

# P2048.10

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**Submitter Email:** [yymedia@gmail.com](mailto:yymedia@gmail.com)  
**Type of Project:** Modify Existing Approved PAR  
**PAR Request Date:** 08-Feb-2019  
**PAR Approval Date:** 21-Mar-2019  
**PAR Expiration Date:** 31-Dec-2021  
**Status:** Modification to a Previously Approved PAR  
**Root PAR:** P2048.10 **Approved on:** 18-May-2017

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**1.1 Project Number:** P2048.10  
**1.2 Type of Document:** Standard  
**1.3 Life Cycle:** Full Use

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**2.1 Title:** Standard for Virtual Reality and Augmented Reality: Immersive Audio File and Stream Formats

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**3.1 Working Group:** Virtual Reality and Augmented Reality Working Group (CES/VRARSC/VRARWG)  
**Contact Information for Working Group Chair**

**Name:** Yu Yuan  
**Email Address:** [y.yuan@senses.global](mailto:y.yuan@senses.global)  
**Phone:** +8613683532808

**Contact Information for Working Group Vice-Chair**  
None

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**3.2 Sponsoring Society and Committee:** IEEE Consumer Electronics Society/Virtual Reality and Augmented Reality Standards Committee (CES/VRARSC)

**Contact Information for Sponsor Chair**

**Name:** Yu Yuan  
**Email Address:** [yymedia@gmail.com](mailto:yymedia@gmail.com)  
**Phone:** +1 917 624 8316

**Contact Information for Standards Representative**

**Name:** Yu Yuan  
**Email Address:** [yymedia@gmail.com](mailto:yymedia@gmail.com)  
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**3.3 Joint Sponsor:** IEEE-SA Board of Governors/Corporate Advisory Group (BOG/CAG)

**Contact Information for Sponsor Chair**

**Name:** Charles Simpson  
**Email Address:** [rsimpson@gmail.com](mailto:rsimpson@gmail.com)  
**Phone:** +1-404-219-1851

**Contact Information for Standards Representative**

None

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**3.4 Joint Sponsor:** IEEE Consumer Electronics Society/Standards Committee (CES/SC)

**Contact Information for Sponsor Chair**

**Name:** Yu Yuan  
**Email Address:** [yymedia@gmail.com](mailto:yymedia@gmail.com)  
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**Contact Information for Standards Representative**

**Name:** Yu Yuan  
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**3.5 Joint Sponsor:** IEEE Engineering in Medicine and Biology Society/Standards Committee (EMB/Std Com)

**Contact Information for Sponsor Chair**

**Name:** Carole Carey  
**Email Address:** [c.carey@ieee.org](mailto:c.carey@ieee.org)  
**Phone:** 301-776-9882

## Contact Information for Standards Representative

None

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**3.6 Joint Sponsor:** IEEE Industrial Electronics Society/Industrial Electronics Society Standards Committee (IES/IES)

### Contact Information for Sponsor Chair

**Name:** Victor Huang

**Email Address:** [vkluhuang@aol.com](mailto:vkluhuang@aol.com)

**Phone:** 408-839-7884

### Contact Information for Standards Representative

**Name:** Victor Huang

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**4.1 Type of Ballot:** Entity

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 08/2019

**4.3 Projected Completion Date for Submittal to RevCom**

**Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.:** 08/2020

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**5.1 Approximate number of entities expected to be actively involved in the development of this project:** 20

**5.2 Scope:** This standard specifies the formats of immersive audio files and streams, and the functions and interactions enabled by the formats.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** This document will not include a purpose clause.

**5.5 Need for the Project:** Immersive audio is an enabling technology behind many Virtual Reality (VR) applications in various vertical industries (e.g., media, entertainment, education, and tourism). Due to the rapid market growth recently, there have been many variants of immersive audio. This project is needed to define the immersive audio file and stream formats that support all the variants and facilitate the development of cross-platform content and services. This standard identifies existing applicable audio coding standards, and defines the integration of these standards into immersive audio.

**5.6 Stakeholders for the Standard:** Device manufacturers, content providers, service providers, technology developers, government agencies, end users and other parties that are relevant to Virtual Reality (VR) and Augmented Reality (AR).

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## Intellectual Property

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

### 7.2 Joint Development

**Is it the intent to develop this document jointly with another organization?:** No

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**8.1 Additional Explanatory Notes:** 3.2 SPONSORING SOCIETY AND COMMITTEE

The primary sponsor is changed from CES/SC to CES/VRARSC.

### 3.3 JOINT SPONSOR

The joint sponsors are updated as follows:

- EMB/Std Com

- IES/IES

- CES/SC

- BOG/CAG

Please keep the order as above if possible.

### 3.1 WORKING GROUP

The short name of the working group is changed from VRAR to VRARWG so the working group will look like

- Virtual Reality and Augmented Reality Working Group (CES/VRARSC/VRARWG)

Nothing else is modified from the existing Approved PAR.