

1. Record Nr.	UNINA9910795986803321
Autore	Kruckemeier Markus
Titolo	A mobile passive radar system / / Markus Kruckemeier
Pubbl/distr/stampa	Göttingen, Germany : , : Cuvillier Verlag, , [2022] ©2022
ISBN	9783736966741 9783736976740
Edizione	[1st ed.]
Descrizione fisica	1 online resource (157 pages)
Disciplina	621.384191
Soggetti	Automatic tracking
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Acknowledgements -- Abbreviations -- 1. Introduction -- 1.1. Contributions -- 1.2. Organization of the Thesis -- 2. Fundamentals -- 2.1. Radar Fundamentals -- 2.2. Topologies -- 2.3. FMCW Radar -- 2.4. Passive Radar -- 2.5. The Ambiguity Function -- 2.6. Beamforming -- 2.7. Array Modelling -- 2.8. Kalman Filter -- 2.9. Non-linear Extension of the Kalman Filter -- 3. Passive Coherent Receiver Hardware -- 3.1. The Software-defined Platform -- 3.2. Antennas -- 3.3. Noise Figure -- 3.4. Conclusion -- 4. Passive Radar Signal Processing -- 4.1. System Selection and Preliminary Considerations -- 4.2. Signal Processing -- 4.3. Illuminator Locator -- 4.4. Target Tracking -- 5. Performance in a Real-World Scenario -- 5.1. Scenario Description -- 5.2. Illuminator Performance -- 5.3. Tracking Results -- 5.4. Concluding Remarks -- 6. Summary and Future Work -- Appendices -- A. 14 GHz FMCW Radar -- B. Synchronization of the SDR System using the internal PLLs -- C. Frontend Measurements -- D. Passive detection -- List of References -- Publications -- Abstract -- Kurzfassung.