

NETWORK/CD PLAYER & AMP

Networked CD player and amplifier. Rated at 150W/8ohm
 Made by: Primare AB, Sweden
 Supplied by: Karma-AV Ltd, York
 Telephone: 01423 358846
 Web: www.primare.net; www.karma-av.co.uk
 Prices (CD/amp): £2849/£4099

AUDIO FILE

hi-fi news
HIGHLY
 COMMENDED

Primare CD35/I35 Prisma

This sophisticated, premium-priced streaming CD player and integrated amplifier combo delivers fine sound with sleek Scandinavian style, and consummate ease of use
 Review: Nick Tate Lab: Paul Miller

With its two Wi-Fi aerials protruding from behind, allied to the skinny front control knobs, swish brushed aluminium fascia and three 'podular' feet, there's something very *Jetsons* about the look of the Primare I35 Prisma network-ready amplifier. It has the appearance – perhaps unintentionally – of a cutting-edge piece of technology from the late 1950s, a time of dramatic change as the world entered the Space Age.

You can just picture yourself with it in a bijou 'mid-century' Californian bachelor pad, playing 'Telstar'. Okay, perhaps this is going just a little too far – but it is interesting that this £4099 integrated amplifier and its matching £2849 CD35 Prisma silver disc spinner both evoke such a mood. Refreshing when much of today's hi-fi is aesthetically bland, devoid of creativity or style...

This flagship Primare duo presents more than just a pretty face, though, as the Prisma platform brings a step-change in control and connectivity to both CD player and amp. It gives full-spectrum system management from one single control point. This means full network streaming, network attached storage playback, Wi-Fi and Bluetooth, AirPlay, Spotify Connect and Chromecast built-in, plus multi-room/multi-zone connectivity and control.

LET'S GET DIGITAL

This is all managed via the neat Prisma application, available on iOS and Android platforms. In other words, this combination is a highly configurable digital hub. Because it's so easy to use and cleverly integrated, it should prove a boon for the 'connected generation' of audiophiles.

The I35 Prisma integrated is rated at 150W/8ohm but its cool-running UFPD 2 (Class D) amp allows for minimal

RIGHT: A TEAC CD 5020A-AT mechanism [lower centre] is at the heart of the disc player and delivers buffered data, in parallel with the Prisma streaming inputs [top centre], to an ESS Sabre ES9028 Pro DAC [top right]

heatsinking, supporting a modest case footprint [see PM's boxout, p59]. In this DAC-equipped version – the I35 is available as an analogue-only model and/or without Prisma too – an AKM AK4497EQ DAC chip is fitted, supporting 768kHz/32-bit PCM and DSD256. The amplifier employs ultra short signal paths and surface-mount components whenever possible while the preamp section uses physical relay switching rather than ICs.

The I35 amp is highly configurable too – via the menu you can rename inputs, choose to defeat unused inputs, switch between fixed or variable volume ranges, input gain, balance and mute volume. You can lock the front panel controls, and configure the

display dimmer, which Primare says uses the latest generation OLED.

SOCKET TO ME

The rear panel of the I35 Prisma is also quite a sight with its host of analogue and (optional) digital inputs [see p63]. Add the twin Wi-Fi antennas and two Ethernet ports and it's more crowded than Harrods during the January sales. The case is well finished for the price, and feels sturdy,

while the front panel knobs and switches have a pleasingly smooth action.

The company touts the partnering CD35 Prisma as a 'complete digital music media source', and with good

'It's a boon for the "connected generation" of audiophiles'



reason. Its Prisma pack gives the same aforementioned raft of connectivity and streaming options. Normally, one wouldn't buy both the CD35 Prisma and I35 Prisma because this means you're buying similar DAC and Prisma components twice. This is the reason why both the CD player and integrated amplifier are offered without it, to eliminate redundancy and reduce cost.

The player sports a similarly minimalist fascia panel and casing, inside which can be found a centrally mounted TEAC disc transport mechanism, and a linear power supply with separate regulation for the mechanics, digital and analogue circuits.

Conversion duties are handled by an ESS Sabre ES9028 Pro DAC configured in double-differential mode here, feeding both single-ended (RCA) and balanced (XLR) outputs. The Prisma slot offers twin

Wi-Fi antenna and Ethernet sockets, and a USB-A input. Like its amplifier brother, both the connectivity and casework is built and finished to a high standard, although the slightly rough action of the disc tray doesn't quite confer a quality in keeping with the rest of the package.

