

SR1

SPATIAL REFERENCE HEADPHONE

*Professional Headphone for
Immersive Audio Monitoring
with AIM Technology*



PRODUCT OVERVIEW

The **Areal SR1 Spatial Reference Headphone** is a professional multi-driver headphone system designed for accurate and portable monitoring of immersive audio content. Powered by Areal's proprietary AIM (Acoustic Image Mapping) technology, the SR1 delivers true spatial imaging without relying on binaural emulation or HRTF personalization.

Each earcup features a dedicated full-range driver for stereo compatibility and three additional spatial drivers for rendering front, rear, and height information. The SR1 is supplied with a multichannel controller and DAC that connects via USB-C, enabling instant switching between immersive and stereo modes. Designed for sound professionals, creators, and educators working with next-generation audio formats, the SR1 offers a consistent immersive monitoring environment, anywhere.

KEY FEATURES

- ▶ True multichannel headphone monitoring, no binaural emulation
- ▶ 4 drivers per earcup (1 full-range, 3 directional spatial drivers)
- ▶ AIM™ Acoustic Image Mapping technology for spatial accuracy
- ▶ Dedicated headphone controller with USB-C multichannel interface
- ▶ Toggle between immersive and stereo monitoring modes
- ▶ Reference-grade frequency response
- ▶ Comfortable design for long sessions
- ▶ Replaceable earpads
- ▶ Plug-and-play with any software supporting multichannel output
- ▶ Compatible with Dolby Atmos®, Eclipsa Audio, and more

APPLICATIONS

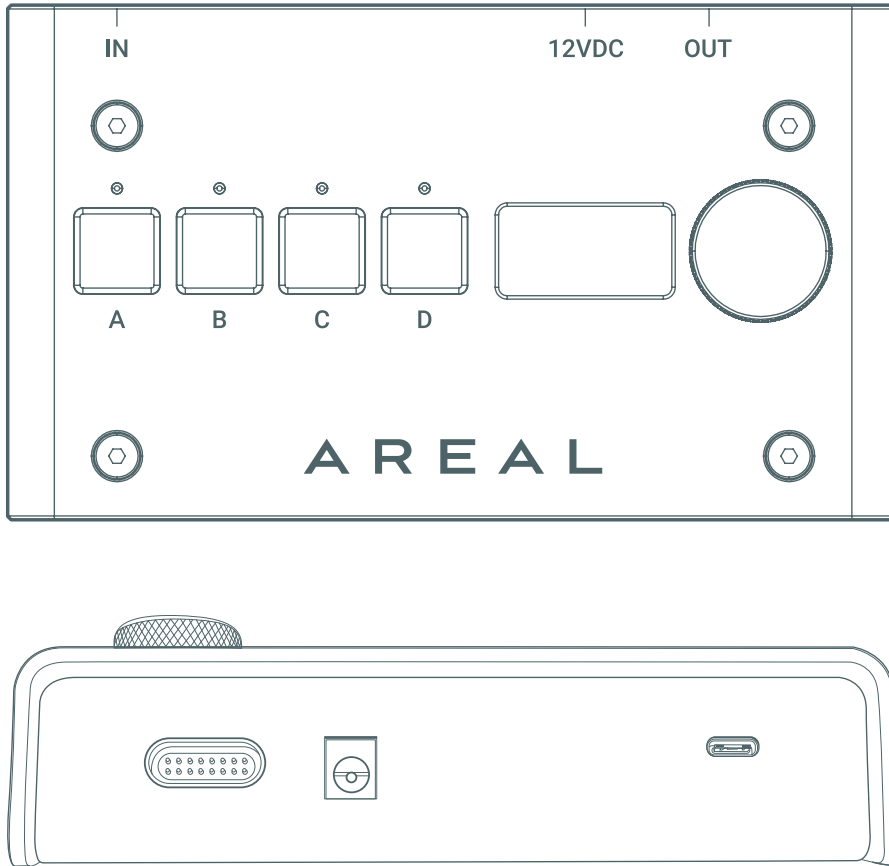
- ▶ Immersive content production and mixing
- ▶ Portable immersive audio workflows
- ▶ Sound design and music creation
- ▶ Game and cinematic audio development
- ▶ Audio education and training environments
- ▶ Quality control and spatial reference on the go

TECHNICAL SPECIFICATIONS

Headphone Performance

Parameter	Specification
Driver Configuration	4 per earcup (1 full-range, 3 spatial)
Frequency Response	40 Hz – 20 kHz (±2 dB typical)
Impedance	32 Ω per channel (nominal)
THD	< 0.2% @ 94 dB SPL
Ear Coupling	Over-ear, closed-back
Weight (Headphone)	~320 g (without cable)
Cable	Braided (1.5 m)





Headphone Controller / DAC Interface

Parameter	Specification
Input	USB-C (Multichannel audio, class-compliant)
Outputs	Magnetic multipin headphone connector
Audio Channels	8 output channels (4 per ear)
Output Format Support	PCM (48 kHz / 24-bit)
Mode Switching	Stereo / Immersive (toggle)
Volume Control	Digital (rotary knob)
Power Supply	USB-C powered (5V / 3A typical)
Secondary Power	12V DC input (1,5A typical, Barrel connector)
Dimensions (W × D × H)	160 × 90 × 40 mm
Weight (Controller)	~280 g





AIM Acoustic Image Mapping

Feature	Description
Spatial Rendering	Direct multichannel, speaker-style mapping
Supported Layouts	Stereo, 5.1, 7.1 and 7.1.4
Compatibility	Works with any software that supports multichannel out



VERSIONS & ORDERING

Model	Description
ASR25	SR1 Headphone + Controller + Travel case
ASR25EC	SR1 Ear Cushion set
ASR25PA	SR1 12V Power adapter

REGULATORY & COMPLIANCE

Certifications

This device complies with CE, FCC, LVD, KC and RoHS regulations. Documentation can be requested on support@areal.world.

emc declaration

This device complies with EMC declaration available upon request.



Disposal

Dispose according to local WEEE and e-waste regulations.

CONTACT

AREAL

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Disclaimer: All information in this document is preliminary and subject to change without notice. The manufacturer assumes no responsibility for errors or omissions, and reserves the right to make changes to the products described herein without notice.

