INSERTION LOSS OF OFFICE CABLE
0.5 TO 3.5 kHz

1. GENERAL

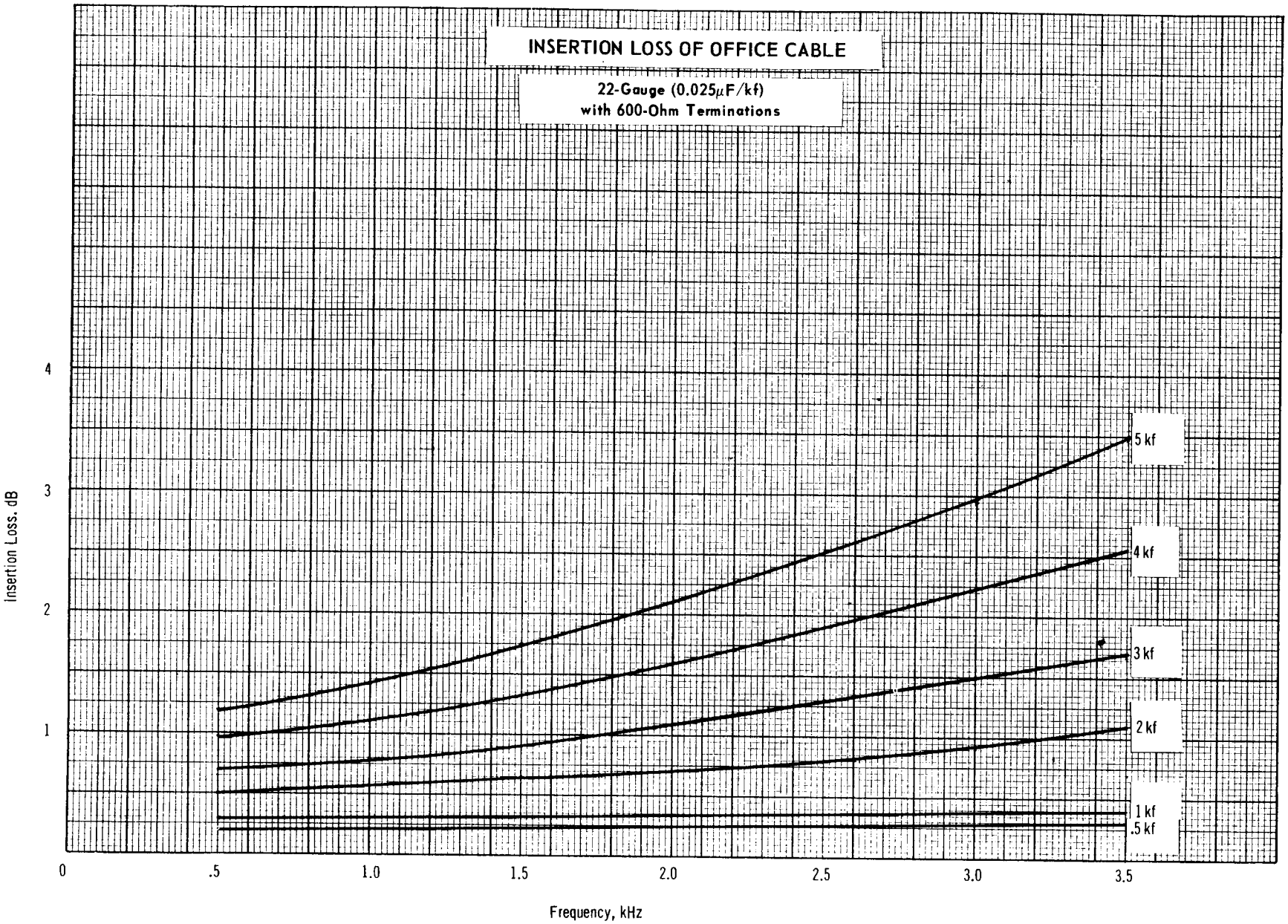
1.01 This section presents the insertion loss of several types of office cable, simulated by an R-C lattice network of the appropriate length, as measured between 600-ohm and 900-ohm terminations. The losses are given as loss-frequency curves for three types of cable: that used in electromechanical offices, ESS offices, and a new low-capacitance type.

