



POWER AMPLIFIER DPM-4.13MK2

AV ELECTRONICS MARKETING SDN BHD

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IVA DPM-4.13MK2 is the major leap in technology and stability in IVA's digital amplification technology. The upgrade to mk2 version brings us an unbridged power amplifier. This mk2 version is the successor of both DPM-4.13 and DPM-2.15 models where the former used for majority fullrange loudspeaker and the latter for high power subwoofer. The 2 Ohm stable DPM-4.13mk2 allows higher stability with the load due to specialized circuit diagram for higher current requirement. With all advancement in technology, all type of protection remains and the beloved voltage peak limiter (VPL) remains as the core features.



2 CHANNELS 4400 WATT 8 OHM / 4 CHANNELS 1300 WATT 8 OHM

DPM-4.13mk2 should not be generalized as 4 channels or 2 channels power amplifier. Instead this power amplifier should be classified according to your perspective. Are you looking for very powerful power amplifier for subwoofer? The 2 channels version of the DPM-4.13mk2 can give 4400 Watt per channel for 8 Ohm and up to 4800 W 4 Ohm. This is powerful enough to drive your subwoofer. Are you looking for power amplifier to drive your fullrange speaker? The 4 channels version of DPM-4.13mk2 can give you up to 2400 Watt per channel at 2 Ohm.



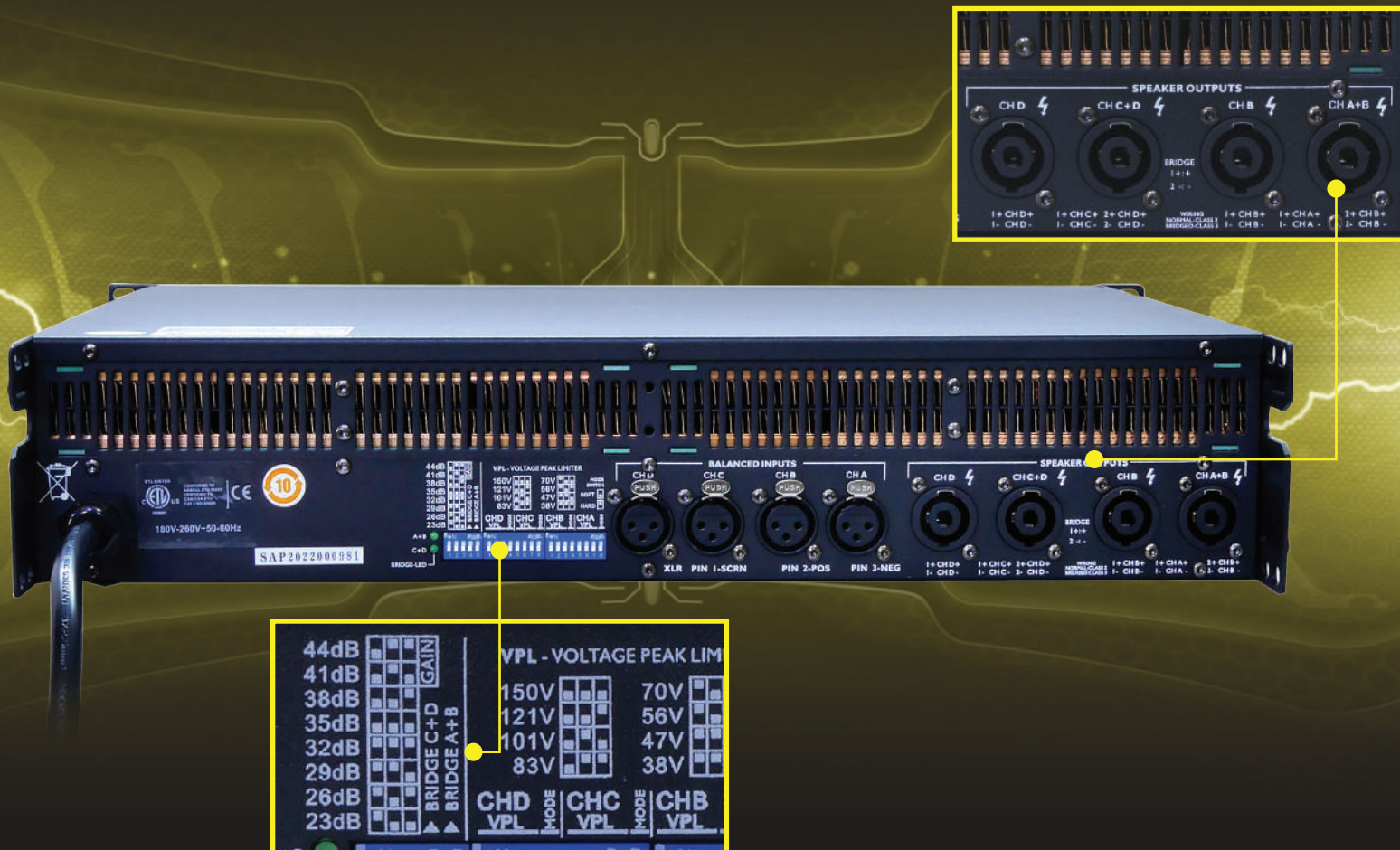
2 OHM STABLE

It is one major leap in DPM series. While the previous version only able to handle down to 4 Ohm, the DPM-4.13mk2 can handle 2 Ohm. The circuit of 2 Ohm stable is not only much more complicated and much more expensive to manufacture but also much more higher quality and reliable. While not many users will go down to 2 ohm load, the 4 ohm load users are benefitted from this circuit as well. Due to higher tolerance towards the load and current, the sound quality will tend to be smoother and the power amplifier can last longer.



