



IPMX Product Qualification and Certification Requirements

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1. Purpose & Scope

This document defines IPMX product qualification and certification requirements, serving as the single authoritative source for both technical conformance and certification program rules.

The document:

- Specifies the normative requirements for IPMX compliance and certification.
- Describes the structure of IPMX in terms of Baseline Requirements, Profiles, and Capabilities, and how these elements are used to define product conformance.
- Defines the process by which products are tested, certified, and listed in the official registry.
- Provides guidance on claims, branding, and vendor obligations.

It works in concert with:

- **VSF TR-10** and related SMPTE ST 2110 documents, which define technical standards and behavior.
- **AMWA NMOS** specifications (e.g., IS-04, IS-05) and other required interoperability specifications and best practices.
- **VSF TR10 TP-1** IPMX Tested Test Plan, which describes the official test procedures and serves as the basis for both self-testing and formal certification testing.

This document does not restate the technical requirements in full. Instead, it references the authoritative specifications and organizes them into Baseline Requirements, Profiles, and Capabilities for certification purposes.

2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Reference	Title (edition)	Category	Notes
AIMS IPMX Uncompressed Video Profile Requirements	Uncompressed Video Profile	Profile	Normative entry point (references TR-10-2)
AIMS IPMX PCM Digital Audio Profile Requirements	PCM Digital Audio Profile	Profile	Normative entry point (references TR-10-3)
AIMS IPMX JPEG-XS Video Profile Requirements	JPEG-XS Video Profile	Profile	Normative entry point (references TR-10-11, TR-10-15 Part 1, TR-10-8 section 7.s, BCP-006-01)
TR-10 TP-1:2026	IPMX Tested Event – Test Plan	Test Plan	Companion test matrix
VSF TR-10-1:2024	System Timing & Definitions	Baseline Requirements	Underlying normative reference

Reference	Title (edition)	Category	Notes
TR-10-8:2026	NMOS Requirements for IPMX	Baseline Requirements	Covers IS-04, IS-05, IS-08, IS-11, BCP-002, BCP-004-01, BCP-004-02, BCP-005-01, BCP-006.
VSF TR-10-9:2025	System Environment & Device Behaviour	Baseline Requirements	Full document
VSF TR-10-11:2024	Constant Bit-Rate Compressed Video Transport	Underlying Specification	Referenced by AIMS JPEG XS Profile
VSF TR-10-15 Part 1:2025	IPMX JPEG-XS Codec Requirements for Compressed Video	Underlying Specification	Referenced by AIMS JPEG XS Profile
VSF TR-10-5:2024	HDCP Key Exchange Protocol	Underlying Specification	
VSF TR-10-10:2024	HDMI Infoframe Packet Transport	Underlying Specification	
VSF TR-10-13:2024	Privacy Encryption Protocol / PEP	Underlying Specification	

Reference	Title (edition)	Category	Notes
VSF TR-10-14:2024	USB Extension	Underlying Specification	
VSF TR-10-16:2025	HDR Info Block	Underlying Specification	