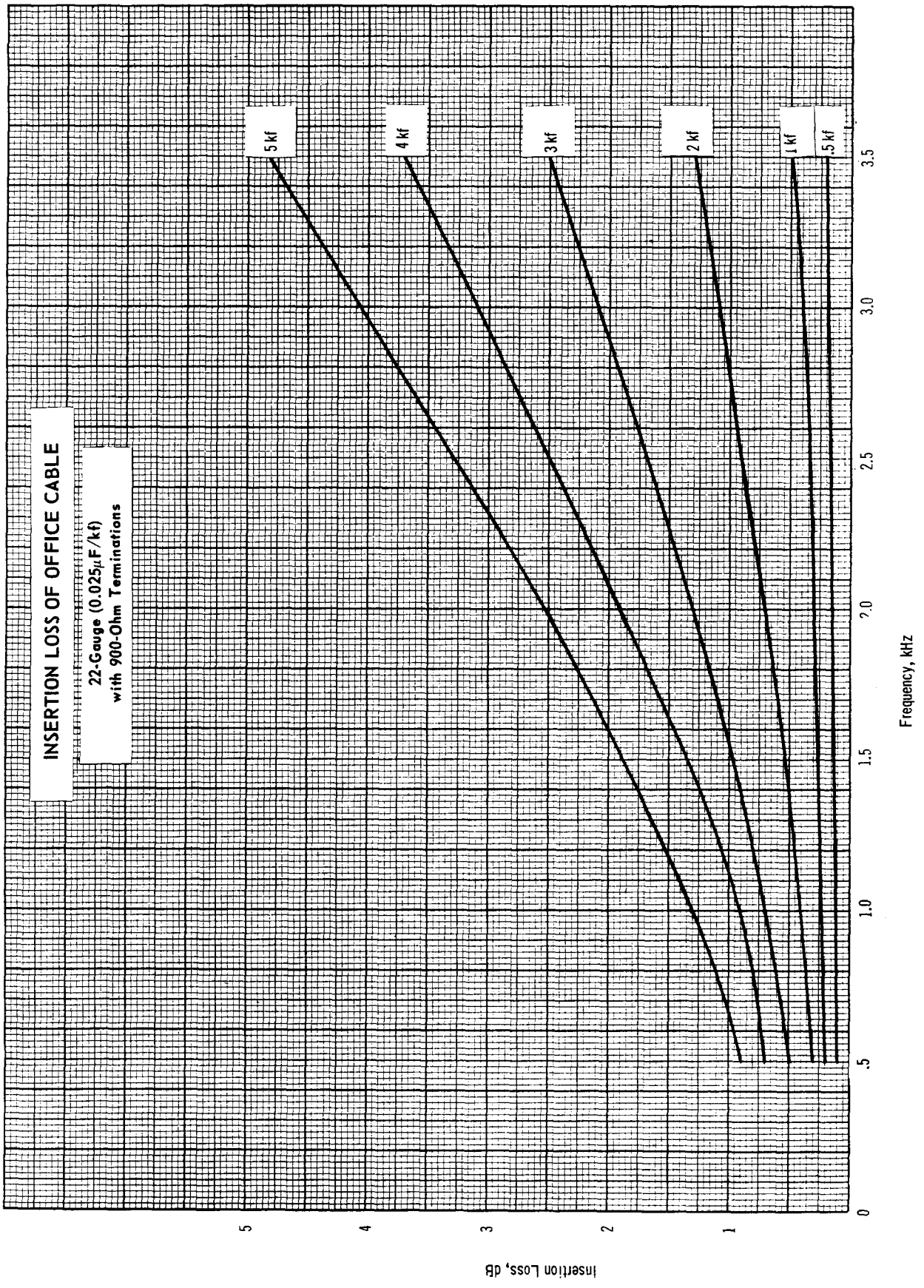
1.02 In electromechanical offices, typical office cable consists of 22- or 24-gauge wire with either plastic (coded in the A series) or textile (coded in the CL and M series) insulation. The nominal capacitance for both is .025μF per kilofoot.

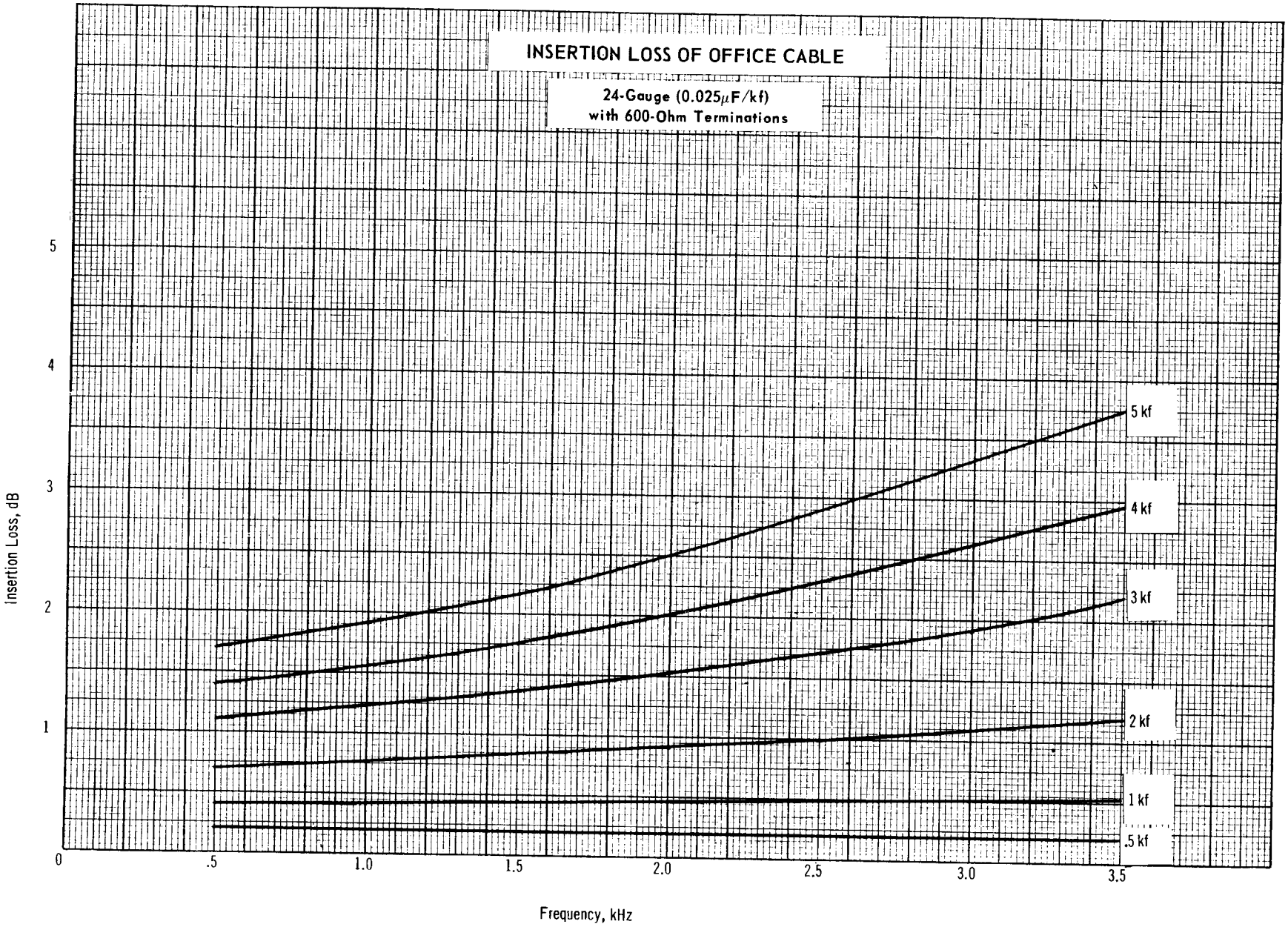
1.03 ESS offices are designed to use 26-gauge cable with plastic insulation, and coded in the 800A series. Its nominal capacitance is .020μF per kilofoot.