COOL VELVET

There's something very alluring about the sound of this CD player/integrated amplifier. Working as a pair, with the CD35 acting as a digital disc transport for the I35 – one is immediately struck by the smoothness of the music. Indeed, they serve up an almost velvety rendition of whatever recording you choose to play. It's an easy-going presentation yet one that's authoritative, the combination rising to any challenge without sounding flustered.

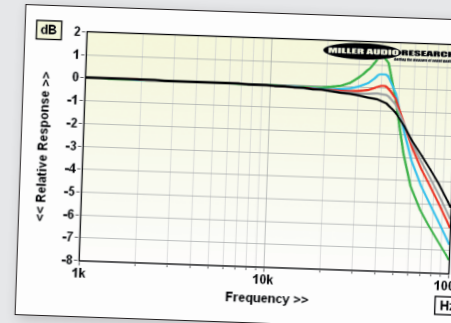
ABOVE: Both player and amp are superbly finished and also come in matching titanium or black liveries. I35's OLED display with stainless steel rotary dials and switchgear are pure class

What's more, the soundstage is expansive, with instruments in the mix being located with both confidence and clarity. Music is delivered in widescreen fashion, as if you're up in the circle of the concert hall rather than rammed right up in front of the orchestra pit. It's a measured, refined and sophisticated sound that belies the components' price.

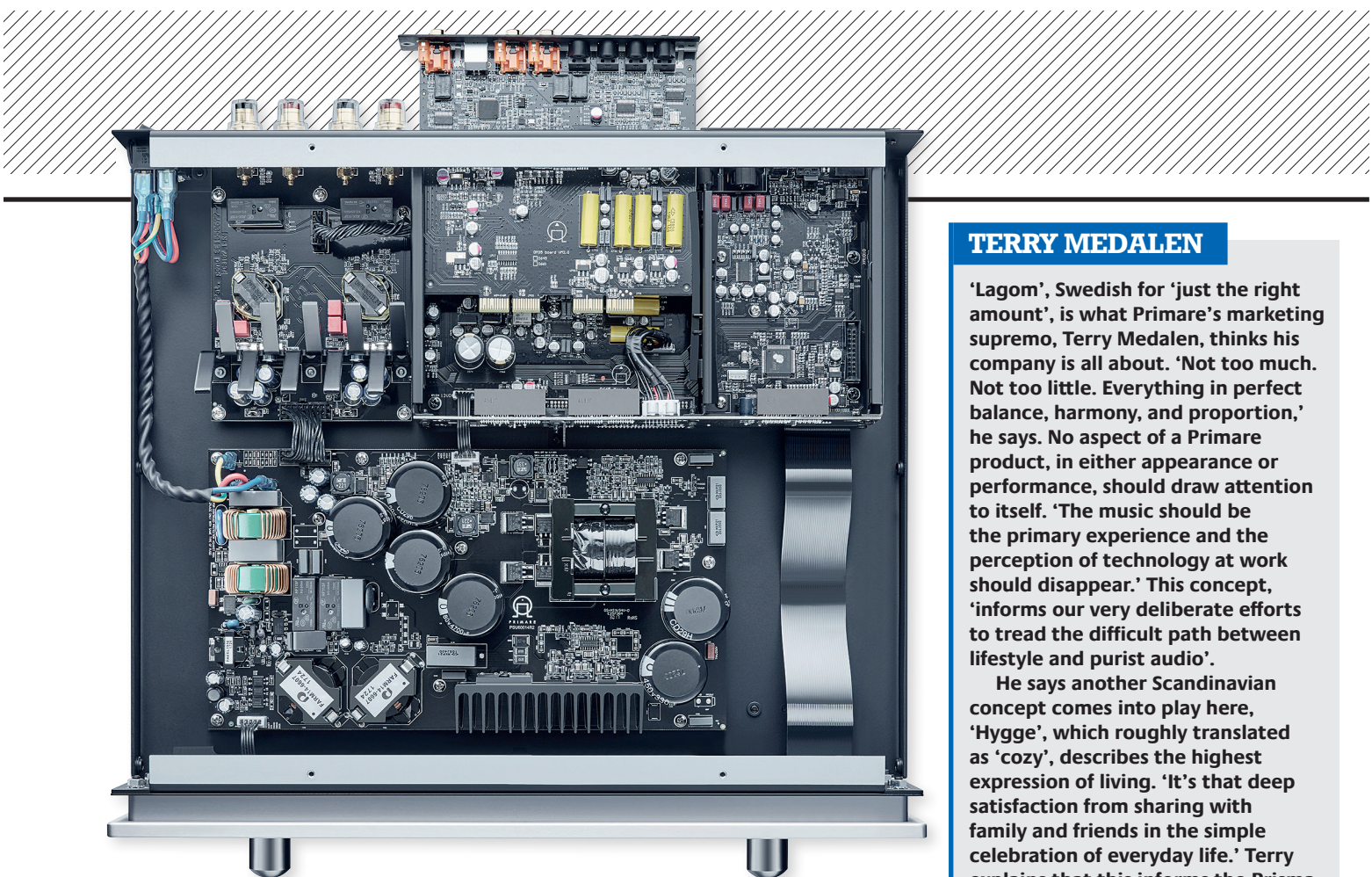
Many systems at this price point have a slight edge to them, especially when it comes to the upper midband. This can perhaps best be described as a feeling that a recording has been chromium plated. Not so here, as the House Of Love track

