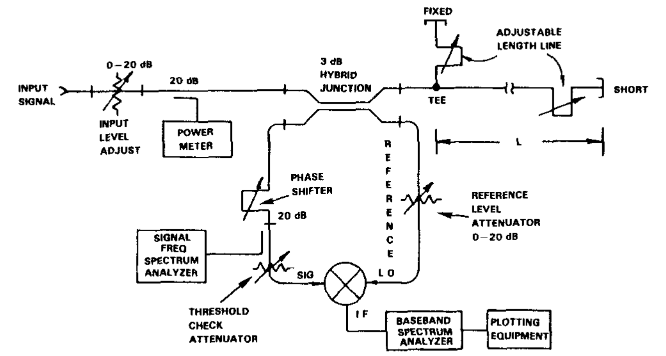

Fig. 2. A practical resonator discriminator assembled from transmission line components [7].

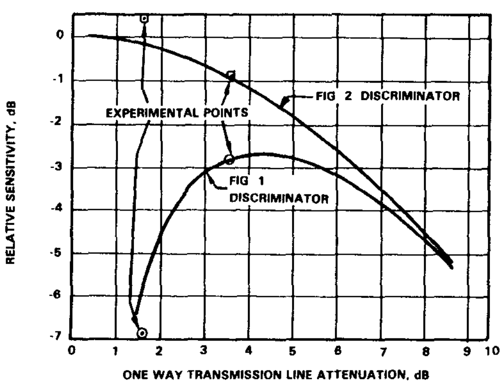

Fig. 3. A comparison of discriminator sensitivities.

line to put the sliding contacts somewhere between $\lambda/8$ and $3\lambda/8$ from the fixed short (as illustrated in Fig. 2). After this modification, we were able to obtain the experimental points shown in Fig. 3. We did not attempt to verify the absolute sensitivity of [1, (7)].

Comparison of [1, fig. 2] and Fig. 3 will show that we have changed the scales to quantities more appropriate to our laboratory equipment. Notice that a line with several dB of attenuation can be used without serious loss of sensitivity. The longer line does make the system easier to tune. In choosing the kind of transmission line, do not lose sight of the fact that the lower loss line will yield higher sensitivity as shown in [1, (7)] or as the higher Q_0 of (5). In light of this discussion, a given length of coaxial cable can be used through a surprisingly large range of carrier frequencies.

For the resonator case, the upper modulation frequency limit can no longer be estimated by [2, (43)]. Instead, one must estimate Q_0 from [2, (5)] and then use the theory given by Ondria [6].

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Corrections to "New View on an Anisotropic Medium in a Moving Line Charge Problem"

MASANORI KOBAYASHI, MEMBER, IEEE

In the above paper[1], the following corrections should be made. The part, $A'_{x'} = A'_{y'} = A'_{z'} = 0$ in this problem, shown between equation (9) and equation (10) should read as

$$\phi'/c = \left(1 - \epsilon_y^*\mu^*\beta^2\right)\gamma\phi/c, A'_{x'} = A'_{y'} = 0, A'_{z'} = \left(\epsilon_y^*\mu^* - 1\right)\beta\gamma\phi/c$$

in this problem.

Equation (11) should read as

$$\phi = \frac{\phi'}{\gamma\left(1 - \epsilon_y^*\mu^*\beta^2\right)}. \tag{11}$$

Equation (13) should read as

$$\epsilon^*_{y'} = \frac{\epsilon_y^*\left(1 - \beta^2\right)}{1 - \epsilon_y^*\mu^*\beta^2}, \qquad \epsilon^*_{z'} = \epsilon^*_z. \tag{13}$$

Manuscript received March 1, 1983.

The author is with the Department of Electrical Engineering, Ibaraki University, 4-12-1 Nakanarusawa-Machi, Hitachi, Ibaraki, Japan.

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