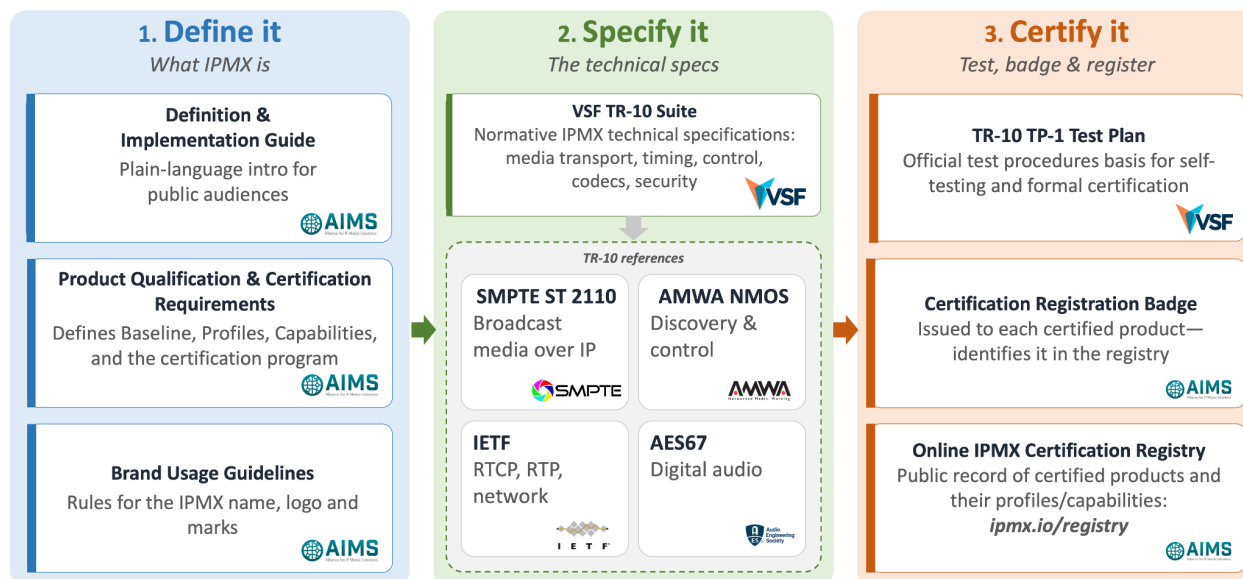


Figure 1. The IPMX Document Ecosystem

3. Conformance Model

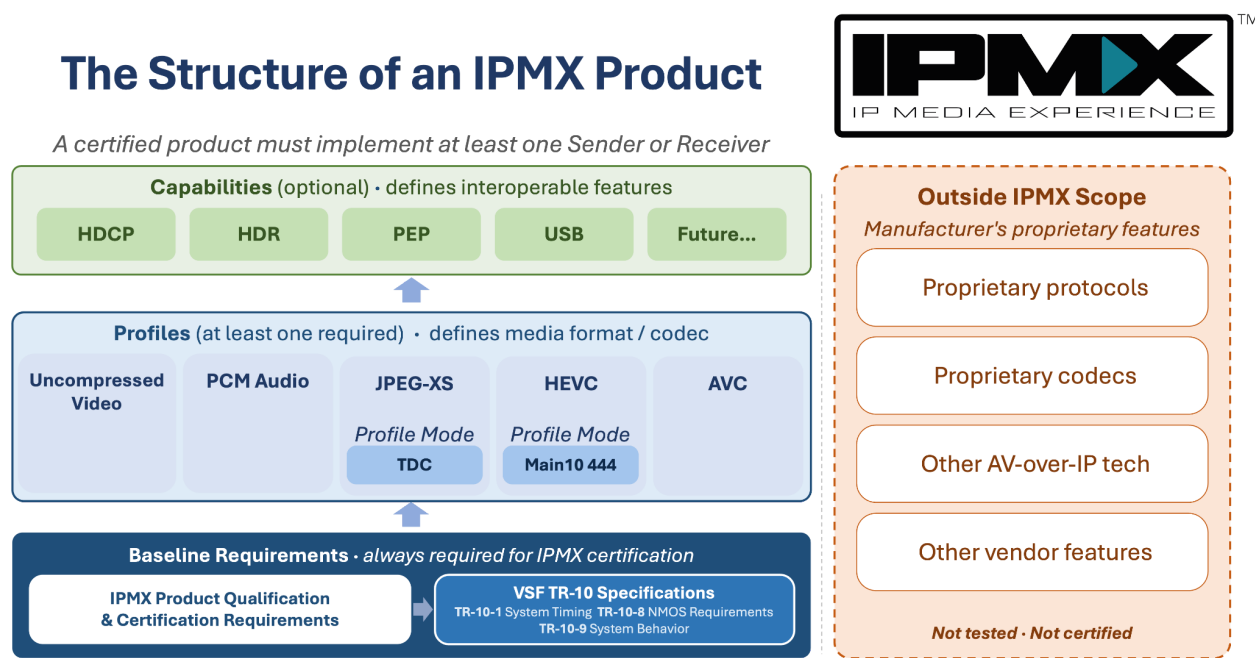


Figure 2. Structure of an IPMX product

For the purposes of IPMX product qualification and certification, all requirements are organized into three categories:

3.1 Baseline Requirements

Mandatory requirements that all IPMX products claiming compliance or certification must meet. Baseline Requirements ensure a minimum level of interoperability, core functionality, and network behavior.

3.2 Profiles

Collections of requirements defining specific media format and transport capabilities (for example, Uncompressed Video, PCM Audio, JPEG XS). A product must implement and pass

testing for at least one Profile in addition to the Baseline Requirements to qualify for IPMX certification.

3.3 Profile Modes

Each Profile may define one or more Profile Modes, which specify particular combinations of parameters (such as color space, bit depth, or special codec-specific features). A product declaring conformance to a Profile Mode must pass testing for the base Profile.

Example: Within the JPEG XS Video Profile, TDC (Temporal Differential Coding) is a defined and tested IPMX Profile Mode. A device claiming JPEG XS TDC support must pass all JPEG XS Profile tests, as well as the additional tests specific to the TDC mode.

3.4 Capabilities

Optional features or behaviors that extend beyond Baseline Requirements and Profiles (for example, HDCP, HDR, USB transport). If implemented, they are subject to testing and certification, but they are not mandatory for certification eligibility.

3.5 Sender/Receiver Scope

Where applicable, requirements may apply specifically to Sender functionality, Receiver functionality, or both. Testing and certification will be performed according to the declared functional scope of the product.

3.6 Certification Basis

To be listed as IPMX Certified, a product must pass all Baseline Requirements and at least one Profile. Implemented Capabilities and additional Profiles may be tested and listed individually, but failures in optional areas do not affect certification status.

For additional explanatory background on Baseline Requirements, Profiles, and Capabilities, see the [IPMX Definition and Implementation Guide](#).

4. Technical Requirements

This section lists the normative technical requirements for IPMX certification, organized into Baseline Requirements, Profiles & Profile Modes, and Capabilities.

References point to the authoritative specifications that define each requirement.

If a TR-10 document fully covers the requirement, only TR-10 is listed; other standards are cited only when TR-10 is silent.

4.1 Baseline Requirements

The subsections that follow specify each Baseline Requirement an IPMX Device must meet to qualify for IPMX certification. Each one identifies the requirement's scope, source-of-truth specification, conformance behavior, and corresponding TR-10 TP-1 test coverage. The Test Plan Coverage Map at the end of this section summarizes the test mapping for all Baseline Requirements at a glance.

4.1.1 System Timing and Definitions

Scope: Sender, Receiver

Source of truth: TR-10-1.

Conformance: A conforming Device shall implement IPMX system timing per TR-10-1 in both PTP-present and PTP-absent network environments. This includes:

- IPMX Senders shall synchronize their Internal Clock to the Common Reference Clock distributed via PTPv2 when one is present on the network, with the PTP profile parameters specified in TR-10-1 section 7.2. When no Common Reference Clock is present, Senders shall maintain a free-running Internal Clock per TR-10-1 section 7.1. This requirement applies to the Internal Clock only. The Media Clock follows the media's actual sampling or frame rate and may be asynchronous to the Internal Clock, per TR-10-1 section 8.4.
- Senders shall participate in PTP whenever a Common Reference Clock is present on the network. Senders, and any other Device that participates in PTP, shall implement the Best Master Clock Algorithm and shall default to follower-only mode (`defaultDS.slaveOnly = TRUE`), per TR-10-1 section 7.2. PTP participation is not

required for Receivers; where a Receiver does participate, the same BMCA and follower-only requirements apply.

