August 11, 2007 Errata for Frequency Synthesis by Phase Lock, 2nd Edition

Number of the printing is given by last number in "10 9 8 7 ..." on bottom of copyright page.
Spaces are not included in line counts below.

ERRORS IN FIRST THROUGH THIRD PRINTINGS

pages xxii and 567, last line: 212-850-6753 becomes 201-748-6753.

p. 112, Fig. 3.38b: delete "13" on bottom-right.

p. 114, Fig. 3.38d: Remove the φ subscript from script-L, 2 places.

p. 115, Fig. 3.38(e), #s 23-25: "Mono" $\Rightarrow$ "Astable", 3 places.

p. 117, Table 3.1,lines 23-25: "monostable" $\Rightarrow$ "astable", 3 places.

p. 131, Fig. 3.53b: label for dashed line: $S_{\varphi,\text{ref}} \Rightarrow N^2 S_{\varphi,\text{ref}}$.

p. 157, Eq. (4.14): $N_{2,\min} \Rightarrow (N_{2,\min} + 1)$

p. 161, middle: "ORing" $\Rightarrow$ "ANDing".

p. 187, 188: Revised Correction:
In Eq. (5.13)-(5.21), the arguments of the logs should be absolute values, [ ] $\Rightarrow$ | |.
Delete n in the denominator of Eq. (5.14). Other changes follow from that.
In the line above Eq. (5.17), delete: ", plus the doubling of the value of n,".
Delete "-6 dB" at the end of Eq. (5.17).
Two lines below Eq. (5.17), insert "deletion of the" before "last term".
Delete 2 from the denominator of Eqs. (5.18), change 4 to 2 in the denominator of Eq. (5.19), and change -12 dB to
 -6 dB in Eq. (5.20).
Change the lines above Eq. (5.21): This 10 dB reduction, ~~combined with the change in~~ n ~~from 2 to 1,~~ gives ~~a 4 dB~~
 ~~smaller sideband~~:

p. 273, 7 lines from the end: In the second equation, z's should be bold capitals, representing matrices, i.e.,

$$\text{"becomes } \mathbf{Z}^n = \prod_{i=1}^{n} \mathbf{Z} \text{."}$$

p. 303, 2 lines above Eq. (7.1): Δt moves left to follow "change".

p. 322, Fig. 719: "6.T.1" becomes "6.T.2" at end of caption

p. 329, last sentence: $f_{\text{ref}} \Rightarrow \varphi_{\text{ref}}$.

p. 383: Eq. (8.57), add, after =, $F_{ref} n_{fract}$, i.e.,

$$f_{fract} = F_{ref} n_{fract} = F_{ref} N_2 2^{-n_2} \; ;$$

  3 lines lower, $f_{ref} \Rightarrow F_{ref}$.

pp. 383-387: Change f_{fract} to n_{fract} eleven places, namely 4 lines below
Eq. (8.57), 2 lines above Eq. (8.58), first line p. 384, Eqs. (8.59), (8.60),
(8.61), (8.64), (8.67), inputs (3 total) in Figs. 8.24-8.26.

p. 387, far right in Fig. 8.26, near the top right, the right side of $N_3(z)$ is missing.

p. 388
Replace footnote 8 by:

If we account for the sampled nature of the loop, we will obtain a solution that is valid also at higher modulation
frequencies,

$$S_\varphi = \frac{(2\pi\,\mathrm{rad})^2}{6 f_{ref}} \left[2\sin\left(\pi \frac{f_m}{f_{ref}} \right) \right]^{2(p-1)} ,$$

as given by Miller and Conley's [1991] eq. (14). As in Eq. (7.28), there will be additional zeros in the response $H(f_m)$
by which this is multiplied, but they mainly affect the results where S_φ is already small and are generally ignored.

p. 412:
In Eq. (9.36), change 1.19 to 1.2.
In references in the middle of page:
    interchange "Rey, 1960" with "Richman, 1954a."

p. 582, Answer to problem 3.3(a): 1% becomes 0.125%.

p. 592, index entry: Phase
                        detector
                            4044 Charge-Pump PFD: 23 $\Rightarrow$ 233.

ERRORS IN FIRST AND SECOND PRINTINGS

p. 18, middle: after "-sin(-x)", add "= sin(π - x).

p. 33, problem 1.2, first line: -50 becomes -60

p. 61: move horizontal line indicating end of example to bottom of page.

p. 291, Fig. 6.M.8, caption: add "$r = 1.5, 1.707, 2, 2.414, 3, 3.828, 5, 9, 21$."

p. 302, Fig. 7.1: subscript "2" $\Rightarrow$ subscript "s" two places.

p. 320, in line above Sect. 7.3.3: "12.1.1.3" $\Rightarrow$ "12.1.1.4".

p. 321, Fig. 7.18 legend: "type-3" $\Rightarrow$ "type-2".

p. 329
Above Eq. (7.28): add "Here G will be the unsampled response (G_0)."
In Eq. (7.28): delete subscript zero from G two places.

p. 335
Line 8: delete subscript zero from G; move ")" to left, before $\approx$, i.e., $G\left(f_m + nf_s\right) \approx 0$.
Last line above Eq. (7.29): $f_{\text{ref}} \Rightarrow \varphi_1$.
Fourth line from end: "(7.29)" becomes "(7.28)".

p. 341
Line 2, equation numbers 7.13 becomes 7.18 and 7.14 becomes 7.19.
Above last line, insert "$f_{\text{ref}} = 10$ kHz,".
Under "GSmpl", delete ", compiled for the Macintosh operating system,"

p. 427, Fig. 9.14: interchange the labels (a) and (b).

p. 446, below Eq. (10.1), "below" becomes "above".

p. 522, Fig. 12.4, in box above B: "compute PHA based on y" becomes "compute PHA change based on T".

p. 582
Answer to problem 5.2(1a): "13.5 dB" becomes "13.5 dB gain".