, (foil), highly effective against high frequency interferences.

SCREENING

PERCENTAGE 100%

AL-POL-AL

DXpedition

Waterproof

Sturdy

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

FPE Ø 3 mm ± 0,05
(0.118 inches ± 0.0019)

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

Cu Ø 1,13 mm ± 0,05 (0.044 inches ± 0.0019)

ATTENUATION at 20°C/68°F

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	1,7	0,52
3,5 MHz	2,3	0,70
7,0 MHz	3,0	0,91
10 MHz	3,45	1,05
14 MHz	4,0	1,22
21 MHz	4,84	1,48
28 MHz	5,5	1,68
50 MHz	7,1	2,16
100 MHz	9,49	2,89
144 MHz	11,1	3,38
200 MHz	12,8	3,90
400 MHz	18,38	5,60
430 MHz	19,0	5,79
800 MHz	26,57	8,10
1000 MHz	29,88	9,11
1296 MHz	34,2	10,42
2400 MHz	47,58	14,50
3000 MHz	53,5	16,31
4000 MHz	61,0	18,59
5000 MHz	68,6	20,91
6000 MHz	75,6	23,04

ELECTRICAL DATA

Impedance @200MHz :	50 Ohm ± 3
Minimum bending radius:	
Multiple bends/single bend	50/25 mm (1.97/0.98 in)
Temperature:	-45°C to +70°C (-49°F to +158°F)
Capacitance:	76 pF/m ± 2 (23.2 pF/ft ± 2)
Velocity ratio:	85 %
Screening efficiency:	
100-2000 MHz	>105 dB
Class	A++
Inner conductor resistance:	17 Ohm/Km (5.2 Ohm/1000ft)
Outer conductor resistance:	34 Ohm/Km (10.4 Ohm/1000ft)
Tension test (spark test):	8 kV
Weight (100m/100ft):	2,35 Kg (5.18 lb)
Maximum peak power:	2000 WATT
Connectors:	C.N.AC5M-S ; C.UHF.AC5M-S ; C.BNC.AC5M-S ; C.TNC.AC5-M-S

SRL

0,3-600 MHz	>30 dB
600-1200 MHz	>28 dB
1200-2000 MHz	>25 dB

POWER HANDLING (at 40°C/104°F)

FREQUENCY	MAXP	FREQUENCY	MAXP
1,8 MHz	1172 W	430 MHz	99 W
3,5 MHz	837 W	800 MHz	71 W
7,0 MHz	625 W	1000 MHz	63 W
10 MHz	543 W	1296 MHz	55 W
14 MHz	471 W	2400 MHz	39 W
21 MHz	394 W	3000 MHz	35 W
28 MHz	346 W	4000 MHz	31 W
50 MHz	268 W	5000 MHz	27 W
100 MHz	198 W	6000 MHz	25 W
144 MHz	170 W		
200 MHz	146 W		
400 MHz	102 W		

For step by step assembly instructions of connectors, please visit our website www.messi.it

Our products are manufactured in compliance with: CEI 46-1 (construction parameters); EN 50117(screening efficiency); CEI EN 50289(SA test methods); IEC 60332-1-2(cables with LSZH jacket)



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-AIRBORNE 5, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 41.1 % 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-AIRBORNE 5 /.200"															
length in meters															
	5	10	15	20	25	35	50	75	100	130	160	200	300		
Frequencies (MHz)	3,5	98.2	96.6	95	93.4	91.8	88.8	84.4	77.6	71.3	64.5	58.3	51	36.4	Useful signal output (residual power %)
	7	97.3	94.9	92.4	90.1	87.8	83.3	77.1	67.7	59.5	50.9	43.6	35.4	21	
	14	95.6	91.5	87.5	83.7	80.1	73.3	64.2	51.5	41.3	31.7	24.3	17	7	
	28	93.9	88.3	83	78	73.4	64.8	53.9	39.5	28.9	19.9	13.7	8.3		
	50	92.2	85.1	78.5	72.4	66.8	56.9	44.6	30.1	19.9	12.3	7.7	3.9		
	144	88	77.5	68.3	60.2	53	41.1	28.1	14.9	7.8	3.6				
	430	80.2	64.4	51.7	41.5	33.2	21.5	11.1	3.6						
	1200	67.8	46.2	31.4	21.3	14.4	6.4								
	2400	56.2	31.9	17.7	9.6	5									
	3000	52	27.2	13.8	6.5										
	4000	46.4	21.4	9											
	5000	39.1	14.3	3											
6000	26														

