**DTMF DIALING TEST:**

The analyzer shall be capable of decoding the DTMF signaling receiving from Telephone Handset.

Components used:

1. DTMF Decoder module with IC SC9270D
2. DPDT relay for power.
3. Two Telephone Line relays.

Progress & Conclusion:

* Circuitry tested and verified.
* Coding tested and verified.
* Single Digit display for the dialed i.e., 0 to 9 & “#” “\*” tested and verified.
* Dial Speed Test done tested and verified.

**RECEIVER TEST:**

The analyzer shall be capable of sending a low-quality dial tone on Telephone receiver speaker.

Components used:

1. 220 ohms resistor.
2. DPDT relay for power.

Progress & Conclusion:

* Circuitry tested and verified.
* Coding tested and verified.

**PULSE DETECTION TEST:**

Counting number of pulses received from each key of the Handset keypad and measure make break ratio.

Components used:

1. Comparator **IC LM 358P.**
2. Two Voltage Divider used:
3. One on Telephone Line – 10K in series with 100K.
4. One on IC LM 358P input pin – 6.8K with 5K.
5. DPDT relay for power.

Progress & Conclusion:

* Circuitry tested and verified.
* Break ratio around 60%
* Dial Speed Test/ Pulse per Second: 10pps
* Duration of each pulse: 10ms
* Coding & verification in progress.

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