

Letters

Corrections to "Simultaneous Load-Pull of Intermodulation and Output Power Under Two-Tone Excitation for Accurate SSPA's Design"[†]

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In the above paper,¹ printing errors occurred in Table I, which should have read as shown at the bottom of this page:

Correction to "High Gain Monolithic W-Band Low-Noise Amplifiers Based on Pseudomorphic High Electron Mobility Transistors"[‡]

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[‡]F. M. Ghannouchi, G. X. Zhou, and F. Beaugard, *IEEE Trans. Microwave Theory Tech.*, vol. 42, no. 6, p. 932, June 1994.

[‡]Manuscript received January 20, 1995.

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In the above paper,² Fig. 3. was printed upside down.

Corrections to "A New Electric Field Integral Equation for Heterogeneous Dielectric Bodies of Revolution"^{**}

Mark S. Viola

In the above paper,³ there are several typographical errors. Corrections to these misprints are delineated in that which follows.

In (7a), the terms " $\frac{1}{\rho} \frac{\partial G(\vec{r}|\vec{r}')}{\partial \rho}$ " and " $\nabla_T G(\vec{r}|\vec{r}')$ " should both be changed to read " $\frac{1}{\rho} \frac{\partial G(\vec{r}|\vec{r}')}{\partial \phi}$ ".

Identical notational misprints appear in both the sixth line of the text following (8) and in the second unnumbered equation following (8). In each case, the term " $G_s(r|r')$ " should be replaced by " $G_s(\vec{r}|\vec{r}')$ ".

There is also a serious sign error in the third unnumbered equation following (8). That equation should be changed to read

$$G_s(\vec{r}|\vec{r}') = -\frac{1}{4\pi j k_s \rho} \{e^{-j k_s R} - e^{-j k_s R_0}\}.$$

Additionally, in the first line of the text following this equation, the term " $(z - z)^2$ " should be changed to " $(z - z')^2$ ".

Finally, there are sign errors in (9) and (10). The right-hand sides of (9) and (10) should both be multiplied by -1 .

²D.-W. Tu *et al.*, "High gain monolithic W-band low-noise amplifiers based on pseudomorphic high electron mobility transistors," *IEEE Trans. Microwave Theory Tech.*, vol. 42, no. 12, p. 25, Dec. 1994.

^{**}Manuscript received February 2, 1995.

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³M. S. Viola, "A New electric field integral equation for heterogeneous bodies of revolution," *IEEE Trans. Microwave Theory Tech.*, vol. 43, no. 1, pp. 230-233, Jan. 1995.

TABLE I
SELECTION OF LOAD REFLECTION COEFFICIENT FOR THREE DIFFERENT DESIGN OBJECTIVES AND THEIR ASSOCIATE PERFORMANCE

Case 1: Optimum Γ_L^p for maximum output power.

Case 2: Optimum Γ_L^q for maximum power-added efficiency.

Case 3: A trade-off Γ_L^i for an improvement of third-order intermodulation.

(The subscript s or t of the Γ_L indicates the single- or two-tone excitation, separately)

	Γ_L	P_L (dBm)	G_p (dBm)	η_{add} (%)	C/IM_3 (dBc)
Case 1	$\Gamma_{L_s}^p = 0.53 \angle -89^\circ$	$P_L(f_1) = 14.4$	$G_p(f_1) = 14.4$	32	16.6
	$\Gamma_{L_t}^p = 0.53 \angle -90^\circ$	$P_L(f_1, f_2) = 13.7$		29	16.6
		P_L (per tone) = 10.7	G_p (per tone) = 13.7		
Case 2	$\Gamma_{L_s}^q = 0.64 \angle -125^\circ$	$P_L(f_1) = 13.2$	$G_p(f_1) = 13.2$	40	15.5
	$\Gamma_{L_t}^q = 0.58 \angle -113^\circ$	$P_L(f_1, f_2) = 13.1$		32	15.7
		P_L (per tone) = 10.1	G_p (per tone) = 13.1		
Case 3	$\Gamma_{L_s}^i = 0.26 \angle -168^\circ$	$P_L(f_1) = 12.4$	$G_p(f_1) = 12.4$	26	22
	$\Gamma_{L_t}^i = 0.32 \angle -64^\circ$	$P_L(f_1, f_2) = 12.4$		22	22
		P_L (per tone) = 9.4	G_p (per tone) = 12.4		

*All cases: $P_{in}(f_1) = P_{in}(f_1, f_2) = 0$ dBm, P_{in} (per tone) = -3 dBm.