

Feb. 27, 2018

**Errata for the 6th Printing of the American
(blue and green front cover) version of
"Understanding Digital Signal Processing, 3/E",**

by Richard Lyons

On page 144, in Figure 4-2, the lower right four twiddle factors:

$$W_8^4, W_8^5, W_8^6, W_8^7$$

should be

$$-W_8^0, -W_8^1, -W_8^2, -W_8^3$$

[Found by Saul Iverson, 10/3/17.][Author Error]

Page 211: In the third line of the last paragraph the text:

"slope of the $H_\phi(m)$ response ..."

should be:

"negative of the slope of the $H_\phi(m)$ response ..."

[Found by Edward Beadle (7/19/16)]; [Production Error]

Page 304: In Figures 6-32(b) and 6-32(c), the 'p' letters in the frequency axes should be the Greek symbol ' π '.

[Found by Author (7/11/16)]; [Production Error]

Page 515: In **Figure 10-5(c)** the frequency axis labels marked

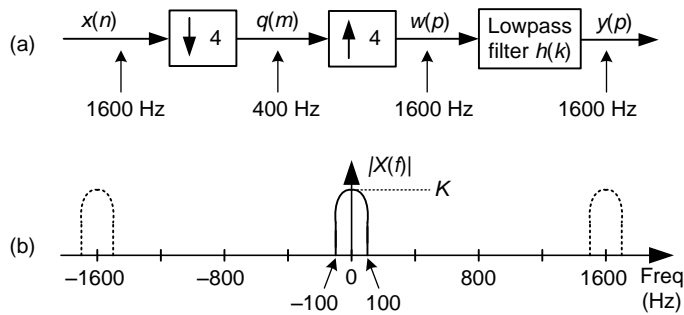
$(-3f_{s,old})$ and $(3f_{s,old})$

should be:

$(-3f_{s,new})$ and $(3f_{s,new})$.

[Found by Author, (2/25/17)]; [Author Error]

Page 578: For some reason the wrong figure was printed for Figure P10-17. The correct Figure P10-17 is:



[Found by Prof. Renato da Rocha Lopes (9/17/13)]; [Production Error]

Page 614: Eq. (11-36) has a missing π character. That equation should be:

$$\alpha = \cos(2\pi f_c/f_s) - 1 + \sqrt{\cos^2(2\pi f_c/f_s) - 4 \cos(2\pi f_c/f_s) + 3} \quad (11-36)$$

[Found by Zachary Blackwell (2/27/18)]; [Typesetting Software Error]

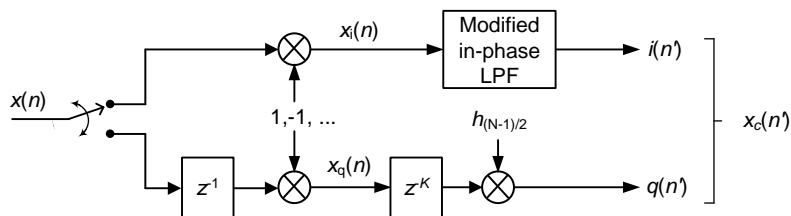
Page 648: On the 2nd and 3rd lines down from the top, the references to Eqs. (D-11) and (D-12) should be changed to Eqs. (D-28) and (D-29).

[Found by Prof. Kip Haggerty (1/1/16)]; [Author Error]

Page 678: in the fifth line down, delete the text:

"...followed by another K delay..."

In Figure 13-6(c) the final z^{-K} delay block should be deleted making that figure become:



[Found by Brian Frantz, 8/8/17.] [Author Error]

Page 830: In the fifth line of the first paragraph the text:

"... $k(0 \leq k \leq N-1)$..."

should be:

"... $k(0 \leq k \leq N-1)$..."

[Found by Edward Beadle (7/19/16)]; [Production Error]

Dear Reader, if you find any additional errors, no matter how trivial, please notify me at: **R.Lyons@ieee.org**
I'd sure appreciate hearing from you and I promise I'll reply to your E-mail.

Thanks,
[-Rick Lyons-]

