Record Nr. UNINA9910784142003321 Autore Skou Niels <1947-> Titolo Microwave radiometer systems: design and analysis // Niels Skou, David Le Vine Pubbl/distr/stampa Boston:,: Artech House,, ©2006 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2006] **ISBN** 1-58053-975-0 Edizione [2nd ed.] Descrizione fisica 1 online resource (227 p.) Collana Artech House remote sensing library Altri autori (Persone) Le VineD. M Disciplina 621.381/3 Soggetti Radiometers - Design and construction Microwave detectors Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto The radiometer receiver: sensitivity and accuracy -- Radiometer principles -- Radiometer receivers on a block diagram level -- The DTU noise-injection radiometers example -- Polarimetric radiometers --Synthetic aperture radiometer principles -- Calibration and linearity --Sensitivity and stability: experimetrs with basic radiometer receivers -- Radiometer antennas and real aperture imaging considerations --Relationships between swath width, footprint, integration time, sensitivity, frequency, and other parameters for satellite-borne, real aperture imaging systems -- First example of a spaceborne imager : a general-purpose mechanical scanner -- Second example of a spaceborne imager: a sea salinity/soil moisture push-broom radiometer system -- Examples of synthetic aperture radiometers. Annotation Microwave radiometers are tools used for passive Sommario/riassunto microwave remote sensing--"a technological process that allows for the measurement of important parameters that help professionals understand and predict climate and weather patterns. Written by leading experts in industry and academia, this authoritative resource offers practitioners a solid understanding of radiometer systems and explains how to design a system based on given specifications, taking

into account both technical aspects and geophysical realities. This second edition has been thoroughly updated to reflect the numerous advances that have been made in the field since the original edition was

published in 1989. New material covered includes two of today's hottest microwave radiometry topics--"polarimetric measurements and aperture synthesis.