

LENGTH — RESISTANCE — INSERTION LOSS NONLOADED HIGH-CAPACITANCE CABLE PAIRS

1. GENERAL

1.01 This section presents information on the insertion loss of nonloaded high-capacitance cable pairs as determined by the length and resistance of the cable. There are 20 charts, covering the insertion loss of the cable, at 10 frequencies, between 600-ohm and 900-ohm nonreactive terminations.

1.02 These charts are based on information obtained by computer, using the cable constants in the five-volume set of books, "Transmission Data — Exchange-Area Cables," dated 1962. Tabulations of insertion losses for single-gauge cables, both nonloaded and loaded, may be found in the book, "Impedance, Insertion Loss, Return Loss," dated August, 1966.

1.03 In addition to their use for single-gauge cables, these charts provide a means of calculating the estimated insertion loss of mixed-gauge cables.

2. APPLICATION

2.01 The insertion loss is determined as follows:

- (a) Calculate the total length of the cable, in kilofeet.

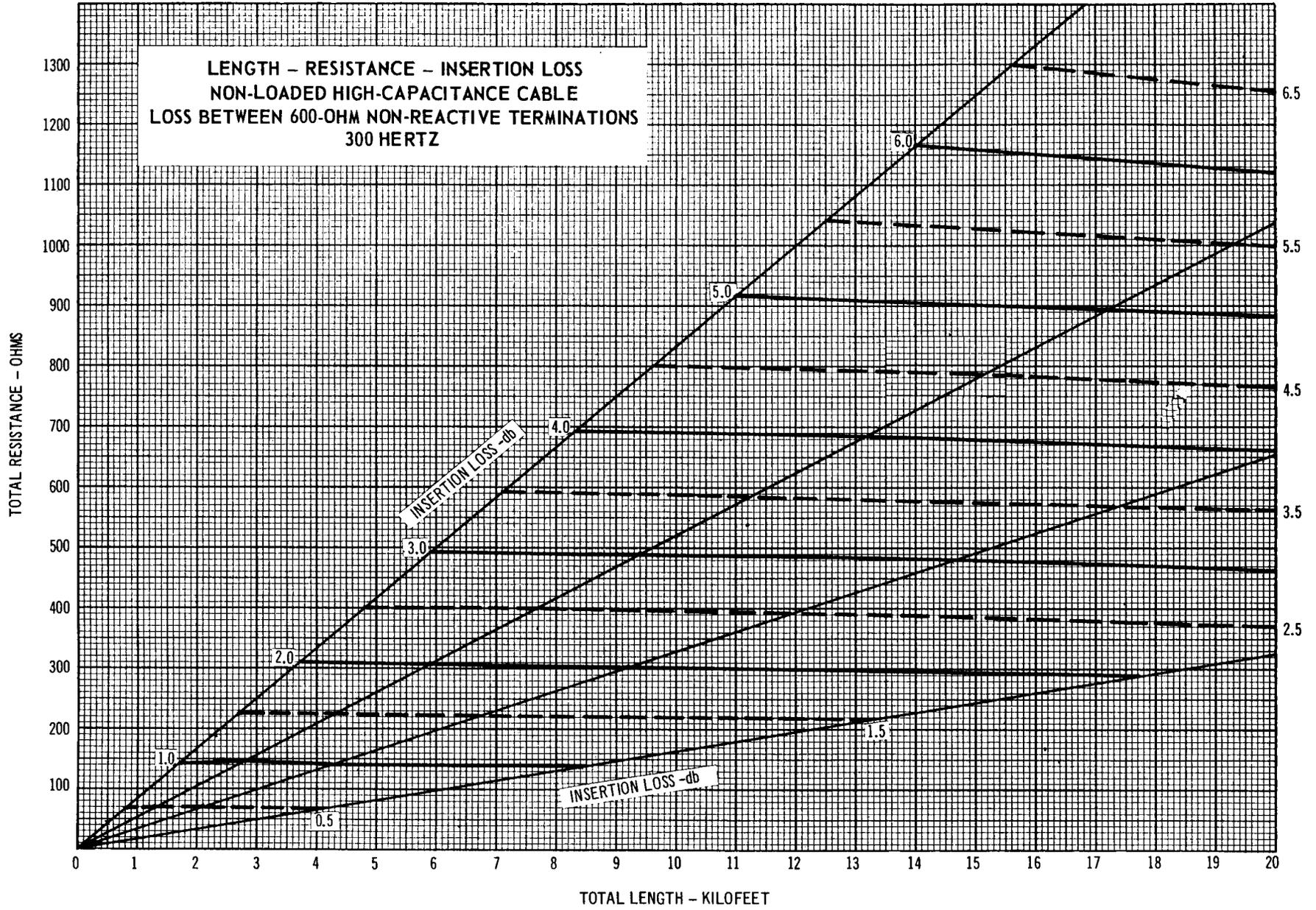
- (b) Calculate the total resistance of the cable.

- (c) Select the appropriate chart for the required frequency and terminations; enter the chart at the values determined in (a) and (b), and read the estimated insertion loss.

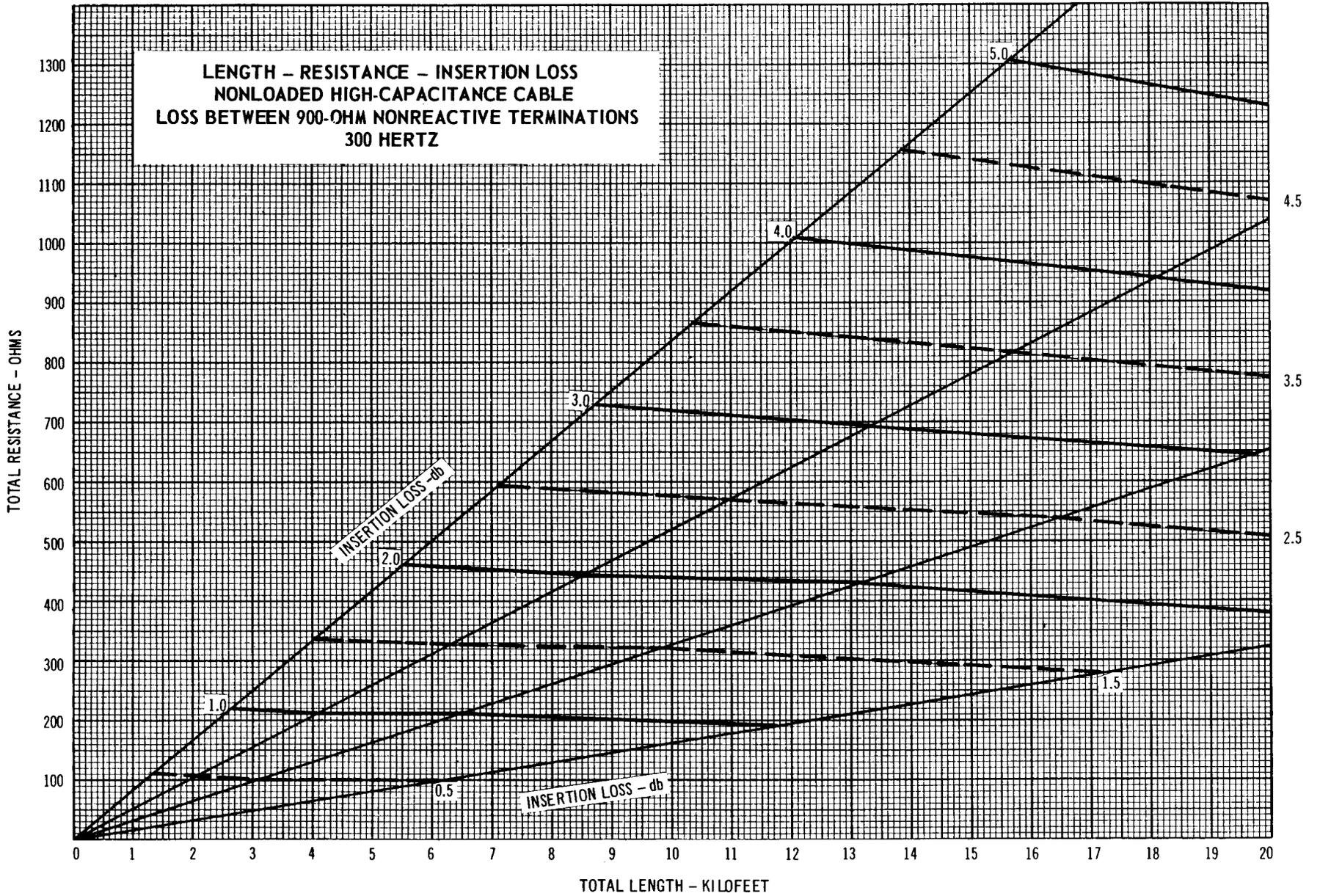
2.02 If there is bridged tap, include the length of the bridged tap in the total length, but do *not* include the resistance of the bridged tap in the total resistance.

