

TABLE OF HYPERBOLIC FUNCTIONS OF PROPAGATION CONSTANTS  
NON-LOADED 26 GAUGE BST CABLE AT 1000 CPS  
(Propagation Constant,  $\gamma = .3289 + j .3320$  Per Mile)

Miles ( $l$ )	Sinh $\gamma l$	Cosh $\gamma l$	Tanh $\gamma l$	Coth $\gamma l$
0	$0 + j 0$	$1 + j 0$	$0 + j 0$	$\infty - j \infty$
1	$.3166 + j .3437$ $.4673 / \underline{47.3^\circ}$	$.9970 + j .1091$ $1.0029 / \underline{6.2^\circ}$	$.3511 + j .3063$ $.4659 / \underline{41.1^\circ}$	$1.6173 - j 1.4109$ $2.1462 / \underline{41.1^\circ}$
2	$.5562 + j .7545$ $.9373 / \underline{53.6^\circ}$	$.9641 + j .4353$ $1.0578 / \underline{24.3^\circ}$	$.7727 + j .4336$ $.8861 / \underline{29.3^\circ}$	$.9842 - j .5523$ $1.1286 / \underline{29.3^\circ}$
3	$.6278 + j 1.2821$ $1.4276 / \underline{63.9^\circ}$	$.8305 + j .9692$ $1.2764 / \underline{49.4^\circ}$	$1.0828 + j .2804$ $1.1185 / \underline{14.5^\circ}$	$.8656 - j .2241$ $.8941 / \underline{14.5^\circ}$
4	$.4158 + j 1.9391$ $1.9830 / \underline{77.9^\circ}$	$.4803 + j 1.6786$ $1.7460 / \underline{74.0^\circ}$	$1.1331 + j .0766$ $1.1357 / \underline{3.9^\circ}$	$.8785 - j .0594$ $.8805 / \underline{3.9^\circ}$
5	$-.2221 + j 2.6751$ $2.6845 / \underline{94.7^\circ}$	$-.2393 + j 2.4827$ $2.4942 / \underline{95.5^\circ}$	$1.0762 - j .0141$ $1.0763 / \underline{0.8^\circ}$	$.9290 + j .0122$ $.9291 / \underline{0.8^\circ}$
6	$-1.4425 + j 3.3465$ $3.6441 / \underline{113.3^\circ}$	$-1.4993 + j 3.2197$ $3.5516 / \underline{115.0^\circ}$	$1.0256 - j .0295$ $1.0260 / \underline{1.7^\circ}$	$.9742 + j .0281$ $.9746 / \underline{1.7^\circ}$
7	$-3.3847 + j 3.6830$ $5.0021 / \underline{132.6^\circ}$	$-3.4531 + j 3.6100$ $4.9956 / \underline{133.7^\circ}$	$1.0011 - j .0201$ $1.0013 / \underline{1.1^\circ}$	$.9985 + j .0200$ $.9987 / \underline{1.1^\circ}$
8	$-6.1105 + j 3.2584$ $6.9249 / \underline{151.9^\circ}$	$-6.1741 + j 3.2248$ $6.9656 / \underline{152.4^\circ}$	$.9942 - j .0084$ $.9942 / \underline{0.5^\circ}$	$1.0059 + j .0085$ $1.0059 / \underline{0.5^\circ}$
9	$-9.5108 + j 1.4803$ $9.6253 / \underline{171.2^\circ}$	$-9.5620 + j 1.4724$ $9.6747 / \underline{171.3^\circ}$	$.9949 - j .0017$ $.9949 / \underline{0.1^\circ}$	$1.0051 + j .0018$ $1.0051 / \underline{0.1^\circ}$
10	$-13.1764 - j 2.3825$ $13.3901 / \underline{190.3^\circ}$	$-13.2130 - j 2.3759$ $13.4249 / \underline{190.2^\circ}$	$.9974 + j .0009$ $.9974 / \underline{0.1^\circ}$	$1.0026 - j .0009$ $1.0026 / \underline{0.1^\circ}$

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."