

## ACKNOWLEDGMENT

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## REFERENCES

- [1] G. F. Engen and R. W. Beatty, "Microwave reflectometer techniques," *IRE Trans. on Microwave Theory and Techniques*, vol. MTT-7, no. 3, pp. 351-355, July 1959.
- [2] J. Willis and N. K. Sinha, "Non-uniform transmission lines as impedance transformers," *Proc. IEE (London)*, vol. 103, pt. B, pp. 166-172, March 1956.
- [3] N. Marcuvitz, *Waveguide Handbook*. New York: McGraw-Hill, 1951, ch. 5, pp. 307-308.
- [4] J. S. Field, private communication.

## Correction

## "Multiple-Idler Parametric Amplifiers"

R. L. Ernst, author of the above paper, which appeared on pp. 9-22 of the January 1967, issue of this TRANSACTIONS, has called the following to the attention of the Editor.

On page 10:

In (5), the terms  $S_1^*/j\omega_1$  and  $S_1^*/j\omega_2$  should have been preceded by minus signs.

On page 11:

$Q_1$  should have been positive, and  $Q_k$  is valid only for  $k$  greater than one.

On page 13:

The first term in the equation preceding (17) should have read  $2\zeta_2\omega_s\omega_p^2$ .

The derivation for noise temperature in (20) assumes  $S_1$  is real; i.e.,  $S_1=S_1^*=|S_1|$ . This can be done by choosing the angle of pumping properly.

On page 14:

Equation (22) should have read

$$\omega_p = \frac{1}{2} \frac{\sqrt{\omega_s^2 + m_1^2\omega_c^2}}{\zeta_1} + \frac{(3\zeta_1 - 2)}{4\zeta_1} \omega_s + \frac{1}{4\zeta_1} \sqrt{[2\sqrt{\omega_s^2 + m_1^2\omega_c^2} + (\zeta_1 - 2)\omega_s]^2 - 8\frac{\zeta_1}{\zeta_2} m_1^2\omega_c^2}.$$

In the equation following (23), the term

$$\zeta_1 \left( \frac{m_1\omega_c}{\omega_1} - \frac{m_1\omega_c}{\omega_2} \right) \left[ \frac{m_1^3\omega_c^3}{\omega_s^2\omega_1} + \frac{m_1^3\omega_c^3}{\omega_s\omega_1\omega_2} + \zeta_1 \left( \frac{m_1\omega_c}{\omega_1} - \frac{m_1\omega_c}{\omega_2} \right) \right]$$

should have been raised to the  $\frac{1}{2}$  power.

On page 17:

In the equation for noise temperature, the denominator should have been multiplied by  $R_s$ .

On page 21:

The first equality of (61) should have read

$$b_{33} = a_{33} - \frac{a_{34}}{b_{41}} a_{43}.$$

Equation (65) should be identical to (8).