

Title (en)
COMPACT SAMPLE-AND-HOLD DEVICE

Title (de)
KOMPAKTE ABTAST- UND HALTEVORRICHTUNG

Title (fr)
ECHANTILLONNEUR-BLOQUEUR COMPACT

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EP 2997577 A1 20160323 (FR)

Application
EP 14726111 A 20140514

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• EP 2014059890 W 20140514

Abstract (en)
[origin: WO2014184267A1] The invention relates to a sampler which comprises a holding capacitor (CH) and is operated along a tracking phase during which the voltage at the terminals of the capacitor follows the input signal (Vin) and along a holding phase during which the capacitor is insulated from said input signal (Vin), and which further comprises: a differential pair consisting of a first transistor Q1 and a second transistor Q2 which are connected to common transmitters, the collector of the transistor Q2 being connected to the holding capacitor (CH), the input signal (Vin) being applied to the base of the transistor Q1; a third transistor Q3 having a base which is connected to the collector of the transistor Q2 and the transmitter is connected to the base of the transistor Q2, the signal present on the transmitter of the transistor Q3 forming the output signal (Vout) of said sample-and-hold device; a current source I (20) connected to the collector of the transistor Q2; during the tracking phase said differential pair Q1, Q2 being supplied by a current (2I), the transistor Q2 being charged by said current source (20) and by the holding capacitor (CH), during the holding phase, the current (2I) supplying power to the differential pair Q1, Q2 being cut off and the holding capacitor (CH) being charged with two opposite currents having the same value, equal to the current I of said source (20).

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