



Aladdin II - the world's best!

Aladdin II - precision tube tester, measurer and curve tracer

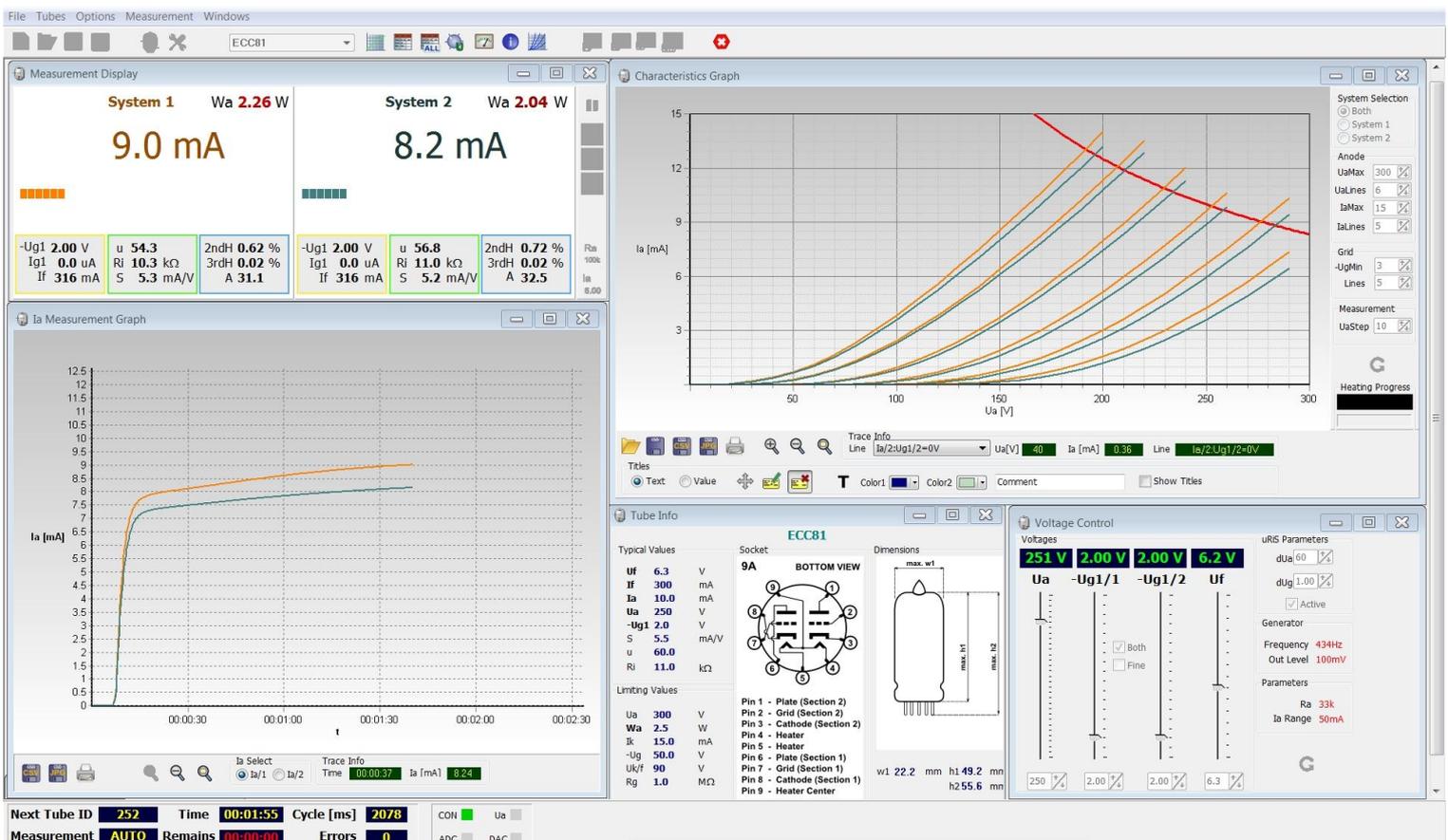
Aladdin possessed just one magic lamp, whereas our Aladdin will help you find as many magic lamps as you want.

