DPA SERIES

## TECHNICAL CHARACTERISTICS

| | DPA600 | DPA1000 | DPA1400 | DPA2000 |
|---|---|---|---|---|
| POWER 20-20kHz 1% THD | | | | |
| 2Ω Stereo | 410 WRMS | 682 WRMS | 990 WRMS | 1420 WRMS |
| 4Ω Stereo | 275 WRMS | 440 WRMS | 635 WRMS | 940 WRMS |
| 8Ω Stereo | 180 WRMS | 275 WRMS | 395 WRMS | 550 WRMS |
| 8Ω Bridged | 550 WRMS | 882 WRMS | 1270 WRMS | 1880 WRMS |
| Peak Power 2Ω/1kHz | 0.98Kw | 1.5Kw | 2Kw | 2.95Kw |
| Frequency response (-1dB) | 7Hz-50kHz | 7Hz-50kHz | 7Hz-50kHz | 6Hz-50kHz |
| High pass filter (-3dB) | 25Hz/Butt./18dB/oct. | | | |
| THD+Noise @ 1kHz Full Pwr. | <0.03% | <0.03% | <0.03% | <0.07% |
| Imd. Dist. 50Hz & 7kHz, 4:1 | <0.05% | <0.08% | <0.08% | <0.08% |
| TIM 100 | <0.01% | <0.01% | <0.01% | <0.01% |
| S+N/N 20Hz-20kHz @ 1W/4Ω | >85dB | >85dB | >85dB | >85dB |
| Damping factor 1kHz @ 8Ω | >300 | >300 | >300 | >300 |
| Slew Rate | ±60V/µs | ±65V/µs | ±75V/µs | ±80Vµs |
| Channel crosstalk @ 1kHz | >75dB | >75dB | >75dB | >75dB |
| Input connector | XLR3 balanced | XLR3 balanced | XLR3 balanced | XLR3 balanced |
| Input CMRR/ref. Max. PWR) | >60dB @ 1kHz | >60dB @ 1kHz | >60dB @ 1kHz | >60dB @ 1kHz |
| Input Sensitivity / Impedance | 0dBV/>22kΩ | 0dBV/>22kΩ | 0dBV/>22kΩ | 0dBV/>22kΩ |
| Signal present indicator | -40dB | -40dB | -40dB | -40dB |
| Output connectors | Speak-on | Speak-on | Speak-on | Speak-on |
| Clip indicators | -1.5dB real clip | -1.5dB real clip | -1.5dB real clip | -1.5dB real clip |
| Anticlip limiter | 1% & 5% aprox. | 1% & 5% aprox. | 1% & 5% aprox. | 1% & 5% aprox |
| Mains | Depending on your country. See characteristics in the back of the unit. | | | |
| Power consumption (max. Out) | 830VA | 1250VA | 1720VA | 3115VA |
| Dimensions | | | | |
| Panel | 482.6x88 mm | 482.6x88 mm | 482.6x88 mm | 482.6x88 mm |
| Depth | 420 mm | 420 mm | 420 mm | 470 mm |
| Weight | 12.7kg | 16.6kg | 19.3kg | 22.7kg |

ALL DPA SERIES AMPLIFIERS HAVE A THREE YEAR PART AND LABOUR WARRANTY.


