## TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook

 19 January 1999| Page | Correction | File |
| :---: | :---: | :---: |
| $x$ | "Multliplexing" corrected to "Multiplexing" | Contents.wxp |
| 1 | Frequency assignments (bullets at bottom of page) switched! | Intro.wxp |
| 25 | Two incorrect references to (1.13c) changed to (1.17c) | Intro3.wxp |
| 36 | $\omega$ changed to $\omega_{0}$ at bottom of page | Intro3.wxp |
| 37 | $\omega$ changed to $\omega_{0}$ at top of page | Intro3.wxp |
| 42 | Incorrect reference to (1.20) changed to (1.24) | Intro3.wxp |
| 43 | "rectangular window $\operatorname{sinc}(f / 2 W)$ " changed to "rectangular window $\operatorname{Rect}(f / 2 W) "$ | Intro3.wxp |
| 51 | Period removed from (1.31b) | Intro4.wxp |
| 59 | Needed "the" inserted on bottom line | Intro4.wxp |
| 62 | Missing references to Figures 1.51 and 1.52 added | Intro5.wxp |
| 154 | Extra quotation mark in [1] removed | Intro8.wxp |
| 776 | Missing brackets added to (7.103b) | Modem7.wxp |
| 1166 | Incorrect " $\rho_{\text {traf }}$ " in Figure 11.20 changed to " $\rho_{\text {pil }}$ " | Cdmaopt3.wxp, asymcap2.gra |
| 1171 | " $\mathrm{N}_{\mathrm{m}} \mathrm{L}_{\text {net }}$ " in (11.39a) changed to " $N_{m} \mathrm{~L}_{T}(R)$ " | Cdmaopt4.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook SECOND SET OF CORRECTIONS

22 June 1999

| Page | Correction | File |
| :---: | :---: | :---: |
| 446 | Subscripts in (5.17a) and (5.17b): $i$ should be first. | Walcrc2.wxp |
| 565 | Fourth element in bottom row of matrix in (6.17d) should be $\mathrm{c}_{\mathrm{n}-3}$, not $\mathrm{c}_{\mathrm{n}-1}$ | Pnseq.wxp |
| 565 | Third element in left column of matrix in (6.17f) should be $\mathrm{c}_{\mathrm{n}-3}$, not $\mathrm{c}_{3}$ | Pnseq.wxp |
| 593 | Third line of 6.3.4: "reqister" should be "register" | Pnseq3.wxp |
| 596 | "the the" | pnseq3.wxp |
| 602 | Last character on page: " $n$ " should be " 4 " | pnseq3.wxp |
| 770 | Two places: "BPSK" should be "QPSK" | Modem7.wxp |
| 797 | Top line: "waveforms" should be singular | Modem9.wxp |
| 833 | End of line above "(7D.7b)": "[1+2•0 + 1]" should be " $[1-2 \bullet 0+1]$ " | Modem10.wxp |
| 1070 | (10.61c) should have $e^{\beta^{2} \sigma_{d B}^{2}}$ in the numerator inside the brackets | Cdmaeng4.wxp |
| 1071 | Corrections to (10.62a) and (10.62b) in accordance with the correction to (10.61c) | Cdmaeng4.wxp |
| 1071 | 5th and 4th lines from the bottom: 18,24 , and 33 should be 16,22 , and 29 | Cdmaeng4.wxp |
| 1072 | Figure 10.30 should be replaced with new calculations | Cdmaeng4.wxp |


| 1073 | Figure 10.31 should be replaced with new calculations | Cdmaeng4.wxp |
| :--- | :--- | :--- |
| 1074 | 4th line: 18,24, and 26\% should be 16, 22, and 35\% | Cdmaeng4.wxp |
| 1074 | 7th line from bottom: "nearly the same result for CDMA blocking <br> probability" should be "similar results for CDMA blocking <br> probabilities greater than 1\%." | Cdmaeng4.wxp |
| 1075 | Figure 10.32 should be replaced with new calculations | Cdmaeng5.wxp |
| 1076 | Figure 10.33 should be replaced with some new calculation | Cdmaeng5.wxp |

