

# Camphor 6

*Outdoor Speaker*

---

**70 W**

POWER RMS

**87 dB**

SENSITIVITY

**8  $\Omega$**

IMPEDANCE

**194.8 mm**

DEPTH

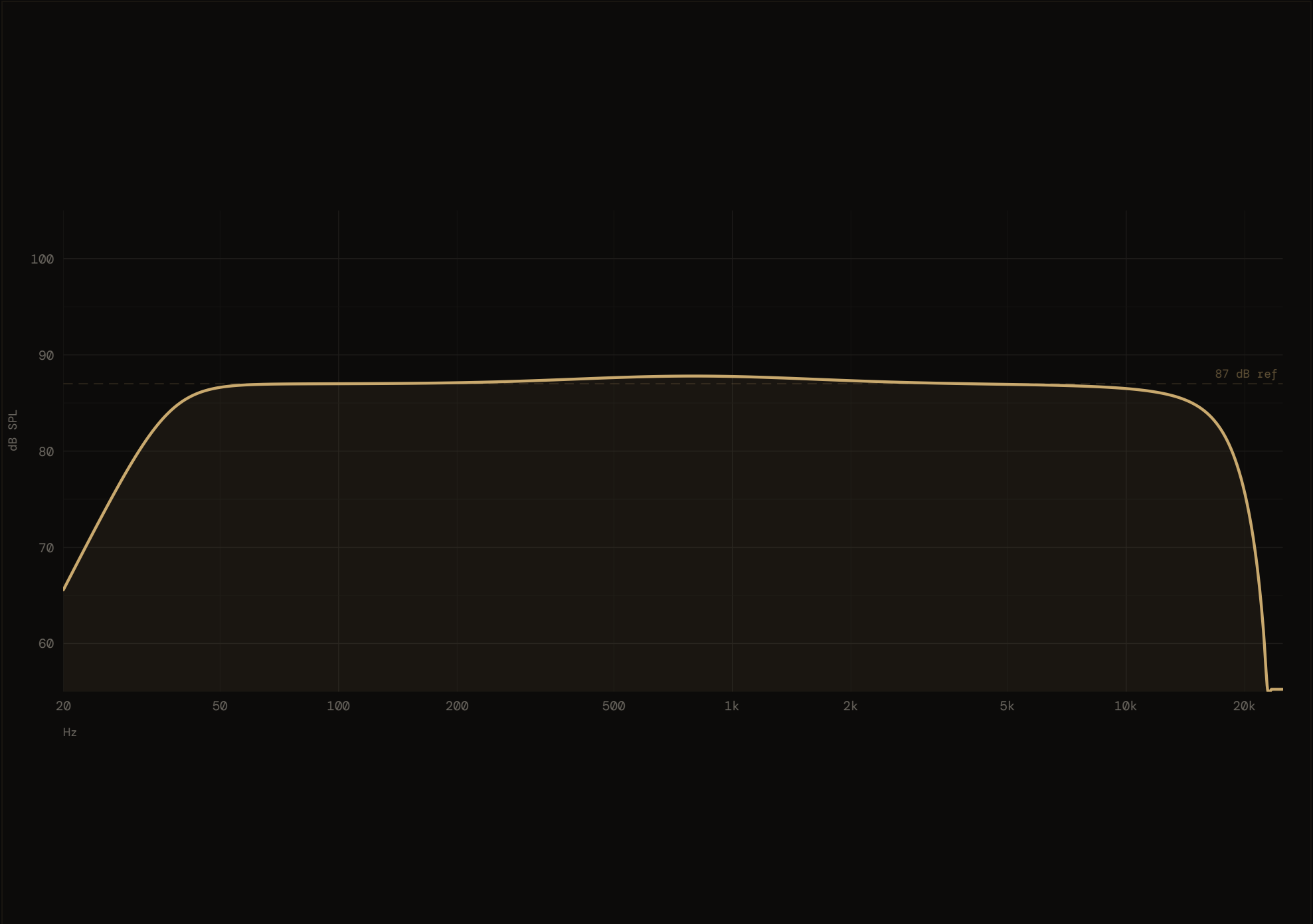
# Technical Specifications

| ACOUSTIC PERFORMANCE |                                             |       |
|----------------------|---------------------------------------------|-------|
| Power RMS            |                                             | 70 W  |
| Power Peak           |                                             | 100 W |
| Sensitivity          | 87 dB / 1W / 1m                             |       |
| Impedance            | 8 Ω                                         |       |
| Max SPL              | 107 dB                                      |       |
| THD+N                | ≤0.2% @ 1W/1m                               |       |
| Frequency Range      | 37 Hz - 22 kHz ±3dB                         |       |
| Directivity H        |                                             |       |
| Directivity V        |                                             |       |
| Driver Config        | 1 × 6.5 inch Graphite Cone, Rubber Surround |       |
| Crossover            | Built-In Passive Crossover (2-way + XBR)    |       |
| Crossover Freq       | 37 Hz (rec.)                                |       |
| EQ Profile           | Default                                     |       |
| CONNECTIVITY         |                                             |       |
| Connector            |                                             |       |
| Wire Gauge           | 14 AWG or thinner                           |       |

| PHYSICAL         |                                                     |
|------------------|-----------------------------------------------------|
| Dimensions       | H 285 × W 199.9 × D 194.8 mm                        |
| Weight           | 3 kg                                                |
| Housing          | ABS                                                 |
| Grille           | Mild Steel                                          |
| Paintable Grille | No                                                  |
| ENVIRONMENTAL    |                                                     |
| IP Rating        | IP66                                                |
| Mounting         | —                                                   |
| COLOUR & FINISH  |                                                     |
| Finishes         | Standard all-weather finish · Custom RAL            |
| PRODUCT          |                                                     |
| Series           | Outdoor Series                                      |
| SKU              | XSP-OD-CAM6                                         |
| Variants         | XSP-OD-CAM6 · Standard   Custom Painted Grille +20% |
| Since            | 2022                                                |

# Frequency Response

On-axis · 1W / 1m · anechoic · 37Hz - 22kHz ±3dB · 87dB sensitivity · raw acoustic, no EQ