Note: Receivers whose features depend on synchronized timing, for example, multi-Receiver playout alignment via the Link Offset Delay mechanism in TR-10-8 section 8, typically need to participate in PTP to provide that functionality. This is informative; PTP support on Receivers is not part of certification.

Sender traffic shaping and Virtual Receiver Buffer Model behavior per TR-10-1 section 8.1.

SDP signaling, NMOS resource representations, and RTCP Sender Reports per TR-10-1 shall describe the same stream parameters. The RTCP Info Block extension carries values consistent with their SDP equivalents and a block version counter that increments when stream parameters change. When parameters change, the Device shall update all three surfaces — RTCP on the next eligible Sender Report per TR-10-1's schedule, the NMOS resource (incrementing the resource version), and the SDP — such that none becomes permanently inconsistent with the others.

Tested in: TR-10 TP-1 section 12 (Media Network Specific Tests — basic PTP configuration, multicast addressing) and section 13.5 (TR-10-1 Sender compliance test).

4.1.2 NMOS Discovery, Registration, and Connection Management

Scope: Sender, Receiver

Source of truth: TR-10-8 section 7.a–section 7.r.

Conformance: A conforming Device shall implement the AMWA NMOS suite per TR-10-8, including:

Discovery. Both unicast and multicast DNS-SD shall be enabled by default, with unicast-first browse precedence and the registry-failover behavior defined in TR-10-8 section 7.b–section 7.e. When no Registration API is discovered, the Device shall advertise its resources via the NMOS Peer-to-Peer mechanism per section 7.g. The underlying DNS-SD browsing mechanism (mDNS and unicast DNS support) is covered in section 4.1.7 of this document.

Registration. When a Registration API is discovered, the Device shall register all advertised resources via IS-04 v1.3 or later (per section 7.a / section 7.f) and shall maintain its registration via periodic health check-ins per section 7.h.

Identity. The Device shall expose unique, immutable, and consistent UUIDs that persist across reboots, power cycles, and software upgrades, per section 7.i.

Grouping and tagging. The Device shall publish descriptive tags for the Node and any contained Devices per BCP-002-02, and shall indicate natural grouping for its Senders and Receivers per BCP-002-01, as required by section 7.j and section 7.k.

Connection management. The Device shall expose an IS-05 v1.1 (or later) Connection API per section 7.m. Senders shall support configuration of `transport_params` and `master_enable` via IS-05 and shall expose their SDP via the IS-05 `/transportfile` endpoint per section 7.o / section 7.p. Receivers shall support modification of `transport_params`, `transport_file`, and `master_enable` per section 7.n. Connection management for RTP media flows shall use the RTP `transport_params` schema with IPv4 multicast addressing per section 7.r. Where a Capability defines a non-RTP transport (for example, HKEP or USB extension), connection management shall follow the transport schema defined by that Capability. The Device shall use the IS-05 constraints mechanism to signal any ports that cannot carry media streams per section 7.q.

Tested in: TR-10 TP-1 section 15 (NMOS Node Discovery Tests — mDNS, unicast DNS-SD, dual-mode operation, failover, peer-to-peer), section 16 (Node API & Registration Behavior — schema, basic behavior, basic registration, UUID consistency), and section 17 (IS-05 Connection API — schema, behavior, IS-04 integration). NMOS Testing Tool suites: **IS-04-01**, **IS-05-01**, **IS-05-02**.

4.1.3 NMOS Receiver Capabilities

Scope: Receiver

Source of truth: TR-10-8 section 7.s; AMWA BCP-004-01.

Conformance: A conforming Receiver shall implement BCP-004-01 and shall expose its `caps` resource (including any declared `constraint_sets`) through the IS-04 Node API. The capabilities the Receiver advertises shall represent, on a best-effort basis, the streams it is able

to consume. Receivers shall not publish empty or structurally invalid **caps**, and shall not advertise capabilities that are entirely unsupported. Over-broad declarations arising from parametric capability description (for example, a width/height range that implies combinations the Receiver cannot handle) do not constitute non-conformance.

The Receiver's **caps** form the basis for capability matching by Senders, controllers, and the IS-11 Stream Compatibility Management API. Consistency between the advertised capabilities, the streams the Receiver actually accepts, and the Receiver's IS-11 compliance status is required.

Note: Certification testing verifies that **caps** are present and structurally valid (per BCP-004-01) and that the Receiver supports Receiver Capabilities (per IS-11). It does not exhaustively exercise every advertised parameter or constraint set; vendors are responsible for ensuring their advertised capabilities reflect actual Receiver behavior.

Tested in: TR-10 TP-1 section 20.1 (Receiver Capabilities). NMOS Testing Tool suite: **BCP-004-01 Receiver Capabilities** (test_01: Node API v1.3+ available; test_02: Check Receiver Capabilities). Additional verification via IS-11 test_04_02_02 (Receiver supports Receiver Capabilities).

4.1.4 NMOS Sender Capabilities

Scope: Sender

Source of truth: TR-10-8 section 7.u; AMWA BCP-004-02.

Conformance: A conforming Sender shall implement BCP-004-02 and shall expose its **caps** resource (including any declared **constraint_sets**) through the IS-04 Node API. The capabilities the Sender advertises shall represent, on a best-effort basis, the streams it is able to produce. Senders shall not publish empty or structurally invalid caps, and shall not advertise capabilities that are entirely unsupported. Over-broad declarations arising from parametric capability description (for example, a width/height range that implies combinations the Sender cannot produce) do not constitute non-conformance. A Sender that produces a stream outside its advertised capabilities is non-conformant. A Sender may publish partial capabilities where

one or more stream parameters depend on detected signal characteristics or other variable external conditions, per BCP-004-02.