CUSTOM CLASS D

For some years Primare amplifiers have been equipped with its own brand of analogue Class D amplifier technology called UFPD (Ultra Fast Power Device). Like the Hypex range of Class D modules, UFPD is a very high efficiency, single-ended Class D amplifier that integrates both the switching and low-pass filter stages within a global compensation scheme. This actively adjusts the precise amount of feedback according to signal conditions and typically offers an entirely predictable response and distortion regardless of variations in the speaker load impedance. As we've demonstrated in earlier reviews, that's not something we can say of all Class D amps [HFN Aug '18 & HFN Jul '16]. For the evolved UFPD 2 version of this amplifier Primare has further refined the output filter inductor. It has also traded a reduction in amplifier gain for an improvement in the gain bandwidth, pushing any residual speaker-related response variations out to higher frequencies. The inset Graph shows the I35's frequency response into an open circuit [green] and 8, 4, 2 and 1ohm speaker loads where it holds to ± 0.1 dB up to 20kHz [note the 1kHz-100kHz scale]. PM



ABOVE: Freq. response (note 1kHz-100kHz scale) into no load [black], 8ohm [grey], 4ohm [red], 2ohm [blue] and 1ohm [green] loads



ABOVE: The I35 employs a very sophisticated switchmode PSU [main PCB] with differential PFC (Power Factor Correction), extensive filtering and separate regulation for the UFPD 2 Class D amp [top left]. Optional digital board [top] and network/Prisma board [top right] are individually screened

'Shine On' [*The House Of Love*; PolyGram 842 293-2] showed. This is a classic slice of British indie rock from the early '90s, and has a dry feel to its production. The Primare duo carried the song very well, lending it a mature sound that in some ways revealed a sense of refinement to the performance.

SINEWY BASS SOUND

One aspect of the presentation that stood out was the way in which it was even from bottom to top. On 'Shine On' I enjoyed the taut, sinewy bass guitar sound and how it was devoid of overhang and the manner in which it integrated well with a wide open midband. This in turn proffered up copious amounts of detail. Meanwhile, treble was crisp-sounding and measured, having a fair amount of sparkle but no brightness. There's a sense that this combination never makes things sound harsh or uncouth; indeed you might say it sugars the musical pill, slightly.

It can also feel as if the I35 Prisma is direct-coupled to the loudspeakers, so confident is its delivery. Turning to some vintage electropop in the form of The Buggles' 'Plastic Age' [*The Age Of Plastic*; Island Records UICY-90066] was a joy. This is a really good recording, courtesy of '80s

studio-whiz Trevor Horn, and heard with the right loudspeakers sets up a massive spread of sound in a room.

The different strands of the mix were clearly delineated in space, with the kettle drum and synthesiser pads running far stage left and stage right. Considering the amplifier's price there was a decent degree of depth perspective to the presentation too, even if this wasn't quite as three dimensional as I've heard some more costly designs achieve.