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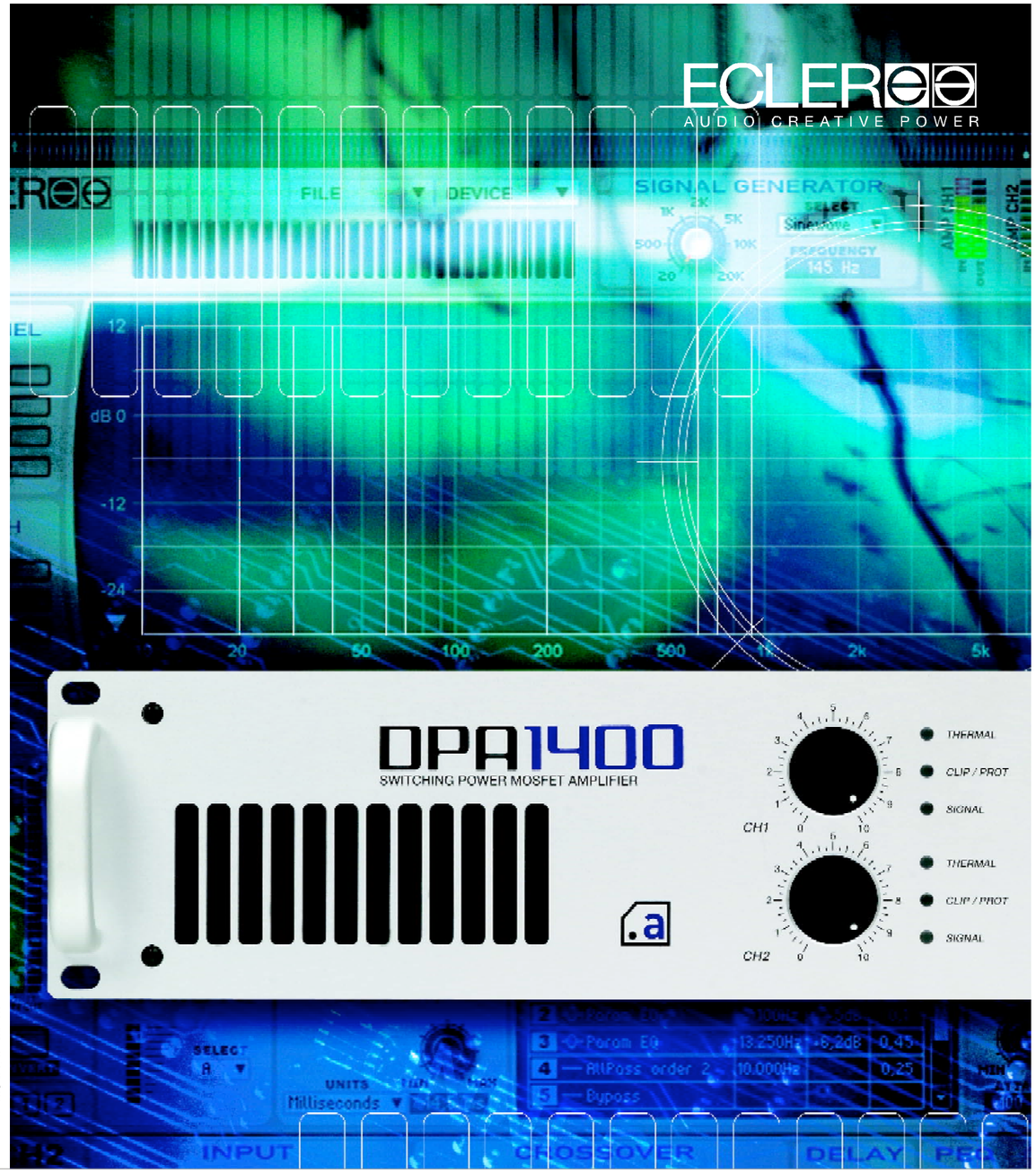





40 creative years 1965 - 2005

*Switching Power Mosfet Amplifier suitable for AMIC Digital Processor Module*

SUITABLE FOR .amic

DPA SERIES

ENGLISH

DPA600 | DPA1000 | DPA1400 | DPA2000

# DPA SERIES

I DPA600 I DPA1000 I DPA1400 I DPA2000

The DPA amplifier series were specially developed for fixed installations, even though they can be used for mobile applications due to their features. The DPA amplifiers combine renowned SPM [1] technology, which has been developed and patented by Ecler with the possibility to optionally incorporate processors like the digital module amic, which can be configured with a PC over USB and allows an comprehensive audio signal processing.

## SPM TECHNOLOGY

The DPA amplifier series are a further step in the evolution of the SPM [1] amplifying technology, developed and patented by Ecler.

In the high power model DPA 2000 with SPM "channel n" technology, Ecler integrated n channel MOSFETs. The use of this technology, which has been proved in the industrial production series "Ecler-enviro", allows very high power without necessity of using bridge configurations. Over 2x1420 Watt rms power per channel at 2Ω.