M&P-AIRBORNE 5 /.200" (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	1600	1600	1600	1594	1467	1317	1172	1000	827	656	WATT
	3,5	1296	1252	1215	1138	1048	941	837	714	591	469	
	7	968	935	908	850	783	703	625	533	441	350	
	10	841	813	789	739	680	611	543	464	384	304	
	14	729	705	684	641	590	530	471	402	333	264	
	21	610	589	572	536	493	443	394	336	278	221	
	28	536	518	502	470	433	389	346	295	244	194	
	50	415	401	389	364	335	301	268	228	189	150	
	100	307	297	288	270	248	223	198	169	140	111	
	144	264	255	248	232	213	192	170	145	120	95	
	200	226	218	212	198	183	164	146	124	103	82	
	400	158	153	148	139	128	115	102	87	72	57	
	430	153	148	143	134	123	111	99	84	70	55	
	800	109	106	102	96	88	79	71	60	50	40	
	1000	97	94	91	85	79	71	63	54	44	35	
	1296	85	82	80	75	69	62	55	47	39	31	
2400	61	59	57	54	49	44	39	34	28	22		
3000	54	52	51	48	44	39	35	30	25	20		
4000	48	46	45	42	38	35	31	26	22	17		
5000	42	41	40	37	34	31	27	23	19	15		
6000	38	37	36	34	31	28	25	21	18	14		

Connector assembly

Connector "N" type : C.N.AC5M-S



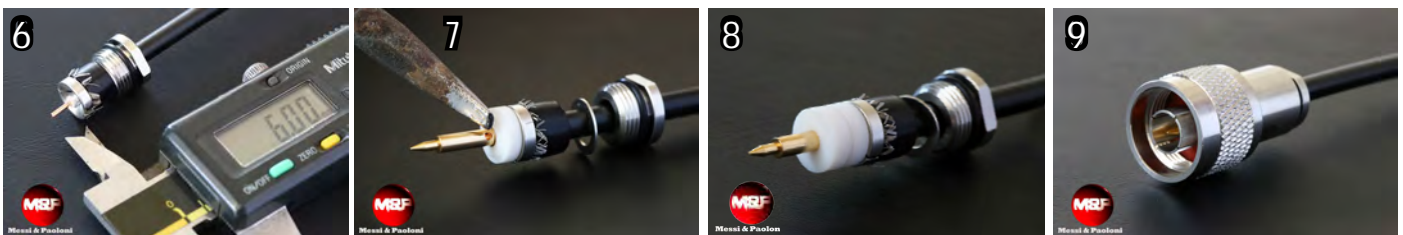
1 Make a circular cut on the black PVC outer jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

2 Insert in the cable components A, B, C and immediately after, make a circular cut on the red PE jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

3 After having made the first cut, as shown in picture 2, rotate the cable 180 degrees and make a second cut in the same way, in order to facilitate the introduction of component D

4 Insert component D after having opened the braid as shown in the picture. Push component D between the foil and the braid until it stops against the red PE jacket.

5 Flatten the wires as shown in the picture and cut the excess.



6 Cut and remove the tape and dielectric for a length as shown in the picture (in mm).

7 Insert one of the two teflon discs and subsequently the central pin. Solder the pin to the inner conductor, inserting tin in the provided hole. Avoid heating the pin for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)

8 Insert the second teflon disc as shown in the picture.

9 Insert the connector and fasten accurately until the o-ring present in component A, will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.

Connector "UHF" type : C.UHF.AC5M-S



1 Insert in the cable components A, B, C and immediately after, make a circular cut on the jacket at the indicated length shown in the caliber. (in mm). Subsequently remove it.

2 After having made the first cut, as shown in picture 2, rotate the cable 180 degrees and make a second cut in the same way, in order to facilitate the introduction of component D (pic.3 and 4)

3 Insert component D after having opened the braid as shown in the picture.

4 Push component D between the foil and the braid until it stops against the jacket.

5 Flatten the wires as shown in the picture and cut the excess.



6 Cut and remove the tape and dielectric for a length as shown in the picture.

7 Insert the connector and solder it with tin to the inner conductor (see picture above). Avoid heating for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)

8 Fasten together the connector and component A, until it will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.



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CONNECTORS AVAILABLE FOR M&P-AIRBORNE 5 / .200"

C.N.AC5M-S



C.UHF.AC5M-S



C.BNC.AC5M-S



C.TNC.AC5-M-S



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