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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.

TI-2326

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

Contact for License Application

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Name of authorized person: Lawrence J. Bassuk

Title of authorized person: Senior Patent Counsel

Signature of authorized person: Lawrence J Bassuk

Date: 18 October 2006