



Post Office Box 655474, M/S 3999
Dallas, Texas 75265
7839 Churchill Way, M/S 3999
Dallas, Texas 75251

Secretary, IEEE-SA Standards Board Patent Committee
Institute of Electrical and Electronic Engineers
445 Hoes Lane
Piscataway, NJ 08854 USA
FAX (+1 732-875-0524)

(972) 917-5557

October 18, 2006

Re: IEEE Standard - Letter of Assurance
Number: IEEE 1149.7
Title: Standard for Reduced-pin and Enhanced-functionality Test Access
Port and Boundary Scan Architecture

Dear Sirs,

As you know, Texas Instruments Incorporated (TI) previously submitted a Letter of Assurance on 19 September 2006 agreeing to license any patent(s) and/or patent applications(s) that it may hold or control, including but not limited to, the seven identified in the letter, the use of which would be essential to create a compliant implementation of either mandatory or optional portions of the IEEE 1149.7 specification under reasonable rates to an unrestricted number of applicants on a worldwide, non-discriminatory basis with reasonable terms and conditions to comply with the IEEE 1149.7 specification (see attached).

TI is pleased to announce that in addition to its licensing commitment contained in the Letter of Assurance dated 19 September 2006, TI shall, upon request, grant non-exclusive licenses on reasonable and nondiscriminatory terms, without monetary compensation, for only such portion of any product that is fully compliant with the IEEE 1149.7 specification, to the same seven patents listed in the 19 September 2006 letter, to any such requester under:

- 1) patent claims issuing only from the seven US patent applications identified below;
- 2) patent claims issuing only from any US patent applications that claim priority from the seven US patent applications identified below; and
- 3) patent claims issuing only from any patent applications in countries outside the United States that claim priority from the seven United States patent applications identified below;

the use of which would be essential to create a compliant implementation of either mandatory or optional portions of the IEEE 1149.7 specification, and provided that a similar grant under such requester's patents within the scope of the license granted to such requester is made available to TI.

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This assurance applies from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable upon acceptance by the IEEE-SA Standards Board Patent Committee.

TI understands that no license is implied by submission of this Letter of Assurance and that the IEEE takes no position with respect to the reasonableness of rates, terms and conditions of the license agreements offered by TI.

US Patent Applications Identified by TI Case Number, Publication Number, Publication Date, Filing Date, and Title

1. TI-61734

US Patent Publication No. 2006-0,156,069

Publication Date: 07/13/2006

Title: BDX DATA IN STABLE STATE

2. TI-61735

US Patent Publication No. 2006-0,156,067

Publication Date: 07/13/2006

Title: USING ZERO BIT SCAN AS A CONTROL EVENT

3. TI-61736

US Patent Publication No. 2006-0,156,070

Publication Date: 07/13/2006

Title: LOCATING AND LABELING DEVICE IN A MULTI DROP CONFIGURATION

4. TI-61737

US Patent Publication No. 2006-0,161,815

Publication Date: 07/20/2006

Title: MULTIPLE TEST ACCESS PORT PROTOCOLS SHARING COMMON SIGNALS

5. TI-61738

US Patent Publication No. 2006-0,156,068

Publication Date: 07/13/2006

Title: CONVEYING STATE DATA THROUGH STATE TRANSITIONS AND NUMBER OF STAYS IN STATES

6. TI-62049

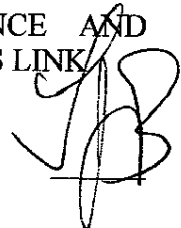
Filed: 2/9/2006

Title: SYSTEM AND METHOD FOR SHARING A COMMUNICATIONS LINK BETWEEN MULTIPLE COMMUNICATIONS PROTOCOLS

7. TI-60796

Filed: 06/12/2006

Title: SYSTEM AND METHOD FOR IMPROVED PERFORMANCE AND OPTIMIZATION OF DATA EXCHANGES OVER A COMMUNICATIONS LINK

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Contact for License Application

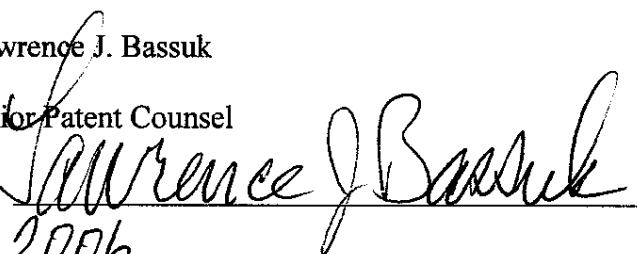
Robby Holland - Licensing Manager
Texas Instruments Incorporated
P. O. Box 655474, MS 3999, Dallas, TX 75265

Telephone: 972-917-4367
Fax: 972-917-4418
E-Mail: r-holland3@ti.com

Name of authorized person: Lawrence J. Bassuk

Title of authorized person: Senior Patent Counsel

Signature of authorized person:

A handwritten signature in black ink that reads "Lawrence J. Bassuk". The signature is written in a cursive style and is positioned over a horizontal line.

Date:

18 October 2006
