Errata Page

High-Speed Signal Propagation: Advanced Black Magic

To use the errata listing it helps to know which version (printing) of the book you have. On page vi (the page facing Will Rogers) near the bottom, just above the ISBN number, you will see a row of numbers in backwards order. The smallest number on this list is your version number. For example, if the list shows "10 9 8 7 6 5 4", then your book is from the 4th printing.

The first column of the errata listing shows the printing of the book in which we have confirmed each correction has been made. For example, I have confirmed that the errata item on page 23 was corrected by the 4th printing. If your book is from the 4th or later printing you need not check your book for that particular correction -- it's already been made. That particular correction *may* have been made in an earlier printing (Prentice Hall does not keep records of which correction was placed in which printing), but we *know* it was incorporated at least into the 4th (I know because I obtained a 4th-printing book and checked it).

I hope this listing helps you to get the most out of your book.

Correct in print#	Page#	Changes confirmed
3	xxvii	The word "siemens" is mis-spelled consistently throughout the text. The correct spelling has an "e" in the last syllable. When referring to the unit of conductance the word is NOT capitalized, and always appears in the plural form—siemens. When referring to the company having the same name the word IS capitalized—Siemens. p. xxvii, Glossary entry for **S**: "International unit of conductance, ~~the Sieman~~ siemens." p. 33 just above figure 2.2, "~~Sieman-per-unit-length~~ Siemens-per-unit-length" p. 33 footnote (5): "One ~~Sieman~~ siemens, the international standard unit of conductivity, is the inverse of an ohm, the unit of resistivity. An element of resistance *r* ohms has a conductivity of 1/*r* ~~Siemans~~ siemens." p. 576 above Figure 11.23: ~~Siemans~~ Siemens MT-RJ p. 576 inside Figure 11.23: **~~Siemans~~ Siemens MT-RJ** p. 708, ref [92]: G. Mahlke and P. Gössing, *Fiber Optic Cables,* 3rd ed.,

		Publicis MCD Verlag, Erlangen (for ~~Siemans~~ Siemens Aktiengesellschaft)
4	23	Figure 1.5: "~~Ideal digital source with infinitely fast risetime~~ Ideal source"
3	27	Figure 1.7: "~~Ideal digital source with infinite risetime~~ Ideal source"
3	57	in the notes to equation [2.41], "R_{DC} ~~s~~ is the series…"
3	96	Box: "That's why in the ~~50-meter (20 MHz)~~ 15-meter (21 MHz) Ham radio band"
3	99	Point to remember #3 change l to q: "For small loss tangents ~~l~~ q…"
3	108	Equation [2.88], incorrect phase on second line of expression: "~~$(1 + jq)$~~ $(1 - jq)$". The corrected equation should read: $$\varepsilon_r(\omega) = \frac{k_0}{\cos\theta}\left(\frac{j\omega}{\omega_0}\right)^{-\frac{2}{\pi}\theta}$$ $$= k_0\left(\frac{\omega}{\omega_0}\right)^{-\frac{2}{\pi}\theta}(1 - j\theta)$$
3	119	Point to remember: "penetrate to a ~~futher~~ further depth"
3	123	bottom of page: "Z_0 represents the ~~average impedance over a section of transmission line with a delay~~ nominal impedance observed on a scale of time comparable to the duration of one rising (or falling edge)"
tbd	133	Equation [3.18] is missing a factor of "H" in the numerator.
tbd	147	Oops, I calculated in equation 3.50 to "total" line capacitance when I was, according to the pi model, supposed to calculate only "half" the line capacitance. This doesn't change the conclusions, but the numbers are different. Change the value on the right-hand side of equation 3.50 from "2.5" to "1.25". Towards the end of the next paragraph change "and the 2.5 pF" to "and the 1.25 pF". In the denominator of equation 3.51 change "2.5" to "1.25" Change the value on the right-hand side of equation 3.51 from "6.1" to "8.7" On page 148, in the first paragraph of text, change "2.5 pF" to "1.25 pF" In the denominator of equation 3.52 change "12.5" to "11.25" Change the value on the right-hand side of equation 3.52 from "2.7" to "2.9" In the following paragraph change "2.3 ns" to "2.2 ns"
3	155-157	sections 3.5.6.1 - 3.5.6.4: italics and subscripts are broken in multiple places—p. 155 in 1 place, p. 156 in 15 places, and p. 158 in 5 places. The most damaging problem is that the italic l symbol for length when set in regular font looks exactly like the numeral 1. That particular error occurs in the *where* clause below equation [3.62], the *where* clause below

		equation [3.62], and in the discussion below equation [3.67].
4	165	at the bottom of figure 3.15 change "R_5" to "R_6" as it corresponds to "C_6"
tbd	178	Equation [3.97] is missing a factor of "H" in the numerator (same as [3.18]).
3	183	footnote at bottom of page: "voltage a little less than 50% ~~[3.106]~~…"
tbd	183	in "Points to Remember" block following section 3.6.6.5, in the second point, change "The end-termination..." to read: "The both-ends termination..."
tbd	213	equation 3.140: find the term w_1. The subscript 1 ("one") should be changed to 0 ("zero").
tbd	214	equation 3.141: Find the term v_1. The subscript 1 ("one") should be changed to 0 ("zero"). Find the term w_1. The subscript 1 ("one") should be changed to 0 ("zero").
3	271	top of page: "loss tangent of the microstrip configuration is determined (see [~~2.87~~ 2.85])"
3	408	In the first bullet: the numbers "52" at the end of the sentence should be in superscript (character type *footnote reference*), as they are a reference to the footnote at the bottom of the page.
3	417	5th paragraph: "In most cases the <u>returning</u> currents are almost as big as…"
3	418	1st paragraph: "If <u>your</u> risetime exceeds…"
3	627	Figure 12.46: On the left side of the figure the designation "+5 V" should be changed to read: "+2.5 V"
3	647	Table 12.4: the last row should be centered like all the others. It is not special.
3	650	***PLL loop testing***, 1st paragraph, 3rd sentence: "An ideal clock is fed into the artificial ~~VCO~~ <u>PLL</u> as a reference."
tbd	715	in "Points to Remember" for section 3.6.6 (yes, this is the correct number as these points refer to all of 3.6.6.1 through 3.6.6.5) change "The end-termination is least sensitive..." to read: "The both-ends termination is least sensitive..."