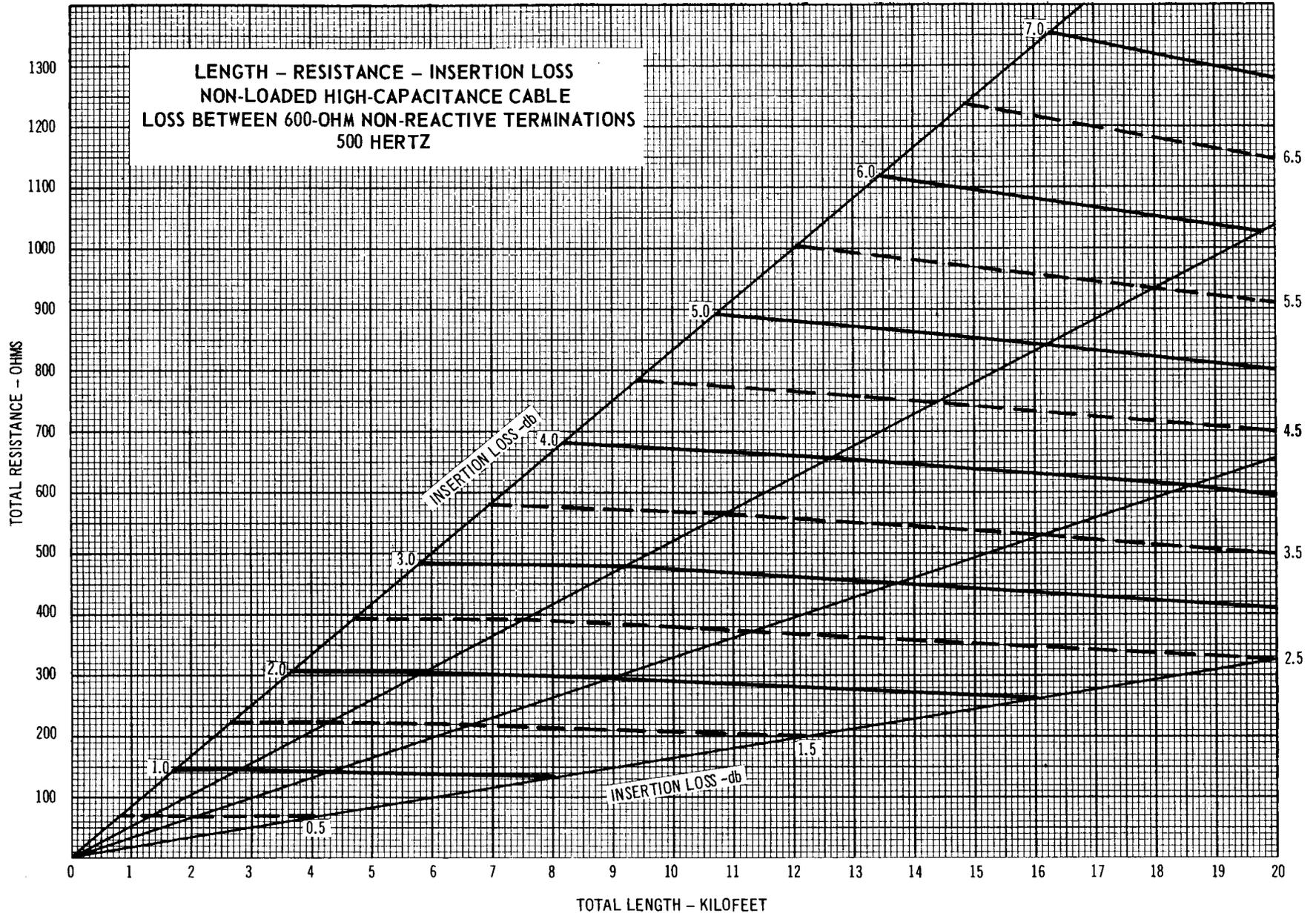
Index of Charts

FREQUENCY (HERTZ)	PAGE NO.	
	600-OHM TERMINATIONS	900-OHM TERMINATIONS
300	2	3
500	4	5
1000	6	7
1500	8	9
2000	10	11
2300	12	13
2500	14	15
2700	16	17
3000	18	19
3200	20	21

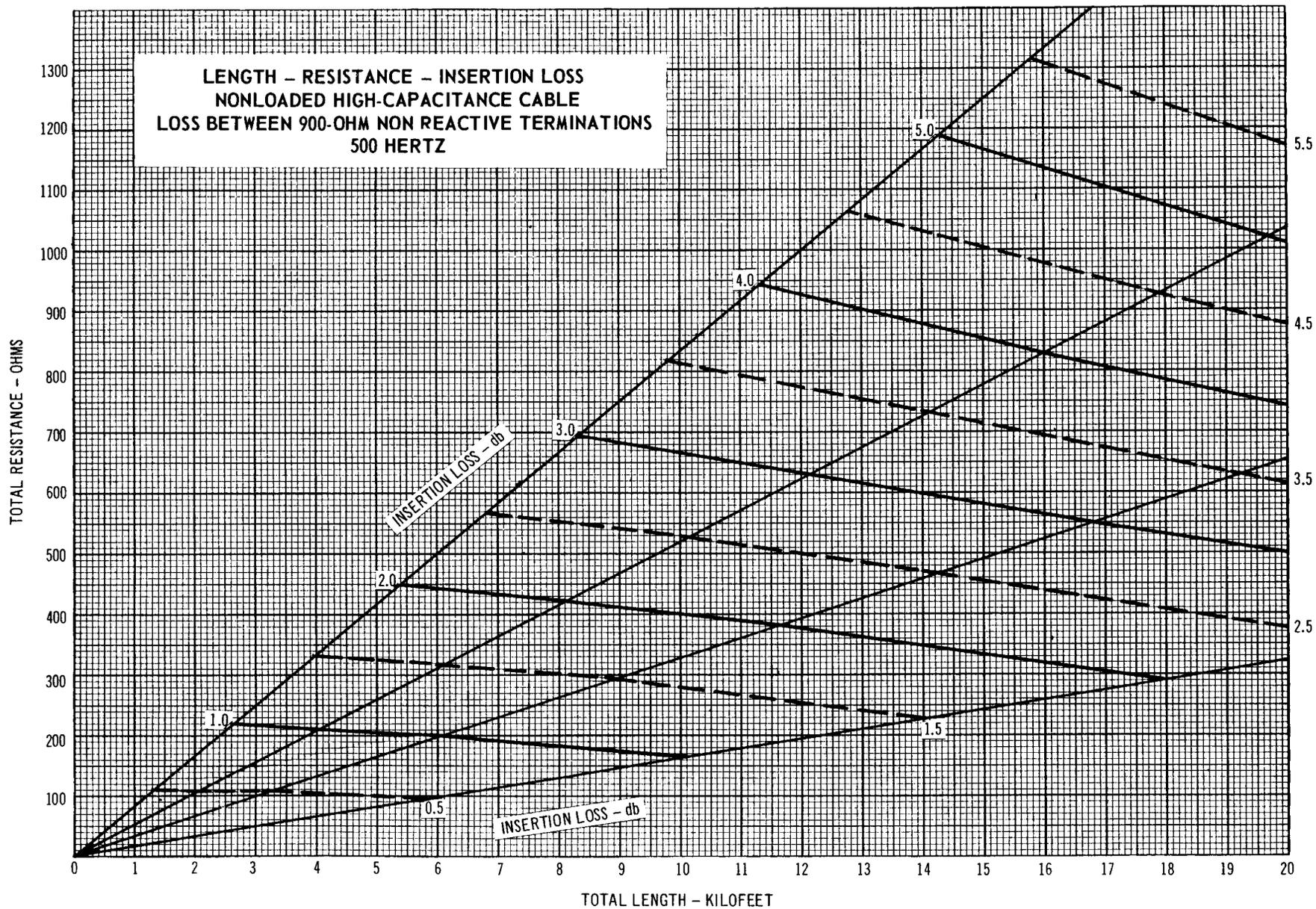


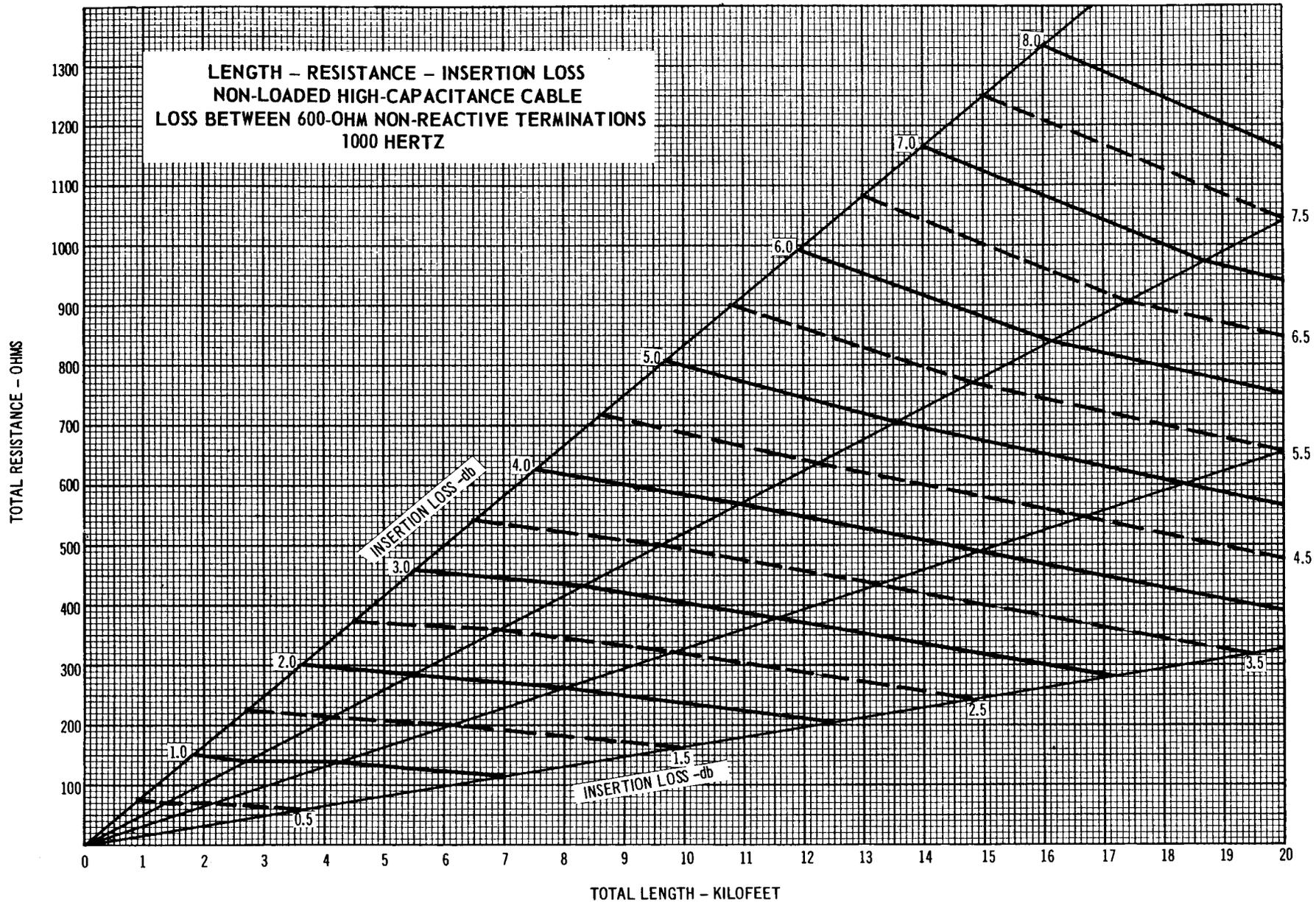
LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 300 HERTZ



