

# *Software* **RADIO**

*A Modern Approach  
to Radio Engineering*



The first comprehensive guide  
to software radio design  
and implementation

Multirate DSP, RF front-ends, direct  
digital synthesis of modulated  
waveforms, A/D and D/A  
conversion, and more

Enhancing performance through  
smart antennas and other  
adaptive array algorithms

Techniques for building more  
flexible, object-oriented  
real-time software

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Prentice Hall Communications Engineering and Emerging Technologies Series  
Theodore S. Rappaport, Series Editor

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