UNBRIDGED AMPLIFIER

The DPM-4.13mk2 gives us the ability to bridge 2 channels to become a single channel. This bridging process allows us to have higher output power from that single channel to have sufficient power to drive the transducer. The first version of the DPM series is not able to use in bridged-mode because it has been bridged internally.



PLENTY OF HEADROOM

In power amplifier and loudspeaker matching, we have various matching factor to ensure it was properly powered and matched. The important of power matching is to ensure that there is plenty of headroom of power provided to the loudspeaker. Typically, power amplifier power rating will be 1.5x, 2x and 4x of the continuous power of the loudspeaker. 1.5x is most common practice as the slight headroom allow the speaker to perform adequately without clipping the amplifier yet the most cost-effective way of pairing. The 2x allows more headroom that allow the loudspeaker to performance optimally at its music power. Meanwhile, the 4x allows maximum transient response performance from the loudspeaker. For example, the 4 channels setup enable 2.6x power matching for IVA PS-15R2 and the 2 channels setup enable 4x power matching for IVA SUB-218B.



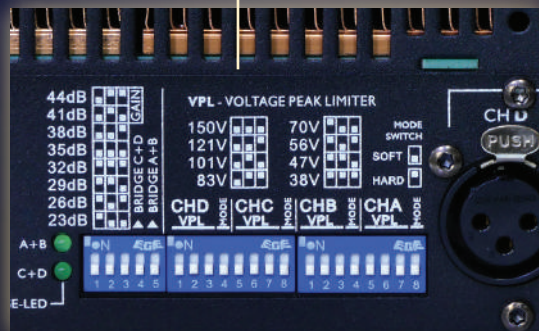
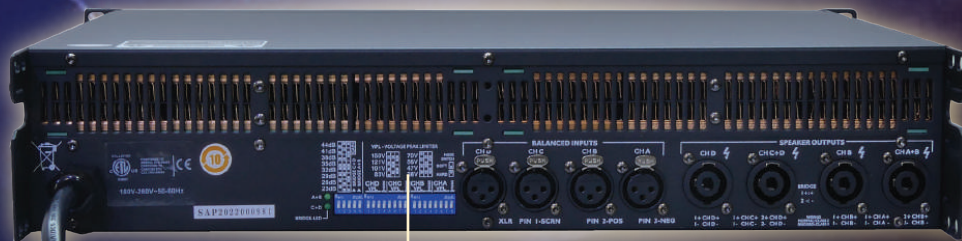
■ INSTALLATION OR TOURING?

DPM-4.13 is designed for both installation and touring. The flexibility provided by bridge feature give system integrator to integrate DPM-4.13mk2 to any type of loudspeaker with adequate headroom. It is ideal for touring users as well because of the 4 channels capability allow the power amp to drive many loudspeakers in just a 2U design footprint. The lightweight-ness of this power amplifier is ideal to be carried around as well.



OUTPUT VOLTAGE PEAK LIMITER (VPL)

Voltage Peak Limiter (VPL) is unique feature in IVA Digital Amplifier. It is used to select maximum power available on each output channel. The VPL allows you to set the correct output power for the connected speaker type and the load of connected channel. If you choose a lower VPL setting, you only reduce the output voltage. At the same time, this allows a more current headroom for low-impedance loads. The amplifier thus runs at higher efficiency, with a significantly reduced risk of going into thermal protection.