On the basis of following arguments we feel qualified to claim, that Aladdin II is the most accurate and most complex measurement system for low-power audio vacuum tubes in the world.

Aladdin II is:

- very fast - saves valuable time in production
- extremely accurate - precision guarantees perfect selection
- the most complex – it measures parameters other measuring systems don't
- automatically generates a database with measured values in order to increase the quality of purchased tubes, and subsequently to select measured tubes according to whichever parameter, also by several parameters simultaneously

Aladdin II is with its accuracy and speed optimized for use in series production.



Specifications:

- ANODE SUPPLY : 0---300V/50mA *stab.<0.2%*
- GRID 1Sys. : -17V....0.02V/20mA *stab.<0.1%*
- GRID 2Sys. : -17V....0.02V/20mA *stab.<0.1%*
- HEATER SUPPLY : 0---14V/1,2A *stab.<0.2%*
- GAIN MEASUREMENT: Gain A: 0.....99 +-1%
- DISTORTION MEASUREMENT : by second and third harmonic

Aladdin II allows three basic measurement modes:

1) automatic - stores all measured parameters in a database for further work

measured parameters:

- Ig / first grid current measurement
- Ia / plate current measurement
- If / heater current measurement
- u / amplification factor
- S / transconductance
- Ri / anode resistance
- A/ alternate amplification (measured at 434Hz)
- THD measurement by second and third harmonic (measured at 434Hz)

Ua,Ug,Uf parameters are not only being adjusted, but they are also being measured in real time.

All parameters are being measured by very fast and accurate 24bit analog-to-digital converters with measuring accuracy up to thousandths of a percent, identical converters are being used in very accurate laboratory multimeters.

