MID & MAIN MONITORS
IB2S-AII
IB2S XBD-AII
The acousto-optic mapping process with the IB2S-A at NPL (National Physical Laboratory)
LISTEN:

Listening is the most important thing we do — to our customers and to our products. With input from our users, and through continual testing and refinement, we create products that satisfy our rigorous criteria:

PMC monitors are serious analytical tools, references you can trust, musical but with forensic accuracy;

Whether you work at high levels or whisper-quiet, the tonal balance of what you hear will remain consistent, for however long you choose to work;

You will be able to make judgements faster and with complete confidence and work for long periods without the risk of fatigue;

When your work sounds right on PMCs, it will translate accurately to other playback systems and listening environments, no matter how sophisticated (or simple) they may be;

Whether you’re composing, recording, mixing, or mastering, PMC will guarantee you the best-sounding results in the shortest possible time.
THE IB2S-AII

The three-way IB2S-AII offers discerning users all the attributes of PMC’s large ATL™ reference active monitors but in a more compact form. They are ideal for high-end reference monitoring in both stereo and surround formats.

The DSP-controlled, Class-D powered cabinets make use of PMC’s ATL™ (Advanced Transmission Line) bass-loading technology, providing a smoothly controlled, high-resolution low-frequency response. Each cabinet features PMC’s hand-built preparatory drivers - the 10-inch carbon-fibre/Nomex™ piston, 75mm fabric-dome mid, and the 34mm soft-dome tweeter. The power is supplied by PMC’s ultra-low distortion devices that are conveniently rack mountable, providing HF 275W, MF 550W and LF 1200W of acoustically transparent power.

This single cabinet monitor features user-adjustable HF and LF shelving filters, ±8dB input level trim, and an AES3 digital input, as standard. The input sensitivity of the balanced analogue inputs can also be adjusted from +4dB to +16dB. In addition, the EQ, level trims and analogue/digital input selection settings can be adjusted from a distance using an RJ45-connected remote, which is supplied as standard.

- Type: 3-way ATL™ active reference monitor
- Frequency response: 25Hz-25kHz
- Analogue & digital (up to 96kHz) inputs
- Power per channel: 2025W (HF 275W, MF 550W, LF 1200W)
- Effective ATL™ length: 2.4m (8ft)
- Maximum SPL: 125dB
- Three personal balance presets for multiple users

Options:
- Dedicated vertical and horizontal centre channel versions
- Tailor made, high mass, 33” Studio Frame Stands
If you are looking for monitoring that combines phenomenal resolution with greater LF headroom, then the twin cabinet IB2S XBD-AI is the perfect solution. Specifically designed for high-end reference monitoring and mastering applications, this superlative system incorporates a single-driver XBD bass cabinet that adds +3dB of LF headroom to deliver a smoother response and allows users to drive even larger rooms. It also offers analogue and AES digital inputs with a flat response down to 20Hz.

To enhance versatility, the IB2S XBD-AII’s active electronics are housed separately to the cabinet for easier soffit mounting and control. The cabinets can be mounted in a vertical or side-by-side format, further increasing their flexibility.

Both cabinets feature identical ATL’s for that signature precision bass at all levels. The identical 10-inch carbon-fibre/Nomex™ piston drivers are the same as those featured in our breath-taking QB1 monitors, while the cabinet also features PMC’s 34mm soft-dome tweeter and hand-built 75mm fabric-dome driver to handle the mid-range. Abundant power and headroom is provided by PMC’s own ultra clean amplification that feeds the HF with 275W, the MF with 550W and both LF drivers with 2400W.

For ease of use, the IB2S XBD-AII system comes with an RJ45 connected remote control that has three User Presets, HF and LF shelving filters, ±8dB input level trim and the ability to adjust the input sensitivity of the balanced analogue inputs from +4dB to +16dB.

**THE IB2S XBD-AII**

- **Type**: 3-way, twin cabinet, ATL™ active reference monitor
- **Frequency response**: 25Hz-25kHz
- **Analogue & digital (up to 96kHz) inputs**
- **Power per channel**: 3225W (HF 275W, MF 550W, LF & LFX 2400W)
- **Effective ATL™ length**: 2 x 2.4m (8ft)
- **Maximum SPL**: 128dB
- **Three personal balance presets for multiple users**

**Options:**

- Dedicated vertical and horizontal centre channel versions
- Additional 190mm high-mass spacers to optimise the height and bass performance
PMC’s unique ATL™ (Advanced Transmission Line) enclosures have taken loudspeaker design to the highest level, using sophisticated cabinet construction, proprietary drive units, and patented absorption materials and techniques. The benefits are enormous compared to the relatively simple sealed and ported designs currently available elsewhere.

