Technology & Intellectual Property

IP Innovations

www.techipm.com

Company Overview

Tech & IP

Who we are?

- TechIPm, LLC is a professional research and consulting company specializing in technology and intellectual property management. Our mission is to mine frontiers in technology innovations for contributing to the development of intellectual society. We serve technology professionals providing custom research reports and consulting services for emerging technology and intellectual property management.

Expertise

- Strategic Patent Analysis for IT & Telecommunications.
- Patent Portfolio Development for Emerging Technology.
- Research for Patent Lawsuit (Evidence of Use/Infringement)
- Patented Technology Valuation
- Patent Licensing Strategy
- Patent Prosecution for Multi-national IPR (USPTO, KIPO, PCT).

Who are our clients?

- Technology management professionals planning, developing, and investing in new technologies/products/services.
- In-house IP counsels developing patent strategy.
- Licensing professionals looking for a new licensing opportunities.
- High-tech investment management firms.
- IP management consulting firms.

Management

Tech & IP

TechIPm's principal, Alex G. Lee, is a technologist and an intellectual property strategy expert in information technology and telecommunications.

After earned his Ph.D. in physics from the Johns Hopkins University, he started his professional career at Korean ministry of information & communication's radio research laboratory. His role was to provide technological research for the global standardization in IT and telecommunications and strategy analysis for legislation of government regulations and policies for emerging technologies.

After four years of his affiliation with S. Korean government as a chief research officer, he held several academic and industry positions, which are all related to research, strategy, and intellectual property management for emerging technologies as a researcher, manager, executive, advisor, and professor both in the US and S. Korea. Some of his formal affiliations are Boston University's School of Management, Georgia Institute of Technology's School of Electrical Engineering, WIPS's IPR Business Strategy Institute, Samsung Techwin's Semiconductor Device Business Division, and Korea Telecom's Technology Center.

He is a subject matter expert in mobile computing and wireless communications and holds several industry certifications including CompTIA RFID+ and Korean CVA. He is a member of IEEE, LES, and AIPLA. He is registered to practice before the US Patent and Trademark Office. He is now attending Suffolk University Law School for his J.D. degree.

Major Clients

Tech & IP

Microsoft

SAMSUNG

Alcatel·Lucent

SONY

ITRI
Industrial Technology
Research Institute

arcadyan

France Brevets

Intellectual
Discovery

Rasys
TECHNOLOGY

Jefferies

OCEAN TOMO
INTELLECTUAL CAPITAL EQUITY

SRC Advisors
Strategic
Risk
Capital

Projects

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2009

RFID Innovation Frontline
Nortel's LTE Patent Valuation

2010

GSM and WCDMA Patent Portfolio evaluation
LTE/LTE-Advanced Essential Patent Analysis
InterDigital/Qualcomm's Licensing Potential for 4G Mobile Com.
Strategic Patent Portfolio Development for Emerging WiFi Technologies

2011

Essential Patent Portfolio Development for Cognitive Radio in TVWS
Investment Feasibility Analysis for 4G Smart Antenna and Baseband Modem Patent Portfolio
Comparative Analysis of LTE Essential Patent Portfolios of InterDigital, Nortel, Motorola, and Nokia

2012

Essential Patent Analysis for IEEE 802.15.4 Zigbee
Acquisition Feasibility Analysis for Smartphone Wireless Technologies & Emerging Applications
Evidence of Use/Infringement Investigation for Secure RFID/NFC

Products

LTE Essential Patent Candidates Data 2Q 2012

Methodology

1. Search for LTE related patents.

Search the current USPTO database for published and issued patents as of June 30, 2012
Search the ETSI database for LTE standard specifications
3GPP Release 8 for technical specifications (Release 10 for carrier aggregation specifications) for the LTE RAN (Radio Access Network):
PHY: TS 36.211, 212, 213
L2/L3 Protocols: TS 36.321, 322, 323, 331, 304
* LTE RAN products: LTE UE (cellular phones, smart phones, PDAs, mobile PCs, etc.) and base station (eNB) baseband modem and radio SW products

Products -2

2. Review the searched patents for essential patent candidates.

Review the patents in portfolio
Categorize the identified patents through the evaluation process by technology in the standard specifications
Key technology components for an implementation of the LTE baseband modem: OFDM/OFDMA (Frame & Slot Structure, Modulation), SC-FDMA (PUSCH, PUCCH), Channel Estimation (UL RS, DL RS, CQI), Cell Search & Connection (PRACH, DL SS), MIMO (Transmit Diversity, Spatial Multiplexing), Resource Management (Resource Allocation, Scheduling), Coding (Convolution, Turbo), Power Control, HARQ, and Carrier Aggregation.
Key technology components for an implementation of the LTE radio protocol: Random Access, HARQ, Channel Prioritization, Scheduling (Dynamic, SPS), Protocol Format (PDUs, SDUs), Radio Link Control (ARQ), PDCP Process (SRB, DRB, ROHC), Security (Ciphering, Integrity), System Information, Connection Control, Mobility (Handover, Inter-RAT, Measurements), and Carrier Aggregation.

Products -3

Evaluate the level of essentiality
Essentiality Index (EI):
E1 : Patent disclosure is weakly related to LTE technical specifications
E2 : Patent disclosure is partially related to LTE technical specifications
E3 : Patent disclosure is related to LTE technical specifications overall
E4 : Patent disclosure is strongly related to LTE technical specifications
*To be a potential essential patent candidate, EI should be E3 or E4.

Deliverables

MS excel file for essential patent candidates (patent number, standard specification section number, technology category, and prosecution status for essentiality level E3 or E4).

Products -4

Evaluate the level of essentiality
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Deliverables

MS excel file for essential patent candidates (patent number, standard specification section number, technology category, and prosecution status for essentiality level E3 or E4).

Products -5

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Sample

	A	B	C	D	E	F
1	Assignee	Patent No.	TS36	Section	Tech Class	Prosecution Status
2	Ericsson				Cell Search & Connection	
3			213	5. Power Control	Power Control	
4			331	5.5 Measurement		
5			211	6.11 DL SS		Notice of Allowance Mai
6			211	5.7 PRACH		Response to Non-Final
7			211	6.11 DL SS		
8			212	5.3 DTrCH & CI		
9	ETRI					Final Rejection Mailed
10	Freescale					
11	Huawei					
12	Innovative Sonic					
13	InterDigital					
14						
15						
16					MIMO	
17						
18					HARQ	
19					PDCP Process	
20					Connection Control	
21					Mobility	
22			331	5.4 Inter-RAT mobility		Non Final Action Mailed
23			331	5.3 Connection Ctl		
24			331			
25			331			

LTE Essential Patent_Protocol | LTE Essential Patent_Modem | LTE Essential Patent_All

Products -6

NFC Patents Data for Standards & Applications 2Q 2012

Methodology

To find the key IPR holders for NFC patents, a keyword search of the USPTO patent data base has been performed. The identified NFC patents are classified by industry standard for NFC technology (under development by the NFC Forum) and major NFC applications. The NFC Forum standard specifications included in the analysis are Activity, Digital, Protocol, LLCP (Logical Link Control Protocol), NDEF (Data Exchange Format), RF/Analog, RTD (Record Type Definition), and Tag Operation. The major NFC applications i ncluded in the analysis are NFC device and system (e.g. security), mobile payments, mobile business applications, entertainment, mobile health, and social networking applications.

Deliverable

MS excel file for NFC patents (assignee, patent number, standard specification, application)

How to Find Us?

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Let us think over for you!