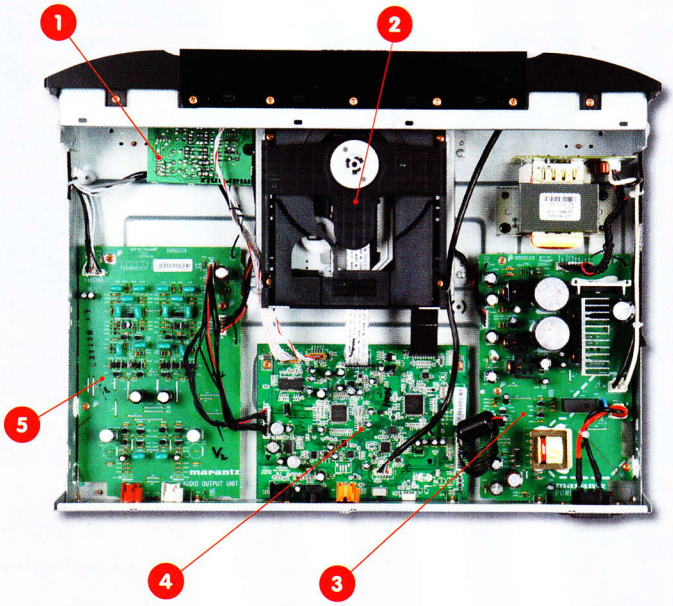
CD6005



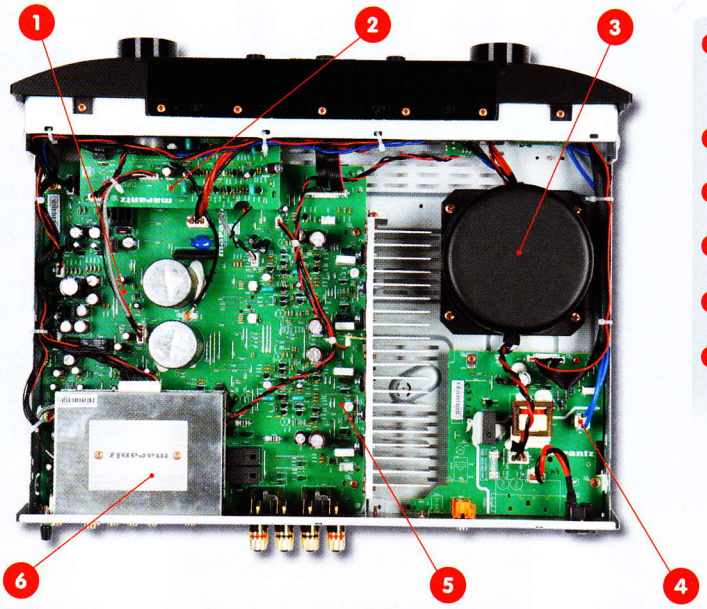
1. Dedicated headphone stage
2. Low-noise CD mechanism
3. Power supply board
4. Digital audio board with CS4398 DAC and front USB controller
5. Analogue audio board

ON TEST

The CS4398 DAC used here has two inbuilt digital interpolation filters and the second, slow roll-off option, has been chosen by Marantz. This offers a minimum phase response that's perfectly flat from 20Hz-20kHz within ±0.04dB, has very little pre-ringing but, equally, quite poor stopband rejection of 27dB. This means that 'images' of the highest frequency CD audio will appear just outside the audio range and, depending on the linearity of the partnering amp, may result in more IM distortion.

Otherwise the CD6005 offers textbook results with a 2.2V maximum output, a 200ohm source impedance, wide 109dB A-wtd S/N ratio and jitter suppressed down to the measurable limit for 16-bit CD audio of 115psec. Distortion is very low at 0.0005% at 1kHz/0dBFs, increasing to 0.0015% at 20kHz while the player's low-level resolution is good to an amazing ±0.1dB over a full 100dB dynamic range. Stereo separation is >100dB from 20Hz-20kHz. **PM**

PM6005



1. Main audio board with separate analogue and digital circuitry
2. Pre amplifier and volume control
3. Fully shielded toroidal transformer
4. Stand-by power supply
5. Main amplifier stage
6. Fully shielded digital input section

ON TEST

Rated at 2x45W/8ohm, Marantz's PM6005 delivers closer to 2x56W/8ohm in practice, with 2x79W/4ohm and increasing to 81W, 135W, 160W and 125W into 8, 4, 2 and 1ohm loads under dynamic conditions. The maximum 11.2A current will be sufficient for most sensitive speakers likely to partner this amplifier while the 0.056ohm output impedance will not result in any response variations.

Interestingly its native response is not wholly 'flat' but shows a shelf at very low frequencies (max –0.15dB from 20-200Hz) and through presence and treble (max –0.3dB from 5kHz-20kHz). The 86dB A-wtd S/N ratio (re. 0dBW) is perfectly 'average' while distortion is largely unaffected by output power at ~0.007% through the midrange at 1-50W/8ohm. Not unexpectedly, distortion does increase at the frequency extremes, up to 0.035% at 20Hz (low bass) and 20kHz (high treble) at 10W/8ohm. Any DC offset on the output is held <2mV. **PM**

Q&A

Oliver Kriete
Marantz D&M product manager

DP: Is there still a market for budget CD players and amplifiers?
OK: There is always a demand for good products in each price class. Not everyone is able or willing to spend thousands of pounds for their system, so yes this is still attractive and we can offer our customers extremely good value for money here.

How does the CD6005 differ from its predecessor?
We didn't see any necessity for radical changes on this unit, so feature-wise we kept it the same, while sourcing a new CD mech, which performs very well and doing additional component tuning in the power supply and output stage. We think it betters even its highly awarded predecessor, but of course, we have kept the overall sound balance.

Why is there no SACD playback on this model?
In this price class SACD playability is not a realistic feature, if you take it seriously. It might be possible by using a different mechanism, but you will have to spend extra money on the other sections such as the power supply and output stage to achieve decent quality, thus raising the price. Also, it's not a highly requested feature in this price class; the front USB input is much more important.

How does the PM6005 differ from its predecessor?
The percentage of non-packaged media is increasing year by year and sources such as media players or PCs only offer limited audio quality via analogue output. So our new PM6005 recognises this, integrating both optical and coaxial digital inputs to its source options, followed by a high-quality DAC and Marantz's own HDAM amplifier modules. This is an easy and effective way to significantly improve the quality of your non-packaged media playback. With its CD6005 partner, it offers a nice tonal balance over the full frequency range spectrum, but the system does play powerful, too.