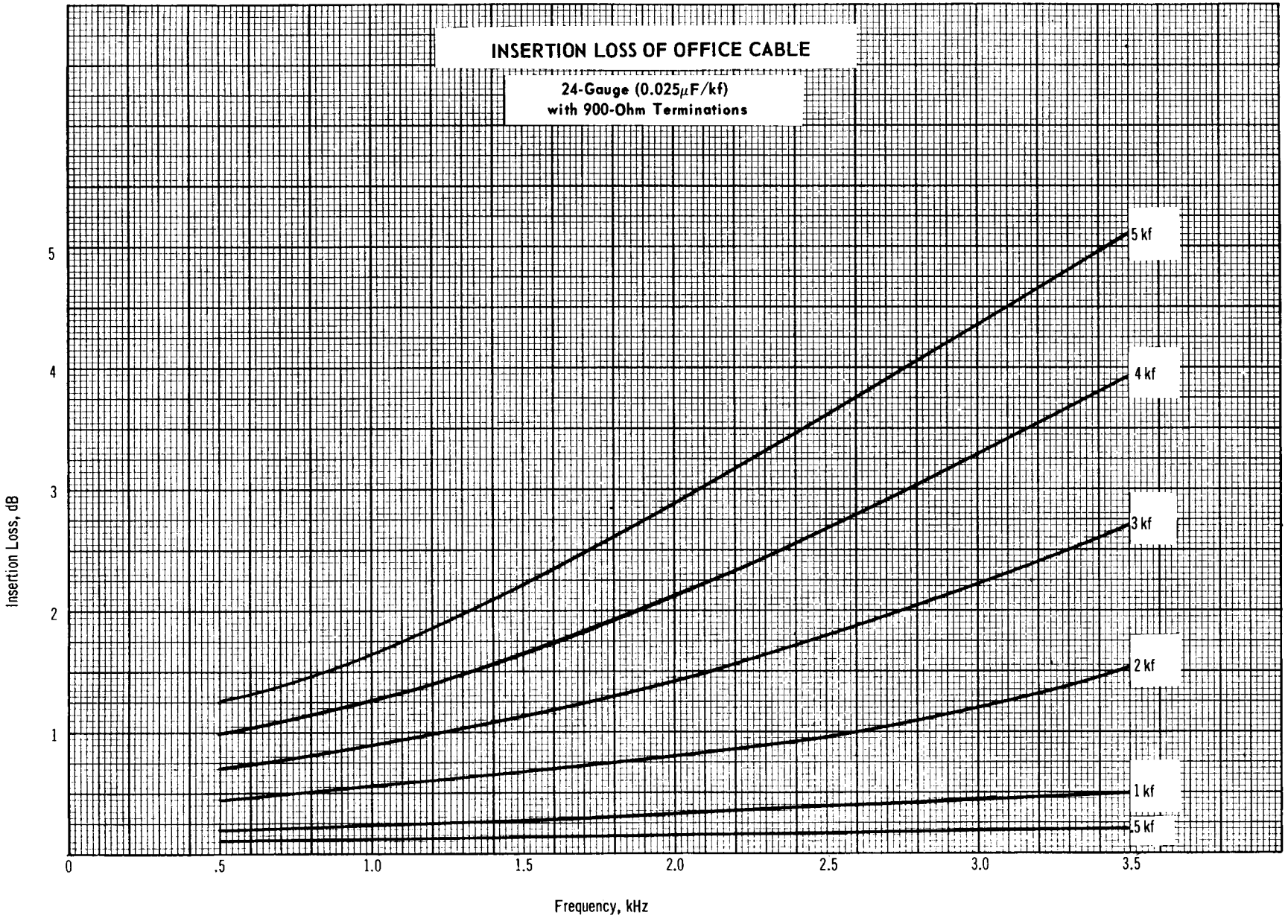
1.04 A cable with a new type of plastic insulation is being developed with the objective of reducing the capacitance to .016μF per kilofoot to match the capacitance of outside plant.