## MOST IMPORTANT FEATURES

- Input gain control on front panel with protection against undesired manipulation
- Signal present indicator (above -40dB) and clip indicator (1,5dB before actual clipping)
- Balanced inputs with XLR connectors
- Balanced stack-out outputs on jack connectors
- Power outputs with speak-on connectors
- Subsonic filter and integrated anticlip
- Connection possibility of TAWA, UCM 20 or AMIC modules at the rear panel
- Temperature controlled cooling system
- Completely and effectively protected
- All models are 2 rack units high

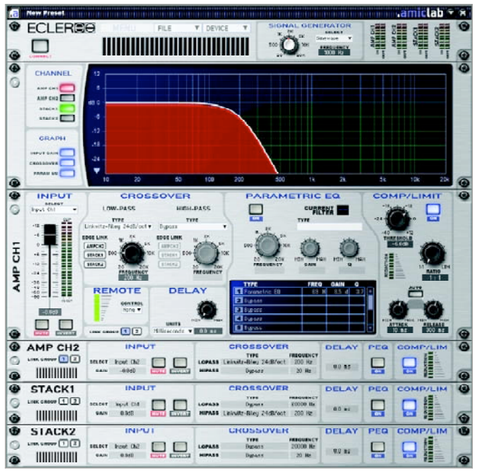
## OPEN AMPLIFICATION: A CHOICE WITH FUTURE

The possibility to install processing cards directly into the amplifier, allows a complete adjustment to the requirements of the audio system, as well as protection against undesired manipulation.

**AMIC, UCM 20 and TAWA**

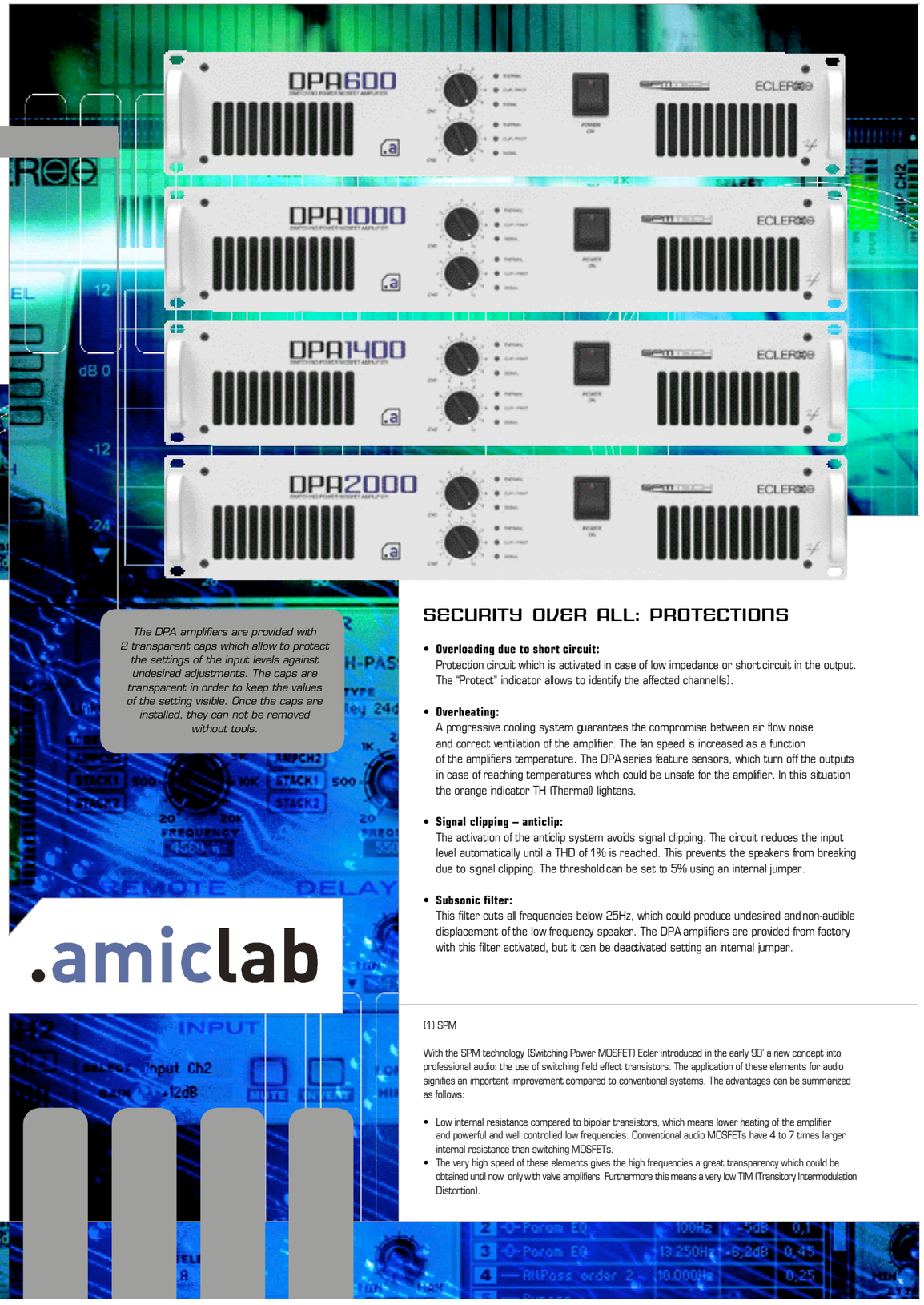
Three types of processing modules for different needs. The digital card AMIC allows a comprehensive processing of audio signals through easy parameter setting with Ecler's specific **amiclab** software. The amic module can be configured by connecting it to a PC, without necessity of being connected to the power amplifier. It has been designed specifically for installation into amplifiers from the DPA series with Ecler's SPM technology. Its exceptional audio processing features turn it into a highly versatile tool:

