Hyperflex 10 Sahara

for HOT Countries

ET8

INNER CONDUCTOR:
19x0,59mm COPPER wires - overall Ø 2,9 mm

JACKET:
UV-resistant white PVC overall Ø 10,3mm ± 0,15 (0.405")

DIELECTRIC:
High pressure physical injection FOAMED POLYETHYLENE TRIPLE LAYER overall Ø 7,3 mm ± 0,05 (0.287")

FOIL: 100% SCREENING
First screen made of COPPER with an applied PE-layer: prevents cracking due to short radius bends

REACTIVE BRAID:
85% SCREENING - 216 COPPER WIRES 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

ELECTRICAL DATA

Impedence @200Mhz:	50 Ohm ± 3
Minimum bending radius:	up to 15 bends: 80mm (3.15 in) 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:	3,6 Ohm/Km (1.0 Ohm/1000ft)
Outer conductor resistance:	**6 Ohm/Km**
Tension test (spark test):	8 kV
Net weight (100m/100ft):	13,5 Kg (9,1 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	9927 W	200 MHz	1226 W
3,5 MHz	7721 W	400 MHz	837 W
7 MHz	5990 W	430 MHz	808 W
10 MHz	5186 W	800 MHz	581 W
14 MHz	4483 W	1000 MHz	516 W
21 MHz	3777 W	1296 MHz	449 W
28 MHz	3357 W	2400 MHz	319 W
50 MHz	2518 W	4000 MHz	239 W
100 MHz	1759 W	8000 MHz	157 W
144 MHz	1460 W	10.000 MHz	137 W

ATTENUATION (20°C/68°F)

FREQUENZA	dB/100m	dB/100ft
1,8 MHz	0,8	0,2
3,5 MHz	1,0	0,3
7 MHz	1,1	0,3
10 MHz	1,3	0,4
14 MHz	1,5	0,4
21 MHz	1,8	0,5
28 MHz	2,0	0,6
50 MHz	2,7	0,8
100 MHz	3,9	1,1
144 MHz	4,7	1,4
200 MHz	5,6	1,7
400 MHz	8,3	2,5
430 MHz	8,6	2,6
800 MHz	11,9	3,6
1000 MHz	13,4	4,1
1296 MHz	15,4	4,7
2400 MHz	21,8	6,6
4000 MHz	29,1	8,8
8000 MHz	44,2	13,4
10.000 MHz	50,7	15,4

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 (EN50575:2014)

WHY CHOOSE THIS CABLE

- The most flexible 10,3mm cable, perfect for tight bendings and rotor antennas.

- The best attenuations for a stranded core 10,3mm coaxial cable.

- Best velocity ratio in the coax range: 87% !

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

example at 2400 MHz

EXCELLENT up to 8m of cable length
GOOD up to 10m 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-HY-PERFLEX 10, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 68% 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 SAHARA FT8 /.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	94,7	93,4	91,0	87,4	81,7	76,5	70,6	65,1	58,5	44,8
	21.42 m	14	98,1	96,4	94,7	93,0	91,4	88,2	83,6	76,4	69,9	62,8	56,4	48,9	34,2
	10.71 m	28	97,5	95,2	93,0	90,8	88,7	84,5	78,7	69,8	62,0	53,7	46,5	38,4	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 m	144	94,6	89,5	84,7	80,2	75,9	68,0	57,7	43,9	33,3	24,0	17,2	11,1	3,6
	69 cm	430	90,4	81,9	74,1	67,1	60,8	49,8	37,0	22,5	13,6	7,5	4,0		
	23.1 cm	1296	83,0	69,4	57,9	48,4	40,4	28,1	16,2	6,3					
	12.5 cm	2400	76,2	58,9	45,5	35,1	26,9	15,7	6,5						
	10 cm	3000	73,3	54,7	40,7	30,1	22,2	11,7	3,9						
	7.5 cm	4000	68,4	48,0	33,4	23,0	15,6	6,4							
	6 cm	5000	62,0	40,4	25,6	15,5	8,6								
	5 cm	6000	55,3	32,7	17,9	8,2									
	3.75 cm	8000	50,1	26,1	11,7	3,1									
	3 cm	10.000	45,8	21,1	7,4										
	2.5 cm	12.000	41,8	16,8	3,9										

HYPERFLEX 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	12000	12000	12000	11980	11178	10710	9927	8468	7008	5559
	85.71 m	3,5	11720	11450	11211	10500	9667	8678	7721	6586	5451	4324
	42.85 m	7	9273	8962	8698	8147	7500	6733	5990	5110	4229	3355
	30 m	10	8027	7758	7530	7053	6492	5829	5186	4423	3661	2904
	21.42 m	14	6940	6707	6509	6097	5613	5039	4483	3824	3165	2511
	14.28 m	21	5846	5650	5484	5136	4728	4245	3777	3221	2666	2115
	10.71 m	28	5196	5022	4874	4565	4203	3773	3357	2863	2370	1880
	6 m	50	3897	3766	3656	3424	3152	2830	2518	2148	1777	1410
	3 m	100	2723	2632	2554	2392	2203	1977	1759	1501	1242	985
	2.08 m	144	2260	2184	2120	1985	1828	1641	1460	1245	1031	818
	1.5 m	200	1897	1833	1779	1667	1534	1378	1226	1045	865	686
	75 cm	400	1296	1252	1216	1139	1048	941	837	714	591	469
	69 cm	430	1251	1209	1173	1099	1012	908	808	689	570	452
	37.5 cm	800	899	869	844	790	727	653	581	496	410	325
	30 cm	1000	799	772	749	702	646	580	516	440	364	289
	23.1 cm	1296	694	671	651	610	562	504	449	383	317	251
	12.5 cm	2400	493	477	463	434	399	358	319	272	225	179
	10 cm	3000	436	422	409	383	353	317	282	240	199	158
	7.5 cm	4000	370	357	347	325	299	268	239	204	169	134
	6 cm	5000	325	314	305	286	263	236	210	179	148	118
	5 cm	6000	291	281	273	256	235	211	188	160	133	105
	4.2 cm	7000	264	255	248	232	214	192	171	146	121	96
	3.75 cm	8000	243	235	228	214	197	177	157	134	111	88
	3 cm	10.000	212	205	199	186	172	154	137	117	97	77

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

UNWINDERS FOR COILS AND BOBBINS

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

7/16

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