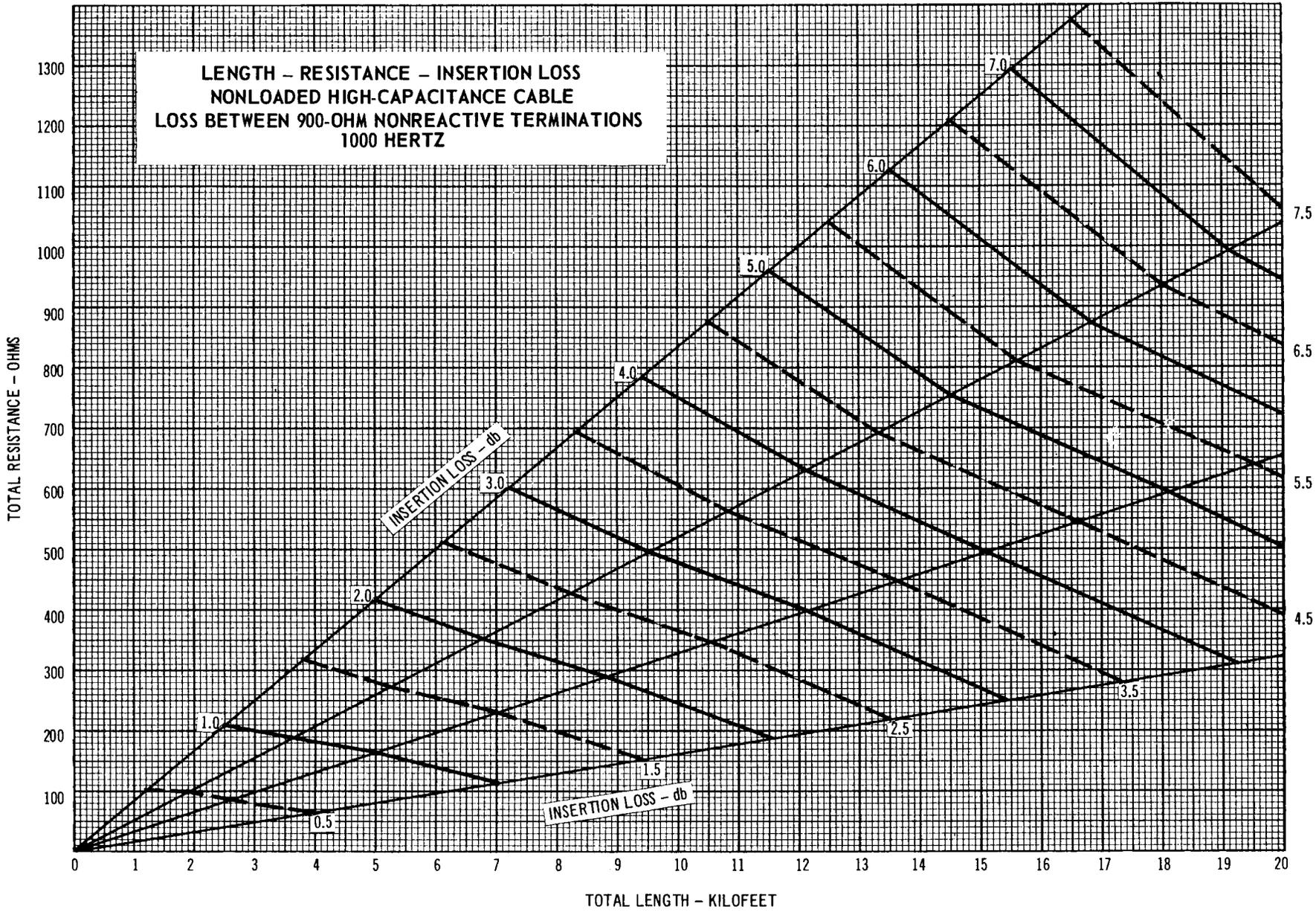


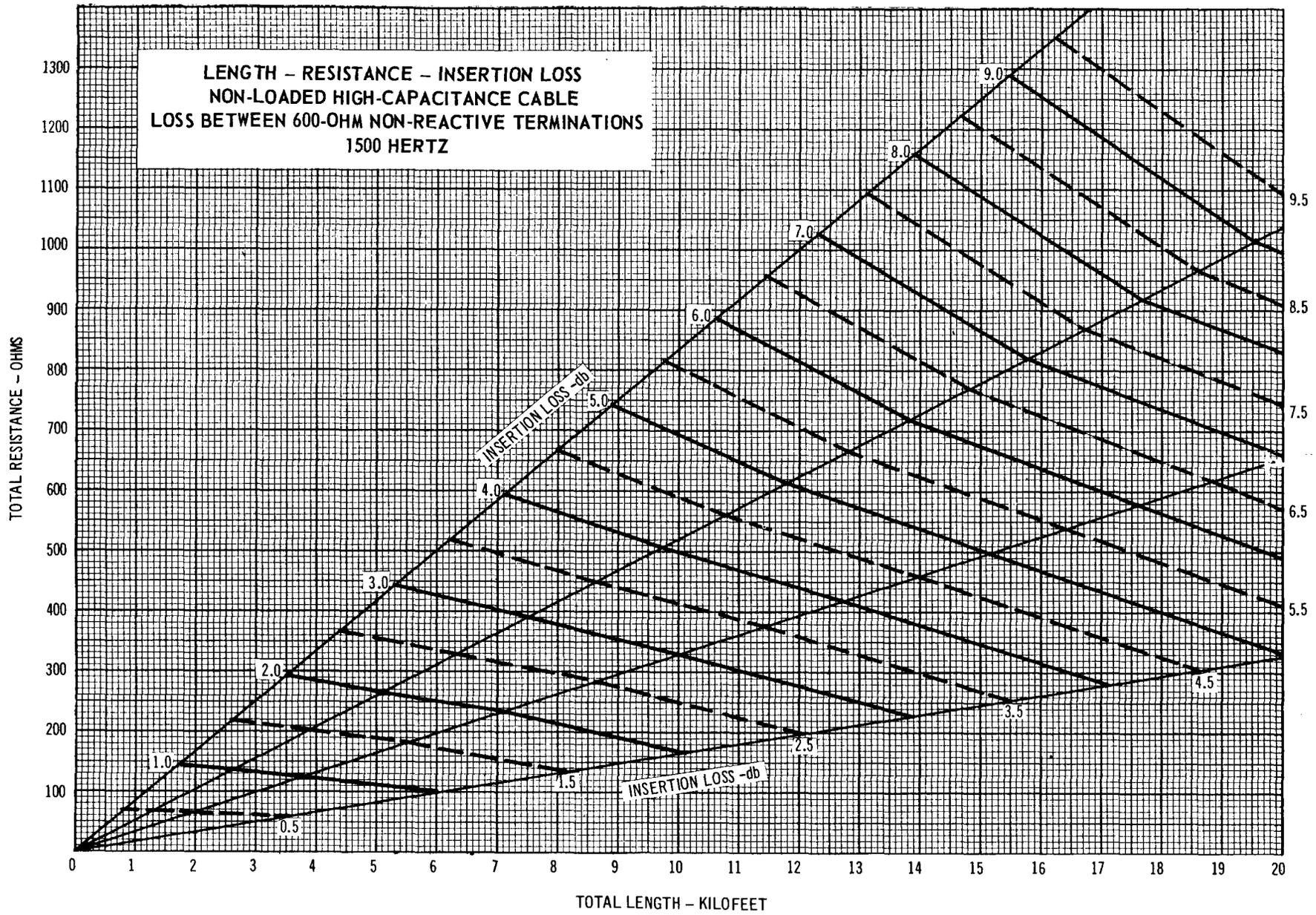
LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NON REACTIVE TERMINATIONS
 500 HERTZ