So the Primare CD35 Prisma/I35 Prisma goes about making music in a distinct yet most pleasing way, rewarding with a smooth, calm and natural rhythmic gait. Only if one were being picky might

one say that the pairing doesn't quite convey the last nth degree of passion.

SKIRTING THE ISSUE

Chic's 'Happy Man' [*C'est Chic*; Atlantic 7567-81552-2] is an infectiously foot-tapping slice of late '70s disco, and proved lovely to listen to. Yet there was a sense that this combination could be a little too measured at times. As the saying goes, it never really wanted to pick up its skirts and run. It's certainly a convincing music maker, but didn't exactly quiver with passion over

'With the right speakers, it sets up a massive spread of sound'

TERRY MEDALEN

'Lagom', Swedish for 'just the right amount', is what Primare's marketing supremo, Terry Medalen, thinks his company is all about. 'Not too much. Not too little. Everything in perfect balance, harmony, and proportion,' he says. No aspect of a Primare product, in either appearance or performance, should draw attention to itself. 'The music should be the primary experience and the perception of technology at work should disappear.' This concept, 'informs our very deliberate efforts to tread the difficult path between lifestyle and purist audio.'

He says another Scandinavian concept comes into play here, 'Hygge', which roughly translated as 'cozy', describes the highest expression of living. 'It's that deep satisfaction from sharing with family and friends in the simple celebration of everyday life.' Terry explains that this informs the Prisma concept, making all music media easily managed from familiar mobile devices and applications.

Primare's advocacy of Class D amplification is something he's very proud of [see PM's boxout, p59]. 'For over ten years we have been committed to this, and feel that with UFPD 2 we are closer than ever to achieving the technology's full potential. It allows for the greatest efficiency in providing instantaneous delivery of massive amounts of controlled power with low noise and distortion. The compact electrical design allows for the shortest and simplest signal path, and minimal production of heat, permitting the design of aesthetically pleasing and unobtrusive products.'





ABOVE: The amp [top] and CD player [bottom] include USB-A and Ethernet/Wi-Fi for Airplay, Bluetooth, Chromecast and Spotify. The I35 has four opt, two coax and USB-B digital ins alongside five line ins (two balanced on XLRs), pre out/line out and 4mm speaker terminals. CD35 includes balanced (XLR) line outs with coax/opt digital outs

every four-bar phrase of the song. Separating the two units revealed that this trait lay more in the hands of the amp. Regardless of input it appeared to deliver music in a more dutiful, matter-of-fact way than did the slightly racier CD player.

Taken in isolation, the CD player is a highly able performer. Its disc transport gives very good results when tasked with driving a separate DAC, although it doesn't quite have the bass solidity of some more expensive designs. Still, it makes for seriously engaging music.

A REAL RUSH

Paddy McAloon's '1 Trawl The Megahertz' [from the album of the same name, Liberty EMI Records 7243 5 83911 2 1] is a quasi-symphonic piece that can seem a bit disjointed when heard with the wrong equipment. Yet the CD35 Prisma handled it with aplomb, giving a pacy rendition that kept this listener involved.

Streaming via either the CD35 Prisma or I35 Prisma proved extremely rewarding. Rush's 'Subdivisions' [Signals; Mercury 314 534 633-2] in hi-res sounded detailed, dynamic and engaging. It was an enthralling listen, right down to the silky handling of the ride cymbal and punchy, propulsive

LEFT: Primare C25 system remote control governs all Prisma components, including access to extra features



kick-drum. Meanwhile, Kraftwerk's 'Tour De France Étape 2' [Tour de France Soundtracks; EMI 591 710 2] was enjoyably fluid, the music softly ebbing around me before it built to a great crescendo.

The CD35 Prisma/I35 Prisma is a highly satisfying combination then, although in absolute terms the latter sounds more euphonic. For example, feed it a classic new wave track such as Nick Lowe's 'So It Goes' [Jesus Of Cool; Yep Roc Records – YEP 2620] and the song's gritty energy and angst seems smoothed out just a touch. The music sounds more polished – airbrushed even – than perhaps it should.

