# PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Hong Kong Applied Science and Technology Research Institute Company Limited	08/20/2013

# **RECEIVING PARTY DATA**

Name:	TCL Communication Technology Holdings Limited		
Street Address:	Rooms 1910-12A, Tower 3, China HK City		
Internal Address:	33 Canton Road		
City:	Tsimshatsui, Kowloon		
State/Country:	HONG KONG		

# PROPERTY NUMBERS Total: 9

Property Type	Number
Patent Number:	7313403
Patent Number:	7359718
Patent Number:	7453844
Patent Number:	7545827
Patent Number:	7653034
Patent Number:	7778340
Patent Number:	7830984
Patent Number:	7881392
Patent Number:	8031795

# **CORRESPONDENCE DATA**

502485270

Fax Number: 2027393001

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 202-739-3000

Email: mboswell@morganlewis.com

Correspondent Name: Mary Jane Boswell

Address Line 1: 1111 Pennsylvania Avenue, N.W.

PATENT

REEL: 031148 FRAME: 0899

7313403

CH \$360,00

Address Line 4: Washington, DISTRICT OF COLUMBIA 20004			
ATTORNEY DOCKET NUMBER:	64416-0000		
NAME OF SUBMITTER: Mary Jane Boswell			
Signature:	/Mary Jane Boswell/		
Date:	09/06/2013		
Total Attachments: 3 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif			

#### Confirmatory Patent Assignment

This Patent Assignment ("Assignment") is made as of 20 August, 2013 ("Effective Date") by and between Hong Kong Applied Science and Technology Research Institute Company Limited, a Hong Kong company having its registered office at 3<sup>rd</sup> Floor, Bio-informatics Centre, 2 Science Park West Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong ("Assignor") and TCL Communication Technology Holdings Limited, a Hong Kong company having its registered office at Rooms 1910-12A, Tower 3, China HK City, 33 Canton Road, Tsimshatsui, Kowloon, Hong Kong ("Assignee").

#### RECITALS

- A. The Assignor owns the assigned patents as set out in the Schedule hereto ("Assigned Patents").
- B. The Assignor agrees to assign to the Assignee all of the Assignor's right, title and interest in the Assigned Patents in accordance with the Long Term Industrial Co-operation and Patent Assignment Agreement signed by the Parties ("Co-operation Agreement").

NOW, THEREFORE, the Assignor agrees as follows:

- In consideration of the payment by the Assignee of the Assigned Patents Sum (as defined in the Cooperation Agreement) to the Assignor in accordance with the Co-operation Agreement, the Assignor hereby assigns to the Assignee all of Assignor's right, title and interest in and to the Assigned Patents, onto the Assignee for its own use and enjoyment and for the use and enjoyment of the Assignee's successors and permitted assigns that the Assignor has as of the Effective Date (including the right to sue for injunctive relief and damages for past infringement of any of the Assigned Patents accrued prior to the Effective Date), subject to the non-exclusive licence granted by the Assignee to the Assignor and the government of Hong Kong as mentioned in the Co-operation Agreement.
- The Assignor hereby authorizes and requests (a) the United States Patent and Trademark Office; and (b)
  the State Intellectual Property Office of the People's Republic of China, to record the Assignment in
  accordance with the applicable law.

IN WITNESS WHEREOF, the Assignor has executed this Assignment on the Effective Date.

For and on behalf of

Hong Kong Applied Science and Technology Research Institute Company Limited

Name Title

me: Cheung Nim-kwan

: Chief Executive Officer

Ni Kuran Chang

In the presence of:

Name of the Notary Public

, Ci

John Robertson Budge Notary Public 6th Floor, Prince's Building Chater Road, Hong Kong SAR

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Schedule Assigned Patents

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Patent Title	US: Location postitioning in wireless networks. PRC: 无线网络中的定位	US: Location determination and determination and location tracking in wireless networks. PRC: 无线网络黑的位置确定 和外额路底	Dynamic allocation of channels in a wireless network.	US: Busy tone for wireless networks. PRC: 用于无线网络的忙音	US: System and method for controlling access to a wireless medium. PRC: 控制访问无线介质的条统和方法	Accurate channel quality indicator for link adaptation of MIMO communication systems.	OFDM/OFDMA channel
Inventor	Yi Gong; Hang Ching Jason Leung; Mario Joa-Ng; Piu Bill Wong; Soung Chang Liew and Yan Wang	Meixia Tao and Kin-Nang Lau	Siu Fai Lee and Yat Tung Cheung	Meixia Tao; Yan Wang; Soung C. Liew: Kent Chen and Vincent Lau	Sammy Ming Kit Chau, Soung C. Liew and Vincent Lau.	Pan Zhengang Chan Wingchau; Zhao Xueyuan; Lo Chiming and Nejib Boubaker	Cheong Yui Wong.
PRC Patent Issue Date	25 August 2010	16 November 2011		22 April 2009	22 April 2009		
PRC Patent Grant Number	Zl.200480022203.5	ZL200580013871.6		ZL200580004620.1	ZL200580037611.2		
Country	People's Republic of China ("PRC")	PRC		PRC	PRC		
US Patent Issue Date	25 December 2007	15 April 2008	18 November 2008	9 June 2009	26 January 2010	17 August 2010	9 November
US Patent Grant Number	7,313,403	7,359,718	7,453,844	7,545,827	7,653,034	7,778,340	7,830,984
US Patent Filing Date	6 August 2003	30 April 2004	22 October 2002	13 February 2004	9 November 2004	6 September 2007	30 March 2007
Country	United States ("US")	US	SN	US	Sn	Sn	CUS
ASTRI Docket Number	P0012WA	P0022WA	P0005WA	P0021WA	P0023WA	P0154AWT	P0143AWT

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estímation.	OFDM/OFDMA timing synchronization using non-consecutive pilot subcarrier assignment	US: Pre-processing systems and methods for MIMO antenna systems. PRC: HIMO天线系统的预处理条统和方法
	Qiang Li.	Zhen Gang Pan and Xue Yuan Zhao.
		27 June 2012
		ZL.260780001441.1
		PRC
2010	l February 2011	4 October 2013
	7,881,392	8,031,795
	30 March 2007	12 December 2006
	US	Sn
	P0142AWT	P0100AWT

RECORDED: 09/06/2013