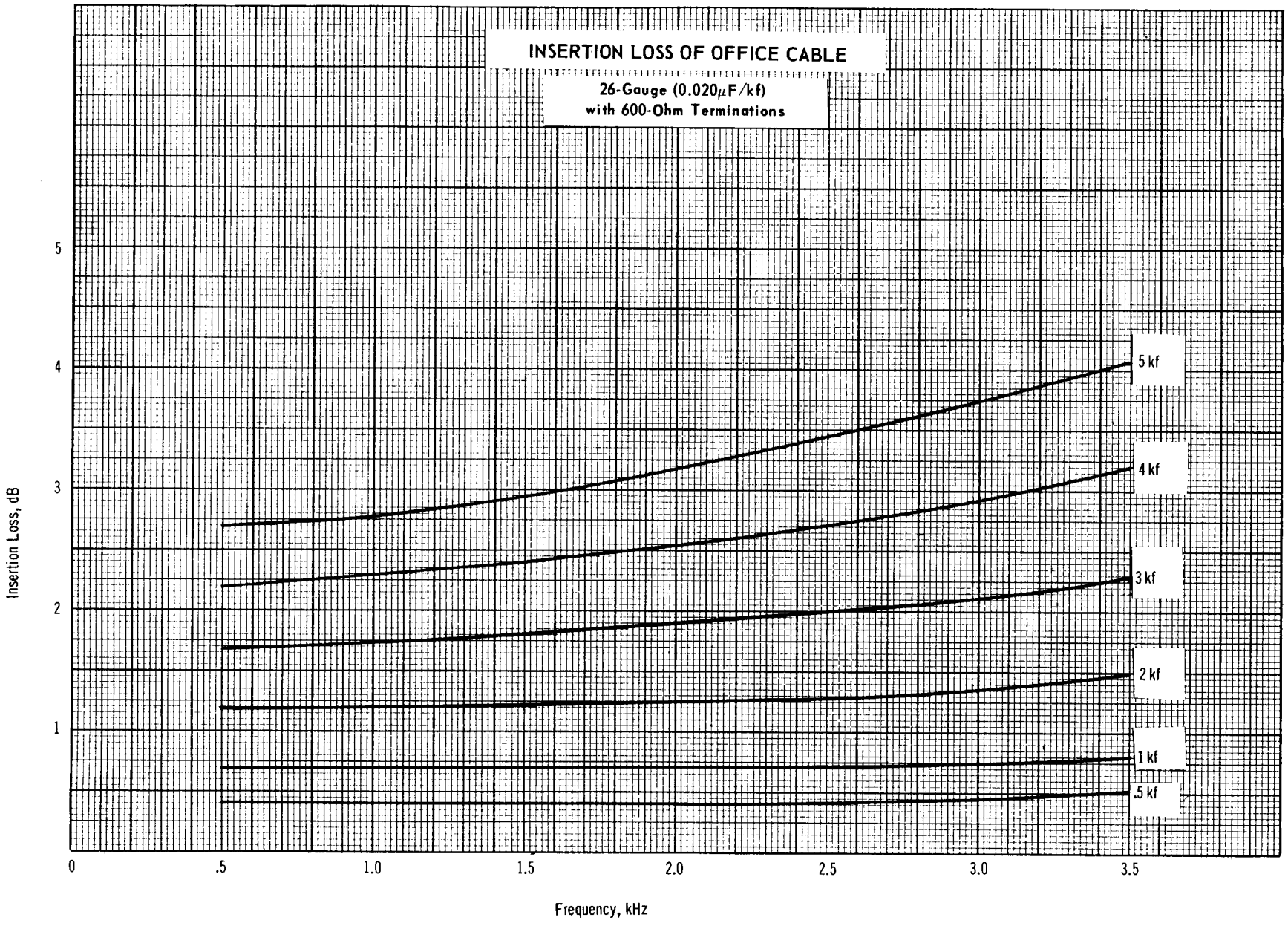
2. INDEX OF CHARTS

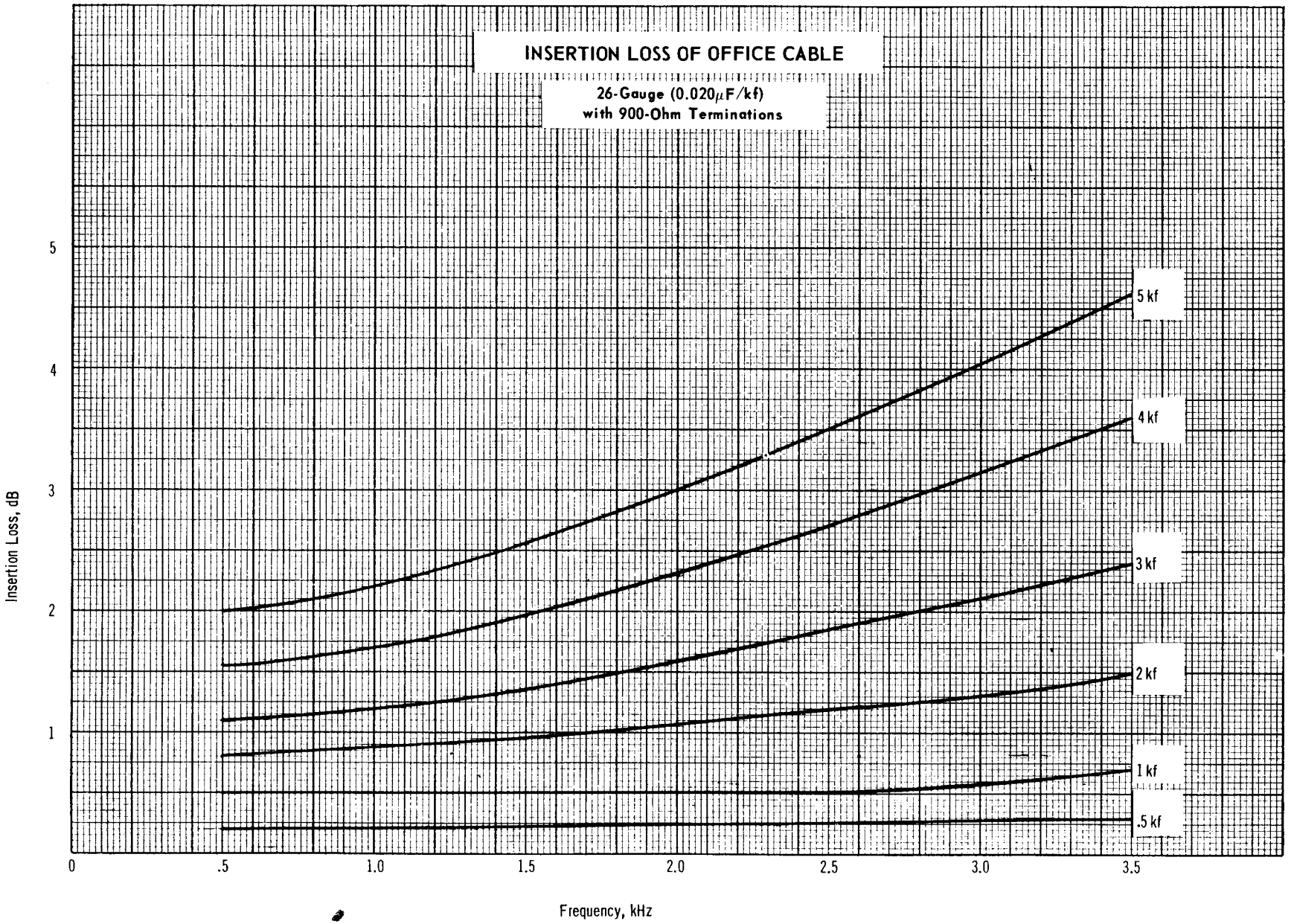

INSERTION LOSS OF OFFICE CABLE
22-Gauge (0.025μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
0
1
2
3
4
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf

