香港城市大學 City University of Hong Kong

Department of Electronic Engineering

毫米波國家重點實驗室 State Key Laboratory of Millimeter Waves

IEEE (HK) Section AP/MTT

Seminar on

S-Band Full 360° High Precision Phase Detector

by

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Abstract

In this paper, a novel S-band phase detector with a high precision is proposed and demonstrated. It consists of two analog phase detectors as well as digital circuits to improve a single analog phase detector's performance by eliminating the large error detection region and merging four linear detection regions. For a demonstration with commercially available components, it provides a full 360° phase difference detection range with a maximum detection error less than 4° for frequency at 2.4 GHz. By combing in an array, these high precision phase detectors would find themselves very useful for observing the incoming and outgoing RF signals in a modern transceiver array design.

Biography

Chengcheng Tang (S'09) was born in Chongqing, China, in 1986. He received the B.S. degree in Electronic and Communication Engineering from the City University of Hong Kong, HKSAR, China, in 2009, and is currently working toward the Ph.D. degree at the same university. His research interests include RF circuit design and phased antenna array system design.

Date : 18 Dec., 2012 (Tuesday)
Time : 10:20am – 10:40am
Venue : G6302, Academic 1,
City University of Hong Kong

***** ALL ARE WELCOME *****

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