NOKIA

# NB-IoT协议简介

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# NB-IoT协议查询方法

下载地址：
http://www.3gpp.org/specifications/79-specification-numbering
http://www.3gpp.org/ftp/

RAN approved REL-13 NB_IOT CRs (RAN#72):

| TSG Tdoc | WG Tdoc | spec | vers. | CR | rev | title |
|---|---|---|---|---|---|---|
| RP-161067 | R1-165396 | 36.201 | 13.1.0 | 0014 | 1 | Introduction of NB-IoT |
| RP-161067 | R1-165971 | 36.211 | 13.1.0 | 0224 | 8 | Introduction of NB-IoT |
| RP-161067 | R1-166045 | 36.212 | 13.1.0 | 0192 | 3 | Introduction of Rel-13 feature of NB-IoT in 36.212 |
| RP-161067 | R1-165972 | 36.213 | 13.1.1 | 0656 | 1 | Introduction of NB-IoT |
| RP-161067 | R1-165973 | 36.214 | 13.1.0 | 0033 | 2 | Introduction of NB-IoT |
| RP-161081 | R2-164415 | 36.300 | 13.3.0 | 0880 | 3 | Introduction of NB-IoT |
| RP-161081 | R2-164567 | 36.300 | 13.3.0 | 0882 | - | Introduction Control Plane CIoT EPS Optimization |
| RP-161081 | R2-164568 | 36.300 | 13.3.0 | 0883 | - | Introduction of the UE context resume function |
| RP-161081 | R2-164409 | 36.302 | 13.1.0 | 0076 | 1 | Introduction of NB-IoT in 36.302 |
| RP-161195 | - | 36.304 | 13.1.0 | 0311 | 2 | Introduction of NB-IoT in 36.304 including correction of Paging UE_ID for NB-IOT |
| RP-161081 | R2-164513 | 36.306 | 13.1.0 | 1328 | 2 | Introduction of NB-IoT UE capabilities |
| RP-161081 | R2-164521 | 36.321 | 13.1.0 | 0883 | 4 | Introduction of NB-IoT in 36.321 |
| RP-161081 | R2-164511 | 36.322 | 13.1.0 | 0121 | 2 | Introduction of NB-IoT |
| RP-161091 | - | 36.323 | 13.1.0 | 0171 | 4 | Introduction of NB-IoT functionality to PDCP protocol |
| RP-161211 | - | 36.331 | 13.1.0 | 2231 | 7 | Introduction of NB-IoT in 36.331 |
| RP-161042 | R3-160904 | 36.401 | 13.1.0 | 0078 | 5 | Introduction of the UE context resume function |
| RP-161042 | R3-161543 | 36.413 | 13.2.0 | 1383 | 11 | Introduction of the UE Context Resume function |

