

Title (en)
FILTER SYSTEM AND METHOD TO SUPPRESS INTERFERENCE IMPOSED UPON A FREQUENCY-DIVISION MULTIPLEXED CHANNEL

Title (de)
FILTERSYSTEM UND VERFAHREN ZUR UNTERDRÜCKUNG VON STÖRUNGEN, DIE EINEM FREQUENZGEMULTIPLEXTEN KANAL AUFERLEGT WERDEN

Title (fr)
SYSTEME DE FILTRAGE ET PROCEDE CORRESPONDANT PERMETTANT DE SUPPRIMER UN BROUILLAGE SUR UN CANAL MULTIPLEXE PAR REPARTITION EN FREQUENCE

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Abstract (en)
[origin: WO0215539A1] A filter system and method is disclosed, the filter system (300, 300x, 300y, 300z) being connected between a large-amplitude, high-frequency noise source (304) and a frequency-division multiplexed communications channel (312, 412). The large-amplitude, high-frequency noise (413) commonly being a plain old telephone service (POTS) ring signal generated by a central office (CO) telephone switch (404). The frequency-division multiplexed communications channel (312, 412) generally used to carry digital signals at frequencies above the POTS baseband in order to implement a digital subscriber line (DSL). Large-amplitude, high-frequency signal components (413) from the POTS ring signal impair the performance of frequency-division multiplexed channels (312, 412) on a transmission line such as a subscriber loop (512, 613). The filter system (300, 300x, 300y, 300z) of the present invention utilizes amplitude and also may utilize frequency to selectively suppress the transients and harmonics on the transmission line caused by a telephone ring signal. In addition, the present invention uses bi-directional current limiting filters (700, 800) to implement some of the amplitude-dependent filtering behavior.

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