<table>
<thead>
<tr>
<th>Location</th>
<th>Error</th>
<th>Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page 9 (The third term in brackets of the first line of Eq. 1.5-3)</td>
<td>( \frac{2I_2(x)}{I_0(x)} \cos \omega_2 t )</td>
<td>( \frac{2I_2(x)}{I_0(x)} \cos 2\omega_1 t )</td>
</tr>
<tr>
<td>Page 9 (In the example at the bottom)</td>
<td>( g(t) \neq (1 \text{ mV})(1 + \cos \omega_m t) \cos \omega_2 t )</td>
<td>( g(t) = (1 \text{ mV})(1 + \cos \omega_m t) ) because ( g(t) \cos \omega_2 t ) is defined to be the received AM signal in the first paragraph of Section 1.5</td>
</tr>
<tr>
<td>Page 12 (On the line starting with ( x \approx 4 ))</td>
<td>( V_1 \neq 4 \times 26 )</td>
<td>( V_1 = 4 \times 26 \text{ mV} )</td>
</tr>
<tr>
<td>Page 12 (In the calculation of ( Q_T ))</td>
<td>( \omega_0 ) is not defined</td>
<td>( \omega_0 = 10^7 \text{ rad/s} ) is assumed</td>
</tr>
<tr>
<td>Page 27 (Fig. 2.2-4)</td>
<td>( \alpha \neq \frac{1}{2} RC )</td>
<td>( \alpha = \frac{1}{2} RC )</td>
</tr>
<tr>
<td>Page 43 (8 lines from bottom)</td>
<td>( Q_E \neq \frac{\omega_0 L_1 L_2}{G(L_1 + L_2)} )</td>
<td>( Q_E = \frac{(L_1 + L_2)}{\omega_0 L_1 L_2 G} )</td>
</tr>
<tr>
<td>Page 44 (3 lines above Fig. 2.4-7)</td>
<td>( Z'_{12} \neq \frac{V_o 2(p)}{V_o 1(p)} )</td>
<td>( Z'_{12} = \frac{V_o 2(p)}{I_i(p)} )</td>
</tr>
<tr>
<td>Page 50 (just below Fig. 2.5-4)</td>
<td>( Q_{T'} \neq \frac{\omega_0 C}{\left( \frac{M}{L_1} \right) G} )</td>
<td>( Q_{T'} = \frac{\omega_0 C}{\left( \frac{M}{L_1} \right)^2 G} )</td>
</tr>
<tr>
<td>Page 50 (4 lines below Fig. 2.5-4)</td>
<td>( Q_{T'} \neq \frac{\omega_0 C}{k^2 G \alpha^2} )</td>
<td>( Q_{T'} = \frac{\omega_0 C}{k^2 G \alpha^2} )</td>
</tr>
<tr>
<td>Page 105 (3 lines below Eq. 4.5-2)</td>
<td>( g_m \neq \frac{v(t)}{i(t)} )</td>
<td>( g_m = \frac{i(t)}{v(t)} = \frac{q I_{dc}}{kT} )</td>
</tr>
<tr>
<td>Page 208 (Imaginary part of ( A_L ))</td>
<td>( \text{Im} \ A_L(j \omega_0) \neq \frac{A_{\min} \omega_1 \omega_0 (\omega_1 \omega_2 - \omega_0^2)}{\omega_0^2 (\omega_1 + \omega_2)^2 + (\omega_1 \omega_2 - \omega_0^2)} )</td>
<td>( \text{Im} \ A_L(j \omega_0) = \frac{A_{\min} \omega_1 \omega_0 (\omega_1 \omega_2 - \omega_0^2)}{\omega_0^2 (\omega_1 + \omega_2)^2 + (\omega_1 \omega_2 - \omega_0^2)^2} )</td>
</tr>
</tbody>
</table>
**Page 454 (Triangular pulse)**

\[ I_n \neq I_p \tau \frac{\sin(n\pi\tau/2T)}{n\pi\tau/2T} \]

**Page 595 (Between Eqs. 12.4-7 and 12.4-8)**

\[ |Z_{11}(j\omega_0)|' \neq \pm \frac{2R}{3\sqrt{3}} \]

\[ |Z_{11}(j\omega_0)|'' \neq \pm \frac{6R}{\alpha^3\sqrt{3}} \left(\frac{2}{3}\right)^2 \]

**Page 595 (Eq. 12.4-8)**

The second term in brackets has a (+) sign only

This term should be \[ \frac{\sqrt{2}}{3} \frac{\Delta \omega f(t)}{\alpha} \]

The third term in brackets has a (±) sign and the book forgot to divide by 3!=6

This term should be \[ \pm \frac{2\sqrt{2}}{6} \left(\frac{2}{3}\right)^3 \left[\frac{\Delta \omega f(t)}{\alpha}\right]^3 \]

**Page 595 (Just after Eq. 12.4-8)**

The values for 2\(\Delta \omega/3\alpha\) and BW are incorrect in the following phrase: Now, if 2\(\Delta \omega/3\alpha\) ≤ 0.04 or, equivalently, BW ≥ 100\(\Delta \omega/3\) ...

The phrase should be: Now, if 2\(\Delta \omega/3\alpha\) ≤ 0.1 or, equivalently, BW ≥ 40\(\Delta \omega/3\) ...

**Page 596 (First line)**

BW ≠ 100\(\Delta \omega/3\)

BW = 40\(\Delta \omega/3\)

**Page 596 (Eq. 12.4-9)**

\[ v_o(t) \neq I_1 R \sqrt{\frac{2}{3}} \left[1 \pm \frac{f(t)}{25\sqrt{2}}\right] \]

\[ v_o(t) = I_1 R \sqrt{\frac{2}{3}} \left[1 \pm \frac{f(t)}{10\sqrt{2}}\right] \]

**Page 596 (After Eq. 12.4-9)**

The values of (\(\Delta \omega/\alpha\))^2 and \(\beta\) are incorrect in the following phrase: For the circuit just considered, (\(\Delta \omega/\alpha\))^2 = 0.0036, hence, for any value of \(\beta\) greater than 0.36 ...

The phrase should be: For the circuit just considered, (\(\Delta \omega/\alpha\))^2 = 0.0225, hence, for any value of \(\beta\) greater than 2.25 ...

**Page 596 (Example)**

BW ≠ 2\(\pi\)(1.5 MHz)

\(\omega_c\) ≠ 2\(\pi\)(11.23 MHz)

\(Q_T\) ≠ 7.5

\(C\) ≠ 6.7 pF

\(L\) ≠ 12 \(\mu\)H

\[ v_o(t) \neq (8.15V) + (0.23V)f(t) \]

\[ v_o(t) = (8.16V) + (0.58V)f(t) \]

**Page 645 (Problem 2.7)**

Bandwidth ≠ 242 kHz

Bandwidth = 477 kHz

**Page 645 (Problem 3.6)**

\[ V_{o22} \neq \frac{200I_2}{\sqrt{5}} \]

\[ V_{o22} = \frac{200I_2}{300\sqrt{5}} \]

**Page 646 (Problem 6.1)**

\(C\) ≠ 1370 pF

\(C\) = 459 pF