

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局

(43) 国际公布日
2013 年 12 月 27 日 (27.12.2013)



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WO 2013/189378 A3

- (51) 国际专利分类号:
H04W 24/02 (2009.01) H04W 52/02 (2009.01)
H04W 36/08 (2009.01)
- (21) 国际申请号: PCT/CN2013/081819
- (22) 国际申请日: 2013 年 8 月 20 日 (20.08.2013)
- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (30) 优先权:
201210508998.7 2012 年 11 月 21 日 (21.11.2012) CN
- (71) 申请人: 中兴通讯股份有限公司 (ZTE CORPORATION) [CN/CN]; 中国广东省深圳市南山区高新技术产业园科技南路中兴通讯大厦, Guangdong 518057 (CN)。
- (72) 发明人: 王利 (WANG, Li); 中国广东省深圳市南山区高新技术产业园科技南路中兴通讯大厦中兴通讯股份有限公司转交, Guangdong 518057 (CN)。
- (74) 代理人: 北京安信方达知识产权代理有限公司 (AFD CHINA INTELLECTUAL PROPERTY LAW OFFICE); 中国北京市海淀区学清路 8 号 B 座 1601A, Beijing 100192 (CN)。
- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,

KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW。

- (84) 指定国 (除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

根据细则 4.17 的声明:

- 关于申请人有权申请并被授予专利(细则 4.17(ii))
- 发明人资格(细则 4.17(iv))

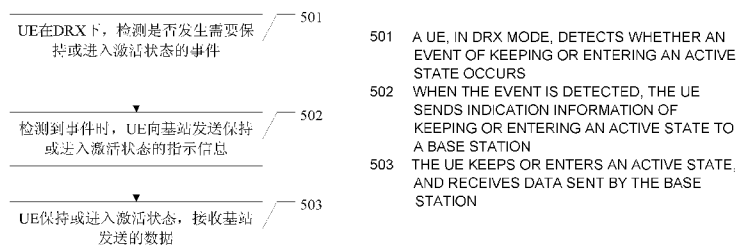
本国际公布:

- 包括国际检索报告(条约第 21 条(3))。
- 在修改权利要求的期限届满之前进行, 在收到该修改后将重新公布(细则 48.2(h))。
- 根据申请人的请求, 在条约第 21 条(2)(a)所规定的期限届满之前进行。

(88) 国际检索报告公布日期: 2014 年 2 月 13 日

(54) Title: DISCONTINUOUS RECEPTION (DRX) MODE PROCESSING METHOD, USER EQUIPMENT, AND BASE STATION

(54) 发明名称: 非连续接收模式 (DRX) 处理方法、用户设备及基站



(57) Abstract: A discontinuous reception (DRX) mode processing method, a user equipment, and a base station. The method comprises: a user equipment (UE), in DRX mode, detecting whether an event of keeping or entering an active state occurs; when the event is detected, the UE sending indication information of exiting DRX mode and keeping or entering an active state to a base station; and the UE exiting DRX mode and keeping or entering an active state, and receiving data sent by the base station. The foregoing technical solution avoids the problems of a service delay or handover interruption in DRX mode.

(57) 摘要: 一种非连续接收模式 (DRX) 处理方法、用户设备及基站, 该方法包括: 用户设备 (UE) 在 DRX 模式下, 检测是否发生需要保持或进入激活状态的事件; 检测到所述事件时, 所述 UE 向基站发送退出 DRX 模式且保持或进入激活状态的指示信息; 所述 UE 退出 DRX 模式且保持或进入激活状态, 接收基站发送的数据。上述技术方案避免了 DRX 模式下业务延时或切换中断问题。



WO 2013/189378 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/081819

A. CLASSIFICATION OF SUBJECT MATTER

See the extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04W; H04Q 7/-; H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CPRSABS, CNABS, CNTXT, CNKI, VEN: DRX; discontinuous reception, non-continuous reception, intermittent reception, handover, handoff

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 102256321 A (NEW POSTCOM EQUIPMENT CO., LTD.), 23 November 2011 (23.11.2011), claims 1-8, description, paragraphs [0002]-[0008], [0028]-[0039] and [0064]-[0075], and figures 1-3 and 6	1-17
PX	CN 103024776 A (POTEVIO INSTITUTE OF TECHNOLOGY CO., LTD.), 03 April 2013 (03.04.2013), description, paragraphs [0002]-[0023] and [0047]-[0069], and figures 1-9	1-17
A	CN 102123456 A (DATANG MOBILE COMMUNICATIONS EQUIPMENT CO., LTD.), 13 July 2011 (13.07.2011), the whole document	1-17
A	CN 101656978 A (NTT DOCOMO INC. NTT DOCOMO INC.), 24 February 2010 (24.02.2010), the whole document	1-17

