RF Microelectronics, Second Edition

Errata

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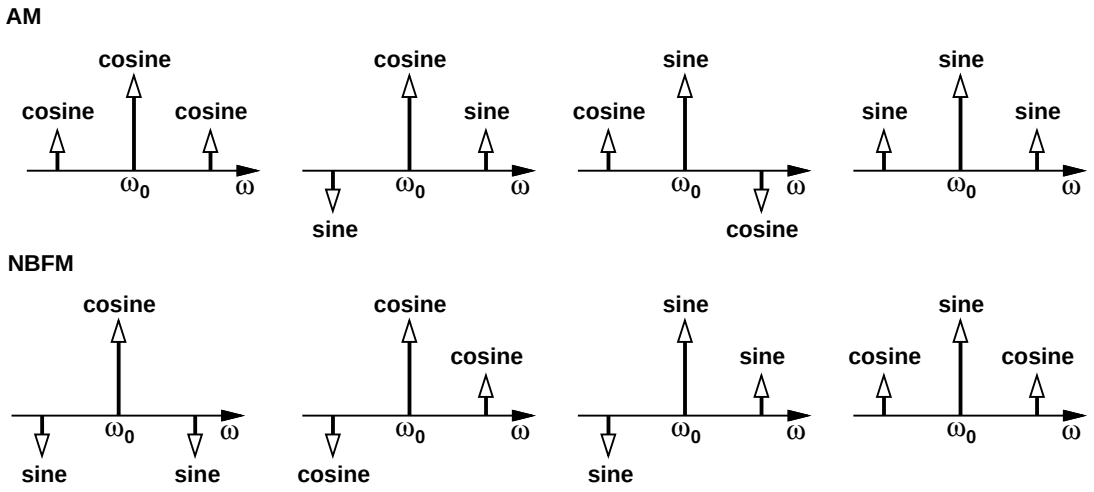
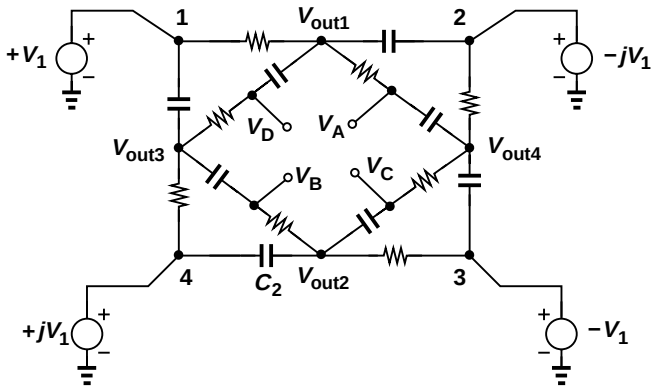
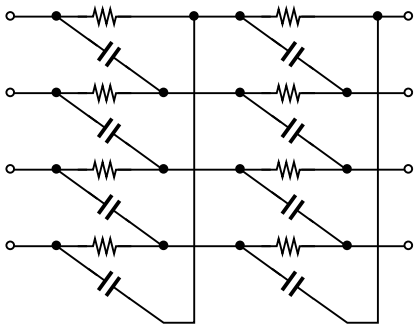
- Example 2.11, change Eq. (2.53) to 3.16 V_p and Eq. (2.54) to $+20$ dBm.
- On page 40, last paragraph, the noise current of a resistor should read $\overline{I_n^2} = \overline{V_n^2}/R_1^2$.
- Prob. 2.3, second line should read: consider the cascade of identical ...
- Prob. 2.5 should read $\omega_3 - \omega_2 = \omega_2 - \omega_1$.
- Fig. 3.9 should be changed as shown below:



- In the first paragraph of Section 3.3.3, change the last sentence to ... decrease this bandwidth to about $1/T_b$.
- On page 115, in the paragraph starting with "The concept of QAM ..." change eight to six.
- In Fig. 4.15(b), change $2\omega_{in} - \omega_{LO}$ to $2\omega_{LO} - \omega_{in}$.
- In Example 4.27, page 202, change $\exp(-j\omega_c t)$ to $\exp(+j\omega_c t)$.
- Fig. 4.81(a) should be changed as shown on the next page.
- Example 4.36, the first sentence in solution should read: We have $V_{out1} = (1/2)(1-j)V_1$ and ...



(a)



(b)

- Example 5.5, third line in solution: Since it is desired that $R_{in} = R_S$,
- The R_S in the denominators of (5.96) and (5.100) must be multiplied by j.
- On page 349, first paragraph, change Fig. 6.16(b) to Fig. 6.16.
- In Fig. 6.14(b), the spectral density on the right should change from $2kTR_S$ to kTR_S.
- Equation (6.65) should read:

