

EXCITING COMPONENTS: PEAMPLIFIER

HALCRO dm10

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Energetic Sound Image Description. Highly Fresh and Fascinating Sound.

The main job of preamplifier is to select signals and adjust sound level, but preamplifier has far more significant influences to the overall reproduced sound that may not be imagined from the said roles. If you mainly play CDs, the built-in volume control of your CD player is sufficient. In fact, there are cases such would be better than using a mediocre preamplifier.

In any case, it is the fact that preamplifiers have their own characteristic timbre which cannot be measured only by frequency response, total harmonic distortion, signal-to-noise ratio, etc. Personally, I have been thinking that preamplifier gives enormous influence to style and dignity of overall reproduced sound.

The Halcro dm10 is a product, which gave me exceptionally impressive expression, among all preamplifiers introduced this year.

Halcro is a high-end audio brand from Australia which is led by Mr Bruce Candy. The monoblock power amplifier dm68 was first introduced to Japan last year, and its unequalled sonic performance became focused. However, as until now I only judged dm68's superb characters through preamplifiers of other brands, I had been quite interested in what kind sound Halcro products create when the dm68 is used with Halcro preamplifier which I heard was an on-going project. My fascination finally became reality with this dm10.

Preamplifier with Switching Power That Offers Remarkably Impressive Expressions

The appearance of the dm10, which inherits the unique tower style of the dm68, has its strong distinctiveness. I think this avant-garde looks would look better in free-standing setting, rather than by putting it into an audio rack.

This model is a remote-control preamplifier with built-in phono equaliser and headphone amplifier. As a price-down sister model, the dm8 is offered as a line-level preamplifier by omitting phono equaliser and headphone amplifier.

The phono section handles both MC and MM. Gains are +27dB (1kHz) for the MC head amplifier and 32/38/44dB steps for the MM stage. Also, variable load adjustment is equipped for MM to allow you to optimise values of load resistance and load capacitance.

The line amplifier section, according to the bloc diagram, has two volume control/line-amp stages in series. I presume that this method was employed in an attempt to reduce noise by optimising gain combination of the line amplifier.

The line amplifier uses high precision 4-layer board with super-low noise design. The publicised harmonic distortion is 250ppb (ppb=1/1000000000). Not only that, carefully selected high-quality components like Vishay resistors, WIMA high pressure&heat-resistant capacitors are abundantly used as internal components. The power-supply section is equipped with Halcro's proprietary high-efficient

switching power supply. The switching frequency is set over 200kHz which goes far beyond the audible range. This allows to automatically address wide range of power voltages as well as frequencies, and to provide stable power supply. Actions of the volume control (of 0.5dB step) and the input selector knob are controlled by displacement magnetic value mechanism.

The prototype unit I auditioned had the minimum volume indication of -51dB and was not completely silent at that level. However, I was informed that the specification of the production unit will be the minimum volume level of -60dB and the unit will go into mute at the next step. As to the operation of the volume control, there is a problem that rotate-angle and level indication does not correspond well unless the volume control knob is turned slowly. One needs some getting used to it.

Outstanding in Sound Stage Reproduction and Details of Sound due to Enormous Information

I listened to this product at distributor's sound room as well as my own sound room.

The sound quality of the dm68 power amplifier is high resolution, which is typical of contemporary amplifier, and at the same time has appealing and enriched sound with suppleness as well as freshness. When the dm68 is used with the dm10, freshness boosts considerably and creates even more appealing timbre with tremendous details/information.

Supported by energy over all frequency range, I thought that reality of sound image is superb and that spatial information is so rich. While possessing high ability in description of energetic sound image with rich information, this product is also outstanding in sound stage description. I think this is the largest appeal of this model.

As I listened to the Rolling Stones' "Aftermath" from the Re-mastered Series, Halcro products clearly showed the sound quality difference between the SACD area and the CD area on the disc. "Lady Jane" is a beautiful ballad which features an instrument called dulcimer played by Brian Jones. In playing the SACD area, I felt that delicate touch becomes even more delicate and harmonics sound even richer. Even more, the added echo on Mick Jagger's vocal resounds richly and this sounds gorgeous.

In "Out of Time", difference in each note of finger snap at the beginning of the track was reproduced clearly, and marimba and acoustic guitar sounded even more 3-dimensional. Powerful base and kick drum sounded more realistic. Once I listened to the airy feeling in early Rolling Stones sound on SACD through the dm10, I thought I can't go back to CD.

I also attempted to play a Decca LP of the Rolling Stones by using the phono input of this model. Resulting sound had superb freshness, rich information and lively expression. I can pronounce that the quality of the phono input is the top class among built-in types.

Until now, it seems that the dm68 has been existing in the market in solitary, but Halcro's presence in the high-end audio world will further enlarge when the dm10 and dm8 as well as the dm38 stereo power amplifier that will become available in the future. With additions of persuasive preamplifiers, 2003 seems to be a year in which Halcro displays its real ability.

Message from the Designer

HALCRO: **Bruce Candy**

What are key design concepts?

From my design philosophy, the fundamental purpose for the dm10 development was to create a preamplifier which I personally can satisfy. Key points in the development were no compromise on transparency and avant-garde design concept while maintaining easiness of use. As a result, all circuits in this preamplifier have immeasurably and extremely low distortion regardless of THD, IM, etc. Setting the switching frequency far beyond the audible range is

an approach to achieve the above objectives. Also, all switches, including the volume control and the input selector, use mechanical relay for acoustic reasons.

What kinds of difficulties did you experience during development?

The most difficult tasks were attaining "zero" distortion in all stages and inputs. In particular, achieving distortion response of the phono stage at the same level as all the other line inputs was a difficult task. As a result, the dm10 has no added coloration to music in any input. When this preamplifier is used with Halcro power amplifier, there is no incidental sound of amplifier components such as transistors. So, I think Halcro reached a level of music purity which had been considered impossible. I hope people in Japan share my satisfaction in the dm10.

HALCRO dm10 2,700,000 yen

Dimensions: W448 x H240 x D400 mm

Weight: 23kg

Input impedance: 10k Ω (unbalanced), 10k Ω (balanced), 10-60k Ω (MM phono), 220 Ω (MC phono)

Remarks: Balanced input/output HOT = No.2 pin

dm8 (2,200,000 yen) – without phono equaliser or headphone amplifier – is also available

Inquiry: Harman International phone 03 (3836) 5560

Captions in page 472

- Neatly arranged operating section. Gain setting for each input as well as source equipment titles can be memorised. Unusual for overseas preamplifiers, this model has the mono switch.
- The most of the rear panel of the main chassis, which is supported by tower sections, is occupied with various terminals. This model is equipped with various input and output terminals. The noteworthy thing is the phono equaliser section at the left side that has both balanced and unbalanced inputs. It handles both MM and MC. For the MM input, the optimal load resistance and capacitance for the cartridge can be set by the variable control mechanism. The equipped current mode output terminal, though it is Halcro's own standard, is one of characteristics of this model and allows to connect Halcro power amplifiers via current mode.
- Some of circuit boards inside. Amplification circuit boards that are directly installed on the rear panel in 2 layers are one board for each channel. Parts used are carefully selected high quality Vishay resistors, WIMA capacitors, etc. 4-layer boards are used for PCB to give consistency in earth potential. The power-supply section is equipped with proprietary switching-power supply that can handle wide range of mains voltages and frequencies, just like Halcro amplifiers.