

DIGITAL COMMUNICATIONS WITH EMPHASIS ON DATA MODEMS

THEORY, ANALYSIS, DESIGN, SIMULATION, TESTING, AND APPLICATIONS

RICHARD W. MIDDLESTEAD



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Thanks to:

My Lord and Savior Jesus Christ.

My Father in heaven without whose creative genius science would be rudderless.

The Holy Spirit who inspires men and women beyond their own understanding.

Dedicated to:

My mother and father

and loving wife Donna

My children Lynn, Mark, and Leighann

and my grandchildren

Kasey, Erik, Jacob, Kaylee, Zachary, Mackenzie, Tyler, Hannah,

and great grandchildren Kaleigh and Isla

My prayer for my children is that wisdom, hard work, perseverance, and compassion will be the hallmark of their character.

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