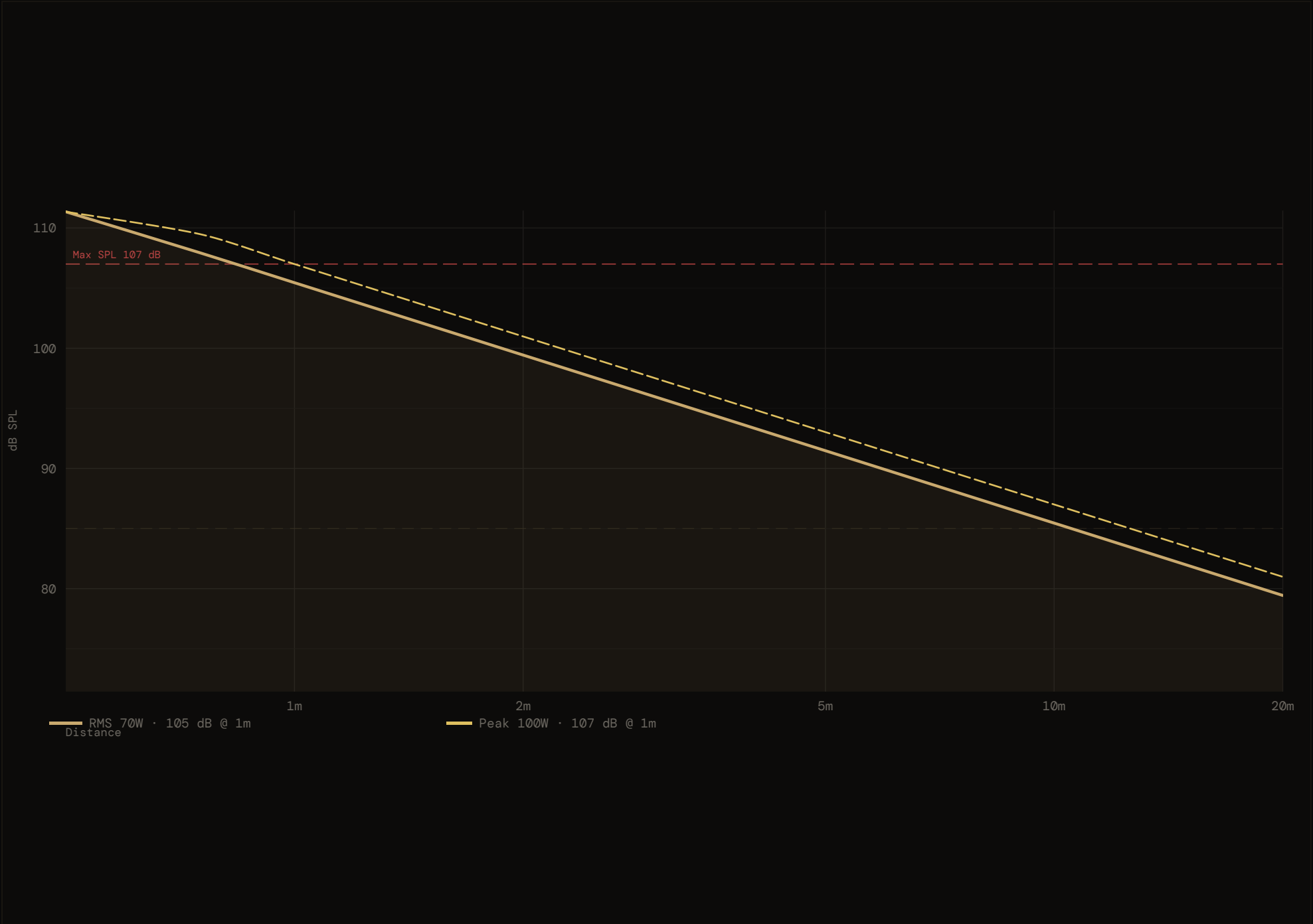
# Directivity Pattern

Normalised polar response · H null° / V null° at -6 dB · 1 kHz · multi-frequency overlay



