

March 2010

doc.: IEEE 802.15-15-10-0154-00-0thz

**Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)**

**Submission Title:** TI TeraHz Kilby Activity..

**Date Submitted:** 5 March, 2010

**Source:** Baher Haroun

Address : 12500 TI Blvd,

Voice:[214 808 1643], FAX: [214 480 3807], E-Mail:[baher@ti.com]

**Re:**

**Abstract:** From a semiconductor vendor point of view, the interest in many appealing application areas in the Sub THz (100GHz-600GHz) range is outlined. Specific capabilities of nanometer CMOS silicon process today and in the next few years that enable cost effective implementations of transceiver systems will be discussed based on available research and existing Si process roadmap. Key transceiver architecture issues that make operating in this frequency range attractive will also be highlighted. For these new applications to happen including in the telecommunication area of interest to 802.15WG, support from spectrum regulatory authorities is needed.

**Purpose:** Information on development of future THz communication systems

**Notice:** This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

**Release:** The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15.