

2003 TUTORIAL TOPICS & PRESENTERS*

INTRODUCTION TO TIME AND FREQUENCY TRANSFER

--T.E. Parker, National Institute of Standards and Technology (NIST), USA

INTRODUCTION TO QUARTZ FREQUENCY STANDARDS

--J. R. Vig, US Army CECOM, USA

PLL (PHASE LOCK LOOPS)

--M. Underhill, Philips Research Laboratories, UK

WIRELESS PASSIVE SAW IDENTIFICATION MARKS AND SENSORS

--L.M. Reindl, Clausthal University of Technology, Germany

PASSIVE ATOMIC FREQUENCY STANDARDS

--L. Cutler, Agilent Laboratories, USA

LOW NOISE OSCILLATOR DESIGN AND PERFORMANCE

--M. Driscoll, Northrop Grumman Corporation, USA

PM AND AM NOISE MEASUREMENT TECHNIQUES - I

--E. Ferre-Pikal, University of Wyoming, USA

PM AND AM NOISE MEASUREMENT TECHNIQUES - II

--C. Nelson, National Institute of Standards and Technology (NIST), USA

TIME SCALES

--P. Tavella, Istituto Elettrotecnico Nazionale, Italy

PM AND AM PHASE NOISE MEASUREMENT TECHNIQUES III

--E. Rubiola, Université Henri Poincaré, France

DIGITAL MEASUREMENT OF PRECISION OSCILLATORS

--S.R. Stein, Timing Solutions Corporation, USA

TECHNIQUES FOR FREQUENCY STABILITY ANALYSIS

--W.J. Riley, Symmetricom TRC, USA

* This Tutorial Session was held the day before the Symposium on Sunday, May 4, 2003. It was organized by Dr. John Prestage, Jet Propulsion Laboratory. Attendees were provided with a CD containing all tutorial presentations. Tutorial presentations are not printed in these Proceedings. Previous tutorial presentations may be viewed at: www.ieee-uffc.org/fc