

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
EFFECTIVE DATE:	03/28/2007										
CONVEYING PARTY DATA											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Chih-Wei Huang</td><td>03/28/2007</td></tr><tr><td>Hui-Yi Chen</td><td>03/28/2007</td></tr><tr><td>Ren-Chyi Yu</td><td>03/28/2007</td></tr><tr><td>Chih-Yuan Yu</td><td>03/28/2007</td></tr></tbody></table>	Name	Execution Date	Chih-Wei Huang	03/28/2007	Hui-Yi Chen	03/28/2007	Ren-Chyi Yu	03/28/2007	Chih-Yuan Yu	03/28/2007	
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Chih-Wei Huang	03/28/2007										
Hui-Yi Chen	03/28/2007										
Ren-Chyi Yu	03/28/2007										
Chih-Yuan Yu	03/28/2007										
RECEIVING PARTY DATA											
Name:	Taiwan Semiconductor Manufacturing Company, Ltd.										
Street Address:	No. 8, Li-Hsin Rd. 6										
Internal Address:	Science-Based Industrial Park										
City:	Hsin-Chu										
State/Country:	TAIWAN										
Postal Code:	300-77										
PROPERTY NUMBERS Total: 1											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>11695988</td></tr></tbody></table>	Property Type	Number	Application Number:	11695988							
Property Type	Number										
Application Number:	11695988										
CORRESPONDENCE DATA											
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PATENT  
REEL: 019110 FRAME: 0578

Total Attachments: 2

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## ASSIGNMENT

WHEREAS, we,

- (1) **Chih-Wei Huang**, of Jhudong Township, Hsinchu County, Taiwan, R.O.C.;
- (2) **Hui-Yi Chen**, of Taoyuan City, Taoyuan County, Taiwan, R.O.C.;
- (3) **Ren-Chyi Yu**, of Dongshan Shiang, Yilan County, Taiwan, R.O.C.; and
- (4) **Chih-Yuan Yu**, of YuanLin Jr., ChangHua County, Taiwan, R.O.C.

have invented certain improvements in

### METHOD AND SYSTEM FOR SMART VEHICLE ROUTE SELECTION

for which we have executed and filed an application for Letters Patent of the United States of America,

on 4-3-07, and which was assigned application serial number 11/695,988; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China, is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the

said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

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Inventor Name: Chih-Wei Huang

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Dated: 2007/03/28

Chih Wei Huang  
Chih-Wei Huang (Inventor Signature)

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Inventor Name: Hui-Yi Chen

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Dated: 2007/03/28

Hui-Yi Chen  
Hui-Yi Chen (Inventor Signature)

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Dated: 2007/3/28

Ren-chyi Yu  
Ren-Chyi Yu (Inventor Signature)

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Inventor Name: Chih-Yuan Yu

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Dated: 2007/03/28

Chih-Yuan Yu  
Chih-Yuan Yu (Inventor Signature)