The Sender's **caps** form the basis for capability matching by Receivers, controllers, and the IS-11 Stream Compatibility Management API. Consistency between the advertised capabilities, the streams the Sender actually produces, and the Sender's IS-11 compliance status is required.

A Sender whose output is derived from a baseband Input that supports EDID shall implement the IS-11 Base EDID feature: it shall expose the **base** and **effective** EDID resources for that Input and shall accept EDID data written to the **base** resource. The Sender is not required to produce a stream that conforms to the Base EDID; what the Sender produces is governed by the active constraints, per section 4.1.6.

Note: Certification testing verifies that **caps** is present and structurally valid (per BCP-004-02). It does not exhaustively exercise every advertised parameter or constraint set; vendors are responsible for ensuring their advertised capabilities reflect actual Sender behavior.

Tested in: TR-10 TP-1 section 20.2 (Sender Capabilities). NMOS Testing Tool suite: **BCP-004-02 Sender Capabilities** (test_01: Node API v1.3+ available; test_02: Check Sender Capabilities).

4.1.5 EDID → Receiver Capabilities Mapping

Scope: Receiver

Source of truth: TR-10-8 section 7.t; AMWA BCP-005-01.

Conformance: A Receiver with a baseband Output that supports EDID shall indicate EDID support on the corresponding IS-11 Output resource and shall expose the EDID retrieved from the connected sink through the IS-11 Stream Compatibility Management API. Connection, disconnection, and changes to the connected sink's EDID shall be reflected in the exposed EDID and in the associated IS-11 Output properties. Such a Receiver shall follow BCP-005-01 when converting EDID data into Receiver Capabilities, and shall expose capabilities derived from EDID or internal processing capabilities through the IS-04 Node API per BCP-004-01.

Note: IPMX certification requires that EDID be exposed and, on inputs, writable; it does not require that a Device's stream behavior be derivable from EDID. IS-11 defines the Effective EDID presented upstream as a combination of the Base EDID, the Device's internal capabilities, and any Active Constraints, so a Device may legitimately present an Effective EDID offering more or less than the Base EDID it was given. A Device that scales, frame-rate converts, or otherwise processes baseband signals may accept formats its EDID would exclude, and may be unable to accept formats it would permit. Certification testing under TR-10 TP-1 section 20.3 verifies EDID retrieval and exposure and that EDID changes are reflected in IS-11 status; it does not drive a known EDID and verify the resulting capabilities content.

Tested in: TR-10 TP-1 section 20.3 (IS-11 Stream Compatibility — Output EDID handling, tests test_03_00 and test_03_01).

4.1.6 NMOS Stream Compatibility Management (IS-11)

Scope: Sender, Receiver

Source of truth: TR-10-8 section 7.v; AMWA IS-11.

Conformance: A conforming Device shall implement the IS-11 Stream Compatibility Management API and shall accurately represent its compliance using the mechanisms defined in IS-11. A Device may reconfigure to satisfy an active constraint set but is not required to do so.

When the stream a Device produces or consumes does not satisfy the active constraint set, for any reason, the Device shall report this through the IS-11-defined mechanisms:

- At the constraint-setting boundary, by returning the standard NMOS error response (with `code`, `error`, and `debug` properties as defined in the IS-11 Stream Compatibility Management API) when proposed constraints fail schema validation or reference unsupported Parameter Constraint URNs.
- At runtime on a Sender, by reporting `active_constraints_violation` on the Sender's status resource, with the `debug` property populated to aid diagnosis. Per IS-11,

a Sender in this state shall become inactive and shall not allow activation while it remains in that state.

- At runtime on a Receiver, by reporting `non_compliant_stream` on the Receiver's status resource, as appropriate, with the `debug` property populated to aid diagnosis. Per IS-11, a Receiver in `non_compliant_stream` should become inactive and should not allow activation while it remains in that state.

A Device that accepts a constraint set without raising the appropriate IS-11 error, or that reports a compliant state while producing or consuming a stream that violates the active constraints, is non-conformant

EDID handling, for Senders with baseband Inputs and Receivers with baseband Outputs, is covered in section 4.1.5..

4.1.7 System Environment and Device Behavior

Scope: Sender, Receiver

Source of truth: TR-10-9.

Conformance: A conforming Device shall implement IPMX system environment and device behavior per TR-10-9, including:

- **Network configuration.** The Device shall support DHCP on all network interfaces, shall make DHCP the default configuration method, and shall provide a manual configuration mechanism for use when no DHCP server is available, per TR-10-9 section14.
- **DNS-SD browsing.** The Device shall support both mDNS and unicast DNS for DNS-SD, with both enabled by default and a user mechanism to limit browsing to either method, per TR-10-9 section 15.
- **Quality of Service.** The Device shall implement DiffServ DSCP marking with the default values specified in TR-10-9 section16 (EF for PTP, AF42 for uncompressed and CBR-compressed video, AF41 for PCM and AES3 audio, and so on) so that network equipment can prioritize traffic appropriately. RTCP Sender Report packets shall carry the same DSCP value as their associated RTP stream.
- **Default multicast addressing.** Senders shall assign default IPv4 multicast addresses for media streams using the algorithm in TR-10-9 section 17.1, and shall provide a user

mechanism to override the default. User-supplied multicast addresses shall persist across restarts.