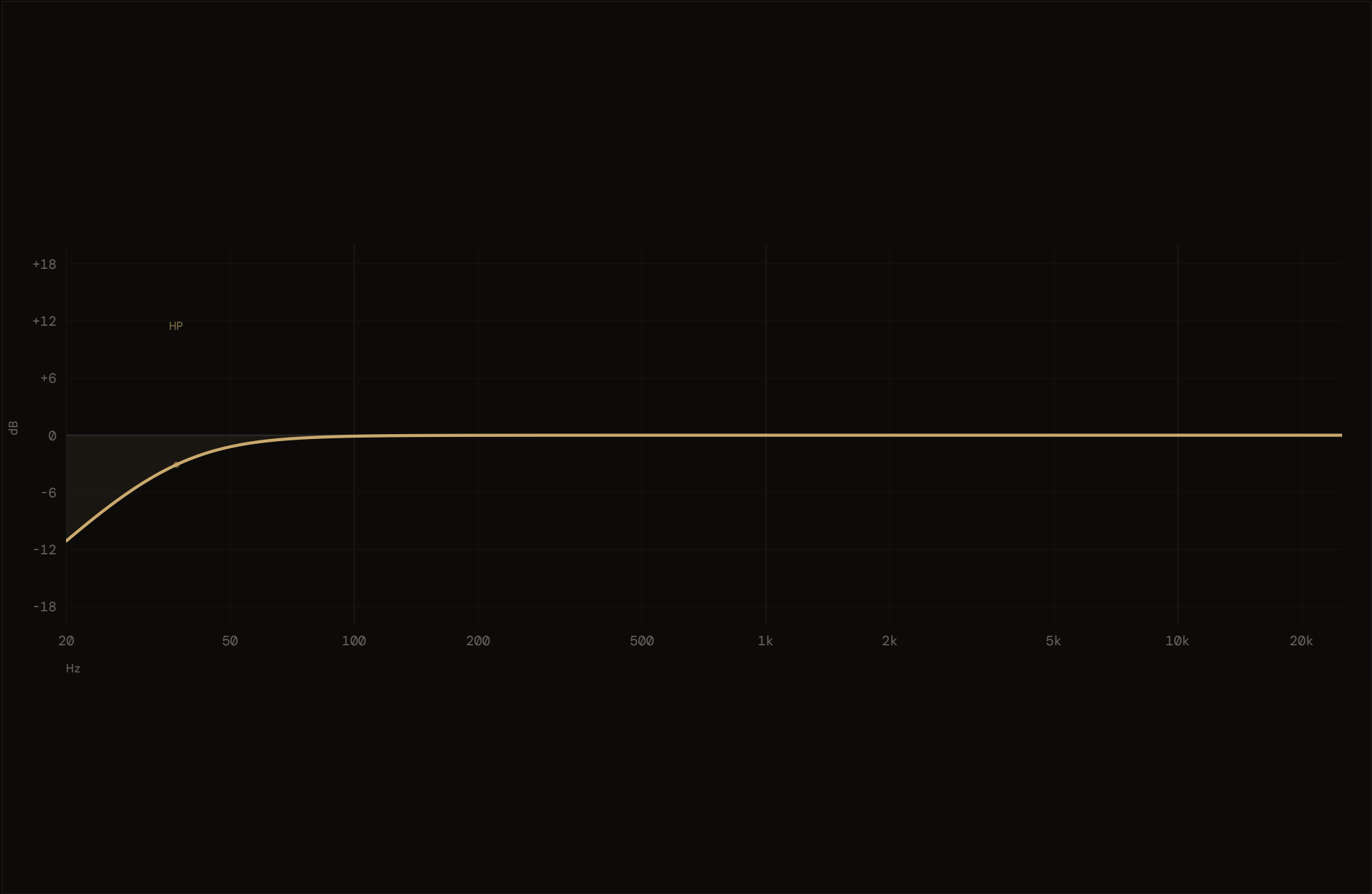
# SPL vs Distance

Inverse square law · Ref: 87 dB / 1W / 1m · free field anechoic · 70W RMS / 100W Peak



# Recommended EQ

Profile: Default · combined biquad cascade (bold) with individual filter contributions (dashed)



| # | TYPE | FREQUENCY | GAIN | Q   |
|---|------|-----------|------|-----|
| 1 | HP   | 37 Hz     | -    | 0.7 |

Profile: Default · RBJ biquad cascade · fs = 48 kHz (ADAU1701 DSP)

# Proprietary Technologies



## PsySculpt

ADAU1701 DSP implementing Fletcher-Munson equal-loudness compensation. Pre-Comp ▯ Loudness L&H ▯ Post-Comp ▯ Log-Decay Peak Detector ▯ Dynamic Bass ▯ DAC. Tonal balance stays consistent from background levels to concert SPL.



## XS-Flow

Micro-waveguide geometry precision-machined into the enclosure interior. Channels the rearward acoustic wave around the magnet structure, reducing compression and harmonic distortion at high excursion.



## Nano Resonance

Intentionally heavy cone mass forces the natural resonant frequency well below the target passband — genuine low-frequency extension from an enclosure only 12–23 mm deep, defying Hoffman's Iron Law.



## PrecisionXover Array

Air-core inductors, polypropylene film capacitors and metal-film resistors. Component matching held to  $\pm 0.5$  dB for inaudible channel-to-channel variation across the array.



## AeroFrame Chassis

6061 aerospace aluminium machined as the structural chassis, acting as a passive heatsink drawing heat away from the voice coil through direct thermal coupling — no fans, no thermal compression.



## PowerDense Dynamics

Copper-silver composite voice coil conductor. Significantly higher continuous power in the same former diameter — higher thermal ceiling without increasing coil mass or inductance.