



## FFA-2004 / 5004 / 8004 HD G3 DSP



# HD

### Full Fat Audio presents a range of DSP Ethernet controlled power amplifiers.

Featuring a new high quality DSP engine with clear and natural sound. The DSP is designed around the latest ESS chip sets and hardware. Audio signals can be fed into the amplifiers either in the analogue domain by balanced XLR or digitally over ethernet by RJ45 connection.

**FFA-2004 HD G3 DSP**  
4 x 500W / ref 4 Ohms

**FFA-5004 HD G3 DSP**  
4 x 1250W / ref 4 Ohms

**FFA-8004 HD G3 DSP**  
4 x 2000W / ref 4 Ohms

The fully featured 96kHz DSP ensures the best sound. Updated FATWARE software continues to give quick, responsive user interaction and signals can be routed quickly and efficiently.

FFA HD amplifiers are designed using precision performance high speed and low noise electronic components. The high efficiency Class D PWM amplifier circuits are fully discreet and our high current SMPS will sustain low frequency energy continuously.

### Suitable applications

Offering 3 power points with equal DSP specifications the amplifiers can be used for a variety of roles. Any sound reinforcement for Café, Restaurants, Bars, Hotels, Cinemas AV, Nightclubs, tour and temporary sound, outdoor music festivals. The clear sound quality is ideal for audio that needs to be heard or enjoyed.