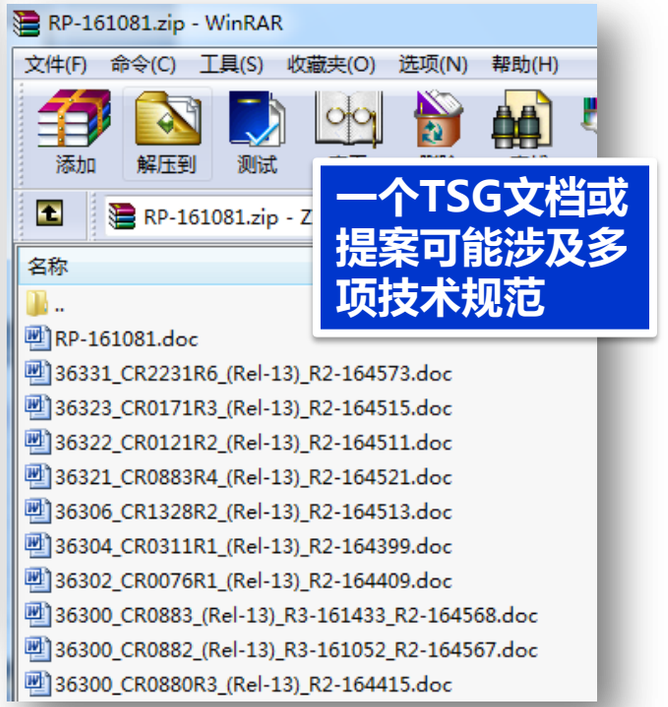
文档提案

技术规范

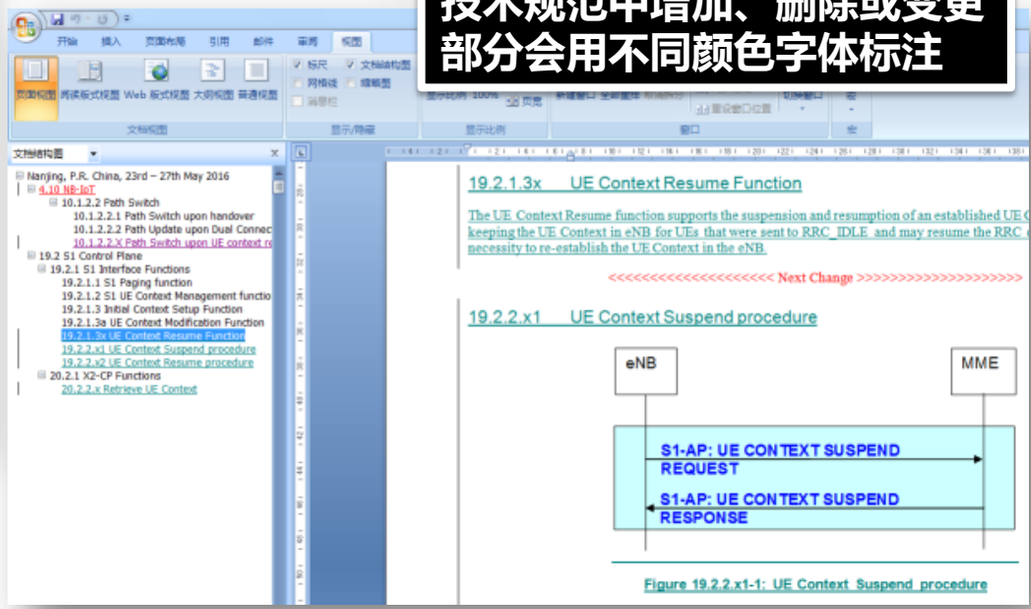
Project Co-ordination Group (PCG)

| TSG RAN<br>Radio Access Network | TSG SA<br>Service & Systems Aspects | TSG CT<br>Core Network & Terminals |
|---|---|---|
| RAN WG1<br>Radio Layer 1 spec | SA WG1<br>Services | CT WG1<br>MM/CC/SM (Iu) |
| RAN WG2<br>Radio Layer 2 spec<br>Radio Layer 3 RR spec | SA WG2<br>Architecture | CT WG3<br>Interworking with external networks |
| RAN WG3<br>Iub spec, Iur spec, Iu spec<br>UTRAN O&M requirements | SA WG3<br>Security | CT WG4<br>MAP/GTP/BCH/SS |
| RAN WG4<br>Radio Performance<br>Protocol aspects | SA WG4<br>Codec | CT WG6<br>Smart Card Application Aspects |
| RAN WG5<br>Mobile Terminal<br>Conformance Testing | SA WG5<br>Telecom Manageme | |
| RAN WG6<br>Legacy RAN radio and protocol | SA WG6<br>Mission-critical applications | |

3GPP组织结构




一个TSG文档或提案可能涉及多项技术规范




技术规范中增加、删除或变更部分会用不同颜色字体标注

# NB-IoT课程与协议对应表

| 内容类型 | 课件名称 | 主要涉及的3GPP协议 | 内容占比 |
| --- | --- | --- | --- |
| 基础特性 | 《NB-IoT特性概述》 | 45820（7.3节）、RP-151621 | 5% |
| 物理层协议 | 《NB-IoT物理层原理》、《NB-IoT物理层过程》 | 36211（第10章）、36212（第6章）、36213（第16章）、36331（6.7节） | 50% |
| 高层协议 | 《NB-IoT高层协议》、《NB-IoT信道映射》 | 36300、36321、36322、36323 | 5% |
| 网络架构与关键过程 | 《NB-IoT网络架构与信令流程》、《NB-IoT空闲态过程》 | 23682、23401、36300、36306、36.331（6.7节）、36413、36423 | 35% |
| 规划原理 | 《NB-IoT规划原理》 | 45820（7.3节） | 5% |

◆TR 45820：Cellular system support for ultra-low complexity and low throughput Internet of Things (CIoT)
◆TR 23682：Architecture enhancements to facilitate communications with packet data networks and applications
◆RP-151621：New Work Item NarrowBand IOT (NB-IOT)