

NTT DOCOMO

Technical Journal

vol.18 No.2 | Oct.2016

DOCOMO Today

• What We Can Do

Technology Reports (Special Articles)

Special Articles on Introducing the 3.5-GHz Band

- NTT DOCOMO's Efforts Concerning Technical Developments for Introducing TD-LTE in 3.5-GHz Frequency Band
- Base-station Equipment with the Aim of Introducing 3.5-GHz Band TD-LTE
- Base Station Antennas for 3.5-GHz Band
- High-precision Clock-time-synchronization Network Equipment for Introduction of 3.5-GHz Band TD-LTE
- Router-type Mobile Terminal for TD-LTE in 3.5-GHz Band

Technology Reports (Special Articles)

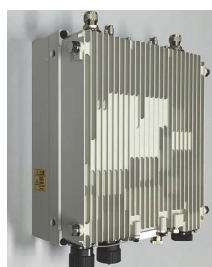
Special Articles on LTE-Advanced Release 13 Standardization

- LTE-Advanced Release 13 Standardization Technology Overview
- New Technologies for Achieving IoT in LTE Release 13
- Broadband Frequency Technologies in LTE-Advanced Release 13
- LTE-Advanced Release 13 Multiple Antenna Technologies and Improved Reception Technologies

Contents


DOCOMO Today

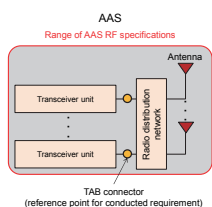

| | |
|-----------------------------|----------|
| What We Can Do | 1 |
| Kazuhiro Watanabe | |


Technology Reports (Special Articles)


(P.8)



(P.27)



(P.62)

Special Articles on Introducing the 3.5-GHz Band

| | |
|----------------------------------------------------------------------------------------------------------------------|----------|
| NTT DOCOMO's Efforts Concerning Technical Developments for Introducing TD-LTE in 3.5-GHz Frequency Band | 4 |
|----------------------------------------------------------------------------------------------------------------------|----------|

3.5-GHz Band TD-LTE CA

| | |
|------------------------------------------------------------------------------------|----------|
| Base-station Equipment with the Aim of Introducing 3.5-GHz Band TD-LTE | 8 |
|------------------------------------------------------------------------------------|----------|

3.5-GHz Band TD-LTE High-density BDE Optical Remote Radio Equipment

| | |
|-----------------------------------------------------|-----------|
| Base Station Antennas for 3.5-GHz Band | 14 |
|-----------------------------------------------------|-----------|

3.5-GHz Band Base Station Antenna Remote Tilt

| | |
|------------------------------------------------------------------------------------------------------------------|-----------|
| High-precision Clock-time-synchronization Network Equipment for Introduction of 3.5-GHz Band TD-LTE | 18 |
|------------------------------------------------------------------------------------------------------------------|-----------|

High-precision Time Synchronization TD-LTE UTC

| | |
|---------------------------------------------------------------------|-----------|
| Router-type Mobile Terminal for TD-LTE in 3.5-GHz Band | 27 |
|---------------------------------------------------------------------|-----------|

3.5-GHz Band TD-LTE 3DL CA

Special Articles on LTE-Advanced Release 13 Standardization

| | |
|-------------------------------------------------------------------------|-----------|
| LTE-Advanced Release 13 Standardization Technology Overview | 32 |
|-------------------------------------------------------------------------|-----------|

3GPP Release 13 LTE/LTE-Advanced

| | |
|-------------------------------------------------------------------|-----------|
| New Technologies for Achieving IoT in LTE Release 13 | 39 |
|-------------------------------------------------------------------|-----------|

M1 NB-IoT eDRX

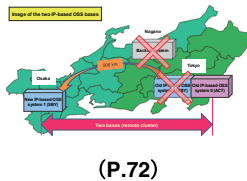
| | |
|-------------------------------------------------------------------------|-----------|
| Broadband Frequency Technologies in LTE-Advanced Release 13 | 52 |
|-------------------------------------------------------------------------|-----------|