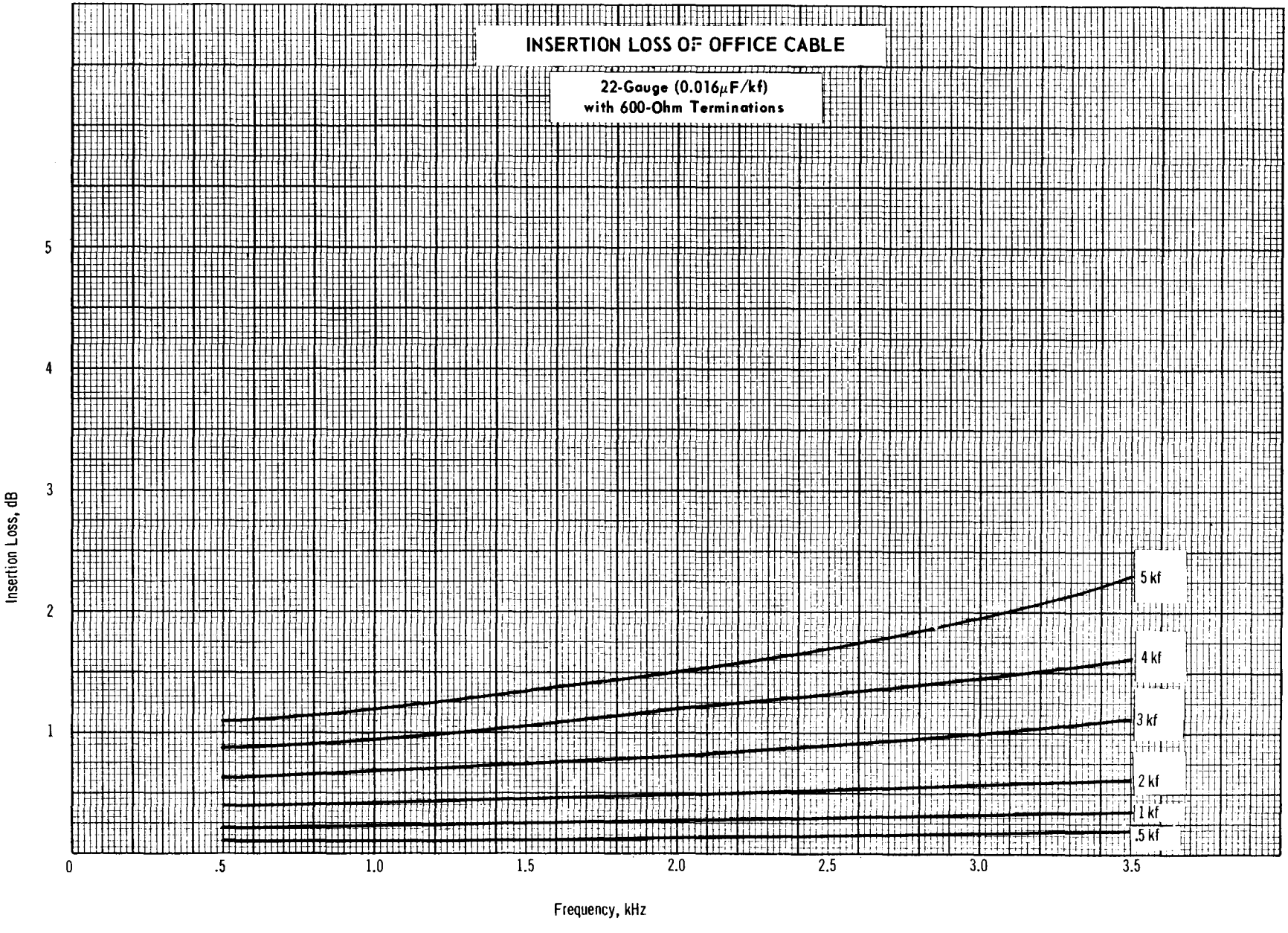

INSERTION LOSS OF OFFICE CABLE
22-Gauge (0.025μF/kf)
with 900-Ohm Terminations
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf
Insertion Loss, dB
0
1
2
3
4
5
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz

