بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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MONA MAGHRABY

DESIGN AND IMPLEMENTATION OF HIGH-FREQUENCY TRANSCEIVER USING SOFTWARE DEFINED RADIO

By

Mostafa Hamed Abdalla El-Sayed

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
in
Electronics and Communications Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
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Under the Supervision of

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Approved by the
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GIZA, EGYPT
2021

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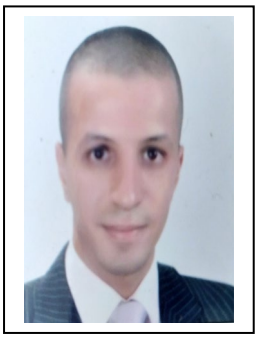

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Title of Thesis:

DESIGN AND IMPLEMENTATION OF HIGH-FREQUENCY TRANSCEIVER USING SOFTWARE DEFINED RADIO

Key Words:
Software defined radio (SDR); Digital waveform generation; Digital receiver; primary radar; secondary surveillance radar (SSR).

Summary:
In this thesis new design and implementation of SDR module which is used as hard-ware platform in design and implementation of digital waveform generation and digital receiver for modern radar systems. Also, design and implementation of SSR transceiver is proposed. All the proposed designs have been fabricated and tested. All the simulations, lab measurements have been proposed in this thesis.

Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

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Signature:

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