- **Control plane separation.** Devices that support both In-Band and Out-Of-Band NMOS operation shall default to Out-Of-Band when the control port is active, with a user-selectable option for In-Band, per TR-10-9 section 18. Devices that support both modes for HDCP/HKEP control shall default to In-Band, per TR-10-9 section 19.
- **Stream behavior.** Senders shall meet the Frame-to-Frame Interval timing requirement (the difference between maximum and minimum interval over a 2-second window shall not exceed 2 ms) per TR-10-9 section 11.2. Receivers shall use the `ts-refclk` and `mediacclk` SDP attributes to determine how to synchronize to a Sender per TR-10-9 section 11. For Senders whose output is not derived from a baseband signal, the substitute signaling values defined in TR-10-9 section 10 shall be used in place of measured baseband-derived values.

Tested in: TR-10 TP-1 section 11 (General Network Interface Tests, exercising manual and DHCP configuration of management and media interfaces), section 12 (Media Network Specific Tests, exercising PTP behavior and multicast addressing), section 13 (Sender stream tests, with DSCP values verified per TR-10-9 section 16), and section 15 (NMOS Node Discovery Tests, exercising DNS-SD browsing).

Test Plan Coverage Map

The following table identifies, for each baseline requirement, the corresponding sections of TR-10 TP-1 and the NMOS Testing Tool suites used in certification testing. Rows without an NMOS Testing Tool suite are verified directly via TP-1 procedures (packet capture, configuration testing).

section	Baseline Requirement	TR-10 TP-1 Section	NMOS Testing Tool Suite
4.1.1	System Timing and Definitions	section 12, section 13.5	—

section	Baseline Requirement	TR-10 TP-1 Section	NMOS Testing Tool Suite
4.1.2	NMOS Discovery, Registration, and Connection Management	section 15, section 16, section 17	IS-04-01, IS-05-01, IS-05-02
4.1.3	NMOS Receiver Capabilities	section 20.1	BCP-004-01 Receiver Capabilities
4.1.4	NMOS Sender Capabilities	section 20.2	BCP-004-02 Sender Capabilities
4.1.5	EDID → Receiver Capabilities Mapping	section 20.3 (tests test_03_00, test_03_01)	IS-11-01 (subset)
4.1.6	NMOS Stream Compatibility Management (IS-11)	section 20.3	IS-11-01
4.1.7	System Environment and Device Behavior	section 11, section 12, section 13, section 15	—

4.2 Profiles & Profile Modes

AIMS Profile Documents are the normative entry point for implementers. They incorporate and reference the relevant TR-10 and AMWA specifications. Certification is based on the AIMS documents listed below.

Name	Links
Uncompressed Video Profile Requirements (S/R)	IPMX Uncompressed Active Video Profile Requirements
PCM Digital Audio (S/R)	IPMX PCM Digital Audio Profile Requirements
JPEG XS video (S/R)	IPMX JPEG-XS Video Profile Requirements

4.3 Capabilities

AIMS will publish formal IPMX Capability Requirements documents for each defined Capability, similar to the AIMS Profile documents used for Profiles and Profile Modes. These Capability documents will serve as the normative entry point for implementers and will incorporate the relevant TR-10 and AMWA specifications.

As these documents are not yet available, the Capabilities listed in this section temporarily reference the underlying TR-10 specifications directly. Once the AIMS Capability Requirements documents are published, these references will be replaced with links to the AIMS documents, and the TR-10/AMWA references will be retained only within those documents.

Name	References
HDCP content protection / HKEP (S/R)	TR-10-5
HDMI Infoframe Packet Transport	TR-10-10
Privacy Encryption Protocol / PEP (S/R)	TR-10-13
USB Extension (S/R)	TR-10-14
HDR metadata transport (S)	TR-10-16

5. Qualification & Certification Program

This section defines how products are assessed, and the process for obtaining and maintaining IPMX certification.

5.1 Certification Tiers

IPMX Certified

An IPMX Certified product is one that has passed formal testing at an official IPMX Test Event (or authorized lab), demonstrating conformance to all Baseline Requirements and at least one Profile, plus any declared Capabilities. Only Certified products are permitted to use the IPMX name and logo in marketing or product labeling. Certified products [are listed in the official registry](#), with the Profiles and Capabilities for which they passed testing.

Non-Certified Products

Products that implement IPMX technologies but have not completed certification may not use the IPMX name or logo in marketing or product descriptions. Vendors may state conformance to the underlying technical specifications (e.g., “*conforms to VSF TR-10*”), but such products are not recognized within the IPMX program or listed in the registry.

Note: Open-source or non-commercial reference implementations may be considered for special recognition through AIMS, subject to registration and potential review. These projects may not use the IPMX logo but may be referenced as “implementations of the IPMX specifications (VSF TR-10).”

5.2 Eligibility

Production-readiness

Certification applies to products that are shipping or substantially complete, with production-representative hardware and software. This ensures that results reflect real-world performance and integration quality. Engineering samples may be tested, but only if the

manufacturer declares that the tested hardware/software is functionally identical to the intended shipping product.

Scope of certification

Certification applies to the complete, declared product as represented for testing — not to individual ports, channels, or isolated features.

Testing is performed on a representative configuration that exercises all Profiles and Capabilities the vendor wishes to have certified. For products with multiple configurations, software-defined options, or license-controlled features, the most capable configuration (superset of all declared certified functionality) must be tested.

Variants, configurations, or license levels that are strict subsets of the tested configuration inherit the certification, provided they do not introduce any new hardware, firmware, or capabilities that were not exercised during testing.

Component, module, and IP-core testing may be performed for development purposes but does not result in Compliant or Certified status for the component itself.

Certification testing verifies functionality, not total channel capacity. Each declared Profile, Profile Mode, and Capability is tested for conformance using at least one input and one output path. The test plan does not require simultaneous operation of all channels, or exhaustive testing of every I/O combination. Multichannel capacity claims remain the responsibility of the manufacturer.

