TABLE OF HYPERBOLIC FUNCTIONS OF PROPAGATION CONSTANTS

NON-LOADED 24 GAUGE DSM CABLE AT 1000 CPS

(Propagation Constant, γ = .2669 + j .2710 Per Mile)

Miles (ℓ)	Sinh $\gamma\ell$	Cosh $\gamma\ell$	Tanh $\gamma\ell$	Coth $\gamma\ell$
0	0 + j 0	1 + j 0	0 + j 0	∞ - j∞
1	.2602 + j .2773 .3803 /46.8°	.9980 + j .0723 1.0006 /4.1°	.2795 + j .2576 .3801 /42.7°	1.9347 - j1.7832 2.6311 /42.7°
2	.4793 + j .5911 .7610 /51.0°	.9817 + j .2886 1.0232 /16.4°	.6123 + j .4221 .7437 /34.6°	1.1069 - j .7631 1.3445 /34.6°
3	.6111 + j .9719 1.1480 /57.9°	.9197 + j .6458 1.1237 /35.1°	.9420 + j .3953 1.0216 /22.8°	.9025 - j .3788 .9788 /22.8°
4	.5999 + j1.4372 1.5574 /67.3°	.7607 + j1.1333 1.3649 /56.1°	1.1192 + j .2219 1.1410 /11.2°	.8597 - j .1705 .8764 /11.2°
5	.3785 + j1.9836 2.0194 /79.2°	.4348 + j1.7264 1.7803 /75.9°	1.1325 + j .0660 1.1344 /3.3°	.8801 - j .0513 .8816 /3.3°
6	- .1313 + j2.5768 2.5802 /92.9°	- .1424 + j2.3755 2.3798 /93.4°	1.0842 - j .0098 1.0842 /0.5°	.9223 + j .0083 .9223 /0.5°
7	-1.0131 + j3.1410 3.3003/107.9°	-1.0626 + j2.9947 3.1777/109.5°	1.0382 - j .0299 1.0386 /1.6°	.9625 + j .0277 .9629 /1.6°
8	-2.3451 + j3.5462 4.2515/123.5°	-2.4115 + j3.4485 4.2080/125.0°	1.0100 - j .0262 1.0103 /1.5°	.9895 + j .0256 .9898 /1.5°
9	-4.1806 + j3.5984 5.5159/139.3°	-4.2497 + j3.5399 5.5309/140.2°	.9972 - j .0160 .9973 /0.9°	1.0026 + j .0160 1.0027 /0.9°
10	-6.5199 + j3.0317 7.1903/155.1°	-6.5828 + j3.0028 7.2354/155.5°	.9938 - j .0072 .9938 /0.4°	1.0063 + j .0073 1.0063 /0.4°

Note: The data in this table are furnished for use with formulae such as those on Page 35 of Section AB92.075, "Introduction to Telephone Transmission Theory."