

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2022/0416779 A1 Chen et al.

Dec. 29, 2022 (43) Pub. Date:

### (54) ANALOGUE SWITCH ARRANGEMENT

(71) Applicant: NXP USA, Inc., Austin, TX (US)

(72) Inventors: **Jianluo Chen**, Suuzhou (CN); Jianzhou Wu, Suzhou (CN); Yikun Mo, Suzhou (CN)

(21) Appl. No.: 17/807,902

(22)Filed: Jun. 21, 2022

(30)Foreign Application Priority Data

Jun. 23, 2021 (CN) ...... 202110701289.X

### **Publication Classification**

(51) Int. Cl. H03K 17/16 (2006.01)H03K 17/687 (2006.01) (52) U.S. Cl. CPC ...... H03K 17/162 (2013.01); H03K 17/6872 (2013.01)

#### (57)ABSTRACT

An analogue switch arrangement includes an analogue switch including a first and second transistor in parallel between an input terminal and an output terminal and an input transistor arrangement including a first control transistor, a second control transistor, a first voltage control transistor and a second voltage control transistor. The gate terminals of both the first and second transistors are configured to receive a first and second control signal for controlling the analogue switch between an on-state and an offstate. The gate terminals of both the first and second voltage control transistors are configured to receive a voltage based on the voltage at the output terminal to provide for control of the voltage applied at the input terminal based on the voltage at the output terminal when the analogue switch is in the off-state.