- Independent 4-way outputs: 2 internal and 2 external
- Parametric EQ with 10 filters for each way
- Gain adjustment for each way
- Crossover with selectable slope and type
- Delay
- Limiter compressor
- Phase inverter
- Signal generator
- Remote control for volume adjustment
- Graphic display for curves
- Password protected configuration




The stereo processing card UCM 20 (Universal Crossover Module) allows to configure the attached amplifier for low or high frequency reproduction using adjustable cutoff frequencies. It is also possible to send the filtered signal to extern amplifiers using the two outputs of the UCM.

The TAWA card is a crossover and EQ module, which has been specially developed for usage with cabinets from the AWAK series. The TAWA module as well as the UCM 20 use Linkwitz-Riley filters (24dB/oct.), which minimize cancellations and phase problems known from other filter types, giving the system high precision and clearness.




*The DPA amplifiers are provided with 2 transparent caps which allow to protect the settings of the input levels against undesired adjustments. The caps are transparent in order to keep the values of the setting visible. Once the caps are installed, they can not be removed without tools.*

## SECURITY OVER ALL: PROTECTIONS

- **Overloading due to short circuit:**
  Protection circuit which is activated in case of low impedance or short circuit in the output. The "Protect" indicator allows to identify the affected channel(s).

- **Overheating:**
  A progressive cooling system guarantees the compromise between air flow noise and correct ventilation of the amplifier. The fan speed is increased as a function of the amplifiers temperature. The DPA series feature sensors, which turn off the outputs in case of reaching temperatures which could be unsafe for the amplifier. In this situation the orange indicator TH (Thermal) lightens.

- **Signal clipping – anticlip:**
  The activation of the anticlip system avoids signal clipping. The circuit reduces the input level automatically until a THD of 1% is reached. This prevents the speakers from breaking due to signal clipping. The threshold can be set to 5% using an internal jumper.

- **Subsonic filter:**
  This filter cuts all frequencies below 25Hz, which could produce undesired and non-audible displacement of the low frequency speaker. The DPA amplifiers are provided from factory with this filter activated, but it can be deactivated setting an internal jumper.

(1) SPM

With the SPM technology (Switching Power MOSFET) Ecler introduced in the early 90' a new concept into professional audio: the use of switching field effect transistors. The application of these elements for audio signifies an important improvement compared to conventional systems. The advantages can be summarized as follows:

- Low internal resistance compared to bipolar transistors, which means lower heating of the amplifier and powerful and well controlled low frequencies. Conventional audio MOSFETs have 4 to 7 times larger internal resistance than switching MOSFETs.
- The very high speed of these elements gives the high frequencies a great transparency which could be obtained until now only with valve amplifiers. Furthermore this means a very low TIM (Transitory Intermodulation Distortion).