

A single-pole double-throw switch 1 in Figure 2 corresponds to the switching unit 1 in Figure 1. A capacitor 21, a Zener diode 22, a transistor 23 and a resistor 24 in Figure 2 correspond to the first signal generating unit 2 in Figure 1. A capacitor 31, a Zener diode 32, a transistor 33 and a resistor 34 in figure 2 corresponds to the ~~first~~second signal generating unit 3 in Figure 1.

As shown in Figure 2, the capacitor 21, the Zener diode 22, the transistor 23, the resistor 24 and the capacitor 31, the Zener diode 32, the transistor 33 and the resistor 34 constitute a mirror circuit which is symmetrical in left and right.

An anode of the capacitor 21 is connected to the single-pole double-throw switch 1 and a cathode of the capacitor 21 is connected to both of an end of the resistor 24 and an anode of the Zener diode 22. A cathode of the Zener diode 22 is connected to a base of the transistor 23. A collector of the transistor 23 is connected to a power supply U and an emitter of the transistor 23 is grounded.

An anode of the capacitor 31 is connected to the single-pole double-throw switch 1 and a cathode of the capacitor 31 is connected to both of an end of the resistor 34 and an anode of the Zener diode 32. A cathode of the Zener diode 32 is connected to a base (B) of the transistor 33. A collector (C) of the transistor 33 is connected to the power supply U and an emitter (E) of the transistor 33 is grounded.

Referring to Figure 2, in operation, at the moment when the single-pole double-throw switch 1 in the circuit is switched to the right from the left, the capacitor (C) 21 in the right whose voltage is 0 starts to be charged, the voltage of the resistor (R) 24 in the right is larger than the sum of the break-over voltage between BE of the transistor 23 in the right and the voltage stabilization value of the Zener diode 22, and therefore the transistor 23 is turned on and the microphone is short-circuited. It can be seen that the voltage U of the control circuit is 0, which means the control circuit sends a control signal with low level, i.e., the recording start signal.

After a period of time which may be determined by the values of the capacitor (C) 21 and the resistance (R) 24 and may be very short, the voltage of the capacitance (C) 21 in the right is gradually increased and the voltage of the resistor (R) 24 in the right is gradually decreased. When the voltage of the resistor (R) 24 is smaller than the sum of the

break-over voltage between BE of the transistor 23 in the right and the voltage stabilization value of the Zener diode 22, the transistor 23 is turned off, the voltage across both ends of the control circuit is recovered, which means the control circuit stops sending low level signals, and the microphone has begun to record voice information.

Referring to figure 2, when the single-pole double-throw switch 1 is switched to the left from the right, the circuit in the right is turned off, and the circuit in the left repeats the similar operations of the circuit in the right.

Specifically, at the moment when the single-pole double-throw switch 1 in the circuit is switched to the left from the right, the capacitor (C) 31 in the left whose voltage is 0 starts to be charged, the voltage of the resistor (R) 34 in the ~~right-left~~ is larger than the sum of the break-over voltage between BE of the transistor 33 in the left and the voltage stabilization value of the Zener diode 32, and therefore the transistor 33 is turned on and the microphone is short-circuited. It can be seen that the voltage U of the control circuit is 0, which means the control circuit sends a control signal with low level, i.e., the recording stop signal.

After a period of time which may be determined by the values of the capacitor (C) ~~21-31~~ and the resistance (R) ~~24-34~~ and may be very short, the voltage of the capacitance (C) 31 in the left is gradually increased and the voltage of the resistor (R) 34 in the left is gradually decreased. When the voltage of the resistor (R) 34 is smaller than the sum of the break-over voltage between BE of the transistor 33 in the left and the voltage stabilization value of the Zener diode 32, the transistor 33 is turned off, the voltage across both ends of the control circuit is recovered, which means the control circuit stops sending low level signals, and the microphone has finished recording the voice information.

According to an example, the processing of switching the single-pole double-throw switch from the left to the right corresponds to pressing a recording button by the user, and the user is ready to start talking, at this time the control circuit sends the recording start signal, and then automatically ends occupation of the channel so that the channel may be used by the microphone to work normally.

The processing of switching the single-pole double-throw switch from the right to the left corresponds to releasing the recording button by the user, at this time the control