IPMX Activity Group Report

February 2025

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IPMX Associated Organizations

IPMX Activity Group

➤Chairs:
  ➤Jack Douglass (PacketStorm)
  ➤Jean Lapierre (Matrox)

➤IPMX – Internet Protocol Media Experience
  ➤IPMX series of Technical Recommendations that are being published as TR-10
  ➤Enables compressed and uncompressed video, audio and data to be carried over IP networks for the ProAV market

IPMX Activity Group Participating Companies

Adeas BV	BBC	Imagine Communications	Meinberg	Warner Media
AJA Video	Christie Digital Systems	Intel	Nextera Video	RAVENNA
ALC Network	Cisco	intoPIX	NVIDIA	Whitcomb Consulting
Analog Way	Cobalt	Learn IP Video	PacketStorm Communications	AT&T
Appear TV	DHC Green Dot Digital	Macnica Americas	PB Technologies Group	
Arista Networks	Diversified	Matrox Electronic Systems	Phabrix	
AWS Elemental	EvertzAV	Media Links	Sencore/PlexusAV	

Project Status

			IPMX Project Status				
Document Number	Document Name	Working Draft	Submitted for Review / Approval	Posted VSF Website	Dirty Hands Workshop March 2023	IPMX Implementation Testing Event January 2024	IPMX Tested Event March 2025
TR-10-0	Document Organization	✓	✓	Published		✓	✓
TR-10-1	System Timing and Definitions document	✓	✓	Published	✓	✓	✓
TR-10-2	Video	✓	✓	Published		✓	✓
TR-10-3	Audio	✓	✓	Published		✓	✓
TR-10-4	Ancillary Data	✓	✓	Draft			
TR-10-5	HDCP Key Exchange Protocol (HKEP) Copy Protection	✓	✓	Published		✓	
TR-10-6	Forward Error Correction (FEC)	✓	✓	Draft			
TR-10-7	Variable Bit-Rate Compressed Video	✓	✓	Draft			
TR-10-8	NMOS Requirements	✓	✓	Published			
TR-10-9	Minimum Requirements to be IPMX	✓	✓	Draft			✓
TR-10-10	HDMI Info Frame	✓	✓	Draft			
TR-10-11	Constant Bit Rate Compressed Video	✓	✓	Published			✓
TR-10-12	AES3 Transparent Transport (Audio)	✓	✓	Draft			
TR-10-13	Privacy Encryption Protocol (PEP)	✓	✓	Draft			
TR-10-14	USB Interface	✓	✓	Draft			
TP-10-1	IPMX Tested Event Test Plan (Phase 1)	✓					
AGR-1-1	Selecting Network Switches for ProAV Applications	✓					
AGR-1-2	Methods for Testing Switches for Pro AV Applications	✓	✓				
Dissector	IPMX rtcp info dissector	✓		Published			
Dissector	IPMX HKEP dissector for HDCP	✓		Published			
Report	VSF Pro-AV CODEC Landscape Report 0.8	✓	✓	Published			

IPMX Documents Posted on VSF Website

IPMX: Technical Recommendations 10-0 to 10-13

- TR-10-0:2024 Internet Protocol Media Experience (IPMX): General Organization – FINAL
- TR-10-1:2024 Internet Protocol Media Experience (IPMX): System Timing and Definitions – FINAL
- TR-10-2:2024 Internet Protocol Media Experience (IPMX): Uncompressed Active Video – FINAL
- TR-10-3:2024 Internet Protocol Media Experience (IPMX): PCM Digital Audio – FINAL
- TR-10-4:2023 Internet Protocol Media Experience (IPMX): SMPTE ST 291-1 Ancillary Data – DRAFT
- TR-10-5:2024 Internet Protocol Media Experience (IPMX): HDCP Key Exchange Protocol – FINAL
- TR-10-6:2022 Internet Protocol Media Experience (IPMX): Forward Error Correction – DRAFT
- TR-10-7:2022 Internet Protocol Media Experience (IPMX): Compressed Video – DRAFT
- TR-10-8:2024 Internet Protocol Media Experience (IPMX): NMOS Requirements – FINAL
- TR-10-11:2024 Internet Protocol Media Experience (IPMX): Constant Bit-Rate Compressed Video – FINAL
- TR-10-12:2023-2 Internet Protocol Media Experience (IPMX): AES3 Transparent Transport – DRAFT
- TR-10-13:2024 Internet Protocol Media Experience (IPMX): Privacy Encryption Protocol (PEP) – DRAFT