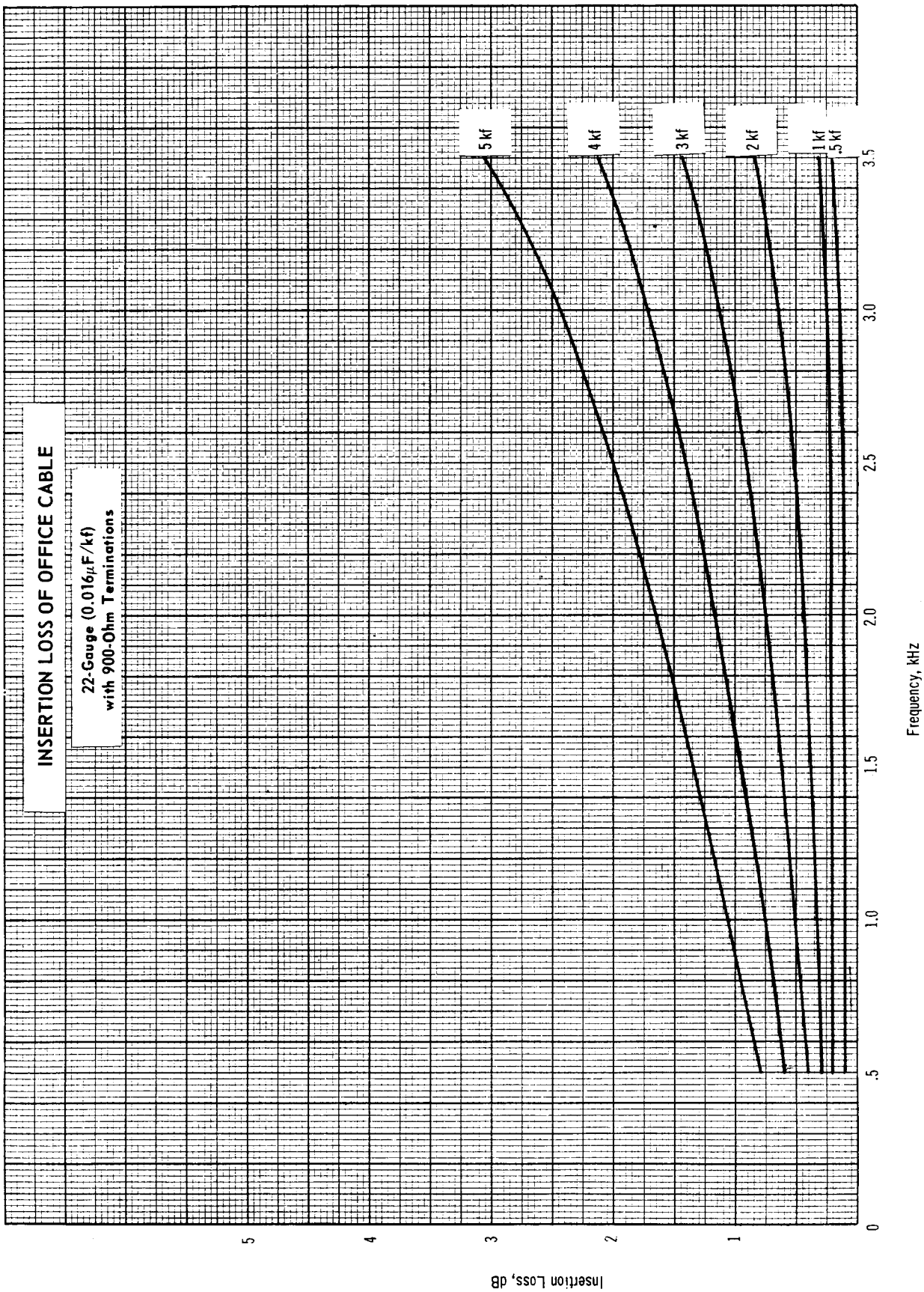

INSERTION LOSS OF OFFICE CABLE
24-Gauge (0.025μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
0
1
2
3
4
5
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf

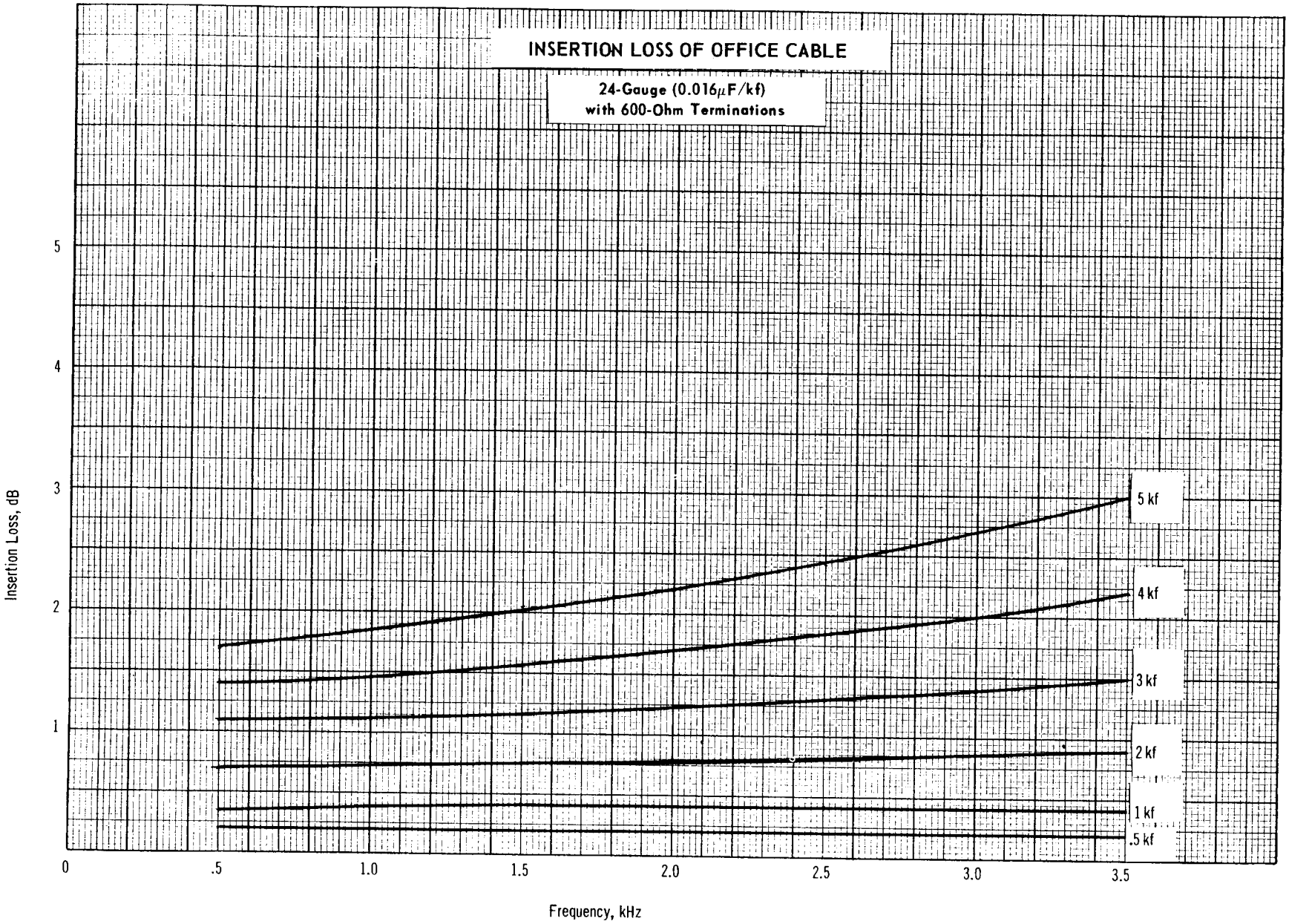

INSERTION LOSS OF OFFICE CABLE
24-Gauge (0.025μF/kf)
with 900-Ohm Terminations
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf
Insertion Loss, dB
0
1
2
3
4
5
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz

