

## JJ 828 Integrated power tube stereo amplifier

- **Circuit type:** Push-Pull Ultra Linear AB with CFB
- **Power output:** 70 W RMS each channel
- **Load impedance:** 4; 8 Ohm
- **Input sensitivity:** 0,775 V for full output
- **Input impedance:** 25 000 Ohms
- **Power bandwidth:** 20 Hz - 25 000 Hz (-1 dB)
- **Noise & hum:** - 88 dB bellow full output
- **Inputs:** 5 x Line (unbalanced)
- **Tape out:** For tape recording
- **AC power:** 230 V (120 V, 100 V) AC 50/60 Hz
- **Consumption:** 400 W max.
- **Tubes:** 8 x JJ KT88, 2 x JJ ECC99, 4 x JJ ECC82
- **Dimensions:** 480 x 350 x 180 mm
- **Weight:** 35 Kg
- **Finish:** chasis: black, gold antique or silver antique (pulver lack)  
top plate: gold or silver (pulver lack)  
cover: gold or silver (pulver lack)  
wood: brown, natural (glossy) or black (dull)

The basic design criteria for amplifier JJ 828 were as follows:

- integrated amplifier with remote control
- minimum 50W output power per channel
- sufficient damping factor at minimal global feedback
- great sound

Our designers have chosen this solution:

- high quality components
- inputs switched by signal relays
- independent power source for each channel
- ultra linear circuitry with KT 88 tube
- high operational current of KT 88 (75mA)
- KT88 cathodes feedback (CFB) via output transformers
- output transformer unique design



For the first time, tube ECC 99 is used as a driver for KT 88. This is a tube specifically developed by JJ Electronics for application as a unique linear driver for high power tubes KT88 and 300 B. Concertina with ECC 82 parallel was chosen as a phase inverter in front of the ECC 99.

There are two feedbacks in this design: one is a global feedback from OT (-6dB) and the second is from the KT88 cathodes through OT (5dB). Output transformer is based on C-core made from 0.13-0.15 mm sheets, with air distance 2 x



0.05 mm. The air distance provides linearization of electrical parameters within the entire power range. The manufacturing of C-core, similarly as in the case of the JJ 322 amplifier, is under complete control of JJ Electronic. There are two OT coils: each has four primary, four bifilar secondary and two feedback windings. This OT design yields 3mH at Lp 35H lsp.