CA DC Unlicensed Frequency Utilization

| | |
|--------------------------------------------------------------------------------------------------------|-----------|
| LTE-Advanced Release 13 Multiple Antenna Technologies and Improved Reception Technologies | 62 |
|--------------------------------------------------------------------------------------------------------|-----------|

EBF/FD-MIMO AAS BS IRC

Topics

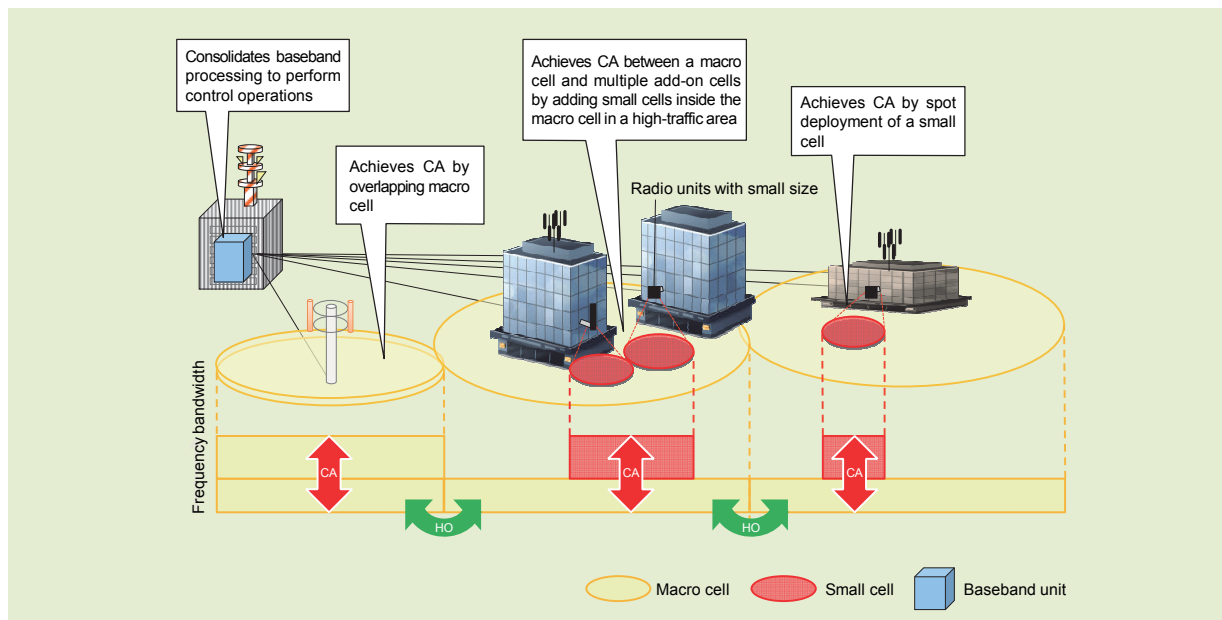


Improving IP-based OSS Reliability During Large-scale Disasters 72

IP-based OSS Network Monitoring 2-base 1-system Method

News

2015 Wireless Innovation Forum Technology of the Year Award 78



Technology Reports (Special Articles) NTT DOCOMO's Efforts Concerning Technical Developments for Introducing TD-LTE in 3.5-GHz Frequency Band (P.4)
CA by advanced C-RAN architecture

NTT DOCOMO Technical Journal Vol.18 No.2

Editorship and Publication

NTT DOCOMO Technical Journal is a quarterly journal edited by NTT DOCOMO, INC. and published by The Telecommunications Association.

Editorial Correspondence

NTT DOCOMO Technical Journal Editorial Office
R&D Strategy Department
NTT DOCOMO, INC.
Sanno Park Tower
2-11-1, Nagata-cho, Chiyoda-ku, Tokyo 100-6150, Japan
e-mail: dtj@nttdocomo.com

Copyright

©2016 NTT DOCOMO, INC.
Copies of articles may be reproduced only for personal, noncommercial use, provided that the name NTT DOCOMO Technical Journal, the name(s) of the author(s), the title and date of the article appear in the copies.