2) manually - enables to manually adjust any operating point

3) measurement of characteristics

| Tube ID | Tube Name | tHeat [s] | Ua [V] | Uf [V] | If [mA] | Ia/1 [mA] | Ia/2 [mA] | Ug1/1 [V] | Ug1/2 [V] | Ig1/1 [uA] | Ig1/2 [uA] | A/1 | A/2 | S/1 [mA/V] | S/2 [mA/V] | u/1 | u/2 | R/1 [kOhm] | R/2 [kOhm] | H2/1 [%] | H2/2 [%] | H3/1 [%] | H3/2 [%] | Comment |
|---------|-----------|-----------|--------|--------|---------|-----------|-----------|-----------|-----------|------------|------------|------|------|------------|------------|------|------|------------|------------|----------|----------|----------|----------|---------|
| 206 | ECC881J | 0 | 98 | 6.2 | 324 | 18.28 | 16.60 | 1.30 | 1.30 | 0.0 | 0.0 | 19.0 | 21.3 | 11.7 | 11.4 | 27.6 | 29.6 | 2.4 | 2.6 | 0.62 | 0.61 | 0.07 | 0.06 | |
| 207 | ECC881J | 0 | 98 | 6.2 | 324 | 14.87 | 19.26 | 1.30 | 1.30 | 0.0 | 0.0 | 21.3 | 18.9 | 10.3 | 12.0 | 29.3 | 27.1 | 2.8 | 2.3 | 0.59 | 0.59 | 0.06 | 0.07 | |
| 208 | ECC881J | 0 | 98 | 6.2 | 324 | 18.52 | 17.26 | 1.30 | 1.30 | 0.0 | 0.0 | 19.6 | 19.7 | 11.8 | 11.8 | 27.5 | 28.4 | 2.3 | 2.4 | 0.50 | 0.54 | 0.07 | 0.07 | |
| 209 | ECC881J | 0 | 98 | 6.2 | 324 | 14.30 | 13.83 | 1.30 | 1.30 | 0.0 | 0.0 | 21.4 | 20.8 | 9.5 | 9.7 | 28.9 | 29.3 | 3.0 | 3.0 | 0.61 | 0.56 | 0.06 | 0.06 | |
| 210 | ECC881J | 0 | 98 | 6.2 | 324 | 16.30 | 13.71 | 1.30 | 1.30 | 0.0 | 0.0 | 20.6 | 21.1 | 11.1 | 9.4 | 28.8 | 29.1 | 2.6 | 3.1 | 0.52 | 0.59 | 0.06 | 0.06 | |
| 211 | ECC881J | 0 | 98 | 6.2 | 324 | 12.91 | 13.87 | 1.30 | 1.30 | 0.0 | 0.0 | 20.9 | 21.1 | 8.8 | 9.8 | 28.9 | 29.6 | 3.3 | 3.0 | 0.64 | 0.61 | 0.06 | 0.06 | |
| 212 | ECC881J | 0 | 98 | 6.2 | 324 | 17.13 | 17.57 | 1.30 | 1.30 | 0.0 | 0.0 | 20.5 | 20.5 | 11.7 | 11.8 | 28.7 | 28.3 | 2.5 | 2.4 | 0.54 | 0.52 | 0.06 | 0.06 | |
| 213 | ECC881J | 0 | 98 | 6.2 | 324 | 18.41 | 18.48 | 1.30 | 1.30 | 0.0 | 0.0 | 18.6 | 20.2 | 11.8 | 12.0 | 27.4 | 28.1 | 2.3 | 2.3 | 0.61 | 0.51 | 0.06 | 0.06 | |
| 214 | ECC881J | 0 | 98 | 6.2 | 324 | 16.19 | 16.60 | 1.30 | 1.30 | 0.0 | 0.0 | 21.0 | 20.6 | 10.8 | 10.7 | 28.6 | 28.5 | 2.7 | 2.7 | 0.56 | 0.59 | 0.06 | 0.06 | |