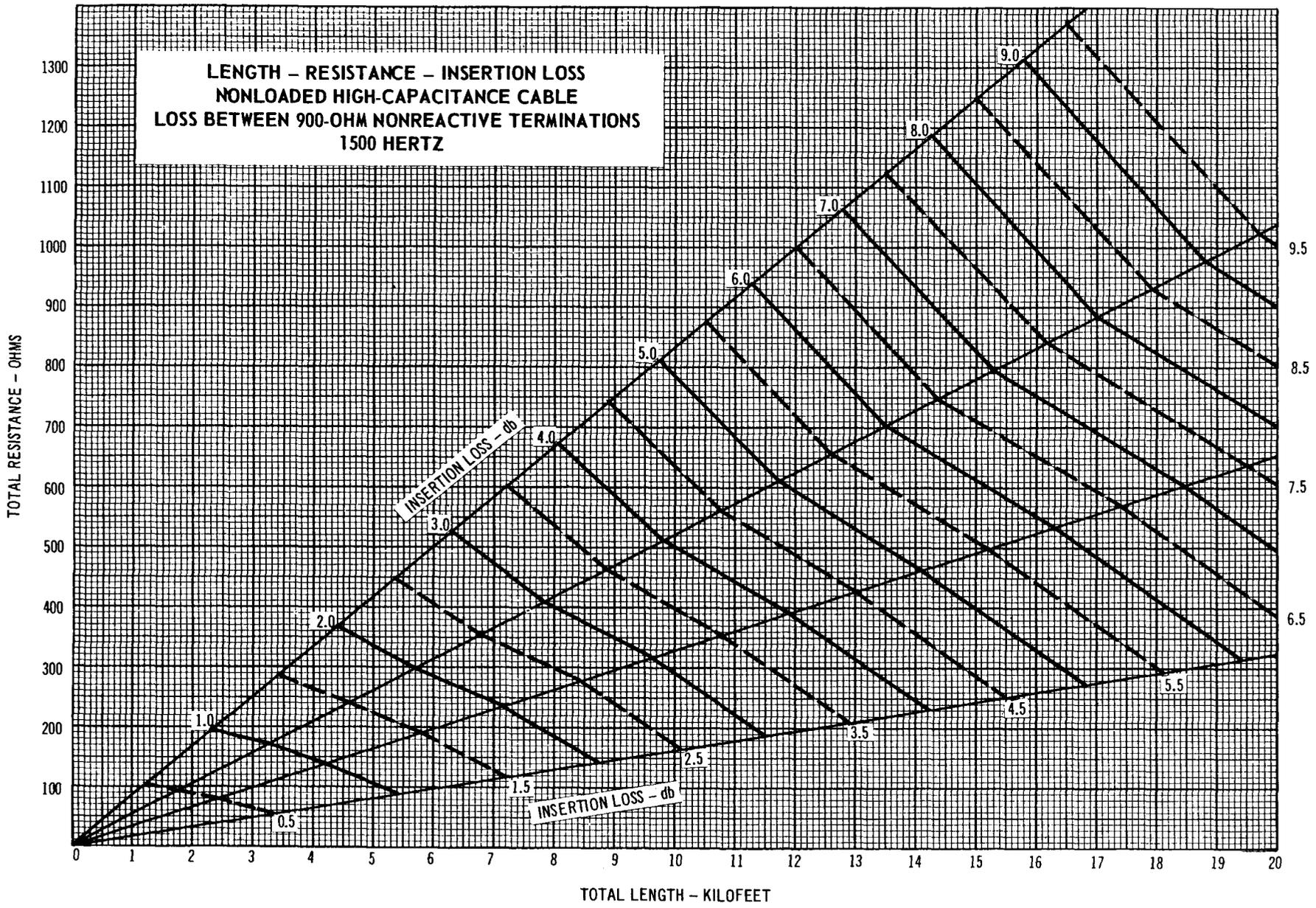


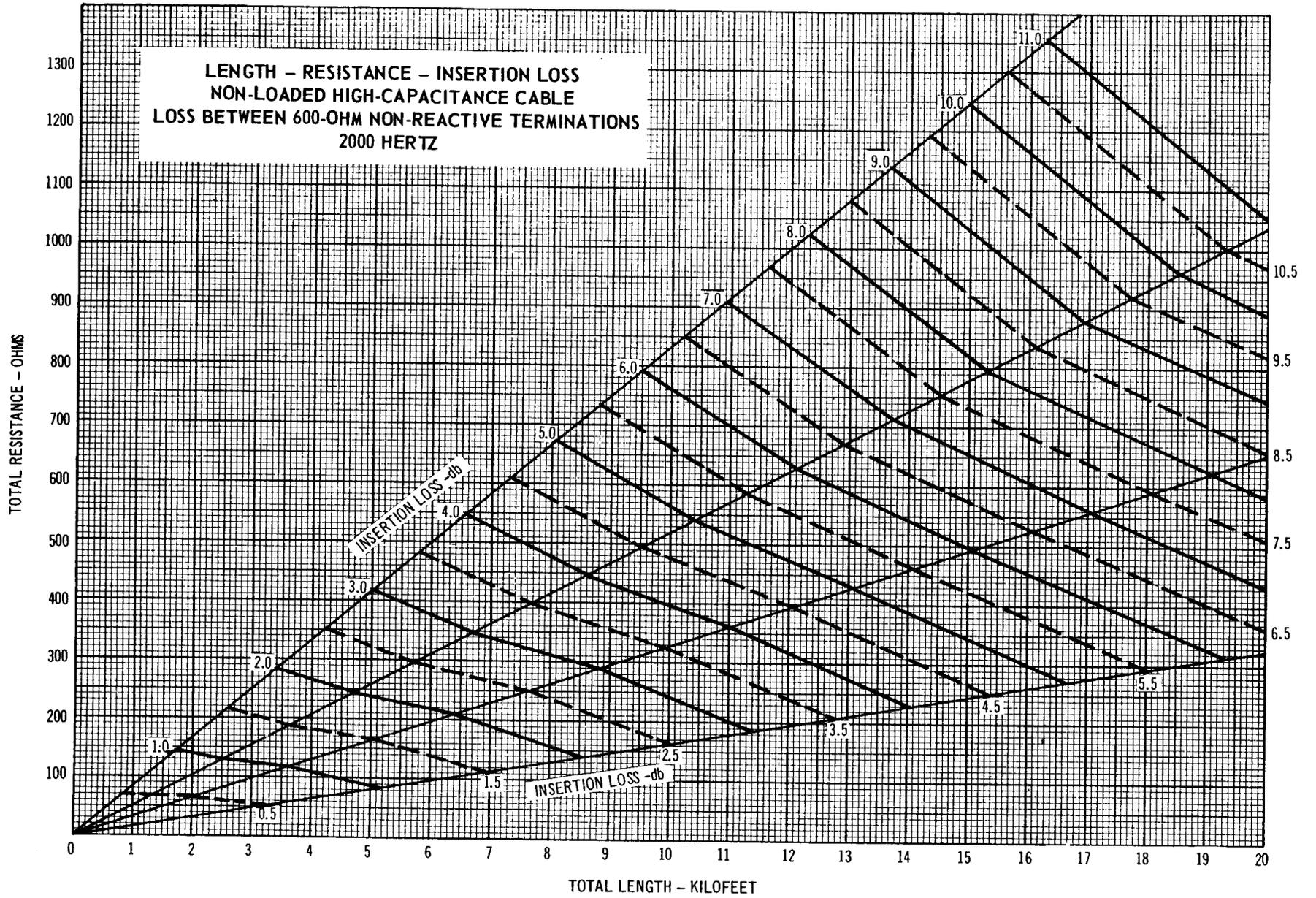
LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 1000 HERTZ