IPMX Wireshark Dissectors

- IPMX RTCP Info Dissector
- Wireshark Dissector for HKEP

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IPMX Dirty Hands Interop

➤ Purpose: Validate the core IMPX Technical Requirements draft documents

➤ Location: NFL Los Angeles

➤ Dates: March 6 to March 8, 2023

➤ Participating Companies
  ➤ intoPix, Macnica, Matrox, Meinberg, Nextra/Adeas, PacketStorm, and PB Technologies Group

IPMX Dirty Hands Interop

IPMX Implementation Testing Event

➤ Purpose: Validate core IPMX documents, so they can be published based on Implementation Testing Event.

➤ Validation criteria:
  ➤ At least two vendors interoperating with no critical or substantial issues.

➤ Location: Matrox, Munich, Germany

➤ Dates: January 20 to January 24, 2024

➤ Participating Companies
  ➤ Cobalt, EvertzAV, intoPix, Macnica, Matrox, Netgear, Nextera/Adeas, PacketStorm

IPMX Implementation Testing Event

IPMX Tested Event 2025

➤ Location: Evertz, Burbank, CA

➤ Dates: March 24 to 28, 2025

➤ Purpose:
  - ➤ Validate the core IMPX Technical Requirements
    - ➤ TR-10-0 – Document Organization
    - ➤ TR-10-1 – System Timing and Definitions
    - ➤ TR-10-2 – Uncompressed Video
    - ➤ TR-10-3 – PCM Audio
    - ➤ TR-10-8 – NMOS Requirements including AMWA IS-11 NMOS Stream Compatibility Management
    - ➤ TR-10-9 – IPMX Requirements for System Environment and Device Behavior
    - ➤ TR-10-11 – CBR Video
  - ➤ Provide a snapshot in time of how vendor equipment aligns to key parts of the standards and specifications.
  - ➤ Increase the likelihood that IPMX devices will interoperate.

IPMX Tested Event 2025 (Continued)

➤ IPMX Early Adopter Badge:
  - ➤ Companies that actively participate in the IPMX Tested Event in March will receive a badge
  - ➤ Badge is an acknowledgement of participation in a critical test for IPMX's development
  - ➤ Badge may be displayed in the participants booth at trade shows and may be used in communications with their customers

➤ Participating Companies: Cobalt, EvertzAV, intoPIX, Matrox, Meinberg, Nextera/ Adeas, PacketStorm, PB Technologies Group and PlexusAV

2024 Trade Shows
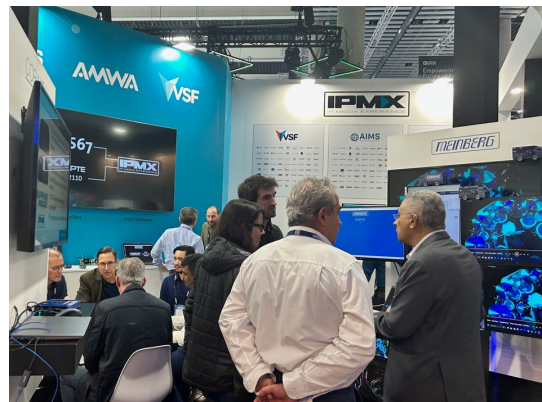

ISE24
Barcelona

NAB24 Las
Vegas

Infocomm24 Las
Vegas

IBC24
Amsterdam

2025 Trade Show
ISE 2025 Barcelona

NAB25

➤ Location: Las Vegas

➤ Dates: April 6 to 9, 2025

➤ Target Goals:

  ➤ Announce IPMX Early Adopter Badge

  ➤ Work with NAB to promote IPMX

  ➤ NAB to make IPMX a major marketing focus

  ➤ NAB wants to become ISE show in the US

  ➤ NAB sponsored IPMX training sessions and demonstration area

  ➤ 16 Presentations on main stage of NAB IP Showcase

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Thank you

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