| 215 | ECC881J | 0 | 98 | 6.2 | 324 | 12.25 | 16.31 | 1.30 | 1.30 | 0.0 | 0.0 | 20.0 | 20.8 | 7.4 | 10.6 | 27.7 | 28.1 | 3.8 | 2.6 | 0.58 | 0.55 | 0.06 | 0.06 | |
| 216 | ECC881J | 0 | 98 | 6.2 | 324 | 18.55 | 13.04 | 1.30 | 1.30 | 0.0 | 0.0 | 20.5 | 20.9 | 11.9 | 9.1 | 28.2 | 28.9 | 2.4 | 3.2 | 0.57 | 0.55 | 0.06 | 0.06 | |
| 217 | ECC881J | 0 | 98 | 6.2 | 324 | 16.83 | 15.35 | 1.30 | 1.30 | 0.0 | 0.0 | 20.3 | 21.2 | 10.6 | 10.4 | 27.6 | 28.7 | 2.6 | 2.7 | 0.57 | 0.58 | 0.06 | 0.06 | |
| 218 | ECC881J | 0 | 98 | 6.2 | 324 | 18.52 | 13.31 | 1.30 | 1.30 | 0.0 | 0.0 | 19.8 | 20.4 | 11.6 | 8.7 | 27.7 | 28.6 | 2.4 | 3.3 | 0.51 | 0.55 | 0.06 | 0.06 | |
| 219 | ECC881J | 0 | 98 | 6.2 | 324 | 10.33 | 10.82 | 1.30 | 1.30 | 0.1 | 0.0 | 21.3 | 22.0 | 7.9 | 8.0 | 30.4 | 30.6 | 3.9 | 3.8 | 0.67 | 0.69 | 0.06 | 0.06 | |
| 220 | ECC881J | 0 | 98 | 6.2 | 324 | 14.68 | 12.97 | 1.30 | 1.30 | 0.0 | 0.0 | 21.3 | 21.1 | 9.6 | 8.4 | 28.7 | 28.7 | 3.0 | 3.4 | 0.58 | 0.62 | 0.06 | 0.06 | |
| 221 | ECC881J | 0 | 98 | 6.2 | 324 | 14.14 | 18.27 | 1.30 | 1.30 | 0.0 | 0.0 | 20.8 | 20.6 | 9.8 | 11.6 | 28.6 | 28.4 | 2.9 | 2.5 | 0.54 | 0.52 | 0.01 | 0.01 | |
| 222 | ECC881J | 0 | 98 | 6.2 | 324 | 15.06 | 15.99 | 1.30 | 1.30 | 0.0 | 0.0 | 19.8 | 20.5 | 10.1 | 10.5 | 27.8 | 27.9 | 2.8 | 2.7 | 0.52 | 0.52 | 0.01 | 0.01 | |
| 223 | ECC881J | 0 | 98 | 6.2 | 324 | 11.90 | 9.85 | 1.30 | 1.30 | 0.0 | 0.0 | 20.7 | 20.8 | 9.3 | 7.6 | 30.0 | 30.5 | 3.2 | 4.0 | 0.55 | 0.61 | 0.01 | 0.01 | |
| 224 | ECC881J | 0 | 98 | 6.2 | 324 | 11.84 | 16.52 | 1.30 | 1.30 | 0.0 | 0.0 | 20.8 | 20.8 | 8.7 | 10.5 | 28.8 | 28.4 | 3.3 | 2.7 | 0.55 | 0.54 | 0.02 | 0.02 | |
| 225 | ECC881J | 0 | 98 | 6.2 | 324 | 13.47 | 16.14 | 1.30 | 1.30 | 0.0 | 0.0 | 21.0 | 21.2 | 9.5 | 10.8 | 29.0 | 28.8 | 3.0 | 2.7 | 0.55 | 0.55 | 0.02 | 0.02 | |
| 226 | ECC881J | 0 | 98 | 6.2 | 324 | 15.88 | 14.30 | 1.30 | 1.30 | 0.0 | 0.0 | 20.9 | 21.2 | 10.7 | 9.8 | 28.5 | 28.8 | 2.7 | 2.9 | 0.54 | 0.60 | 0.02 | 0.02 | |
| 227 | ECC881J | 0 | 98 | 6.2 | 324 | 17.47 | 15.18 | 1.30 | 1.30 | 0.0 | 0.0 | 19.2 | 20.8 | 11.5 | 10.5 | 27.9 | 28.6 | 2.4 | 2.7 | 0.54 | 0.55 | 0.01 | 0.02 | |
| 228 | ECC881J | 0 | 98 | 6.2 | 324 | 15.30 | 13.66 | 1.30 | 1.30 | 0.0 | 0.0 | 19.9 | 19.3 | 10.2 | 9.6 | 27.7 | 28.2 | 2.7 | 2.9 | 0.48 | 0.52 | 0.01 | 0.01 | |