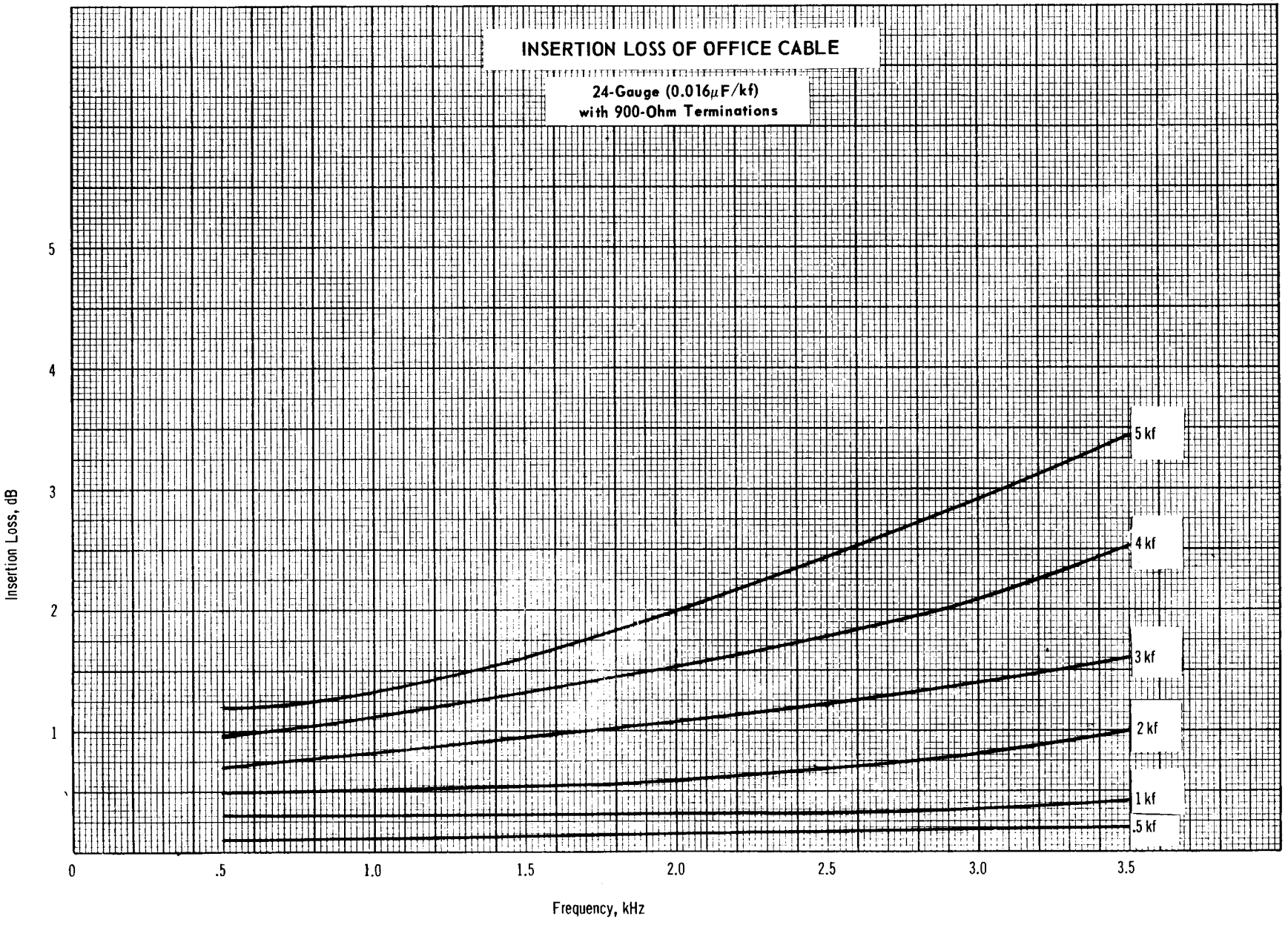

INSERTION LOSS OF OFFICE CABLE
26-Gauge (0.020μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
5
4
3
2
1
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf


INSERTION LOSS OF OFFICE CABLE
26-Gauge (0.020μF/kf)
with 900-Ohm Terminations
Insertion Loss, dB
5
4
3
2
1
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf


INSERTION LOSS OF OFFICE CABLE
22-Gauge (0.016μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
5
4
3
2
1
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf


INSERTION LOSS OF OFFICE CABLE
22-Gauge (0.016μF/kf)
with 900-Ohm Terminations
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf
Insertion Loss, dB
0
1
2
3
4
5
Frequency, kHz
.5
1.0
1.5
2.0
2.5
3.0
3.5