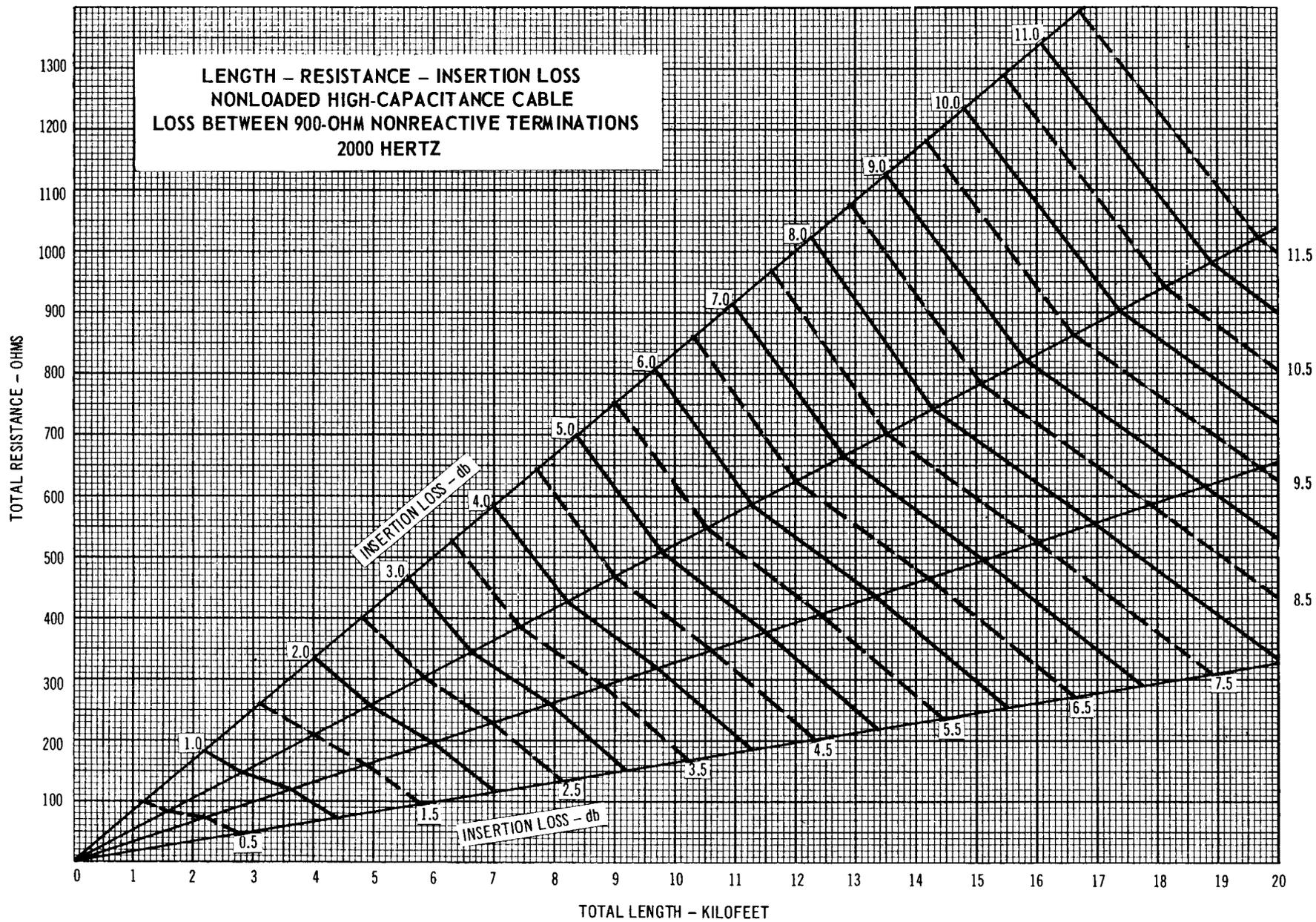


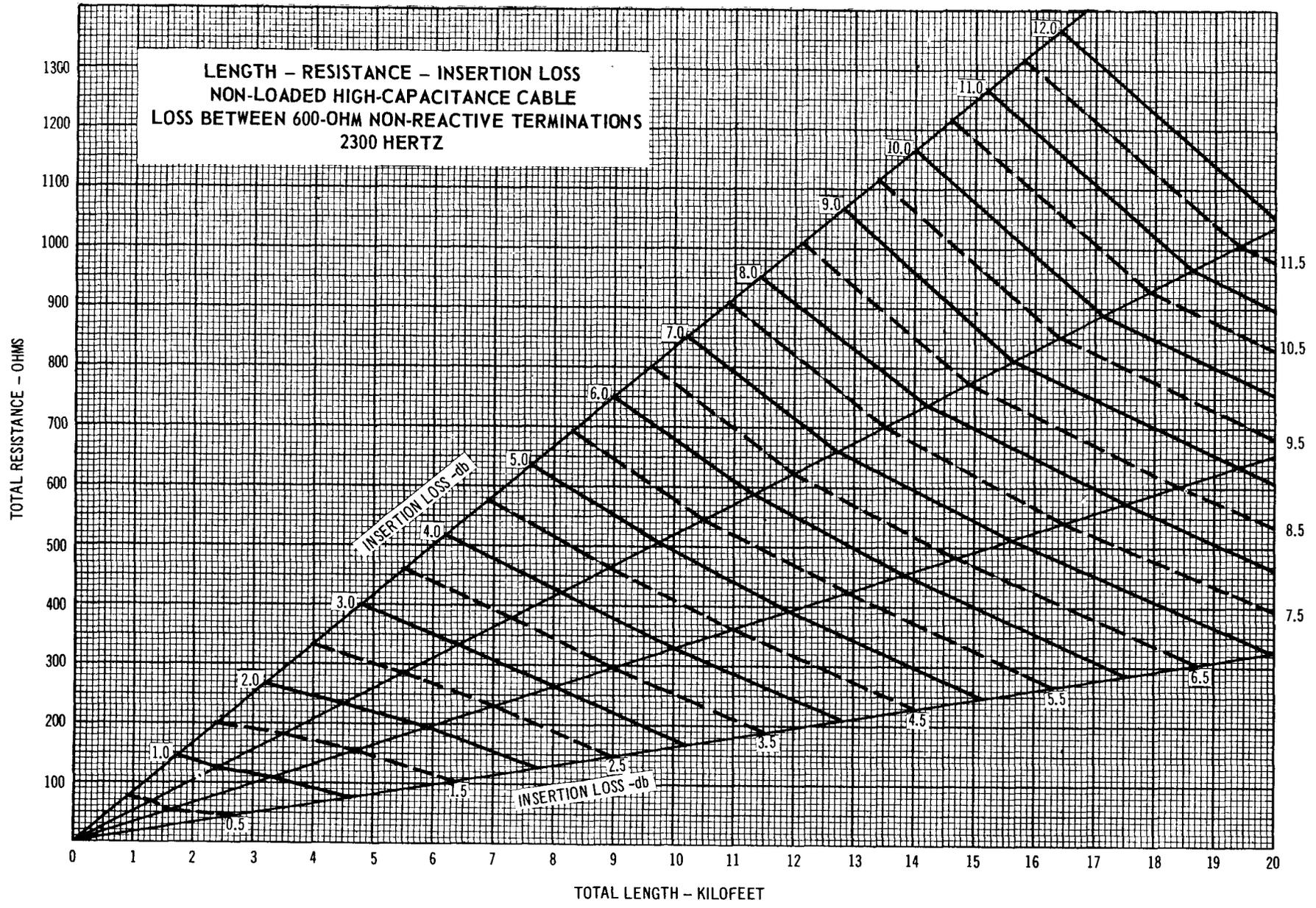
LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 1500 HERTZ