New Figure 10.32


New Figure 10.33


## TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook THIRD SET OF CORRECTIONS <br> 18 October 1999

| Page | Correction | File |
| :---: | :--- | :--- |
| 166 | Capitalize beginning of line following (2.4a) | Moprop.wxp |
| 178 | Capitalize beginning of line following (2.18a) | Moprop2.wxp |
| 220 | Delete "multipath signals" at top of page (duplicated from previous <br> page! | Moprop7.wxp |
| 227 | "recived" corrected to "received" | Moprop7.wxp |
| 232 | "space-frequency" corrected to "spaced-frequency" | Moprop7.wxp |
| 234 | "affects" corrected to "effects" | Moprop7.wxp |


| 244 | Equal sign missing after first 0.7172 in (2.110a) | Moprop8.wxp |
| :--- | :--- | :--- |
| 247 | "speeed" corrected to "speed" on first line | Moprop8.wxp |
| 247 | "fade rate" corrected to "fade duration" in line before (2.112a) | Moprop8.wxp |
| 372 | "are" corrected to "there are" on first line of second paragraph | Is95ov3.wxp |
| 372 | "Therfore" corrected to "Therefore" | Is95ov3.wxp |
| 373 | "an small amount" corrected to "a small amount" | Is95ov4.wxp |
| 427 | 3rd line from bottom: $(0,1)$ corrected to $(0, T)$ | Walcrc.wxp |
| 473 | (5.41b): Missing correlation with $\boldsymbol{W}_{14}$ was added | Walcrc3.wxp |
| 474 | 2nd paragraph of 5.5.2: "set if" corrected to "set of" | Walcrc3.wxp |
| 476 | Example $5.19:$ "by given by" corrected to "be given by" | Walcrc3.wxp |
| 626 | Last line: "autocorrelations" corrected to "autocorrelation" | Pnseq5.wxp |
| 722 | Corrected font used for subscript Q in $(7.35 \mathrm{c})$ | Modem3.wxp |
| 722 | Corrected first parts of equations $(7.35 b)$ and $(7.35 \mathrm{c})$ | Modem3.wxp |
| 728 | Changed the phase $\theta$ to $\theta^{\prime}$ to distinguish from received phase | Modem3.wxp |
| 730 | Changed the phase $\theta$ to $\theta^{\prime}$ to distinguish from received phase | Modem3.wxp |

## TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook FOURTH SET OF CORRECTIONS

## 27 October 1999

| Page | Correction | File |
| :---: | :---: | :---: |
| 502 | 2nd line from bottom: $2^{\mathrm{k}}$ corrected to $2^{\mathrm{n}-\mathrm{k}}$ | Walcrc4.wxp |
| 504 | Last line of definition: $\mathrm{c}_{\mathrm{n}}$ corrected to $\mathrm{c}_{\mathrm{n}-1}$ | Walcrc4.wxp |
| 511 | Step 4: added missing prime to remainder: $r^{\prime}(x)$ | Walcrc4.wxp |
| 521 | Equation above section 5.8.3: removed right parenthesis | Walcrc5.wxp |
| 538 | Made font of $\mathrm{g}(x)$ consistent by changing to $g(x)$ | Walcrc7.wxp |
| 540 | Made font of $\mathrm{g}(x)$ consistent by changing to $g(x)$ | Walcrc7.wxp |
| 851 | Bottom line: font of G changed to make it consistent | Cvcod.wxp |
| 858 | Figure 8.11: notation changed for consistency | Cvcod2.wxp |
| 861 | 5th line: "transition if" corrected to "transition is" | Cvcod2.wxp |
| 873 | 4th line above (8.20a): "is" corrected to "are" | Cvcod4.wxp |
| 876 | 5th line from bottom "single-state" corrected to "single state" | Cvcod4.wxp |
| 880 | Unnumbered equation: notation changed for consistency | Cvcod5.wxp |
| 880 | Last two paragraphs: bold added to $\boldsymbol{a}$ where missing | Cvcod5.wxp |
| 882 | 3rd line from bottom: "other" corrected to "other over" | Cvcod6.wxp |
| 890 | Section 8.4: "that" changed to "the" (2nd line), "the" changed to "a" (4th line), "difference" changed to "different" (5th line) | Cvcod6.wxp |
| 892 | 2nd line before (8.26a): "of a" corrected to "of error for a" | Cvcod7.wxp |
| 893 | 3rd line before (8.28a): second argument of $\mathrm{P}_{2}$ corrected to be $d$ | Cvcod7.wxp |
| 901 | 1 st line of (8.35c): numerator corrected to $D^{3} N\left(D-D^{3} N+D^{3} N\right)$ | Cvcod7.wxp |
| 958 | 2nd line after (9.19a): corrected to "independent squared Rayleigh" | Divers3.wxp |
| 969 | (9.31a): delete " 2 " just before last $\rho_{l}$ in the equation | Divers3.wxp |
| 982 | Change the wording of the first two sentences of the final paragraph | Divers4.wxp |



