

September 18, 2009

## Errata for Practical RF System Design

### SOFTWARE MODIFICATIONS

Fig.2.07-2.10.xlw becomes Fig.2.07-2.10mod1.xlw [See reason under "p. 20, Fig. 2.7" below.] Click on *revised Fig. 2.7 spreadsheet* in the main page to download the revised spreadsheet.

Fig. 7.10-11.xlw and Fig. 7.12.xlw become Fig. 7.10-11mod1.xlw and Fig. 7.12mod1.xlw. [In the originals, the 0xn spurs did not scale properly when the IF was changed.] Get from `prfsd-updatedFiles-11-15-04.zip`.

### BOOK

Spaces are not included in line counts below. **Additions in green, subtractions in red.** The number of the printing is given by the last number in "10 9 8 7 ..." on bottom of copyright page.

### CORRECTIONS FOR PRINTINGS 1 THROUGH 3

p. xxi, third symbol

~ **is proportional to**, (superscript) indicates rms

p. 20, Fig. 2.7: Correct the values in the legend, "Nominal cable gain (dB)", by halving each so they run from 0 to -5, rather than to -10 as currently shown.

In spreadsheet "Fig.2.07-2.10", Fig. 2.7, cells C4:I10: Change (correct) the last number (divisor) in each cell's formula from 10 to 5. Then, to obtain a better display range, halve the numbers in cells C3:I3, so they run from 0 to -5. Download the corrected spreadsheet.

p. 112, Fig. 4.11, 6 columns in lower right: **dB** ⇒ **dBm**.

p. 159, Fig. 6.8,  $R_F$  becomes  $R_{FB}$ .

p. 160, Fig. 6.11, symbol  $\tau$  replaces symbol  $T$  two places.

p. 195, Fig. 7.21. The double lines that outline the band should lie on the 1 x -1 and -1 x 1 lines rather than skewing to the right of them as they rise. (The sides of the band rectangle are parallel in this log plot, while the spur curves come together within the rectangle as they rise, but, on this scale, they appear to be coincident.) The corrected figure is in `PRFSD.zip`.

p. 314, Fig. G.3, delete the minus sign from  $-X_L$ .

### CORRECTIONS FOR PRINTING 1 (and possibly 2)

p. 67, Fig. 3.10, x-axis: subscript 1 (one) becomes capital I (eye).

p. 67, 2 places in last line, and p. 68, Eq. (3.43):  $\Delta \Rightarrow \delta$ .

p. 77, first line below the figure, delete the exponent 2 within the “magnitude” brackets:

$$\left| e_{\text{noise out}, k}^2 \right|^2 \Rightarrow \left| e_{\text{noise out}, k} \right|^2$$

p. 96, Eq. (4.15), in the subscript: OPI2 becomes OIP2.

p. 106, Eq. (4.45): the denominator on the right should be the same as in Eq. (4.32):

$$P_{\text{OIP3}, 1}^2 \Rightarrow P_{\text{OIP3, IM}, 1}^2$$

p. 107, Eq. (4.55):

$$g_{k,q} \triangleq \prod_{j=k}^q g_j \Rightarrow g_{1,0} \triangleq 1 \text{ and } g_{q+1,q} \triangleq 1, \text{ otherwise } g_{k,q} \triangleq \prod_{j=k}^q g_j$$

p. 127, Eqs. (5.5) and (5.6): insert 2 on the left end of each:

$$\frac{S'_2(f)}{2} = 2 \frac{S_0(f)}{2} \star \frac{S_0(f)}{2} \Rightarrow 2 \left( \frac{S'_2(f)}{2} \right) \triangleq 2 \left( \frac{S_0(f)}{2} \star \frac{S_0(f)}{2} \right) \text{ and}$$

$$\frac{S'_2(0)}{2} = 4B \left( \frac{S_0}{2} \right)^2 \Rightarrow 2 \frac{S'_2(0)}{2} = 4B \left( \frac{S_0}{2} \right)^2$$

p. 128, Eq. (5.7): insert 2 in the middle before the S' fraction:

$$a_2^2 R \frac{S'_2(0)}{2} \Rightarrow a_2^2 R 2 \frac{S'_2(0)}{2}$$

p. 132, Fig. 5.7, and p. 135, Fig. 5.9, in the equations on the right: at (b), delete “R”,

$$a_1^2 R \left( \frac{S_0}{2} \right) \Rightarrow a_1^2 \left( \frac{S_0}{2} \right);$$

$$\text{at (d), square “R”, } a_3^2 \frac{27}{2} R B^2 \left( \frac{S_0}{2} \right)^3 \Rightarrow a_3^2 \frac{27}{2} R^2 B^2 \left( \frac{S_0}{2} \right)^3 \text{ and,}$$

in the latter figure, on the lower right, change S0 to S<sub>0</sub>.

p. 134, 5 lines from the bottom: 666 becomes 660.

p. 135, Fig. 5.9(a) and (c): 385.25 becomes 382.25; 718.25 becomes 712.25 2 places; 770.5 becomes 764.5 two places.

p. 158, line 15: "Fig. 5.7" becomes "Fig. 6.7".

p. 385 (index), right column, 10 lines from bottom: "184" becomes "186".