TIMES MICROWAVE SYSTEMS
An Amphenol Company

Microwave Cable Products






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HeliFoil®

Features & Benefits:

- Lowest Insertion Loss Available, DC-18GHz
- Ultra Stable Loss, Phase and VSWR with Flexing
- Excellent Phase Tracking Performance over Temperature
- Extremely Flexible, Low Minimum Bend Radius
- Superior Shielding Effectiveness (>100 dB)

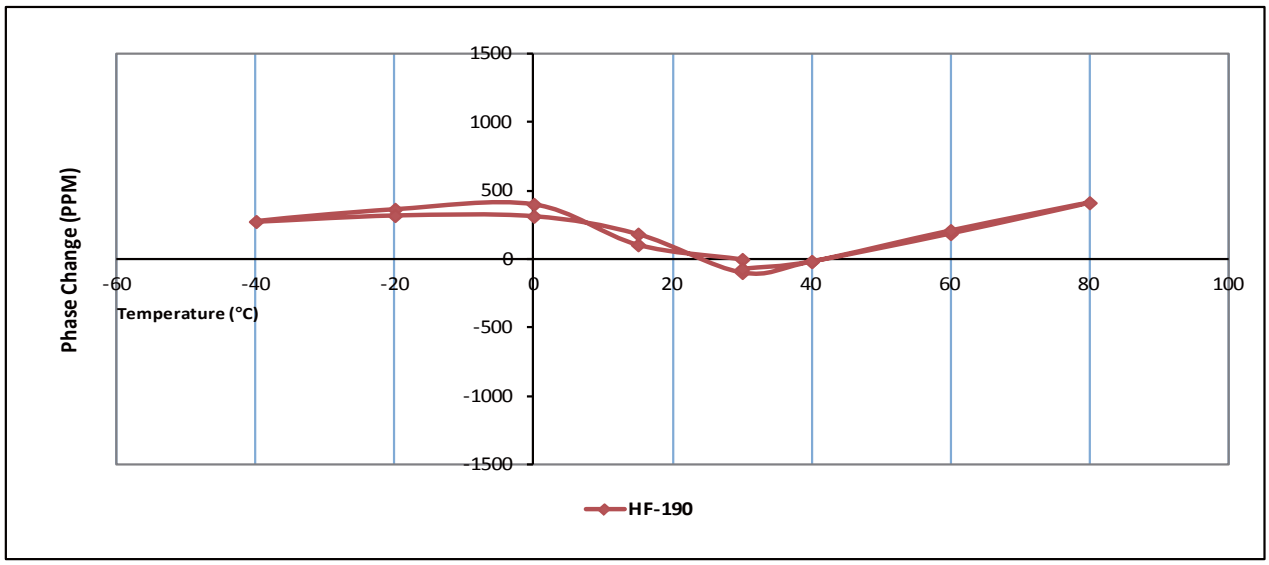
HeliFoil® ultra low loss, flexible microwave coaxial cable and assemblies provide excellent performance over the DC-18 GHz frequency range. HeliFoil® cable comes in four different sizes, with options of stranded center conductors for better flexibility. All sizes provide lowest attenuation, excellent phase stability, broad operating temperature range and high power handling making them a good choice for interconnect and testing applications in both field and laboratory conditions.

Installation of the connectors requires induction soldering and is only recommended for experienced assembly shops. Custom assemblies can be provided to meet your requirements.