New Figure 8.11


TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook FIFTH SET OF CORRECTIONS

24 November 1999

| Page | Correction | File |
| :---: | :--- | :--- |
| 451 | 3rd paragraph: "from multiplication table" corrected to "from the <br> multiplication table" | Walcrc2.wxp |
| 547 | 3rd line below (6.6a): (6.2-2) corrected to (6.5b) | Pnseq.wxp |
| 549 | 4th line: "Another method" changed to "Another addition method" | Pnseq.wxp |
| 564 | 4th line of second paragraph: replace "the loading vector" with "a" | Pnseq.wxp |
| 564 | $\boldsymbol{T}$ corrected to $\boldsymbol{T}_{S}$ in (6.17b) | Pnseq.wxp |
| 565 | Lines above (6.17f): "these equation" corrected to "these equations" | Pnseq.wxp |
| 565 | 2nd line after (6.17f): "PN based" corrected to "PN generator based" | Pnseq.wxp |
| 1042 | Line above (10.35e): corrected font of quantity $X$ | Cdmaeng3.wxp |
| 1060 | Line below (10.51a): corrected font of first character on line | Cdmaeng4.wxp |
| 1065 | Line above (10.59a): delete "and" | Cdmaeng4.wxp |
| 1087 | 3rd line from bottom: correct "assumption" to "assumptions" | Cdmaeng5.wxp |
| 1087 | 2nd line from bottom: correct "channels" to "channels with $N=30 "$ | Cdmaeng5.wxp |
| 1088 | 4th line of last paragraph: font of last character in "values" corrected | Cdmaeng5.wxp |
| 1097 | 2nd line above (10.77): "26 log 835" corrected to "26 log $10835 "$ | Cdmaeng6.wxp |
| 1103 | Line 8: extra space deleted in "each propagation" | Cdmaeng6.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook SIXTH SET OF CORRECTIONS

29 November 1999

| Page | Correction | File |
| :---: | :--- | :---: |
| 247 | 9th line from bottom: "Section 1.5.4" corrected to "Section 1.5.10" | Moprop8.wxp |
| 1040 | In (10.33e), $d_{r}$ corrected to $\alpha_{r}$ | Cdmaeng3.wxp |

## TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook SEVENTH SET OF CORRECTIONS

31 March 2000

| Page | Correction | File |
| :---: | :--- | :---: |
| 1041 | In (10.35d), "-299" corrected to "-199" | Cdmaeng3.wxp |
| 1045 | In (10.37c), $N_{\text {tot }}$ corrected to $N_{0, T}$ | Cdmaeng3.wxp |
| 1046 | In (10.37f), $N_{\text {tot }}$ corrected to $N_{0, r}$ (two places) | Cdmaeng3.wxp |
| 1047 | In middle of page, $N_{\text {tot }}$ corrected to $N_{0, T}$ | Cdmaeng3.wxp |
| 1047 | Last word on page corrected to "change" | Cdmaeng3.wxp |
| 1175 | 5th line from the bottom: "as means" corrected to "as a means" | Cdmaopt4.wxp |

## TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook EIGHTH SET OF CORRECTIONS <br> 9 August 2000

| Page | Correction | File |
| :---: | :--- | :--- |
| 672 | 2nd line of proof: subscript to f on right upper bracket is b, not a | Pnseq7.wxp |
| 789 | 5th line from bottom: (7.118d) corrected to (7.118f) | Modem9.wxp |
| 789 | Bottom line: 224 corrected to 112 | Modem9.wxp |
| 790 | Figure 7.64 replaced | Modem9.wxp |
| 815 | Name in Reference [12] is "Davenport", not "Daveport" | Modem10.wxp |
| 971 | 1st line after (9.34a): "To the find" corrected to "To find" | Divers3.wxp |

New Figure 7.64


TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook NINTH SET OF CORRECTIONS