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 22 October 2013 (22.10.2013)	Date of mailing of the international search report 21 November 2013 (21.11.2013)
Name and mailing address of the ISA/CN: State Intellectual Property Office of the P. R. China No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088, China Facsimile No.: (86-10) 62019451	Authorized officer LU, Jing Telephone No.: (86-10) 62412158

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/081819

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2007148175 A1 (NOKIA CORPORATION), 27 December 2007 (27.12.2007), the whole document	1-17

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2013/081819

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 102256321 A	23.11.2011	None	
CN 103024776 A	03.04.2013	None	
CN 102123456 A	13.07.2011	None	
CN 101656978 A	24.02.2010	EP 2157830 A1	24.02.2010
		JP 2010050969 A	04.03.2010
WO 2007148175 A1	27.12.2007	US 2007291729 A1	20.12.2007
		EP 2039189 A1	25.03.2009

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/081819

CONTINUATION OF SECOND SHEET A. CLASSIFICATION OF SUBJECT MATTER

H04W 24/02 (2009.01) i

H04W 36/08 (2009.01) n

H04W 52/02 (2009.01) n

国际检索报告

国际申请号

PCT/CN2013/081819

A. 主题的分类

参见附加页

按照国际专利分类(IPC)或者同时按照国家分类和 IPC 两种分类

B. 检索领域

检索的最低限度文献(标明分类系统和分类号)

IPC: H04W; H04Q7/-; H04L

包含在检索领域中的除最低限度文献以外的检索文献

在国际检索时查阅的电子数据库(数据库的名称, 和使用的检索词(如使用))

CPRSABS, CNABS, CNTXT, CNKI, VEN: 非连续接收, 不连续接收, DRX, 切换; discontinuous reception, non-continuous reception, intermittent reception, handover, handoff

C. 相关文件

类 型*	引用文件, 必要时, 指明相关段落	相关的权利要求
X	CN 102256321 A (新邮通信设备有限公司) 23.11 月 2011 (23.11.2011) 权利要求 1-8, 说明书第[0002]- [0008] 段, [0028]- [0039] 段, [0064]- [0075] 段, 图 1-3, 6	1-17
PX	CN 103024776 A (普天信息技术研究院有限公司) 03.4 月 2013 (03.04.2013) 说明书第 [0002]- [0023] 段, [0047]- [0069] 段, 图 1-9	1-17
A	CN 102123456 A (大唐移动通信设备有限公司) 13.7 月 2011 (13.07.2011) 全文	1-17
A	CN 101656978 A (株式会社 NTT 都科摩) 24.2 月 2010 (24.02.2010) 全文	1-17

☒ 其余文件在 C 栏的续页中列出。

☒ 见同族专利附件。

* 引用文件的具体类型:

“A” 认为不特别相关的表示了现有技术一般状态的文件

“E” 在国际申请日的当天或之后公布的在先申请或专利

“L” 可能对优先权要求构成怀疑的文件, 或为确定另一篇
引用文件的公布日而引用的或者因其他特殊理由而引
用的文件(如具体说明的)

“O” 涉及口头公开、使用、展览或其他方式公开的文件

“P” 公布日先于国际申请日但迟于所要求的优先权日的文件

“T” 在申请日或优先权日之后公布, 与申请不相抵触, 但为了
理解发明之理论或原理的在后文件

“X” 特别相关的文件, 单独考虑该文件, 认定要求保护的
发明不是新颖的或不具有创造性

“Y” 特别相关的文件, 当该文件与另一篇或者多篇该类文件
结合并且这种结合对于本领域技术人员为显而易见时,
要求保护的发明不具有创造性

“&” 同族专利的文件

国际检索实际完成的日期

22.10 月 2013 (22.10.2013)

国际检索报告邮寄日期

21.11 月 2013 (21.11.2013)

ISA/CN 的名称和邮寄地址:

中华人民共和国国家知识产权局

中国北京市海淀区蓟门桥西土城路 6 号 100088

传真号: (86-10)62019451

受权官员

芦婧

电话号码: (86-10) 62412158

C(续). 相关文件		
类 型	引用文件, 必要时, 指明相关段落	相关的权利要求
A	WO 2007148175 A1 (NOKIA CORPORATION) 27.12 月 2007 (27.12.2007) 全文	1-17

国际检索报告
关于同族专利的信息

国际申请号
PCT/CN2013/081819

检索报告中引用的 专利文件	公布日期	同族专利	公布日期
CN 102256321 A	23.11.2011	无	
CN 103024776 A	03.04.2013	无	
CN 102123456 A	13.07.2011	无	
CN 101656978 A	24.02.2010	EP 2157830 A1	24.02.2010
		JP 2010050969 A	04.03.2010
WO 2007148175 A1	27.12.2007	US 2007291729 A1	20.12.2007
		EP 2039189 A1	25.03.2009

续：第 2 页 A.主题的分类

H04W 24/02 (2009.01) i

H04W 36/08 (2009.01) n

H04W 52/02 (2009.01) n