Amended

Exhibit 7

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Exhibit 7 Claim 1 of U.S. Patent No. 8,46



Case 2:22-md-03034-TGB_ ECF No. 30-8, PageID 891 Filed 07/20/22 Page 3 of U.S. Patent No. 8,467,366: Claim I (a)

"In a multi-cell orthogonal frequency division multiple access (OFDMA) wireless communication system comprising a plu stations, a mobile station configured to communicate with a serving base station in a cell via a communication channel, t

1. In a multi-cell orthogonal frequency division multiple access (OFDMA) wireless communication system comprising a plurality of base stations and mobile stations, a mobile station configured to communicate with a serving base station in a cell via a communication channel, the mobile station comprising:

VW's Accused Products include vehicles equipped with components and/or 4G/LTE networks and services, including services sold and provided by VW

To the extent the preamble is considered a limitation, VW's Accused Product patent. *E.g.*,

The LTE specification (Series 36, Release 8) supports user equipment (UE) procedure.

For clarity, release 8 of the 36 series 3GPP specifications was frozen in Dece used as the basis for the first wave of LTE equipment. The LTE marketplace releases from Release 8 through Release 17. Though for ease of review released teleboom, the same or functionally identical content exists in each correspondent.

The LTE network has many eNodeBs, base stations.



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"In a multi-cell orthogonal frequency division multiple access (OFDMA) wireless communication system comprising a plu stations, a mobile station configured to communicate with a serving base station in a cell via a communication channel, to

4 Overall architecture

The E-UTRAN consists of eNBs, providing the E-UTRA user plane (PDCP/RLC/MAC/PHY) an protocol terminations towards the UE. The eNBs are interconnected with each other by means of eNBs are also connected by means of the S1 interface to the EPC (Evolved Packet Core), more sp. (Mobility Management Entity) by means of the S1-MME and to the Serving Gateway (S-GW) by The S1 interface supports a many-to-many relation between MMEs / Serving Gateways and eNBs

The E-UTRAN architecture is illustrated in Figure 4 below.

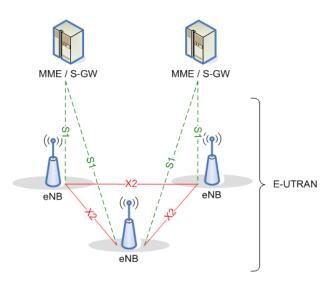


Figure 4-1: Overall Architecture

See e.g., 3GPP TS 36.300 V8.12.0 at pg. 15.

The user equipment (UE), mobile station, communicates with a corresponding



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"In a multi-cell orthogonal frequency division multiple access (OFDMA) wireless communication system comprising a plu stations, a mobile station configured to communicate with a serving base station in a cell via a communication channel, t

4.3.1 User plane

The figure below shows the protocol stack for the user-plane, where PDCP, RLC and MAC eNB on the network side) perform the functions listed for the user plane in subclause 6, e.g. ciphering, scheduling, ARQ and HARQ;

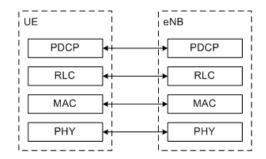


Figure 4.3.1-1: User-plane protocol stack

See e.g., 3GPP TS 36.300 V8.12.0 at pg. 18.

LTE uses OFDMA for both the downlink and the uplink. For the uplink, LT referred to a discrete Fourier Transform Spread (DFTS)-OFDM.

5.1.1 Basic transmission scheme based on OFDM

The downlink transmission scheme is based on conventional OFDM using a cyclic prefix. The spacing is $\Delta f = 15$ kHz. 12 consecutive sub-carriers during one slot correspond to one downling frequency domain, the number of resource blocks, N_{RB} , can range from $N_{RB-min} = 6$ to N_{RB-max}

See e.g., 3GPP TS 36.300 V8.12.0 at pg. 25.



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