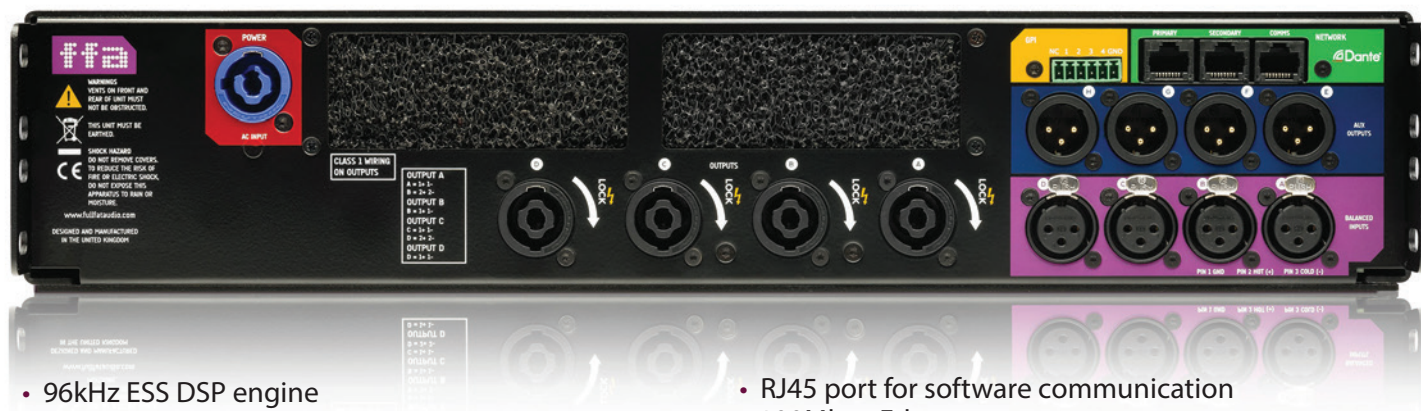
## Power Amplifier Specifications

Power Ratings	FFA-2004 HD G3 DSP – 4 x 500W ref 4 Ohms, 4 x 250W 8 Ohm 4 x 1000W ref 2 Ohms FFA-5004 HD G3 DSP - 4 x 1250W ref 4 Ohms 4 x 625W 8 Ohm FFA-8004 HD G3 DSP – 4 x 2000W ref 4 Ohms, 4 x 1000W ref 8 Ohms <b>Note: Channel pairs can be bridged to drive very high power 8 Ohm subwoofers</b>
Gain	32dB - For all HD G3 DSP models
THD	THD+N typical 0.03% ref 4 Ohms 1kHz
Frequency Response	20Hz - 20kHz +- 0.5dB
Controls	40 Point Potentiometer per channel, power on switch
Indicators	signal green = -20dB, signal yellow = -3dB, red signal = clip limiter, signal red protect = over current, low AC mains, 10 sec mute on power up
Load Protection	DC on output, precision clip limiter circuit
Amplifier Protection	Short circuit, current overload, thermal shutdown, high frequency stability circuit
Audio Signal Inputs	Analogue Balanced Neutrik® Female XLR input each channel Pin 1 - GND, Pin 2 - Hot +, Pin 3 - Cold Digital Dante AES67
Audio Power Outputs	Neutrik® speakON each channel. Channels 1 and 3 output speakON utilises 2+ and 2- connection to allow use of 4 core loudspeaker cable for bi amp loudspeaker systems. Bridged output possible
Power Requirement	1 x Neutrik® 20A powerCON connector 1 x 16 A 230 VAC Circuit. Power range 185 V-230 VAC 120 V (configured at factory)
System Cooling	High CFM 80mm fan with proportional signal speed control. Rear to front airflow
Dimensions	88mm Height x 483mm Width x 510mm Depth. Includes rear rack support. 19" rack mount enclosure
Weight	10.5 kg

FFA has a policy of continued product improvement and accordingly reserves the right to change features and specifications without notice.



## DSP Hardware



- 96kHz ESS DSP engine
- 4 Analogue XLR input
- 4 x AUX Analogue DSP Outputs for connection to non DSP amplifiers
- 8 input digital audio over Ethernet RJ45
- 8 output digital audio over Ethernet RJ45
- RJ45 port for software communication 100Mbps Ethernet
- 2 x RJ45 ports for primary and secondary audio over Ethernet connection
- 1 x 6 way phoenix port for GPI remote control
- Up to 30 presets held in unit
- Latency 0.427ms @ 96kHz analogue input

## DSP Software Functions

- Input Delay (per channel): 0 to 1.3s in 10.4uS steps
- Input Compressor (per channel): Threshold (-30 to +22 dBu), Attack, Release, Ratio, Soft-Knee
- Input Parametric EQ (per channel): 8 bands – parametric, low shelf, high shelf, notch, band-pass
- Input Dynamic EQ (per channel): 2 bands – parametric/low shelf/high shelf, boost/cut above /below, threshold, ratio, attack, release
- Input High-Pass Filter (per channel): Up to 24dB/octave ( Butterworth / Bessel / Linkwitz-Riley)
- Routing Inputs to Outputs: Full matrix mixer
- Output Parametric EQ (per channel): 16 bands – parametric, low shelf, high shelf, notch, band-pass
- Output High-Pass and Low-Pass Filter (per channel): Up to 48dB/octave ( Butterworth / Bessel / Linkwitz-Riley)
- Output Gain (per channel): -30 to +15dB in 0.1dB steps, mute, phase
- Output Delay (per channel): 0 to 1.3s in 10.4uS steps High performance, two-stage PXL limiters ensure systems can be safely and reliably played at high level without compromising sound quality.
- Output Limiter power amplifier (per channel): Threshold (-50 to +14dBu), attack, release, auto attack/release option
- Output Limiter AUX XLR output: Threshold (-50 to +22dBu), attack, release, auto attack/release option
- Output Delay (per channel): 0 to 1.3s in 10.4uS steps



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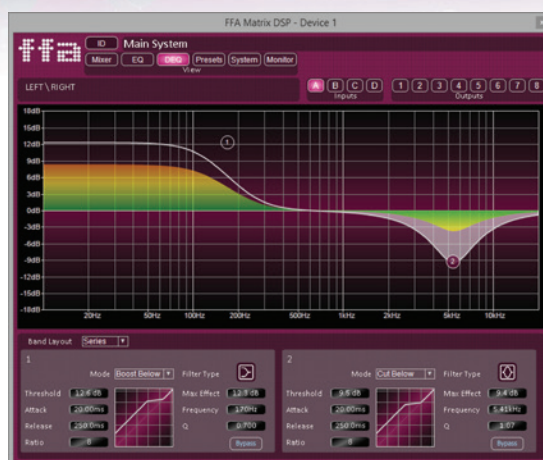
Mac



Windows



iPad



FATWARE control software for PC, Mac and iPad gives you complete control over ethernet and wifi. Further control via third party systems such as Crestron™ is available via simple ethernet control protocol.

