

PRIMARY CONSTANTS OF NONLOADED CABLE  
19 GAUGE CNB, ENB, FNB

Freq. kHz	per mile at 68°F.*			
	R Ohms	L mH	G μmhos	C μF
0	86.0	.893	.084	.0845
.1	86.0	.890	.127	.0842
.2	86.0	.889	.198	.0841
.3	86.1	.888	.288	.0841
.5	86.1	.887	.506	.0841
1	86.2	.886	1.22	.0840
2	86.4	.884	3.13	.0839
3	86.6	.883	5.52	.0838
5	87.1	.881	11.35	.0837
10	88.5	.878	30.35	.0836
15	90.2	.876	54.04	.0835
20	92.2	.875	81.40	.0834

Through Carrier Frequencies

Freq. kHz	per mile at 55°F.*			
	R Ohms	L mH	G μmhos	C μF
0	83.6	.892	.094	.0841
.1	83.6	.889	.141	.0838
.2	83.6	.888	.220	.0838
.5	83.7	.887	.564	.0837
1	83.8	.885	1.36	.0836
2	84.0	.884	3.48	.0835
5	84.7	.881	12.64	.0834
10	86.1	.878	33.78	.0832
15	87.7	.876	60.15	.0831
20	89.8	.874	90.60	.0831
50	109	.862	290	.0830
100	137	.839	710	.0829
200	180	.810	1650	.0828
250	196	.794	2180	.0828
500	268	.755	4930	.0828
1000	379	.726	10480	.0828
2000	535	.702	21300	.0828
4000	756	.688	42300	.0828
5000	845	.685	51400	.0828
10000	1195	.675	92500	.0828

\*For temperature variations see page 2.

## Estimated Average Temperature Variation\*

Freq. kHz	per mile per degree F.			
	R Ohms	L mH	G $\mu$ mhos	C $\mu$ F
0	.19	.000044	-.00073	.000029
.1	.19	.000044	-.0011	.000029
.2	.19	.000044	-.0017	.000029
.3	.19	.000044	-.0025	.000029
.5	.19	.000044	-.0044	.000029
1	.19	.000044	-.011	.000029
2	.19	.000044	-.027	.000029
3	.19	.000044	-.048	.000029
5	.19	.000044	-.099	.000029
10	.19	.000044	-.26	.000029
15	.19	.000044	-.47	.000029
20	.19	.000044	-.71	.000029
50	.19	.000060	-2.05	.000031
100	.20	.000084	-4.17	.000033
200	.22	**	-7.50	.000036
250	.23		-8.74	.000037
500	.30		-12.01	.000041
1000	.42		* *	.000046
2000	.59			.000054
4000	.84			**
5000	.94			
10000	1.33			

\*Average values between 34° and 76°F.

\*\*Effect of temperature variation at higher frequencies is uncertain.