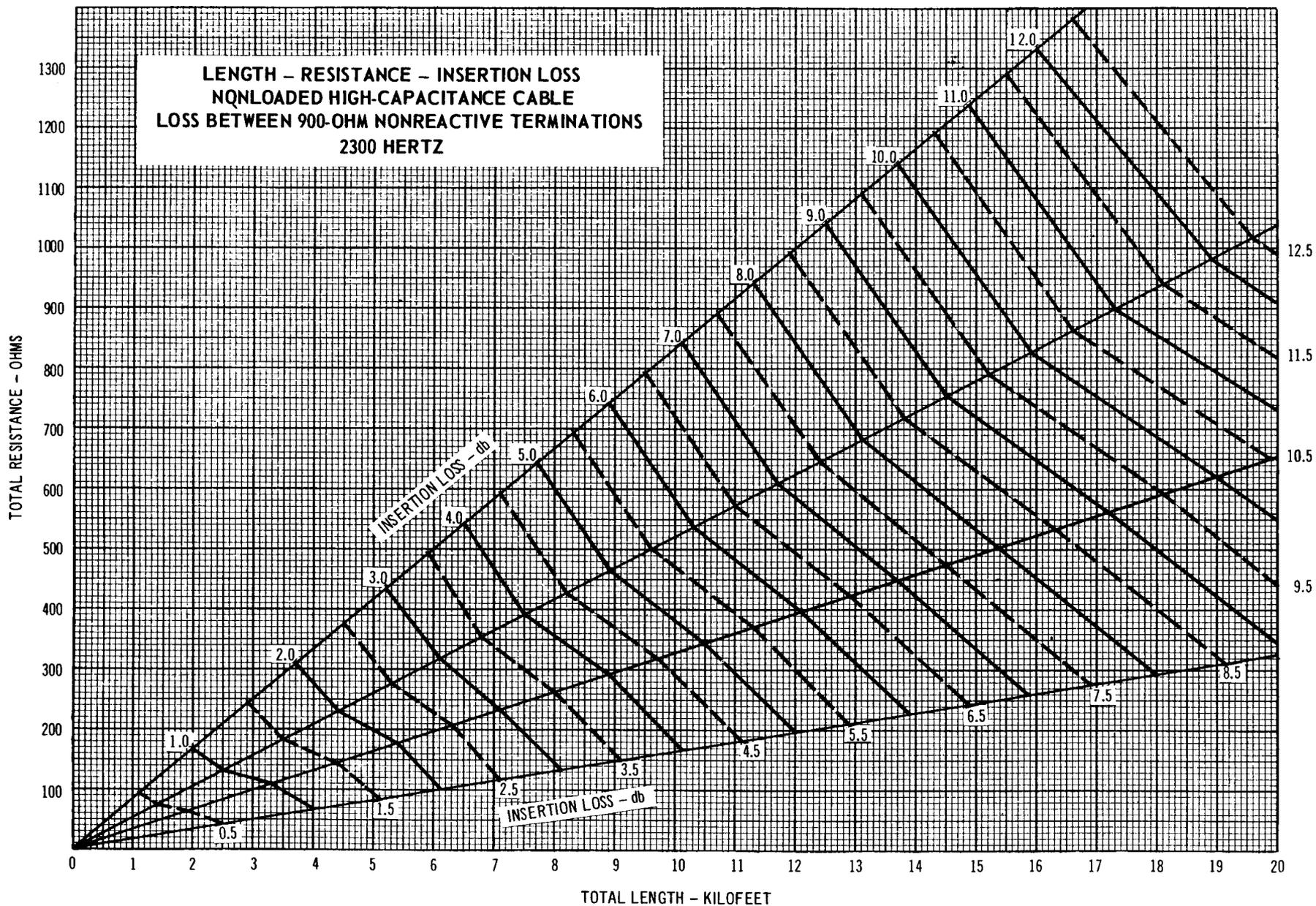


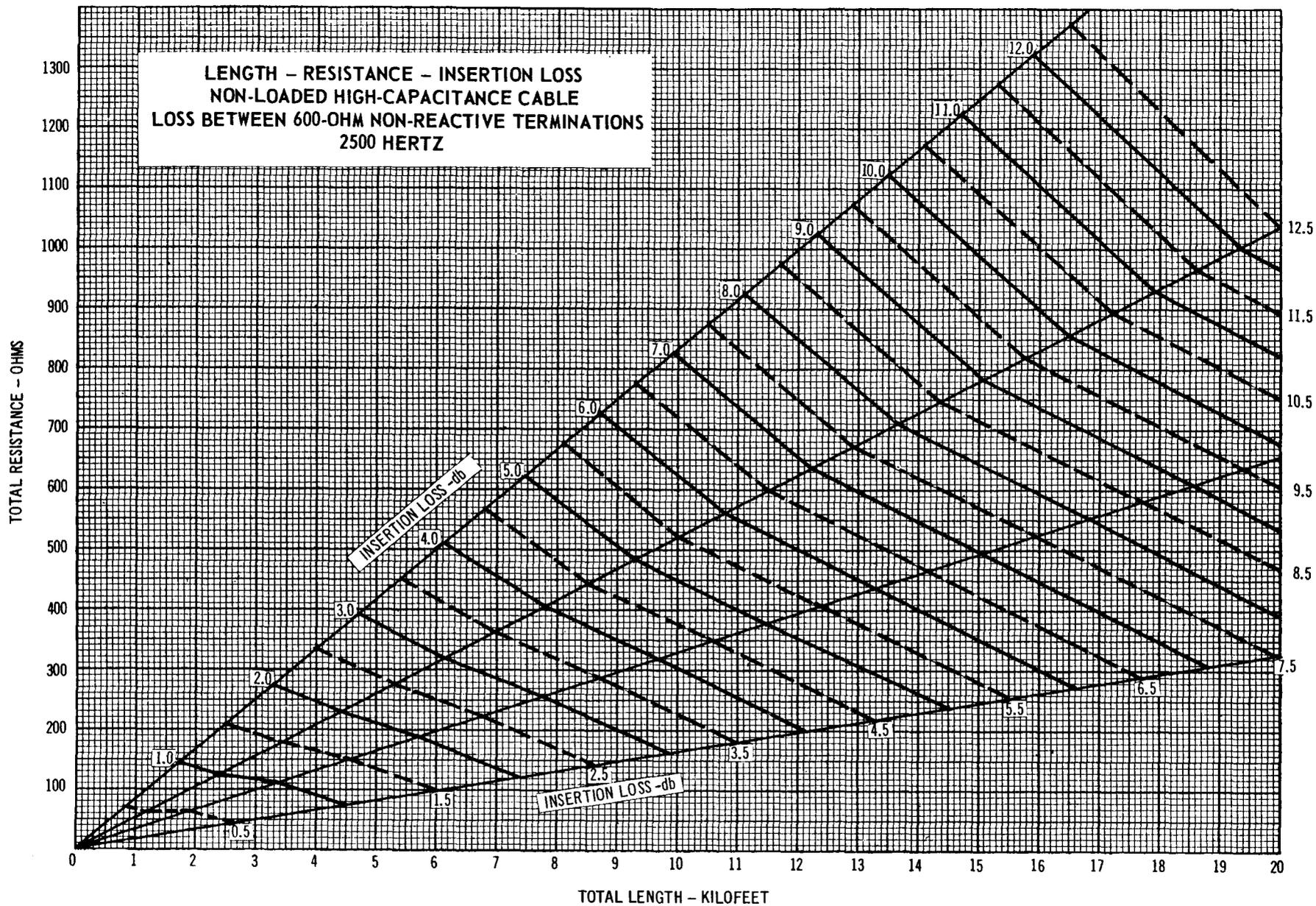
LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 2000 HERTZ



