High Power Coaxial Cable Sets for Plasma, Nuclear, MRI Applications





HPS.. Series RF cable sets from us have been designed for high power RF transmission.

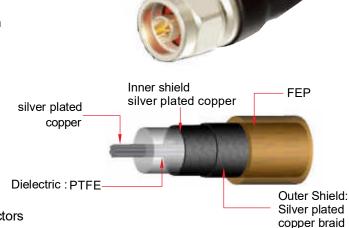
Main feature of these cables is the seamless operation of carrying high power RF under high voltage without any breakdown.

APPLICATIONS

- · RF Matching Networks in plasma
- · Nuclear Physics research
- Magnetic Resonance Imaging

MIL STANDARDS CONFORMANCE

- MIL-C-17 conformant Cable
- MIL-PRF-39012 conformant HN, 7/16 Connectors



Cable Specifications

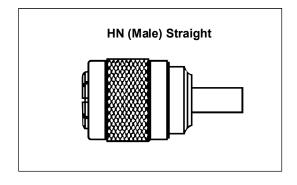
Parameter	R93
Inner Conductor	Silver Plated Copper
Dielectric	PTFE
Shield 1	Silver Plated Copper Braid
Shield 2	Silver Plated Copper Braid
Jacket	FEP, 9.9mm
Weight	0.24 Kg/m

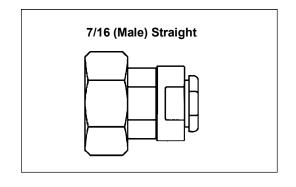
Parameter	R93
Impedance	50Ω
Frequency	DC~2.5 GHz
Capacitance	94pF/meter
Velocity of Propagation	70%
Temperature range	-55°C ~ +200°C

Attenuation & Power Handling Vs Frequency

Frequency (MHz)	13.56	50	100	1000	1500
Attenuation dB/100feet	0.72	1.41	2.03	7.24	9.2
Attenuation dB/100m	2.36	4.63	6.7	23.8	30.2
Power (kW)	10	4.7	3.6	1.1	0.9

Connector Choices for High Power Cable Sets





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High Power Coaxial Cable Sets for Plasma, Nuclear, MRI Applications

Uses High Quality HN Connectors, Double Shielded Teflon Dielectric Cables

Connectors Specifications

Specifications	HN Connectors	N Connectors	7/16 Connectors	
Outer Conductor	Brass, Copper alloy plated	Brass, Copper alloy plated	Brass, Copper alloy plated	
Center Conductor	Brass, Silver Plated	Brass, Gold Plated	Brass, Silver Plated	
Insulation	PTFE	PTFE	PTFE	
Gasket	Silicon Rubber	Silicon Rubber	Silicon Rubber	
Frequency range	DC~2.5 GHz	DC~2.5 GHz	DC~2.5 Ghz	
Nominal Impedance	50 Ω	50 Ω	50 Ω	
Mating/Unmating	500 operations	500 operations	500 operations	
Vibration	As per MIL-STD-202, method 204, test condition D			
Mechanical Shock	As per MIL-STD-202, method 213, test condition I			
Thermal Shock	As per MIL-STD-202, method 107, test condition B			
Humidity	As per MIL-STD-202, method 106			
Temperature Cycle	As per MIL-STD-202, method 102A, test condition C			

Ordering Codes Description

	(Length)	(Connector 1)	(Connector 2)
HPS-R93	- 0 0 -	o(o/o) -	o(o/o) - o
	L L	1 2 3	1 2 3 U

LL	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
1	Connector Series	HN = HN ; N = N ; 7/16 = 7/16
2	Male/Female Designator	M = Male ; F = Female
3	Orientation of Connector	ST = Straight
U	Unit of Length	M = Meter ; F = Feet

¹ meter R93 cable set with HN (Male) on both sides = HPS-R93-1.0-HN(M/ST)-HN(M/ST)-M

Cable Set Ordering Codes

Ordering Code	Length	Conn 1	Conn 2		
With HN(Male) - HN(Male) Connectors on both sides					
HPS-R93-0.5-HN(M/ST)-HN(M/ST)-M	0.5 m	HN(Male/Straight)	HN(Male/Straight)		
HPS-R93-1.0-HN(M/ST)-HN(M/ST)-M	1 m	HN(Male/Straight)	HN(Male/Straight)		
HPS-R93-1.5-HN(M/ST)-HN(M/ST)-M	1.5 m	HN(Male/Straight)	HN(Male/Straight)		
HPS-R93-2.0-HN(M/ST)-HN(M/ST)-M	2 m	HN(Male/Straight)	HN(Male/Straight)		
HPS-R93-3.0-HN(M/ST)-HN(M/ST)-M	3 m	HN(Male/Straight)	HN(Male/Straight)		
With 7/16(Male) - 7/16(Male) Connectors on both sides					
HPS-R93-0.5-7/16(M/ST)-7/16(M/ST)-M	0.5 m	7/16(Male/Straight)	7/16(Male/Straight)		
HPS-R93-1.0-7/16(M/ST)-7/16(M/ST)-M	1 m	7/16(Male/Straight)	7/16(Male/Straight)		
HPS-R93-1.5-7/16(M/ST)-7/16(M/ST)-M	1.5 m	7/16(Male/Straight)	7/16(Male/Straight)		
HPS-R93-2.0-7/16(M/ST)-7/16(M/ST)-M	2 m	7/16(Male/Straight)	7/16(Male/Straight)		
HPS-R93-3.0-7/16(M/ST)-7/16(M/ST)-M	3 m	7/16(Male/Straight)	7/16(Male/Straight)		

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