Products must declare the software and/or firmware versions tested. This version manifest will be published in the official certification record, [published in the IPMX Product Registry](#).

Component-Level Testing and Marketing

While IPMX implementation components — such as IP cores, SoCs, or SDKs — are not eligible for IPMX Certification on their own, they may undergo testing at certification events or internal validation sessions.

The purpose of such testing is to

- Help vendors validate that their IPMX implementation conforms to specification.

- Increase the likelihood of successful certification for downstream products.
- Support integration efforts by OEMs and solution developers.

Vendors may reference these testing results in sales materials, technical documentation, and marketing content, provided the following conditions are met:

1. It is made explicitly clear that the component itself is **not** IPMX Certified.
2. Any language referring to successful testing must avoid suggesting that products built using the component are automatically certified.
3. References to IPMX should remain descriptive and factual, and must comply with the [IPMX Branding & Trademark Usage Guidelines](#).

 Example of acceptable language:

“The XYZ123 SoC has passed internal IPMX test suite coverage for JPEG XS and NMOS IS-04/05/11, making it ideal for use in IPMX Certified products.”

 Example of unacceptable language:

“The XYZ123 SoC is IPMX Certified.”

Only finished products that undergo full certification testing and meet all criteria defined in this document are eligible to be labeled IPMX Certified.

5.3 Product Families and Variants

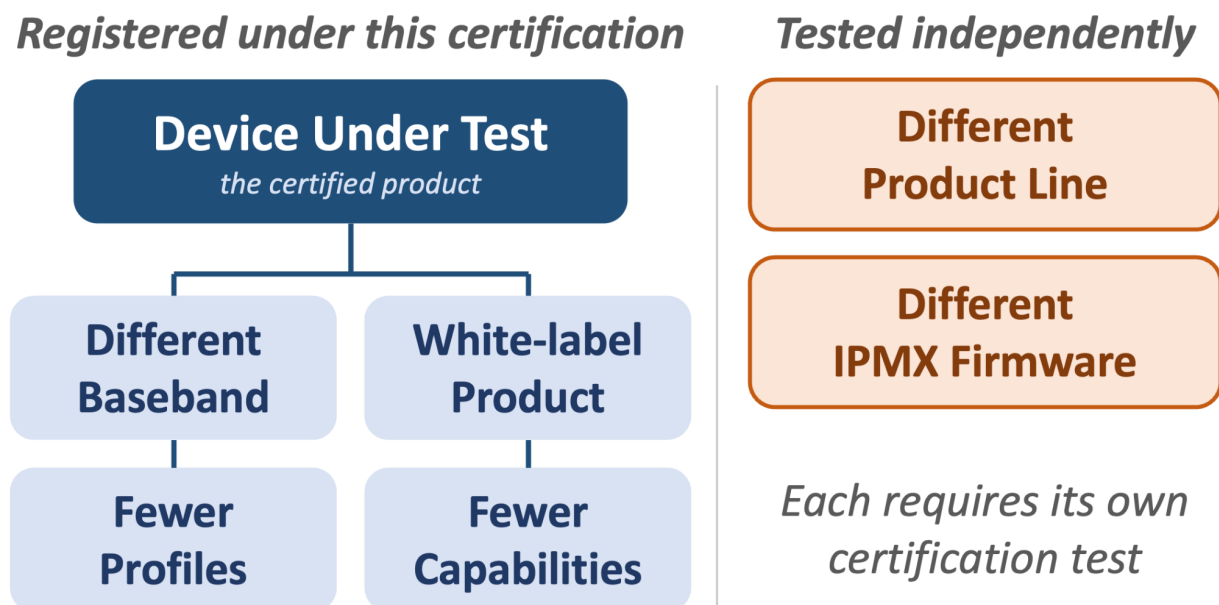


Figure 3. Multiple product SKUs may fall under one test.

1. The most capable SKU (maximum declared Profiles and Capabilities) must be tested.
Example: If a device supports uncompressed video, JPEG XS, HDR metadata, and HDCP, certification is based on testing one or more flows that exercise all of those Capabilities. Variants or license levels that offer only a subset (e.g., JPEG XS without HDR, or uncompressed without HDCP) inherit the certification without additional testing, since no new Profiles or Capabilities are introduced.
2. Variants that differ only in network interface type (e.g., 1 GbE vs 10 GbE, copper vs fiber) or baseband I/O format (e.g., HDMI vs SDI) do not require separate certification, provided their Profiles, Capabilities, and firmware/software behavior are otherwise identical.
3. If a variant adds Profiles or Capabilities not in the certified SKU, a delta test is required for the new items.
Example: If a product family's certified SKU supports uncompressed video and JPEG

XS, but a new variant adds USB transport as an additional Capability, that variant must undergo a delta test covering USB functionality.

Note: The new variant may claim IPMX compliance for all previously certified functionality, but the added Profile or Capability may not be included in that claim until it has passed the corresponding delta test.

Acceptable differences between certified and variant models include:

- Changes in physical I/O count or connector type, provided they do not alter certified Profiles or Capabilities.
- Cosmetic or enclosure differences (form factor, branding, finish).

Any variant introducing new Capabilities, Profiles, interfaces, media behaviors, or firmware changes that affect declared functionality must be separately tested and certified.

All variants covered under a single certification are grouped by a common IPMX Certified ID (ICID), assigned at the time of testing. The ICID identifies the representative product and all variants certified under the same test application. See Section 5.10 for registry details.

5.4 OEM/ODM and Private Labeling

1. Certification may be extended to OEM/ODM variants if hardware and software are identical and declared Profiles/Capabilities match, with each brand/SKU listed separately in the registry.
2. Vendors must provide a declaration matrix mapping SKUs to the certified product.

