PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: **ASSIGNMENT**

CONVEYING PARTY DATA

Name	Execution Date
Kyeong-eun Han	07/21/2009
Kwang-joon Kim	07/21/2009

RECEIVING PARTY DATA

Name:	Electronics and Telecommunications Research Institute	
Street Address:	161, Gajeong-dong, Yuseong-gu	
City:	Daejeon-si	
State/Country:	REPUBLIC OF KOREA	
Postal Code:	305-700	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12580177

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NAME OF SUBMITTER: Eric S. Hyman

Total Attachments: 1

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PATENT

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007736.P052 IP20081085 신지특허(OP09H0031-US)

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned, <u>Kyeong-eun HAN</u>, <u>Kwang-joon KIM</u>

Hereby sell, assign, and transfer to: <u>Electronics and Telecommunications Research Institute</u> a corporation of <u>Republic of Korea</u>, having a principal place of business at: <u>161 Gajeong-dong, Yuseong-gu, Daejeon-si, 305-700 Republic of Korea</u> ("Assignee") its successors, assigns and legal representatives, the entire right, title and interest for the United States and all foreign countries, in and to any and all improvements which are disclosed in the application for United States Letters Patent,

[x] which has been executed	by the undersigned concurrently herewith,
which was filed	and assigned Serial No

and is entitled:

METHODS OF TRANSMITTING AND RECEIVING MULTICAST OR BROADCAST FRAME IN OLT AND ONU FOR WDM-PON, WDM-PON SYSTEM, AND OLT FOR WDM-PON

and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

Agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to the undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives; and

Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date: July 21, 2009

Name: Kyeong-eun HAN

Date: July 21, 2009

Multiple March 1998

March

RECORDED: 10/15/2009

Name: Kwang-joon KIM

PATENT REEL: 023380 FRAME: 0986