

Testing of Early Applied LTE-Advanced Technologies on Current LTE Service to overcome Real Network Problem and to increase Data Capacity

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(Pt9)Abstract— LTE service that has advantage of high data rate and speed is successful launched in the world wide with 57 service provider in 32 countries as of Mar 2012. But data throughput gap between peak data rate and average data rate is more increased than legacy wireless application, and it brings big problem on the current high rate data service. Although LTE supports high peak data rate, its average is 35% lower than peak data rate. But 2G service, GSM/GPRS is almost same rate with peak data rate. So Frequency efficiency is became important factor for high data throughput service. Especially, Korea Service providers, SKT, KT, LGU+, try to apply early engaged LTE-Advanced technologies to increase frequency efficiency and to cover data traffic using complementary wireless application like Carrier-Aggregation, Multi-Frequency band, Heterogeneous Network. First of all, briefly introduce LTE-Advanced technologies and problem of current LTE service and finally, we are finding design and test challenges of early applied LTE-Advanced technologies, Carrier-Aggregation, Multi-standard Radio and Multi-frequency band LTE.

(Pt9)Keyword—LTE, LTE-Advanced, Heterogeneous Network, Carrier Aggregation, Multi-Frequency band



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