

Cable Impedance, Attenuation, Phase

19 ga. and 16 ga. H-44-25

19-Gauge H-44-25 Side

Freq.	Mid-Section Impedance				Attenuation		Phase Shift	
	R	X	Z	Angle	$\alpha$	db/mi	$\beta$	B
200	975	550	1119	29.4	.0447	.388	.0779	.0248
300	895	415	977	25.1	.0484	.420	.1073	.0342
500	830	258	868	17.3	.0518	.450	.1683	.0536
1000	810	135	821	9.4	.0541	.470	.3255	.1037
1500	820	90	825	6.3	.0549	.477	.4850	.1545
2000	847	70	850	4.7	.0553	.480	.6549	.2086
2200	860	65	863	4.3	.0555	.482	.7250	.2309
2400	873	60	875	3.9	.0557	.484	.7930	.2525
2600	890	59	892	3.8	.0558	.485	.8640	.2752
2750	905	56	907	3.5	.0561	.487	.9170	.2920
2900	920	53	921	3.3	.0562	.488	.9740	.3102
3200	960	50	960	3.0	.0566	.492	1.0830	.3449
3400	995	50	994	2.9	.0570	.495	1.1630	.3704

19-Gauge H-44-25 Phantom

Freq.	Mid-Section Impedance				Attenuation		Phase Shift	
	R	X	Z	Angle	$\alpha$	db/mi	$\beta$	B
200	565	310	645	29.8	.0386	.335	.0712	.0227
300	522	219	566	22.8	.0424	.368	.0990	.0315
500	496	141	515	15.9	.0433	.376	.1568	.0499
1000	489	70	494	8.2	.0449	.390	.3056	.0973
1500	496	60	498	5.8	.0454	.394	.4570	.1455
2000	509	40	511	4.5	.0459	.399	.6154	.1960
2200	513	37	514	4.1	.0462	.401	.6800	.2166
2400	520	32	521	3.5	.0464	.403	.7450	.2373
2600	530	31	531	3.4	.0466	.405	.8100	.2580
2750	539	30	540	3.2	.0467	.406	.8650	.2755
2900	546	29	547	3.0	.0469	.407	.9150	.2914
3200	558	25	559	2.8	.0474	.412	1.0170	.3239
3400	581	25	582	2.5	.0478	.415	1.0920	.3478

16-Gauge H-44-25 Side

Freq.	Mid-Section Impedance				Attenuation		Phase Shift	
	R	X	Z	Angle	$\alpha$	db/mi	$\beta$	B
200	862	328	922	20.6	.0262	.228	.069	.0220
300	831	232	862	15.6	.0273	.237	.100	.0319
500	820	143	832	9.9	.0279	.243	.163	.0517
1000	810	71	813	5.0	.0286	.249	.320	.1019
1500	827	46	822	3.4	.0291	.253	.485	.1544
2000	848	35	849	2.4	.0296	.257	.656	.2067
2200	860	35	860	2.3	.0297	.258	.721	.2295
2400	875	32	875	2.1	.0300	.261	.795	.2530
2600	890	30	890	1.9	.0305	.265	.868	.2762
2750	910	29	910	1.8	.0306	.266	.916	.2916
2900	925	27	925	1.5	.0308	.268	.971	.3091
3200	957	29	957	1.7	.0317	.275	1.089	.3466
3400	986	29	986	1.7	.0321	.279	1.170	.3724

16-Gauge H-44-25 Phantom

Freq.	Mid-Section Impedance				Attenuation		Phase Shift	
	R	X	Z	Angle	$\alpha$	db/mi	$\beta$	B
200	505	180	584	18.0	.0220	.191	.064	.0204
300	486	122	503	14.0	.0227	.197	.094	.0299
500	482	72	487	8.5	.0232	.202	.153	.0467
1000	482	37	483	4.4	.0238	.207	.304	.0967
1500	491	24	492	2.8	.0242	.210	.455	.1449
2000	505	19	505	2.2	.0247	.215	.616	.1960
2200	511	17	511	1.9	.0248	.216	.680	.2166
2400	520	15	520	1.7	.0252	.219	.747	.2373
2600	529	15	529	1.4	.0254	.221	.810	.2580
2750	537	15	537	1.6	.0255	.222	.862	.2744
2900	546	14	546	1.5	.0259	.225	.911	.2900
3200	564	14	564	1.4	.0265	.230	1.018	.3240
3400	580	14	580	1.4	.0268	.233	1.090	.3470

Notes: All reactances are negative. Angles are in degrees and negative.

$\beta$  = Phase shift in radians per circuit mile.

B = Phase shift in cycles per circuit mile, out and back =  $\frac{2\beta}{2\pi}$