Many will think this to be no bad thing at all, because it ensures that things are always couth – in marked contrast to some similarly priced solid-state amplifiers which scream out at you, in a bid to sound impressive. Primare has engineered the I35 Prisma amplifier to sound as sleek and classy as it looks, so when paired with the CD35 Prisma CD player, you discover a combination that's highly sophisticated in its mix of poise and polish. ☺

HI-FI NEWS VERDICT

There's something deeply alluring about this streaming CD player/integrated amp combination, in both sound and function. An enjoyable music maker, it brings together a myriad different digital sources under one roof – so to speak – and allows easy control of them all. In turn, this makes it easier to appreciate the music without being distracted by the technology. Now there's a thought for the future...

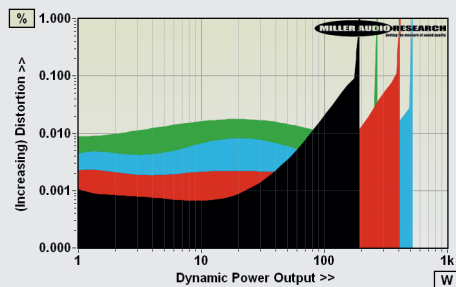
Sound Quality: 83%

LAB REPORT

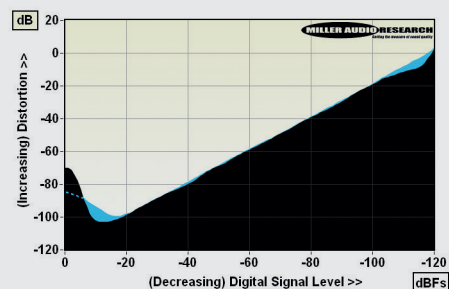
PRIMARE CD35/I35

Although Primare has adopted the tried-and-tested ES9028 Pro DAC in its CD35, with a fixed minimum phase digital filter offering a 94dB stopband rejection, the analogue performance is largely dictated by its preamp stage. Noise is low, so the A-wtd S/N ratio is an impressive 112.7dB but distortion over the top 10dB of its dynamic range is higher than might otherwise be achieved with this DAC. Not that 0.025% through bass and midrange at its 4.3V peak (0dBfs) output is *high* [black trace, Graph 2 below] but a figure of 0.0004% at -10dBfs is more typical for this DAC. Primare's filtering of ultrasonic harmonics results in a reduction in THD at very higher frequencies – 0.005%/20kHz/0dBfs in this instance. Otherwise, jitter is on the 16-bit limit at 117psec, linearity is good to ±0.4dB over a 100dB range, channel balance within ±0.01dB, separation a full >100dB from 20Hz-20kHz and the response just -0.15dB/20kHz.

The 80dB A-wtd S/N ratio (re. 0dBfs) of the partnering I35 amplifier might suggest it's not as 'quiet' as the player but this figure is actually a function of a 2.7kHz idle pattern tone that persists 7-8dB above the noise floor. We've seen the same with both UFPD and UFPD 2 amplifiers. But the I35 is generously powerful – not as muscular as Primare's A60 [HFN Nov '14] but it still sails clear of its 2x150W/8ohm rating at 2x190W/8ohm and 2x395W/4ohm with a dynamic output of 192W, 415W and 510W into 8, 4 and 2ohm, falling to 260W/1ohm as a result of its 16A current limit. This and the trend of gently rising distortion above 10W (0.0006%/10W to 0.003%/50W and 0.015%/100W) is visible in Graph 1, below. The UFPD 2's frequency response and insensitivity to loading is discussed in our boxout, p59. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 16.1A



ABOVE: Distortion versus 16-bit/CD digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	190W / 395W
Dynamic power (<1% THD, 8/4/2/1ohm)	192W / 415W / 510W / 260W
Output imp. (20Hz-20kHz, Player/Amp)	46ohm / 0.005-0.012ohm
Freq. resp. (20Hz-20kHz/100kHz)	-0.02 to -0.18dB/-5.7dB
Digital jitter (CD / USB / S/PDIF)	117psec / 40psec / 30psec
A-wtd S/N ratio (Player/Amp)	112.7dB (0dBfs) / 79.8dB (0dBW)
Distortion (Player/Amp)	0.0055-0.05%/0.0006-0.014%
Power consumption (Player/Amp)	16W / 345W (36W idle)
Dimensions (WHD, Player/Amp)	430x106x420/430x106x385mm