| 229 | ECC881J | 0 | 98 | 6.2 | 324 | 16.96 | 13.83 | 1.30 | 1.30 | 0.0 | 0.0 | 19.0 | 20.4 | 10.5 | 9.9 | 26.7 | 29.3 | 2.5 | 2.9 | 0.51 | 0.58 | 0.02 | 0.02 | |
| 230 | ECC881J | 0 | 98 | 6.2 | 324 | 11.20 | 12.36 | 1.30 | 1.30 | 0.0 | 0.3 | 20.5 | 21.2 | 8.2 | 8.8 | 29.5 | 29.8 | 3.6 | 3.4 | 0.62 | 0.64 | 0.01 | 0.02 | |
| 231 | ECC881J | 0 | 98 | 6.2 | 324 | 17.42 | 16.23 | 1.30 | 1.30 | 0.0 | 0.0 | 20.0 | 21.5 | 11.6 | 11.2 | 27.8 | 29.4 | 2.4 | 2.6 | 0.50 | 0.54 | 0.01 | 0.02 | |
| 232 | ECC881J | 0 | 98 | 6.2 | 324 | 14.29 | 18.13 | 1.30 | 1.30 | 0.0 | 0.0 | 20.6 | 20.9 | 10.3 | 11.6 | 28.9 | 28.6 | 2.8 | 2.5 | 0.53 | 0.58 | 0.01 | 0.02 | |
| 233 | ECC881J | 0 | 98 | 6.2 | 324 | 13.08 | 16.58 | 1.30 | 1.30 | 0.0 | 0.0 | 20.8 | 20.5 | 9.4 | 10.7 | 28.9 | 27.8 | 3.1 | 2.6 | 0.55 | 0.56 | 0.02 | 0.02 | |
| 234 | ECC881J | 0 | 98 | 6.2 | 324 | 16.14 | 17.56 | 1.30 | 1.30 | 0.0 | 0.0 | 21.1 | 20.4 | 11.3 | 11.7 | 29.1 | 28.2 | 2.6 | 2.4 | 0.52 | 0.54 | 0.01 | 0.02 | |
| 235 | ECC881J | 0 | 98 | 6.2 | 324 | 14.11 | 16.44 | 1.30 | 1.30 | 0.0 | 0.0 | 20.9 | 21.5 | 9.6 | 10.3 | 28.7 | 28.4 | 3.0 | 2.8 | 0.53 | 0.55 | 0.02 | 0.02 | |
| 236 | ECC881J | 0 | 98 | 6.2 | 324 | 16.53 | 18.15 | 1.30 | 1.30 | 0.0 | 0.0 | 18.3 | 20.5 | 10.8 | 12.0 | 27.6 | 28.7 | 2.6 | 2.4 | 0.52 | 0.52 | 0.01 | 0.01 | |
| 237 | ECC881J | 0 | 98 | 6.2 | 324 | 10.98 | 15.56 | 1.30 | 1.30 | 0.0 | 0.0 | 20.7 | 20.9 | 7.5 | 10.5 | 29.0 | 28.8 | 3.9 | 2.8 | 0.55 | 0.55 | 0.02 | 0.02 | |
| 238 | ECC881J | 0 | 98 | 6.2 | 324 | 15.36 | 13.45 | 1.30 | 1.30 | 0.0 | 0.0 | 20.3 | 20.7 | 10.6 | 9.3 | 28.6 | 28.8 | 2.7 | 3.1 | 0.57 | 0.55 | 0.01 | 0.02 | |
| 239 | ECC881J | 0 | 98 | 6.2 | 324 | 15.15 | 16.65 | 1.30 | 1.30 | 0.0 | 0.0 | 19.9 | 19.9 | 9.9 | 11.2 | 27.9 | 28.4 | 2.8 | 2.5 | 0.46 | 0.46 | 0.01 | 0.01 | |
| 240 | ECC881J | 0 | 98 | 6.2 | 324 | 17.56 | 16.13 | 1.30 | 1.30 | 0.0 | 0.0 | 20.7 | 19.4 | 10.6 | 10.6 | 27.1 | 27.5 | 2.5 | 2.6 | 0.55 | 0.55 | 0.02 | 0.02 | |
| 241 | ECC881J | 0 | 98 | 6.2 | 324 | 14.95 | 16.47 | 1.30 | 1.30 | 0.0 | 0.0 | 21.0 | 21.2 | 10.7 | 11.1 | 29.2 | 28.8 | 2.7 | 2.6 | 0.56 | 0.56 | 0.01 | 0.01 | |