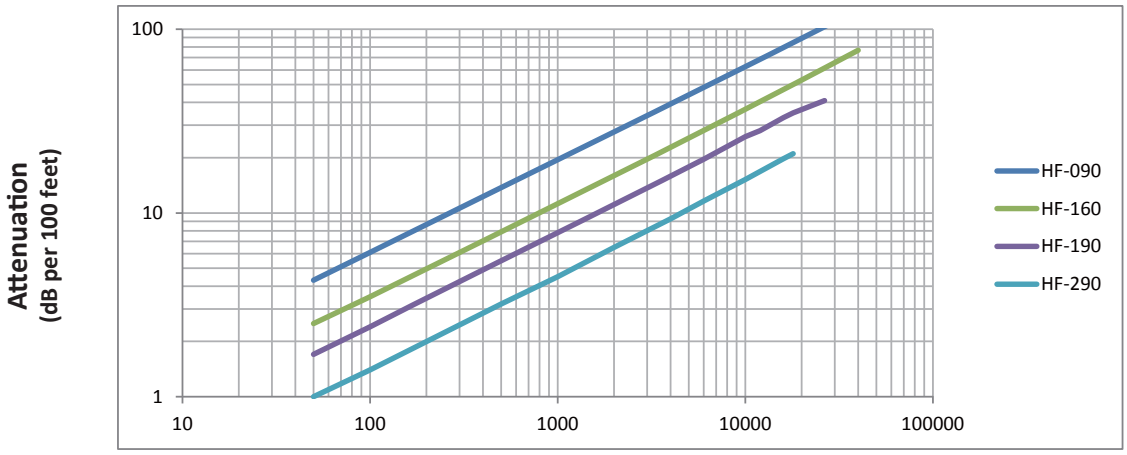
Cable	AA number MI Number	Conductor in (mm)	Dielectric in (mm)	Shields in (mm)	Outer braid in (mm)	Jacket in (mm)	Weight lb/ft (kg/m)	Impedance ohms Vp (%)	Capacitance pF/ft (pF/m)	Temp. Range F (°C)	Min.Bend Radius in (mm)	Cut-off Frequency (GHz)
HF-090	AA-11892 510-0145	SC 0.020 0.51	PTFE 0.056 1.42	SC 0.063 1.60	SC 0.077 1.96	Blue FEP 0.087 2.21	0.010 (0.015)	50 +/-1 82%	24.6 (80.7)	-67 +342 (-55 +150)	0.38 (9.65)	80.80
HF-160	AA-11594 510-0101	SC 0.036 0.91	PTFE 0.105 2.67	SC 0.112 2.84	SC 0.130 3.30	Blue FEP 0.150 3.81	0.025 (0.038)	50 +/-1 80%	25.4 (83.3)	-67 +342 (-55 +150)	0.75 (19.05)	42.68
HF-190	AA-9185 51881	SC 0.052 1.32	PTFE 0.145 3.68	SC 0.158 4.01	SC 0.175 4.45	Blue FEP 0.197 5.00	0.042 (0.063)	50 +/-1 83%	24.0 (78.7)	-67 +342 (-55 +150)	1.00 (25.4)	31.25
HF-290	AA-9186 51909	SC 0.088 2.24	PTFE 0.240 6.10	SC 0.255 6.48	SC 0.273 6.93	Blue FEP 0.301 7.65	0.092 (0.138)	50 +/-1 83%	24.6 (80.7)	-67 +342 (-55 +150)	1.50 (38.1)	18.96

* PUR Jacket is available as an option, for detailed information please consult the factory.

HF-190 Phase Change vs. Temperature



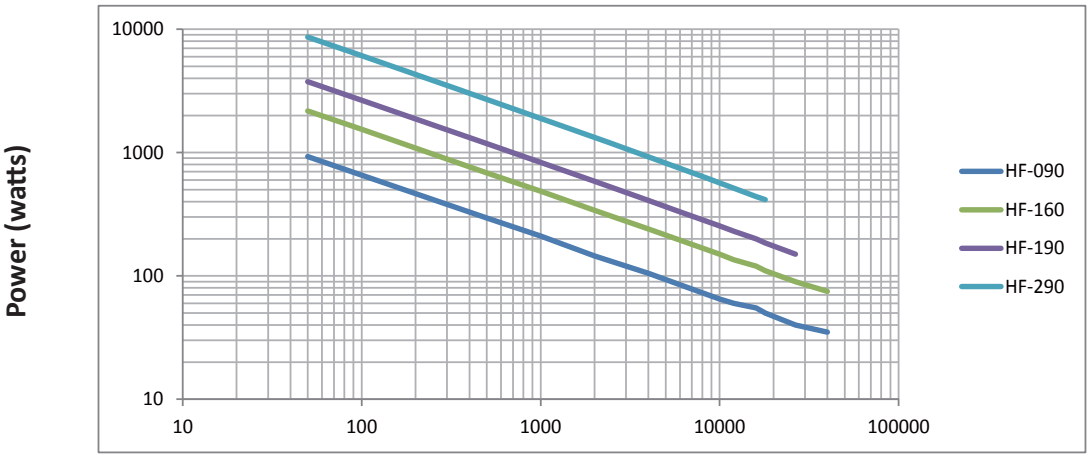
Attenuation vs. Frequency (Typical)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26,500	40,000	K1	K2
HF-090	4.3	6.1	13.7	19.5	27.6	39.2	48.1	62.5	68.6	79.5	84.4	103.1	127.6	0.61100	0.00014
HF-160	2.5	3.5	7.9	11.2	15.9	22.8	28.1	36.6	40.3	46.9	50.0	61.4	76.8	0.34880	0.00018
HF-190	1.7	2.4	5.5	7.8	11.1	15.9	19.6	26.0	28.0	33.0	35.0	40.9		0.24210	0.00014
HF-290	1.0	1.4	3.2	4.5	6.5	9.3	11.6	15.2	16.8	19.7	21.0			0.13896	0.00013

Attenuation at Any Frequency = [k1 x SQRT (Fmhz)] + [k2 x Fmhz]; dB per 100 feet

Power Handling vs. Frequency (Maximum)



Frequency (MHz)	50	100	500	1,000	2,000	4,000	6,000	10,000	12,000	16,000	18,000	26,500	40,000
HF-090	930	655	295	210	145	105	85	65	60	55	50	40	35
HF-160	2175	1540	685	485	340	240	195	150	135	120	110	90	75
HF-190	3765	2660	1180	830	585	410	330	255	230	200	185	150	
HF-290	8645	6100	2700	1895	1325	925	745	570	515	440	415		

Watts; Sea Level; Ambient +40 C VSWR 1:1