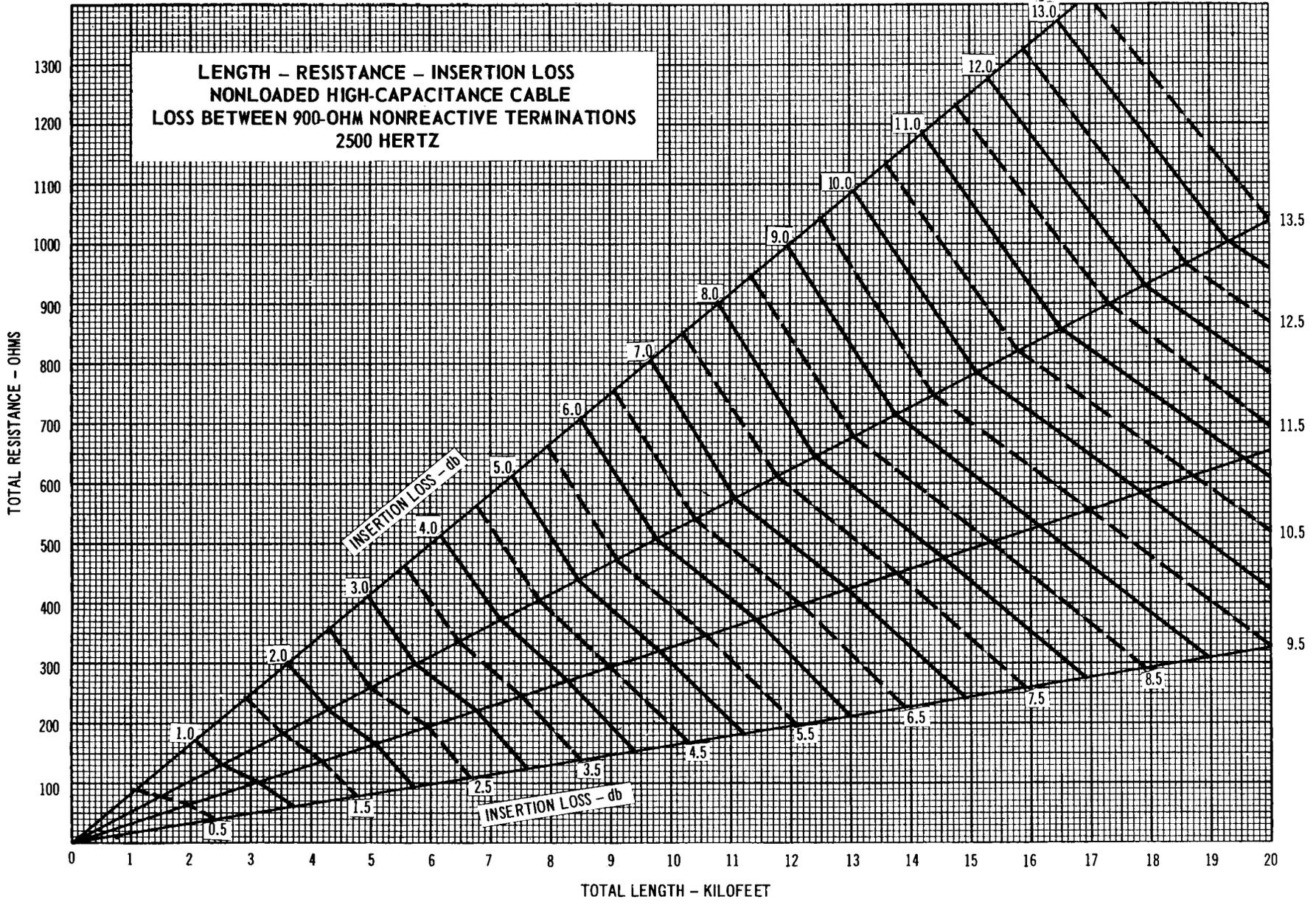


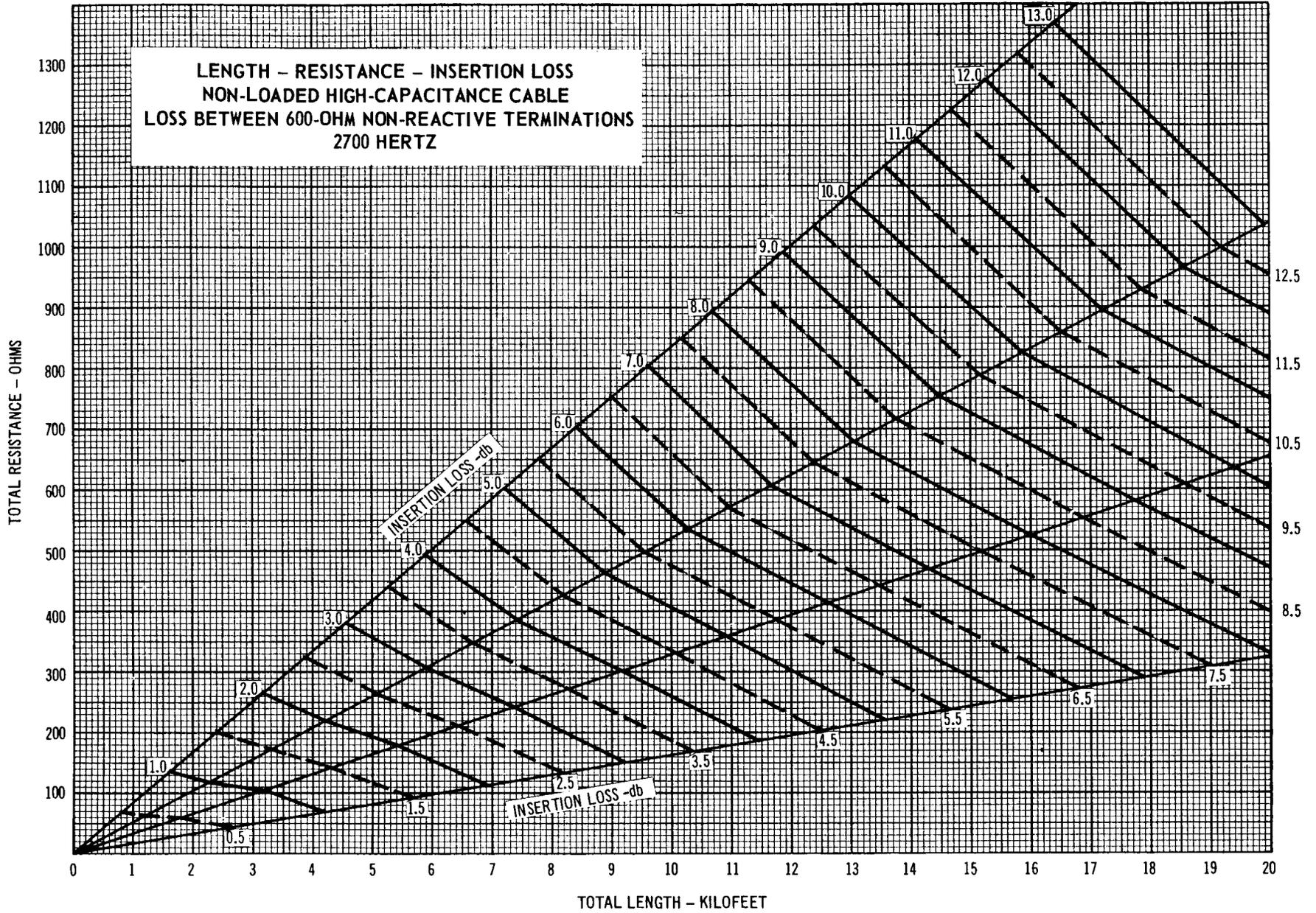
LENGTH - RESISTANCE - INSERTION LOSS
 UNLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 2300 HERTZ



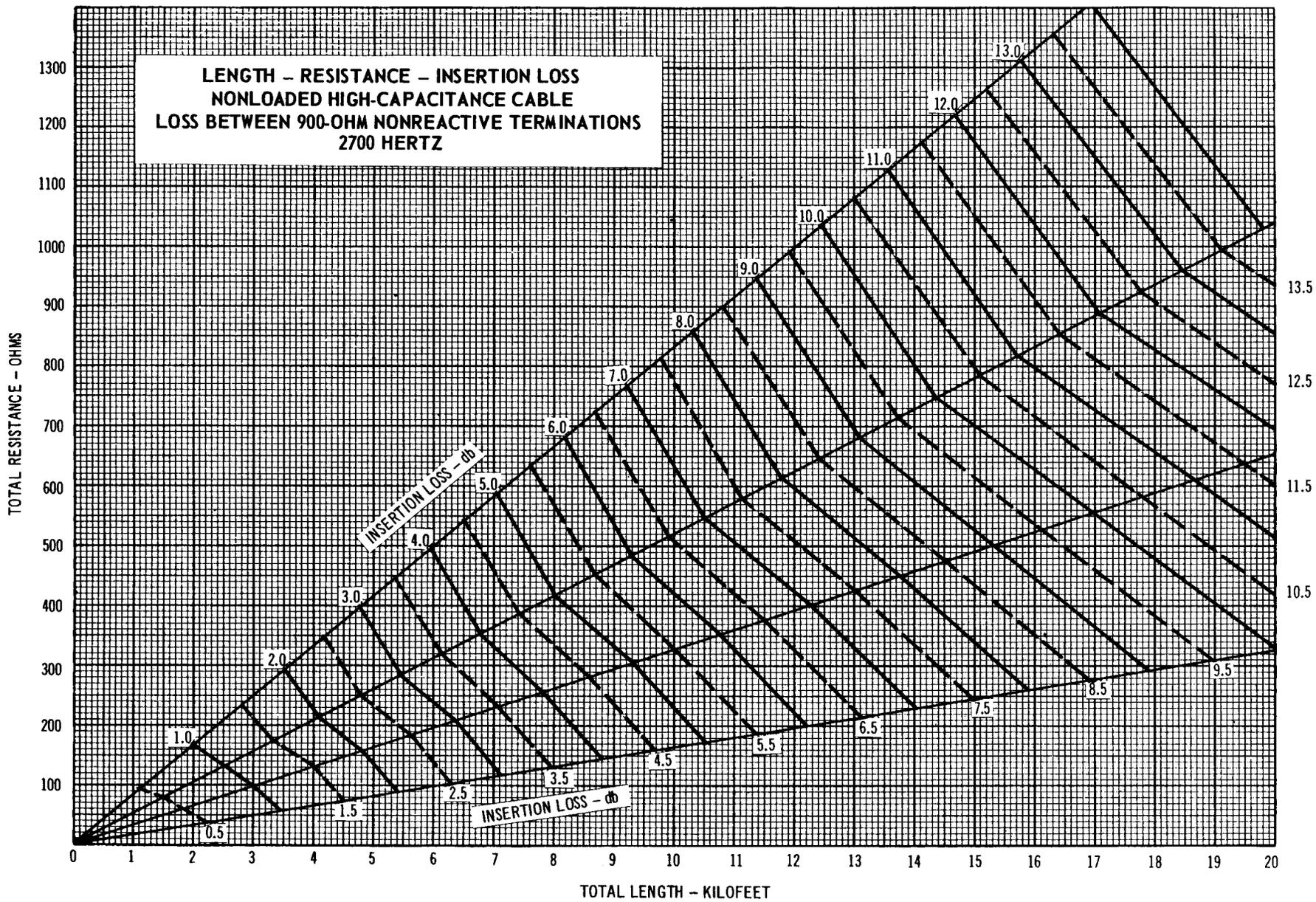


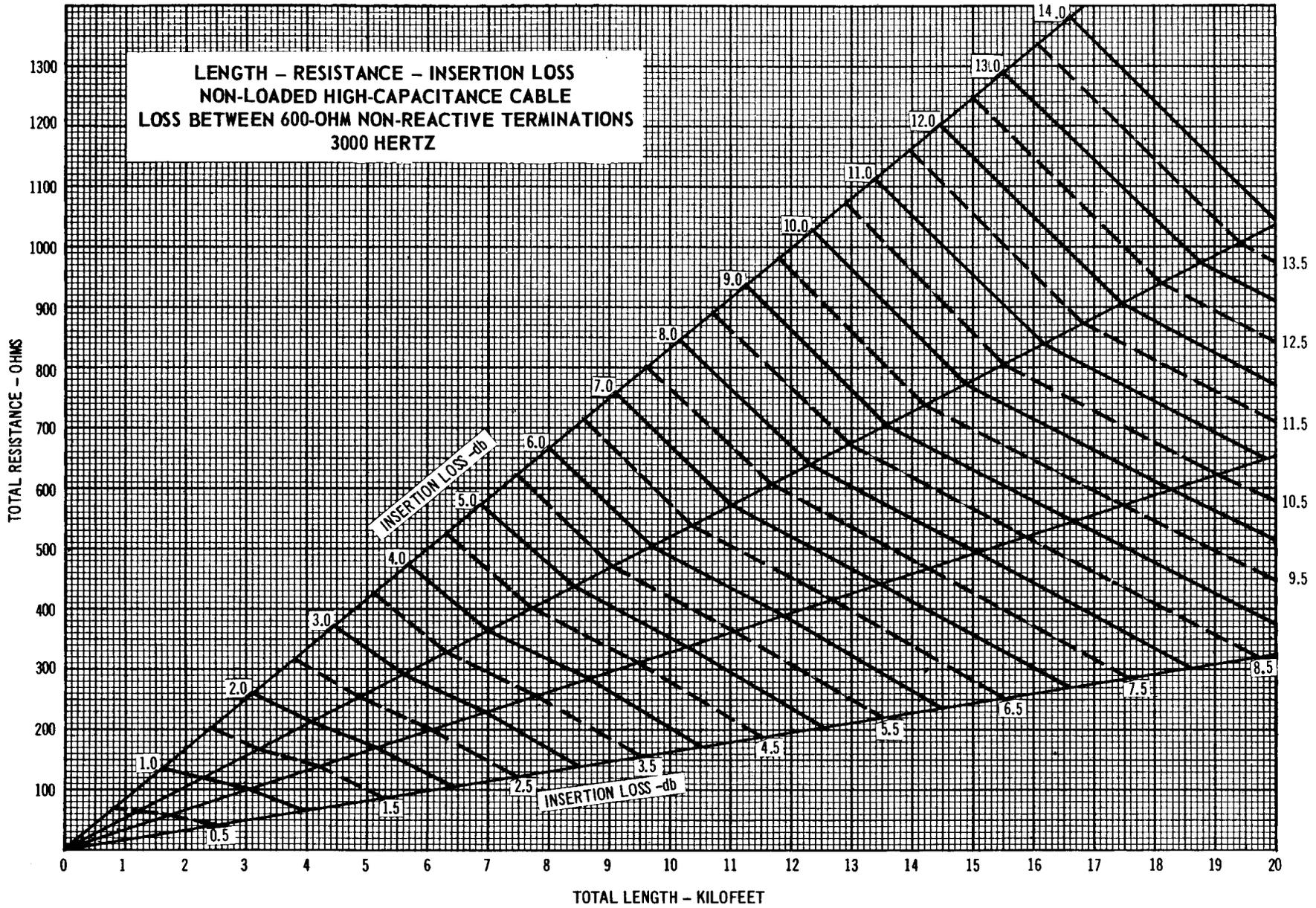
**LENGTH - RESISTANCE - INSERTION LOSS
NONLOADED HIGH-CAPACITANCE CABLE
LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
2500 HERTZ**



