

Software Implementation of a Wideband HF Channel Transfer Function

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PREFACE

This work was performed by the Institute for Telecommunication Sciences, Boulder, Colorado for the National Communications System's Office of Standards and Technology under reimbursable order No: DNCR066007.

Programming language software, plotting software, and operating systems are mentioned in this report to adequately explain the content of the report and to allow readers to both understand and build upon this work. In no case does such identification imply recommendation or endorsement by the National Telecommunications and Information Administration, nor does it imply that the software and systems mentioned are necessarily the best available for this application.

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ABBREVIATIONS

ASCII American Standard Code for Information Interchange

DSP digital signal processing

FFT fast Fourier transform

HF high frequency (3-30 MHz)

IID independent and identically distributed

IIR infinite impulse response

ITS Institute for Telecommunication Sciences (Boulder, Colorado)

LCG linear congruential generator

MUF maximum useable frequency

NS/EP telecommunications National Security or Emergency Preparedness telecommunications

OTA over-the-air

PC personal computer

