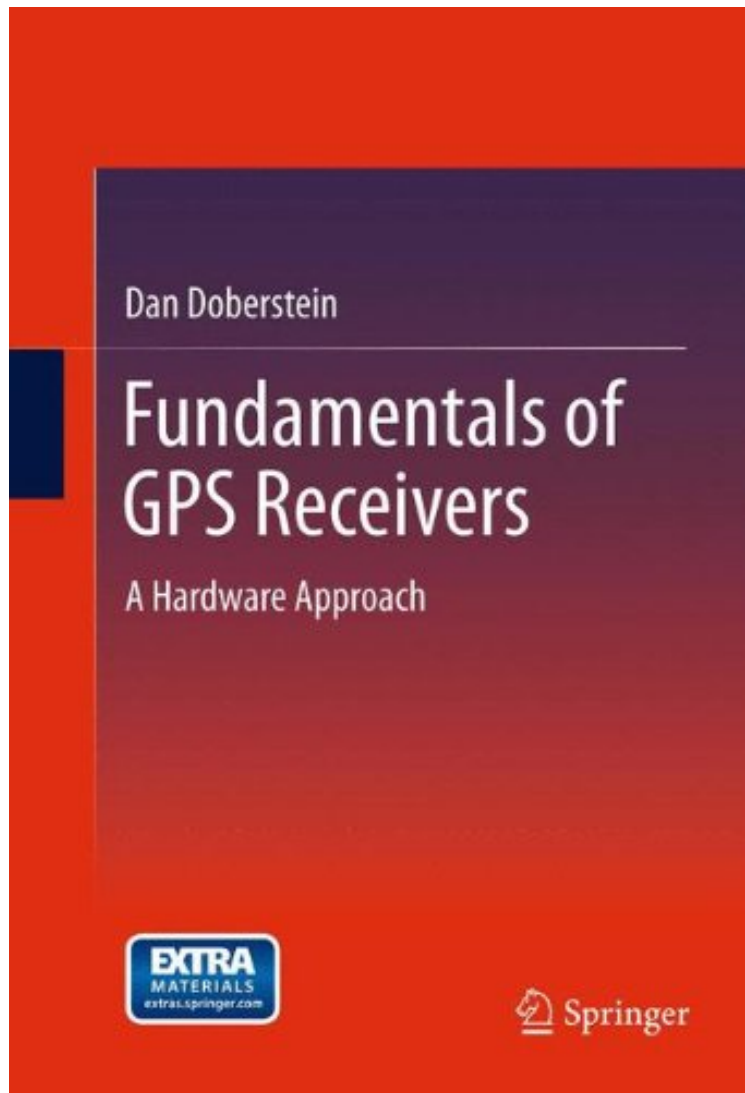


# Fundamentals of GPS Receivers: A Hardware Approach

Dan Doberstein

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**Dan Doberstein : Fundamentals of GPS Receivers: A Hardware Approach** before purchasing it in order to gage whether or not it would be worth my time, and all praised Fundamentals of GPS Receivers: A Hardware Approach:

3 of 3 people found the following review helpful. It's a good book for beginnersBy Yuandan KeIt's a good book for beginners especially for those who don't know GPS. This book help me quickly understand the internal facts of GPS. The author also have good software, hardware, wireless communication, linear algebra knowledge base, so it's a good guide for me.I buy other GPS books on such as "Global Positioning System, signals, meeasurements and performance", those books contain too much mathmatics which don't help me understand.

Fundamentals of GPS receivers covers GPS receivers' theory and practice. The book begins with the basics of GPS receivers and moves onward to more advanced material. The book examines three types of GPS receiver implementations: first is the custom design by the author; second is an industry standard design, now part of the open source network; the third relates to the receiver designed by JPL /NASA. Each receiver is unique allowing the reader to see how each design solves the same problems. Chapters discuss carrier phase measurements and GPS time and frequency measurements. The overall text is measurement oriented as opposed to processing the measurements. With a focus on the fundamentals of measurements the reader will be building their intuition for the physical phenomenon at work.

From the Back Cover While much of the current literature on GPS receivers is aimed at those intimately familiar with their workings, this volume summarizes the basic principles using as little mathematics as possible, and details the necessary specifications and circuits for constructing a GPS receiver that is accurate to within 300 meters. Dedicated sections deal with the features of the GPS signal and its data stream, the details of the receiver (using a hybrid design as exemplar), and more advanced receivers and topics including time and frequency measurements. Later segments discuss the Zarlink GPS receiver chip set, as well as providing a thorough examination of the TurboRogue receiver, one of the most accurate yet made. Guiding the reader through the concepts and circuitry, from the antenna to the solution of user position, the book's deployment of a hybrid receiver as a basis for discussion allows for extrapolation of the core ideas to more complex, and more accurate designs. Digital methods are used, but any analogue counterparts are assessed alongside them, and the author shows how GPS receivers and satellites are more concerned with time and movement than physical position in space. About the Author Mr. Doberstein is currently President of DKD Instruments. DKD Instruments primary product has been RF test equipment. DKD Instruments is a leader in the field of small and portable RF test equipment. DKD Instruments has also introduced a variety of new RF signal processing components from frequency multipliers to bandpass filters.