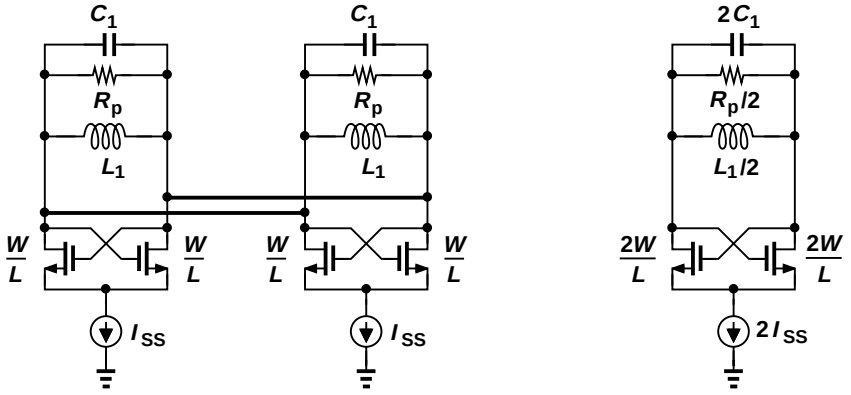
$$R_{D,max} = \frac{V_{R,max}}{I_{D1}} \tag{1}$$

  because R_D carries all of the tail current under this condition. Equations (6.67), (6.68), and (6.69) should also be scaled down by a factor of 2.
- Example 6.21, last three lines of solution: Note that $V_{n2}(f)$ is typically very large because M_2 and M_3 are relatively small.
- Example 7.6, Eq. (7.33) should read:

$$C_{eq} = \frac{C_1 + \cdots + C_{4(N-1)}}{[4(N-1)]^2} \tag{2}$$

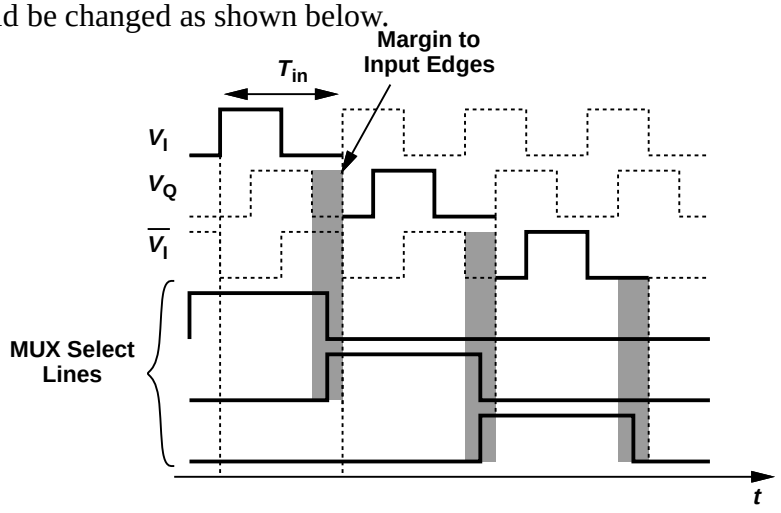
  Eq. (7.125) in Problem 7.3 must also be corrected as above.
- The line above Eq. (7.48) should read: equal to $K|I_{u,n}|^2 R_{sub}$.
- p. 488, the sentence below Eq. (7.114) should read $Z_1 d = R_{tot}/2$ and $Y_1 d = C_{tot} s/2$.
- Prob. 7.10, Assume the inductance is about 9 times that of one spiral.
- Eq. (8.5): the sign before the second fraction should change from positive to negative.

- In Eq. (8.19), change ϕ_0 to ϕ_1.
- In the sentence above Eq. (8.43), change rad/Hz/V to rad/s/V.
- Fig. 8.84 (b) should be changed as shown on the next page.

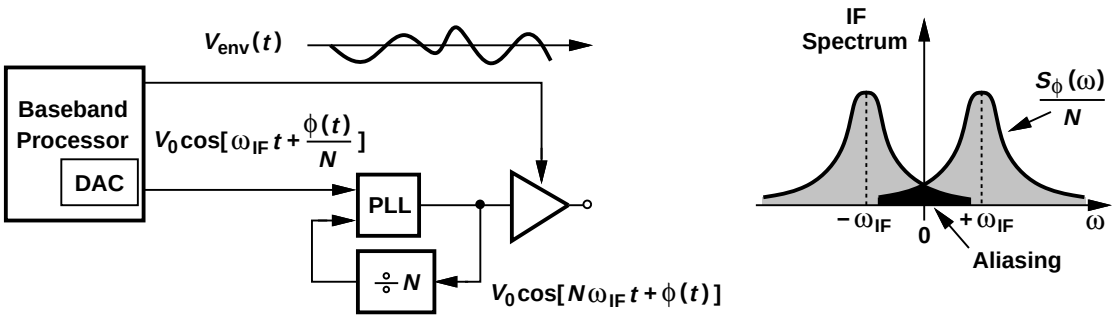


(a) (b)

- The inverting and non-inverting inputs of A_0 in Fig. 9.53 should be swapped (because C_X is usually much less than $C_1 + C_2$ and hence the feedback loop on the left dominates).
- The denominator of (10.75) should read Ns rather than NS.
- Fig. 11.45 should be changed as shown below.



- Fig. 12.53(b) should be changed as shown below.
- Problem 12.3 should read: Prove that in Fig. 12.17, the voltage swings above and below V_{DD} are equal to V_p/π and $V_p(\pi - 1)/\pi$, respectively, where V_p denotes the peak voltage at each node. (Hint: the average value of V_X and V_Y must be equal to V_{DD}.)
- In the solution of Example 13.1, the second line should read: However, a 64QAM OFDM signal exhibits ... . And the last sentence should read: The -82-dBm PSK OFDM signal



(a) (b)

has roughly the same behavior. Note that this correction affects the gain calculations after this example.

- In Figs. 13.17, 13.19, and 13.22, change the length of the baseband PMOS devices from 1.2 to 0.12.