Note: Each certified product family is tracked under a single IPMX Certification ID (ICID) for internal verification. The declaration matrix associates all OEM/ODM SKUs with the corresponding ICID but is not made public.

3. **Modified versions** of a certified OEM/ODM design must be disclosed to the Certification Authority.

4. **Retesting is required** if the modification changes any aspect of the hardware or firmware/software that could affect compliance with Baseline Requirements, declared Profiles, or declared Capabilities.
5. **Delta testing** may be permitted when the change only affects a subset of Profiles/Capabilities.
6. Cosmetic or branding-only changes that do not affect compliance do not require retesting.

5.5 Testing Process

1. Testing follows the IPMX Test Plan ([TR-10 TP-1:2025](#)), using VSF-hosted Tested Events or authorized third-party certification authorities.
2. Vendors may not use the Certified logo or imply certification until results are confirmed. The public registry includes products only after certification is granted.
3. All test results, including failures in optional areas, are reported privately to the vendor. Only passing Profiles and Capabilities are listed in the public registry.
4. Vendors (or their designated representatives) must attend the Tested Event in order for a product to complete certification. Remote submission of equipment without on-site participation is not supported at this time.

Note: Certification testing is currently conducted at official IPMX Tested Events administered by the European Broadcasting Union (EBU), acting as the independent Certification Authority. Additional accredited laboratories may be added in future revisions.

5.6 Pass/Fail Criteria

1. Passing certification requires meeting all Baseline Requirements and at least one Profile.
2. Optional Profiles and Capabilities are tested if declared. Failure in an optional area does not affect certification, but the failed capability, profile, or profile mode will not be listed in the registry.

3. All claimed Profiles must be fully implemented, stable at the time of testing, and exercised on at least one applicable Send (S) and/or Receive (R) path. When a device supports both S and R for a given Profile, testing will be performed in both directions. Where multiple S or R paths differ in capability, the most capable applicable path is used for testing.

Optional Capabilities are tested in the same way: on at least one applicable S and/or R path, with both directions tested when supported, and using the most capable applicable path where capabilities differ.

5.7 Retesting and Appeals

Retesting is required when:

1. The manufacturer wishes to add newly implemented Profiles or Capabilities to a Certified product.
2. The manufacturer wishes to claim compliance with a revised version of the relevant TR-10 specifications or Test Plan.
3. The Certification Authority has credible evidence of non-conformance in the field and determines that re-testing is necessary to verify continued compliance.

Spec versioning

Certification is granted for the specific versions of TR-10 specifications and the Test Plan in effect at the time of testing. Products retain their certification for that version indefinitely, unless a loss of conformance is proven. To claim compliance with newer versions, the product must pass re-testing against the updated requirements.

Appeals

Vendors who wish to dispute a test result may submit an appeal to AIMS along with any supporting evidence they believe is relevant. AIMS will review the appeal and determine the appropriate course of action, which may include clarification, further evaluation, or retesting at the vendor's expense.

The process and timeline for handling appeals are determined solely by AIMS. All decisions made by AIMS regarding appeals are final.

In-Event Retesting

Retesting during the same event is at the discretion of the event organizer and is not guaranteed.

5.8 Non-Compliance Policy

Certified products must continue to conform to the tested functionality. If material failures are discovered — whether through user reports, retesting, or interoperability events — the product's certification may be suspended or revoked.

A vendor will be notified of any issues and given a defined window (typically 90 days) to resolve or clarify the problem. The vendor may be required to submit the product for retesting to confirm the issue has been resolved. **All corrective actions and any required retesting are performed at the vendor's expense.**

If the issue is not addressed within the resolution period, AIMS reserves the right to remove the product's certification listing and require a full re-certification before reinstatement.

5.9 Brand Use and Claims

1. **Certified products** may display the IPMX Certified logo and logo lockups, in accordance with the [IPMX Branding & Trademark Usage Guidelines](#).
2. **Non-certified** products may not display any IPMX logos or word-marks. Vendors of such products may reference the underlying technical specifications (e.g., conforms to VSF TR-10), but must not imply IPMX certification or use the IPMX name or logo in product branding or marketing.
3. All claims of certification must be truthful, must reflect the current registry status, and must be made in a way that does not imply that untested Profiles or Capabilities are certified.
4. All logo or word-mark use must conform to the IPMX Branding & Trademark Guidelines.

5. **Word-mark use:** Use of the term “IPMX” in product names, descriptions, or marketing is governed by the IPMX Branding & Trademark Guidelines. Misuse of the word-mark may result in suspension or revocation of certification.
6. **Misuse:** The Certification Authority may revoke logo or word-mark usage rights if branding rules are violated or if the product is found to be non-compliant with the requirements for its claimed status.

5.10 Registry Content

The official IPMX Certification Registry will contain a Core Listing for each Certified product, including at minimum:

1. IPMX Certification ID (ICID): a unique identifier assigned to each certification application and its associated product family, as defined in Section 5.3.
2. Product name and vendor
3. Tested firmware/software version
4. Certified Profiles
5. Certified Profile Modes
6. Certified Capabilities

Note: The IPMX Certification Registry has not yet been published. A link to this registry will be added to this document once it is available.

This Core Listing forms the authoritative public record of certification and is required for all Certified products. It is intentionally concise to make it easy for customers, integrators, and partners to confirm certification status at a glance.

In addition, vendors may provide optional Extended Information for publication on a product-specific IPMX Device Declaration within the IPMX Certified Product Registry. This includes, but is not limited to:

- Supported color modes and bit depths
- Supported resolutions and frame rates
- Supported audio formats, sample rates, and bit depths

- Supported network interface speeds and media types
- Supported control and management protocols
- Additional capabilities or features relevant to IPMX specifications

The Extended Information serves as a technical and marketing reference for system designers, engineers, and other decision-makers who require deeper insight into a product's capabilities. While optional, it is strongly encouraged, as it increases transparency, aids interoperability planning, and reduces pre-sales technical friction.