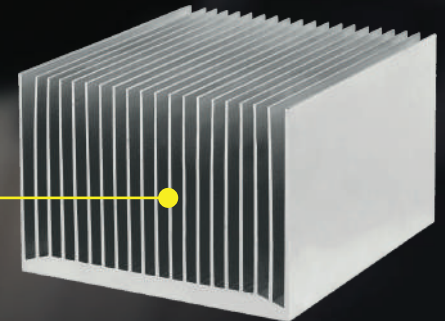
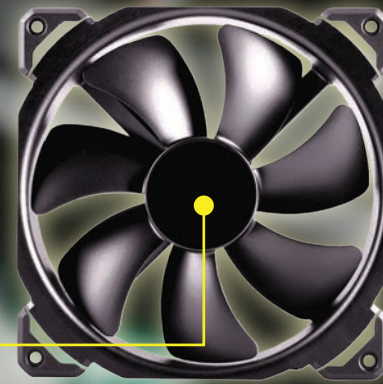
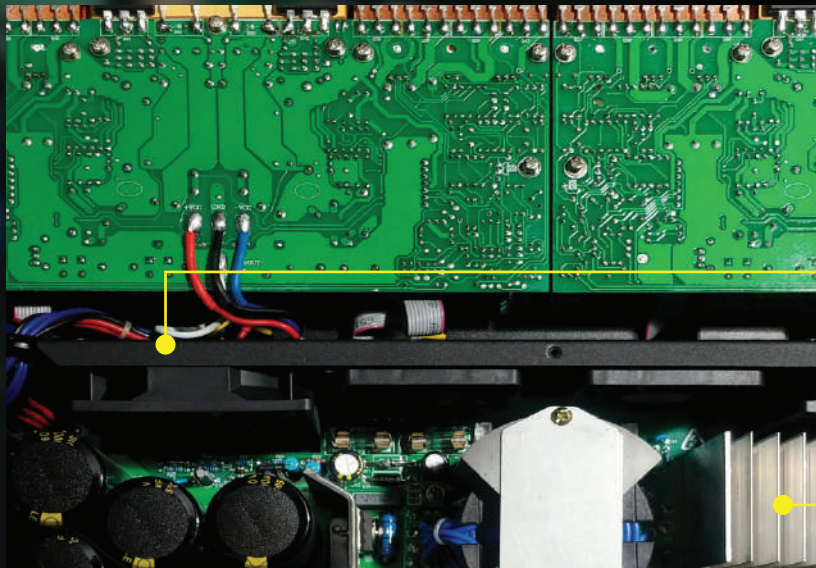
VOLTAGE PEAK LIMITER - (VPL)

VPL Setting	Output Power per channel (Watt)		
	80hm	40hm	20hm
150V	1220	2200	2400
121V	860	1680	2300
101V	595	1150	2150
83V	400	785	1400
70V	300	575	1150
56V	200	380	750
47V	145	270	540
38V	100	180	360

VPL Setting	Output Power bridge per channel (Watt)		
	80hm	40hm	
150V	4350	4830	N/A
121V	3360	4760	N/A
101V	2350	4420	N/A
83V	1600	3025	N/A
70V	1170	2250	N/A
56V	780	1440	N/A
47V	540	1020	N/A
38V	380	730	N/A

MAJOR LEAP COOLING EFFICACY

DPM-4.13mk2 cooling heatsink switches to copper cooling heatsink from aluminium heatsink. Aluminium has a Thermal Conductivity of 136 BTU/(hr·ft·°F) while copper has a Thermal Conductivity of 231 BTU/(hr·ft·°F). Copper has almost 60% higher thermal conductivity than aluminium which translates to: 60% more effective in removing heat. The size of cooling heatsink has been increased tremendously. The DPM-4-13mk2 amplifier output has size of 176cm³ compared to 24cm³ of first version. This size increase alone makes it more than 7 times more effective in removing heat. Despite all these improvement, the fan is still present as the active cooling component of DPM-4.13mk2.



■ SAME SOUND TONAL QUALITY

Sounds matter! Despite will all improvement in so many department, the beloved sound tonal quality of the first version is retained in the mk2. Although it is not 100% matching empirically; due to new circuit and new semiconductor component, the mk2 designed closely matched to ensure indiscernible sound tonal differences.



PRESETS AVAILABLE

Tremendous power comes with big responsibility. All the sound system needs to be configure and optimized for best performance and safe operation. IVA PRO-26DX / PRO-48DX Digital Loudspeaker Management has presets available for different brands and models of loudspeaker couple with IVA DPM-4.13mk2.



SPECIFICATIONS

Model	DPM-4.13MK2
8 Ohm Bridge Output Power	2 x 4400 W
4 ohm Bridge Output Power	2 x 4800 W
8 Ohm Output Power	4 x 1300 W
4 Ohm Output Power	4 x 2200 W
2 Ohm Output Power	4 x 2400 W
Output Circuitry	TD
Frequency Response (1W@8 Ohm)	6.8 Hz – 34 kHz
THD+N @ 1 kHz	< 0.05 %
Damping Factor	> 2000
S/N Rate	> 112 dBa
Input Sensitivity	23, 26, 29, 32, 35, 38, 31, 44 dB
Input Impedance	20 Kohm balance
Input Connector	Female XLR
Output Connector	Speakon CH 1 +/1-, Bridge CH 1 +/2-
Front Panel Control	AC Power Switch, Clip (RED), Signal (GREEN)
Rear Panel Control	Bridge Mode Switch, Input Sensitivity, Voltage Peak Limiter
Cooling	Variable Speed Fans, Front-to-Rear Airflow
Product Dimension	483 (W) x 88 (H) x 396 mm (D)
Net Weight	12.6kg
Shipping Weight	16.7kg
Power Requirements	240V / 50-60Hz