

STATEMENT UNDER ARTICLE 19

The invention is directed to an output buffer circuit having an input node and an output node, with first and second inverters having inputs coupled to the input node. Outputs of the inverters are coupled to the gates of first and second drive transistors. The drive transistors have a common drain connection coupled to the output node. A capacitive feedback path includes series coupled third and fourth transistors having a common gate connection and a common drain connection. A capacitor is coupled between the common drain and the output node. An inverter is coupled between the input node and the common gate.

The reference to Boomer shows in Figs. 2 and 3 an output buffer having a capacitive feedback path comprising a first capacitor (C_p) coupled between the output node (V_{out}) and the gate of a first drive transistor (P_1) and a second capacitor (C_n) coupled between the output node and the gate of a second drive transistor (N_1). No other capacitive feedback paths are shown.

The reference to Lewis shows in Fig. 4 an output buffer having a first capacitor (C_{in}) coupled between the gate of a first drive transistor (20) and ground and a second capacitor (C_{ip}) coupled between the gate of a second drive transistor (22) and ground. The Lewis reference does not disclose the use of any capacitive feedback paths.

The reference to Nessi et al. is directed to a slew rate controlled output driver for use with switched inductive loads. The circuitry disclosed avoids the immediate and abrupt transfer of charge that characterizes switched circuits. Figure 3 shows a circuit which avoids such changes in current. The circuit includes a pair of integrating stages (op-amps, unnumbered) which share a capacitor (C_u). The capacitor is switched (s_1 , s_2) between the op-amps. Signals (NW , PW) operate each switch in synchrony so that capacitor (C_u) is coupled to only one op-amp at a time. The slew rates during the turn-off phase of the output transistors (PU , NU) are controlled to avoid abrupt changes by an integrating effect during operation of the integrating stages.