

Title (en)

SYSTEM FOR TRANSMITTING DATA BY MEANS OF OPTICAL RADIATION AND METHOD ASSOCIATED THEREWITH

Title (de)

SYSTEM ZUR ÜBERTRAGUNG VON DATEN MITTELS OPTISCHER STRAHLUNG UND VERFAHREN IM ZUSAMMENHANG DAMIT

Title (fr)

SYSTÈME DE TRANSMISSION DE DONNÉES AU MOYEN D'UN RAYONNEMENT OPTIQUE ET PROCÉDÉ ASSOCIÉ

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Application

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Abstract (en)

[origin: WO2019048943A1] Transmitter device (99) transmitting by means of optical radiation (108), said device being characterized in that it comprises at least one modulator stage (101) comprising: - an input (105) adapted to receive during use an electrical signal (s(t)) to be modulated, and - an output (107) transmitting, towards at least one photoemitter (100), a voltage or current driving signal (v7(t), i7(t)) for which said electrical signal (s(t)) represents a modulating signal, where said at least one photoemitter (100) transmits an optical radiation (108) with radiation intensity I_r(t) variable in accordance with said driving signal (v7(t), i7(t)), and wherein, between said input and said output of said modulator stage (107), a cascade of a first AM modulator (102) and of a second FM modulator (103) is present, said FM modulator (103) being placed downstream of said AM modulator (102) and having an own output directly connected with the output (107) of said modulator stage (101), wherein said AM modulator (102) has an input directly connected to said input (105) of said modulator stage and is directly supplied by means of said electrical signal (s(t)) to be modulated and wherein said AM modulator (102) has an output on which it generates an intermediate signal (s2(t)) supplied as an input to said FM modulator (103). The present invention also regards a receiver device, also multi-channel, and methods for transmission and modulation, and reception and demodulation, employing a hybrid AM modulation/FM.

IPC 8 full level

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