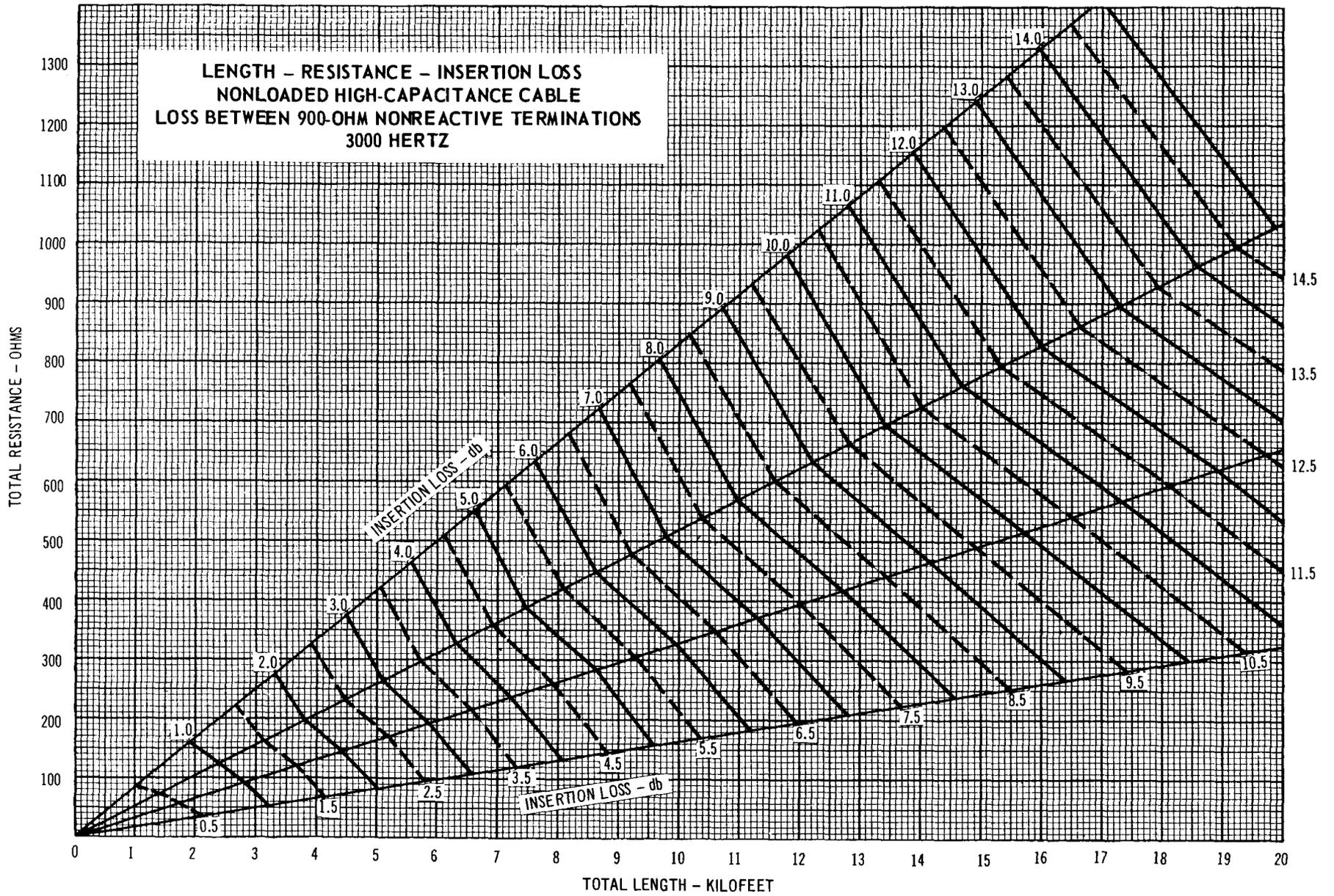


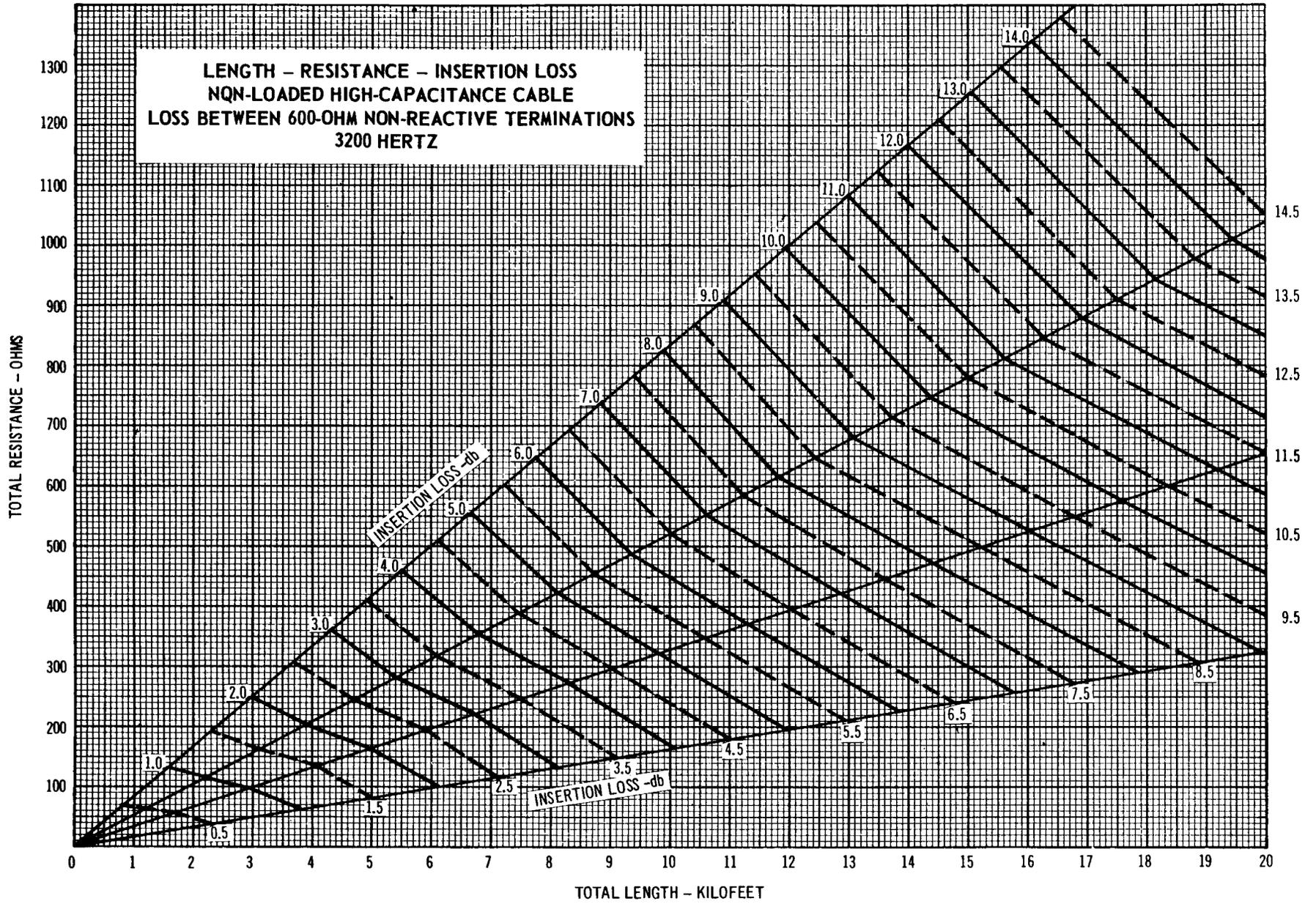
**LENGTH - RESISTANCE - INSERTION LOSS
NONLOADED HIGH-CAPACITANCE CABLE
LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
2700 HERTZ**





LENGTH - RESISTANCE - INSERTION LOSS
 NONLOADED HIGH-CAPACITANCE CABLE
 LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
 3000 HERTZ





**LENGTH - RESISTANCE - INSERTION LOSS
NONLOADED HIGH-CAPACITANCE CABLE
LOSS BETWEEN 900-OHM NONREACTIVE TERMINATIONS
3200 HERTZ**

