

Title (en)

BROADBAND TELECOMMUNICATIONS SWITCH ARRAY

Title (de)

BREITBAND TELEKOMMUNIKATIONSSCHALTERARRAY

Title (fr)

MATRICE DE COMMUTATION POUR TELECOMMUNICATION A LARGE BANDE

Publication

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Application

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Abstract (en)

[origin: WO0163963A2] A broadband telecommunications switch array includes a microwave switch array with analog elements. Incoming optical signals are transferred to the microwave domain, and the microwave switch array provides the necessary switching functions. After switching has been achieved, the switched signals are then reconverted to the optical domain. In a preferred embodiment, the microwave switch array include an NxN array of broadband passthrough switches. Coupled to the input and the output of the NxN array are 1xN digital switches that perform error correcting functions. The error-correcting digital switches may include circuits for leveling, reshaping and retiming, and feed-forward error correction. By advantageously combining analog and digital technology, the present invention enables the design of a low-cost switch array with a low bit-rate error and a flat frequency response up to a high cutoff frequency. In the preferred embodiment the number of digital correction circuits is approximately equal to the square root of the number of analog switches.

IPC 1-7

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IPC 8 full level

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