

## Internet of Things Essential Patent Candidates Data 4Q 2013

Internet of Things (IoT) Essential Patent Candidates Data 4Q 2013 is a product of TechIPm, LLC ([www.techipm.com](http://www.techipm.com)) based on IoT related patents research for US market leader among NFC, UHF RFID, and Zigbee for wireless sensor networks product manufactures. IoT Essential Patent Candidates Data provides assignee, patent (publication) number, title, and related standard specifications.

### Methodology

1. Search for IoT related patents.

- Search the current USPTO database for published and issued patents as of 4Q 2013
- Search the ISO/IEC and IEEE database for NFC, UHF RFID, and Zigbee standard essential patent candidates.

2. Review the searched patents for essential patent candidates.

- Review the patents in each portfolio.
- Categorize the identified patents through the essentiality evaluation process by standard specifications.

#### Target Standard Specifications:

NFC: ISO/IEC 18092 - 2004

Latest versions of NFC Forum's standard specifications:

Activity, Digital, Protocol, LLCP (Logical Link Control Protocol), NDEF (Data Exchange Format), RF/Analog, RTD (Record Type Definition), Connection Handover, and Tag Operation.

UHF RFID: ISO 18000-C

Zigbee: IEEE 802.15.4-2006

### Deliverables

**MS excel file** for essential patent candidates (name of assignee patent (publication) number, title, standard specification section number,).

A	B	C	D
Assignee	Patent Num.	Standard Specifications	Title
Alcatel-Lucent			
Alien			
Alien			
Atmel			
Atmel			
Atmel			
Battelle Memorial Institute			
Battelle Memorial Institute			
ETRI			
ETRI			
Impinj			
Impinj			
Innovision Research & Technology			
Inside Secure			
Inside Secure			
Intermec			
Intermec			
Nokia			
Nokia			
NXP			
NXP			

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