8 February 2001

| Page | Correction | File |
| :---: | :--- | :---: |
| 564 | First line of (6.17a) corrected to $x_{n}(t+1)=x_{n-1}(t)$ | Pnseq.wxp |
| 564 | Second line of $(6.17 \mathrm{a})$ corrected to $x_{n-1}(t+1)=x_{n-2}(t)$ | Pnseq.wxp |
| 564 | Third line of (6.17a) corrected to $x_{2}(t+1)=x_{1}(t)$ | Pnseq.wxp |
| 565 | Line following (6.17e): equation reference corrected to (6.17b) | Pnseq.wxp |
| 569 | $14^{\text {th }}$ line from bottom: "the the" corrected to "the" | Pnseq.wxp |
| 1059 | Size of font on right side of (10.49b) corrected | Cdmaeng4.wxp |
|  |  |  |
|  |  |  |
|  |  |  |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook TENTH SET OF CORRECTIONS

24 May 2001

| Page | Correction | File |
| :---: | :--- | :--- |
| 182 | Minus required after first equal sign in (2.23d) | Moprop2.wxp |
| 192 | $\mathrm{~L}_{\text {mds }}$ in (2.31a) should be $\mathrm{L}_{\text {msd }}$ | Moprop3.wxp |
| 339 | $8^{\text {th }}$ line of second paragraph: spelling of "synchronization" corrected | Is95ov.wxp |
| 343 | $2^{\text {nd }}$ line from bottom: spelling of "spectrum" corrected | Is95ov.wxp |
| 352 | $3^{\text {rd }}$ line above (4.5): corrected "and and" | Is95ov2.wxp |
| 356 | $2^{\text {nd }}$ line of Table 4.3: "Parameter" should be "Data rate" | Is95ov2.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook ELEVENTH SET OF CORRECTIONS

15 August 2001

| Page | Correction | File |
| :---: | :--- | :---: |
| 11 | Insert the word "of" at the end of the second line after (1.4) | Intro2.wxp |
| 1082 | Following the heading "Ideal capacity equation," the two sentences <br> should read: "When we derived the ideal capacity equations, we <br> neglected thermal noise, and perfect power control was assumed. <br> The expression for the maximum number of users was given in <br> $(10.59 \mathrm{~d})$ as" | Cdmaeng5.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook TWELFTH SET OF CORRECTIONS

3 October 2001

| Page | Correction | File |
| :---: | :--- | :---: |
| 218 | On the right side of $(2.47)$ correct " t " to " $\tau$ ". | Moprop7.wxp |
| 228 | In the third term of $(2.77 \mathrm{~b})$, correct " $\alpha_{2} / \kappa$ " to " $\alpha_{2} "$. | Moprop7.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook
THIRTEENTH SET OF CORRECTIONS
25 April 2002

| Page | Correction | File |
| :---: | :--- | :---: |
| 753 | Figure 7.48 corrected: $\mathrm{C}_{I}\left(\mathrm{t}-T_{\mathrm{c}} / 2\right)$ to $\mathrm{C}_{Q}\left(\mathrm{t}-T_{\mathrm{C}} 2\right)$ | Modem5.wxp |
| 1041 | Numbers on right side of $(10.35 \mathrm{~d})$ corrected: <br> -138.1 to -137.9 and -108.1 to -107.9 | Cdmaeng3.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook FOURTEENTH SET OF CORRECTIONS

21 October 2002

| Page | Correction | File |
| :---: | :---: | :---: |
| 183 | Line above (2.24): $\frac{h_{0}^{2}}{d_{r}^{2}}$ corrected to $\frac{h_{0}^{2}}{2 d_{r}^{2}}$ | Moprop2.wxp |

TYPOGRAPHICAL CORRECTIONS TO CDMA Systems Engineering Handbook FIFTEENTH SET OF CORRECTIONS

4 November 2004

| Page | Correction | File |
| :---: | :--- | :---: |
| 173 | Right side of (2.13a) corrected to: <br> $\left\{\begin{array}{l}h_{g i}, \\ h_{g i}+\left[1+c \sin \left(\frac{\pi h_{g i}}{10 m}\right)\right] \cdot e^{-2 h_{g i} / \Delta h}, \quad \text { selected siting }\left(h_{g i} \leq 5 m\right) \\ h_{g i}+(1+c) \cdot e^{-2 h_{g i} / \Delta h},\end{array} \quad\right.$ selected siting $\left(h_{g i}>5 m\right)$ | Moprop.wxp |
| 178 | $(2.16)$ corrected to: <br> $h_{e b}=h_{g b}+(1+4) e^{-2 h_{g b} / \Delta h}=50+5 e^{-2.50 / 100}=51.8 m$ | Moprop2.wxp |
| 895 | $D=\sqrt{p(1-p)}$ corrected to $D=\sqrt{4 p(1-p)}$ in $(8.29 \mathrm{e})$ |  |

