

# Errata

## New Family of Wave-Digital Triode Models

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- On page 315, the equation between equations (6) and (7) should read

$$V_p = \mu (V_k - V_g - h + \alpha) - V_k,$$

hence equation (8) should read

$$V_k = \frac{R_{0k} [a_p + \mu (V_g + h - \alpha)] + R_{0p} a_k}{R_{0p} + (\mu - 1) R_{0k}} - \frac{R_{0k} R_{0p} (V_g - a_g)}{R_{0g} [R_{0p} + (\mu - 1) R_{0k}]},$$

equation (10) should read

$$V_k = \frac{R_{0k} [a_p + \mu (V_g + h - \alpha)] + R_{0p} a_k}{R_{0p} + (\mu - 1) R_{0k}},$$

and the update formula should read

$$f(V_{k,n}) = \frac{R_{0k} [a_p + \mu_n (V_g + h_n - \alpha_n)] + R_{0p} a_k}{R_{0p} + (\mu_n - 1) R_{0k}} - V_{k,n}.$$

- On page 315, the sentence

The secant method needs two initial values, hence we used  $V_{k,0} = a_k$  as a first guess and  $V_{k,1} = a_k + f(a_k)$  as the second guess, since  $f(a_k) \geq 0$  which guarantees that  $V_{k,1} \geq a_k$ , in accordance with (13).

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- On page 316, the paragraph

In practice this is done by starting with an initial guess  $V_{g,0} = a_g$  and by first applying the secant method to (8). At this point, if  $V_{gk} \leq V_{\text{off}}$  the computation is finished, otherwise the secant

method is applied to (12) with  $V_{g,1} = a_g + f(a_g)$ , following a similar reasoning as before. When this iteration finishes,  $V_k$  is updated and if  $|f(V_k)|$  is smaller than a threshold then the computation is finished, otherwise  $V_k$  is evaluated again starting from the last values of  $V_k$  and  $V_g$ , and the algorithm proceeds in a ping-pong fashion.

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- On page 317, Table I, the value  $R_k = 1 \text{ k}\Omega$  is missing.