| 242 | ECC881J | 0 | 98 | 6.2 | 324 | 14.79 | 16.57 | 1.30 | 1.30 | 0.0 | 0.0 | 20.4 | 21.0 | 10.3 | 10.7 | 28.5 | 28.7 | 2.8 | 2.7 | 0.53 | 0.59 | 0.05 | 0.05 | |
| 243 | ECC881J | 0 | 98 | 6.2 | 324 | 12.90 | 14.76 | 1.30 | 1.30 | 0.0 | 0.0 | 20.6 | 19.8 | 9.0 | 9.9 | 28.7 | 28.2 | 3.2 | 2.9 | 0.55 | 0.55 | 0.05 | 0.05 | |
| 244 | ECC881J | 0 | 98 | 6.2 | 324 | 15.91 | 15.01 | 1.30 | 1.30 | 0.0 | 0.0 | 20.4 | 20.9 | 10.8 | 10.7 | 28.3 | 29.4 | 2.6 | 2.7 | 0.57 | 0.55 | 0.05 | 0.07 | |
| 245 | ECC881J | 0 | 98 | 6.2 | 324 | 15.33 | 13.39 | 1.30 | 1.30 | 0.0 | 0.0 | 20.4 | 20.2 | 10.9 | 8.9 | 28.6 | 28.2 | 2.6 | 3.2 | 0.53 | 0.53 | 0.07 | 0.07 | |
| 246 | ECC881J | 0 | 98 | 6.2 | 324 | 11.71 | 12.70 | 1.30 | 1.30 | 0.0 | 0.0 | 19.8 | 20.6 | 7.2 | 8.2 | 28.7 | 28.5 | 4.0 | 3.5 | 0.52 | 0.60 | 0.07 | 0.07 | |
| 247 | ECC881J | 0 | 98 | 6.2 | 324 | 19.12 | 14.92 | 1.30 | 1.30 | 0.0 | 0.0 | 20.4 | 20.2 | 12.1 | 10.0 | 27.9 | 27.8 | 2.3 | 2.8 | 0.50 | 0.53 | 0.07 | 0.07 | |
| 248 | ECC881J | 0 | 98 | 6.2 | 324 | 9.88 | 14.30 | 1.30 | 1.30 | 0.0 | 0.0 | 19.4 | 20.3 | 6.7 | 9.7 | 28.9 | 28.5 | 4.3 | 2.9 | 0.57 | 0.57 | 0.07 | 0.07 | |
| 249 | ECC881J | 0 | 98 | 6.2 | 324 | 12.75 | 17.74 | 1.30 | 1.30 | 0.0 | 0.0 | 20.1 | 19.9 | 9.2 | 11.7 | 28.5 | 28.2 | 3.1 | 2.4 | 0.54 | 0.49 | 0.07 | 0.07 | |
| 250 | ECC881J | 0 | 98 | 6.2 | 324 | 15.01 | 14.31 | 1.30 | 1.30 | 0.0 | 0.0 | 20.1 | 20.3 | 10.3 | 10.1 | 27.9 | 28.6 | 2.7 | 2.8 | 0.51 | 0.51 | 0.07 | 0.07 | |
| 251 | ECC81 | 100 | 250 | 6.2 | 316 | 8.90 | 8.02 | 2.00 | 2.00 | 0.0 | 0.0 | 31.0 | 32.4 | 5.2 | 5.1 | 54.2 | 56.8 | 10.4 | 11.1 | 0.62 | 0.72 | 0.02 | 0.02 | |

Next Tube ID **252** Time **00:01:55** Cycle [ms] **2078** CON Ua
 Measurement **NONE** Remains **00:00:00** Errors **0** ADC DAC

supported audio vacuum tubes:

ECC81,ECC82,ECC83,ECC85,ECC88,ECC99,ECC801,ECC802,ECC803,12AT7,12AU7,12AX7,6DJ8
E180CC

6SN7,6SL7,12BH7,12AY7,6BL7,6BX7,12AZ7,E288CC,6CG7,PCC189,6060,6201,6679,7728,5814,
6067,

6189,6688,6213,12DF7,12DT7,5721,6027,6681,6922,7025,7729,6H23II,ECC868,PCC88,6N1P,6H30

List can be edited and updated by pin compatible tubes accordingly.



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