

Title (en)

MULTICARRIER DIGITAL TRANSMISSION SYSTEM USING AN OQAM TRANSMULTIPLEXER

Title (de)

DIGITALES MEHRTRÄGER-NACHRICHTENÜBERTRAGUNGS-SYSTEM

Title (fr)

SYSTEME DE TRANSMISSION NUMERIQUE A PORTEUSE MULTIPLE METTANT EN OEUVRE UN TRANSMULTIPLEXEUR OQAM

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0135561A1] An emitter converts a serial input data stream into a set of parallel substreams. An OQAM modulator (120) receives and supplies each substream to an input of a synthesis filter bank (130). Synchronization input(s) of the filter bank receive an OQAM signal that carries a data sequence. This sequence contains frame, superframe and hyperframe synchronization patterns, and specifies the number of bits allocated to each subchannel. A receiver (200) includes an analysis filter bank (210) that decomposes the multicarrier signal into a set of elementary signals for each subchannel. A synchronizing processing block (270) receives output(s) of the filter bank for synchronization subchannel(s). The block (270) includes a first cascade of blocks that control receiver sampling times, and a second cascade of blocks that extract synchronization patterns and subchannel bit assignment data. Other filter bank outputs are each coupled to a cascade subchannel equalizer (220) followed by a data extractor (230) and a parallel-to-serial converter (240).

IPC 1-7

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