PMC’s innovative approach places the bass driver near one end of a long cavity ATL™ (the Advanced Transmission Line). This cavity is heavily damped with acoustic material specified to absorb the upper bass and higher frequencies radiating from the rear of the bass driver. The lowest frequencies are allowed to pass down the line and emerge from the large frontal vent in the same polarity as the driver’s direct radiation, the vent acting essentially as a second bass driver.

An important benefit of the approach is that the air pressure inside the cabinet, which loads the bass driver, remains consistent. This helps to maintain control of the driver over a wide frequency range and significantly reduces LF distortion. Consequently, the upper bass and mid-range detail is not masked by harmonic distortion and the result is PMC’s characteristically transparent mid-range, fast, dynamic bass, and outstanding clarity.

A further advantage of the ATL™ design approach is greater bass extension and higher SPL capability compared to typical ported or sealed designs of a similar size and driver specification.

Moreover, the very consistent bass driver loading brings the welcome benefit that the frequency response remains consistent regardless of listening level, and analytical auditioning can be conducted without the need for high replay volumes to achieve an optimal bass response. This tonal consistency at all output levels is a unique and very valuable characteristic of PMC’s Advanced Transmission Line.
IB2S XBD-A/J in cross-section showing ATL™
DEEP... AND MEANINGFUL

The IB active series uses PMC’s proprietary ‘honeycomb’ carbon-fibre/Nomex® design in an extensively vented, cast-aluminium chassis. The light, ultra-rigid flat-faced 10-inch piston in each LF unit ensures a near-instantaneous, yet highly accurate transient response, while providing the sheer power required to drive the IB’s transmission line, which exceeds what a cone driver can produce without deformation. The result reduces distortion, avoids power compression, increases power handling and headroom, giving a supreme bass response and performance.
SUBLIME HIGHS & MIDS

The IB2S-AII and IB2S XBD-AII both feature PMC’s hand-built, precision-matched 34mm soft-dome HF driver and legendary 75mm fabric soft-dome mid-range driver, renowned for their natural, transparent sound and ultra-low distortion. The perforated acoustic lens on the high-frequency driver extends the treble response to well beyond the upper limit of human hearing, and controls dispersion to ensure close integration with the mid-range; the output of both drivers is meticulously combined to create an ultra-wide, stable image and entirely natural in-room response.

When designing the 75mm soft-dome, PMC’s aim was to create a driver capable of reproducing vocals, in particular, with unparalleled authenticity and transparency — but to high SPLs when required. Each handcrafted unit takes seven days to produce, and has to pass exceptionally tight matching and testing criteria. The result is an extremely clean, neutral and natural-sounding mid-range driver, which means it can be used for long periods without inducing fatigue.
ABSOLUTE POWER, UNCORRUPTED

The entire Main Monitor range are powered by PMC’s cutting-edge DSP-controlled Class-D amplification, which is designed, like the loudspeaker drivers themselves, for maximum transparency, resolution and fidelity with ultra-low distortion and a high damping factor. The DSP control of the amplifiers is employed minimally; it merely fine-tunes what are already high-specification precision designs to extract an even better performance from them.

A control1200 and power2400 amplifier is dedicated to each channel on the IB2S-AII and IB2 XBD-AII, and each amplifier module has its own stable, linear and highly filtered power supply. The result is highly dynamic, near-instantaneous stop/start control over the drivers, a flat frequency response and immense headroom, no matter what the output level and frequency.
Analogue input
Gain stage
A/D
DSP
DAC
Volume, EQ, crossover and protection
Conversion to analogue for amplification

Digital input
AES3 XLR
32-96kHz
SRC
Sample rate conversion

HF AMP 275W
MF AMP 550W
LF & LFX AMP 2400W

Individual power amps per channel
(IB2S XBD-A configuration)
INTELLIGENT USE OF DSP

The advanced DSP in the IB2SII Active models is employed merely to finesse what are already extremely well-engineered designs. In addition to improving the performance of the amplifiers and facilitating the high-resolution 24-bit, 96kHz digital inputs, the DSP also optimises the response of the drivers, maximising their dispersion, guarantees a flawless 24dB-per-octave crossover, and provides non-invasive protection using modelled excursion limiting. Shelving EQ is also available via the DSP functions for in-room integration, along with three presets; these are ideal if custom balances are required. In a multiple-user system, they allow different users to have their own personal system settings.