INSERTION LOSS OF OFFICE CABLE
24-Gauge (0.016μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
0
1
2
3
4
5
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf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with 900-Ohm Terminations
Insertion Loss, dB
5
4
3
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1
0
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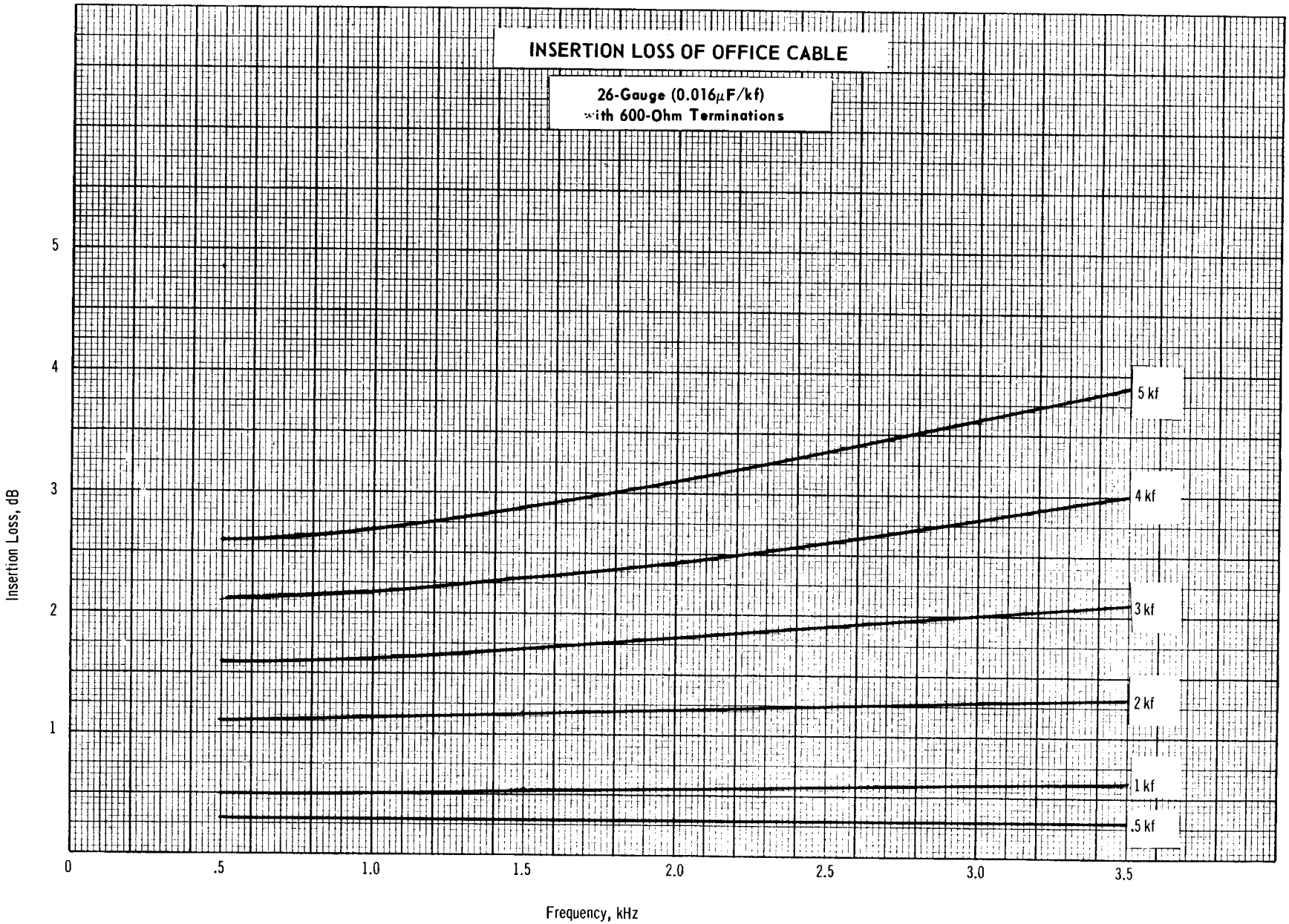
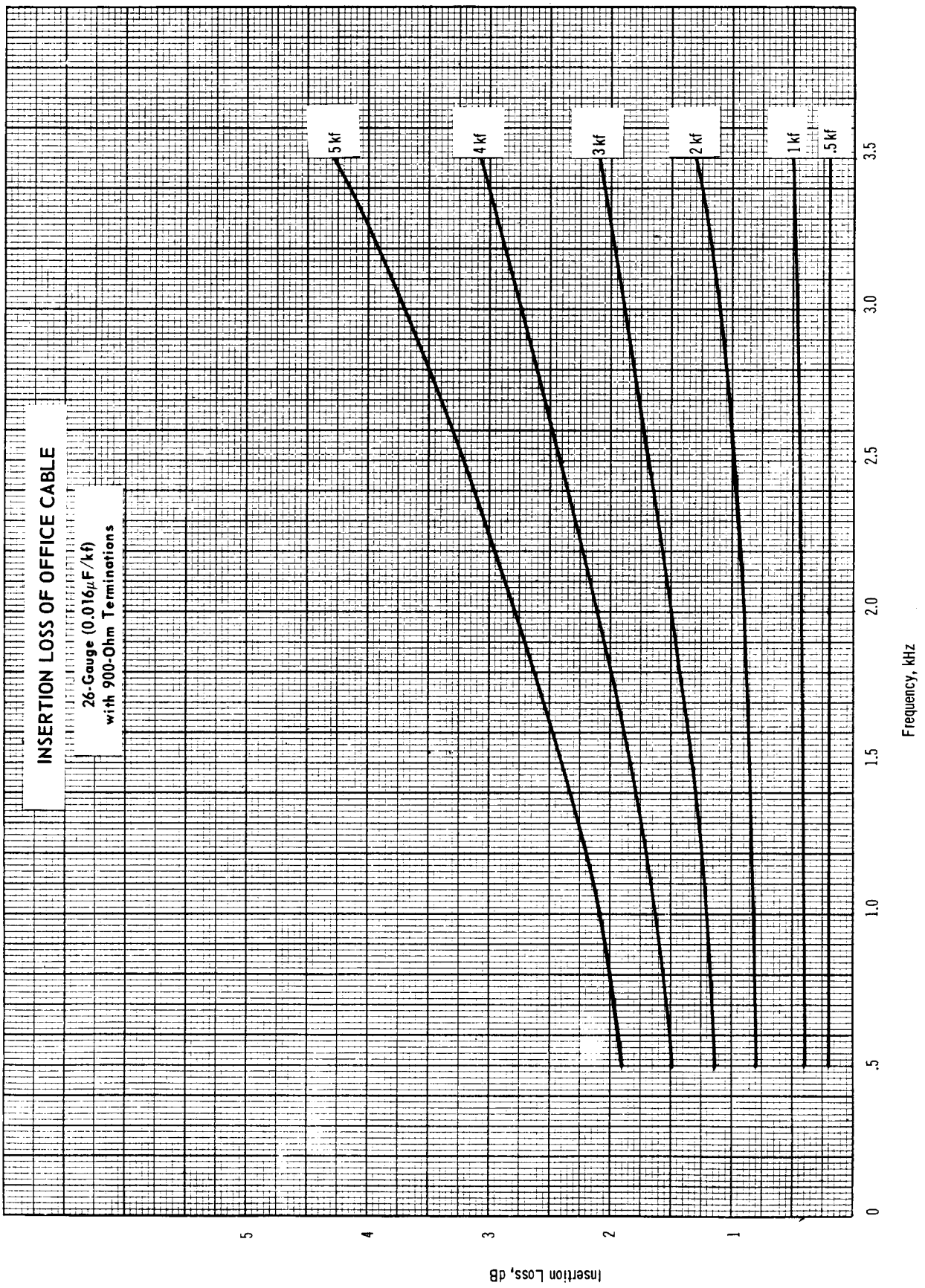
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf


INSERTION LOSS OF OFFICE CABLE
26-Gauge (0.016μF/kf)
with 600-Ohm Terminations
Insertion Loss, dB
5
4
3
2
1
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
Frequency, kHz
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf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26-Gauge (0.016μF/kf)
with 900-Ohm Terminations
5 kf
4 kf
3 kf
2 kf
1 kf
.5 kf
Insertion Loss, dB
Frequency, kHz
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
1
2
3
4
5