The information used for both the Core Listing and the IPMX Device Declaration is collected as part of the IPMX Certification Application process. Vendors enter these details when submitting the application for testing, including all Profiles, Capabilities, and additional product data intended for publication. The ICID assigned at submission links this data set to the certified product family.

The Core Listing is maintained by AIMS.

The IPMX Device Declaration is vendor-supplied and must be accurate at the time of publication. Any changes to either set of data must be reported to AIMS to ensure the registry remains accurate.

6. Appendices (Informative)

All items within the Appendices are informative.

Appendix A: Definitions & Acronyms

Baseline Requirements

Mandatory requirements that all IPMX products must meet to be considered Compliant or Certified. These ensure core interoperability, basic functionality, and correct network behavior.

Capability

An optional feature or behavior that extends beyond Baseline Requirements and Profiles. If implemented, it is subject to testing and may be listed in the product's certification record. Examples: HDCP content protection, HDR metadata transport.

Certification Authority

The body designated by AIMS (or its successor) to administer the IPMX qualification and certification program, conduct tests, and enforce rules.

Certified (IPMX Certified)

A product that has met all Baseline Requirements, at least one Profile, and any declared Capabilities through formal testing at an IPMX Tested Event or authorized lab, and is listed in the official IPMX registry.

Core Listing

The required, concise set of information that appears in the public IPMX Certification Registry for each Certified product.

Includes: product name, vendor, tested firmware/software version, certified Profiles, and certified Capabilities.

Maintained and published by AIMS.

IPMX Device Declaration

Optional, vendor-supplied technical and feature data associated with a Certified product, published on a product-specific IPMX Device Declaration page.

May include supported formats, resolutions, audio specifications, network interfaces, control protocols, and other relevant capabilities.

Intended to assist integrators, engineers, and buyers in interoperability planning and purchasing decisions.

Delta Test

A targeted re-test covering only the Profiles or Capabilities added or modified since the product's last certification.

NMOS

Networked Media Open Specifications – a family of AMWA specifications for discovery, connection management, capability description, authorization, and related functions.

OEM/ODM

Original Equipment Manufacturer / Original Design Manufacturer – in this context, a company producing hardware or software that is rebranded and sold by another company.

Profile

A collection of requirements defining a specific media format and transport capability (e.g., Uncompressed Video, PCM Audio, JPEG XS).

Profile Mode

A specific combination of parameters (special codec features, latency related settings, color space, or bit depth) within a Profile. Certification testing must cover all declared Profile Modes, and each tested mode is listed in the official certification registry entry for the product.

TR-10 TP-1:2025

IPMX Test Plan. Defines the official procedures for testing IPMX products for compliance and certification.

TR-10

Technical Recommendations developed by VSF to define IPMX behavior, profiles, capabilities, and related interoperability requirements.

Variant

A model or SKU within a certified product family that has a subset of the tested product's Profiles/Capabilities.

Appendix B – Future Program Elements

The following program features are under consideration for future phases of the IPMX Certification Program. These are **not** currently available, and this section is provided solely to help members plan and align development roadmaps.

1. **Out-of-Cycle Retesting**

A structured process for retesting previously submitted products between scheduled events, conducted by approved facilitators, potentially including remote testing.

2. **Additional Device Classes**

Exploration of certification programs for products currently outside scope (e.g., network switches, control software) once baseline requirements are defined.

This appendix is non-binding and subject to change as the IPMX program evolves.

Appendix C: Change Log

Version	Date	Summary of Changes
1.1	2026-05-15	Restructured section 4.1 Baseline Requirements from a single table into seven prose subsections (System Timing, NMOS Discovery/Registration/Connection Management, NMOS Receiver Capabilities, NMOS Sender Capabilities, EDID → Receiver Capabilities Mapping, NMOS Stream Compatibility/IS-11, System Environment and Device Behavior), each with explicit conformance language and TR-10 TP-1 test pointers. Added a consolidated Test Plan Coverage Map at the end of section 4.1. Updated section 2 Normative References to reflect TR-10-8:2026 incorporating IS-11, BCP-004-01, BCP-004-02, and BCP-005-01 as baseline requirements (section 7.s–section 7.v); reclassified those rows from "Temporary Reference" to "Baseline Requirements"; removed the "(WIP)" marker on BCP-004-02; added TR-10-15 Part 1 (IPMX JPEG-XS Codec Requirements). Replaced TX/RX with Sender/Receiver throughout. Fixed "Seder" typo.
1.0	2025-12-01	Public Release, added title page branding, page number, header, footer and CC BY-ND 4.0 license.
0.6	2025-12-01	Updated links to URLs. All AIMS documents use current or vX.Y . See: AIMS Document Versioning & Link Policy

Version	Date	Summary of Changes
		When a version is linked, we assume 1.0. If not true, this will need to be updated again.
0.5	2025-12-01	Changed references from TP-10-1 to TR-10 TP-1:2025
0.4	2025-09-01	Consolidated certification program rules and technical requirements into a single authoritative document; aligned with TR-10,TP-10-1, and AMWA NMOS specifications as listed above.
0.3		Introduced tier definitions (Compliant vs Certified), clarified product family/variant rules, OEM/ODM policy, and “Pending” certification for vendors with prior track records.
0.2		Added normative definitions for Baseline Requirements, Profiles, Profile Modes, and Capabilities; clarified use of TR-10-first referencing with NMOS direct citations where TR-10 is silent.
0.1		Updated retesting policy to align with industry practice (versioned spec model). Added Branding & Trademark summary section and expanded Appendices.