The presets can be accessed via the wired RJ45 desktop remote control, which is supplied as standard with all models, and features a backlit display and jog wheel. The remote also allows input switching, loudspeaker setup and fine-tuning to be carried out in real time from the listening position without the need to constantly refer to the rear panel of the monitors.
The optional high mass 33” Studio Frame Stand was developed with extensive listening tests to maximise the imaging, dynamics and overall tonal balance of the monitor.

An acoustically inert 190mm high-mass plinth or spacer is available to optimise the system height and bass performance. It can be placed below or between the 3-way master and XBD-Active cabinets.
**IB2S-AII**

**Type**
Active 3-way, single-cabinet reference monitor

**Usable frequency response**
25Hz - 25kHz

**Maximum SPL**
125dB @1metre

**Effective ATL™ length**
2.4m (8ft)

**Crossover frequencies**
380Hz & 3.8kHz

**Drive unit complement**
- **LF** 250mm/ 10” PMC Carbon Fibre/ Nomex™ piston driver
- **MF** PMC hand-built 75mm soft-dome driver
- **HF** PMC 34mm soft-dome tweeter with acoustic radiator

**Amplifier power**
- **LF** 1 x 1200Wrms, **MF** 1 x 550Wrms, **HF** 1 x 275Wrms

**Analogue I/O**
Balanced Analogue Main Input/ Through

**Digital I/O**
- Digital AES Main Input/ Through (Supports sample rates ≤ 96kHz 24bit)
- Digital AES LFE Input/ Through (Supports sample rates ≤ 96Hz 24bit)

**Analogue input sensitivity**
Adjustable +4dB to +20dBu

**EQ**
- LF shelf +/-8dB, HF shelf +/-8dB

**Remote control**
Wired via RJ45, rotary volume -48.5dB to +15dB

**Operational voltage**
100-115V/220-230V selectable

**Cabinet dimensions**
- **H** 745mm (29.3 inches)
- **W** 330mm (12.9 inches)
- **D** 564mm (22.2 inches)

**Weight**
46.5kg (102.5lbs) each

**Available finishes**
Studio black
**IB2S XBD-AII**

**Type**  
Active 3-way, single-cabinet reference monitor

**Usable frequency response**  
25Hz - 25kHz

**Maximum SPL**  
128dB @ 1 metre

**Effective ATL™ length**  
2 x 2.4m (8ft)

**Crossover frequencies**  
380Hz & 3.8kHz

**Drive unit complement**  
- **LF**: 2 x 250mm/10” PMC Carbon Fibre/Nomex™ piston driver
- **MF**: PMC hand-built 75mm soft-dome driver
- **HF**: PMC 34mm soft-dome tweeter with acoustic radiator

**Amplifier power**  
- **LF & LFX**: 1 x 2400Wrms, **MF**: 1 x 550Wrms, **HF**: 1 x 275Wrms

**Analogue I/O**  
Balanced Analogue Main Input/ Through

**Digital I/O**  
- Digital AES Main Input/ Through (Supports sample rates ≤ 96kHz 24bit)
- Digital AES LFE Input/ Through (Supports sample rates ≤ 96kHz 24bit)

**Analogue input sensitivity**  
Adjustable +4dB to +20dBu

**EQ**  
LF shelf +/-8dB, HF shelf +/-8dB

**Remote control**  
Wired via RJ45, rotary volume -48.5dB to +15dB

**Operational voltage**  
100-115V/220-230V selectable

**Cabinet dimensions**  
- **H**: 1500mm (59 inches) plus 190mm plinth (+25mm adjustable feet)
- **W**: 330mm (12.9 inches)  
- **D**: 564mm (22.2 inches)

**Weight**  
90kg (198.4lbs) each

**Available finishes**  
Studio black