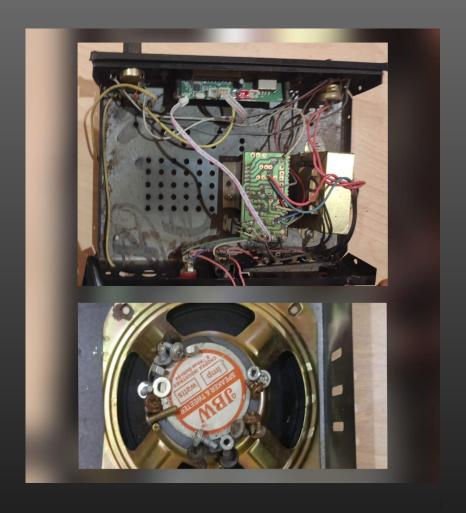
SYSTEM THINKING

SOUND AMPLIFIER

RADIO



COMPONENTS OF SOUND AMPLIFIER

Transformer

Converts 230V AC to 12V AC for power supply.

Bridge Rectifier & Capacitor

Converts AC to stable 12V DC.

D6283 Amplifier IC

Increases the power of the audio signal.

Volume Control (Potentiometer)

Adjusts the loudness of the output.

Control system-Bass & Treble Circuit

Modifies low and high-frequency sounds.

Speaker (4Ω , 8Ω)-Output system

Converts amplified signals into audible sound.

Digital Display

Shows volume, bass levels, and input modes.

Antenna (FM Module)

Captures FM radio signals if included.

SUB-SYSTEMS IN SOUND AMPLIFIER

1)INPUT SYSTEM -USER INTERFACE INCLUDES USB AND SD CARD PORTS , ANTENNA FOR FM

2) AMPLIFICATION UNIT - AMPLIFIER PCB: D6283

3)OUTPUT SYSTEM -WIREABLE SPEAKER,INTERNAL SPEAKER

RADIO MODEL-2280



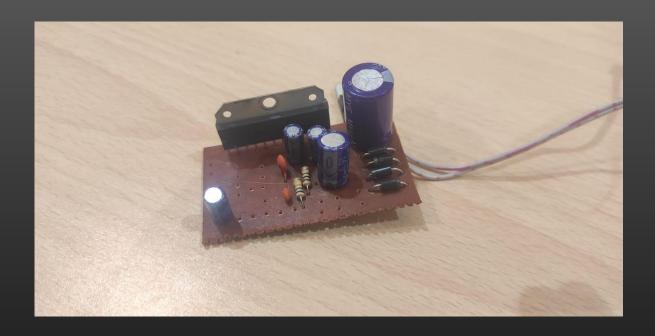
INPUT



TRANSFORMER



AMPLIFIER-D6283



AMPLIFIER-D6283

C7 100nF +Vs C6 1000µF R3 22K +Vs +PWVs C2 22µF R2 13 680Ω IN-14 OUT C1 470nF IN+ 22µF R1 22K IN+MUTE BOOT-R6 STRAP 2.7Ω R5 10K MUTE MUTE THERMAL S/C STBY C10 PROTECTION SHUTDOWN VSTBY o STBY 100nF R4 22K 8 15 STBY-GND -Vs -PWVs C3 10µF = C4 10µF C9 100nF C8 1000µF

Figure 1. Typical application and test circuit

OUTPUT



SUMMARY