

INTERNATIONAL STANDARD

**Common control interface for networked digital audio and video products –
Part 3: Video**



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INTERNATIONAL STANDARD

**Common control interface for networked digital audio and video products –
Part 3: Video**

INTERNATIONAL
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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms, definitions and abbreviations	7
3.1 Terms and definitions	7
3.2 Abbreviations	7
4 Video format definitions	7
4.1 Video signal format definitions.....	7
4.1.1 General	7
4.1.2 Video parameters.....	7
4.1.3 Video signal formats	9
4.2 Video transport format definitions	10
4.2.1 General	10
4.2.2 Video transport root location.....	10
4.3 Video metadata format definitions.....	10
4.3.1 General	10
4.3.2 Video metadata root location	10
5 MIB definitions for video blocks.....	11
5.1 General.....	11
5.2 Type definitions.....	11
5.2.1 General	11
5.2.2 Textual conventions	11
5.2.3 Sequences.....	11
5.3 Video port and associated managed object type definitions	12
5.3.1 Generic port functionality	12
5.3.2 Video locked to reference.....	13
5.4 Other video block and associated managed object type definitions	14
5.4.1 Video mixer blocks.....	14
5.4.2 Video crosspoint blocks.....	16
5.4.3 Video converter blocks.....	18
5.4.4 Video level alarm blocks.....	19
Annex A (informative) Machine-readable video format definitions.....	22
Annex B (informative) Machine-readable video block definitions.....	48
Annex C (informative) Tree of example video formats	61
Annex D (informative) Worked examples	64
Bibliography	65
Figure 1 – Video port blocks.....	12
Figure 2 – Video mixer block	14
Figure 3 – Video crosspoint block.....	16
Figure 4 – Video converter block	18
Figure 5 – Video level alarm block.....	19

Table 1 – Managed objects for video ports	13
Table 2 – Managed objects for video locked	13
Table 3 – Managed objects for video mixer blocks	14
Table 4 – Managed objects for video crosspoint blocks.....	17
Table 5 – Managed objects for video converter blocks	18
Table 6 – Managed objects for video level alarm blocks.....	20

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International Standard IEC 62379-3 has been prepared by technical area 4: Digital system interfaces and protocols of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/2465/FDIS	100/2495/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62379 series, published under the general title *Common control interface for networked digital audio and video products*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

The IEC 62379 series specifies the common control interface, a protocol for managing equipment which conveys audio and/or video across digital networks.

The following parts exist or are planned:

- 1) General
- 2) Audio
- 3) Video
- 4) Data
- 5) Transmission over networks
- 6) Packet transfer service
- 7) Measurement for EBU ECN-IPM

IEC 62379-1:2007, specifies aspects which are common to all equipment, and it includes an introduction to the common control interface.

IEC 62379-2:2008, IEC 62379-3 (this standard) and IEC 62379-4 (under consideration) specify control of internal functions specific to equipment carrying particular types of live media. IEC 62379-4 refers to time-critical data such as commands to automation equipment, but not to packet data such as the control messages themselves.

IEC 62379-5 specifies control of transmission of these media over each individual network technology. It includes network specific management interfaces along with network specific control elements that integrate into the control framework.

IEC 62379-5-1 specifies management of aspects which are common to all network technologies.

IEC 62379-5-2 specifies protocols which can be used between networking equipment to enable the setting up of calls which are routed across different networking technologies.

IEC 62379-5-3, onwards, specify management of aspects which are particular to individual networking technologies.

IEC 62379-6, specifies carriage of control and status messages and non-audiovisual data over transports that do not support audio and video, such as RS232 serial links, with (as for IEC 62379-5) a separate subpart for each technology.

IEC 62379-7 specifies aspects that are specific to the measurement of the service experienced by audio and video streams and in particular to the requirements of EBU ECN-IPM Measurements Group.

COMMON CONTROL INTERFACE FOR NETWORKED DIGITAL AUDIO AND VIDEO PRODUCTS –

Part 3: Video

1 Scope

This part of IEC 62379 details aspects of the common control interface specified in IEC 62379-1 that are specific to video.

2 Normative references

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

IEC 62379-1:2007, *Common control interface for networked audio and video products – Part 1: General*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62379-1 apply.

3.2 Abbreviations

EBU ECN-IPM	European Broadcasting Union Expert Community Network and Infrastructure Internet Protocol Measurement
HD	High Definition
OID	Object Identifier
PSF	Progressive Segmented Frame
SD	Standard Definition
UHD	Ultra High Definition

4 Video format definitions

4.1 Video signal format definitions

4.1.1 General

At any point in the video signal chain, the video data will be in a particular format. For management purposes, the format shall be identified by an object identifier, either a “Common control interface standard” object identifier as defined in this standard or an object identifier defined elsewhere.

NOTE Permitting video format identifiers to be defined outside this standard allows use of proprietary formats within the standard protocol and also allows industry standard formats to emerge that may eventually be incorporated into future revisions of this standard.

4.1.2 Video parameters

4.1.2.1 General

The definitions in 4.1.3 make reference to “parameters” which provide additional information about the format. These parameters shall be mapped to “sub-identifier” values as specified in the other subclauses of 4.1.2. Any parameter may be “unspecified”.

The “sub-identifier” values shall be appended to the object identifiers as additional arcs, in the order in which the parameters are listed in the relevant subclause of 4.1.3; except that if a

parameter is unspecified, and either is the last parameter or all subsequent parameters are also unspecified, then it shall be omitted.

For all parameters, "unspecified" is coded as zero, so this rule ensures that the OID does not end with a zero arc.

EXAMPLE If the last two parameters are vertical resolution and scan type, then 1080P would be coded as .1080.1, 1080P (with scan type unspecified) as .1080, and P (with vertical resolution unspecified) as .0.1.

4.1.2.2 Frame rate

The sub-identifier for frame rate shall be a value of the following type:

```
FrameRate ::= Unsigned32 (0.. 2147483647)
-- An integer representing the calculated frame rate ratio of the encoded
-- video signal.
-- A value of zero shall indicate unspecified.

-- This is computed by calculating the frame rate ratio,
-- such as 24000/1001 = 23.976Hz and multiplying by 1000
-- to convert the value to an integer; in this case 23976.

-- For display purposes the value needs to be divided by
-- 1000 and a decimal point inserted as shown in the
-- Display-Hint.
```

4.1.2.3 Source type

The sub-identifier for the source type of the video shall be a value of the following type:

```
SourceType ::= INTEGER {
    unspecified (0),
    sd          (1),
    hd          (2),
    uhd4k       (3),
    uhd8k       (4)
} (unspecified.. uhd8k)

-- An integer representing the source type of the encoded video signal.
-- A value of zero shall indicate unspecified.
```

4.1.2.4 Vertical resolution

The sub-identifier for the vertical resolution shall be a value of the following type:

```
LineResolution ::= INTEGER
-- An integer representing the vertical
-- resolution of the encoded video signal.
-- A value of zero shall indicate unspecified.
```

4.1.2.5 Scan type

The sub-identifier for the video scan type shall be a value of the following type:

```
ScanType ::= INTEGER {
    unspecified (0),
    progressive (1),
    interlaced  (2),
    psf         (3)
} (unspecified..psf)

-- An integer representing the scan type of the encoded video signal.
-- A value of zero shall indicate unspecified.
```

4.1.2.6 Coding type

The sub-identifier for the video coding type shall be a value of the following type:

```
CodingType ::= INTEGER {
```

```

    unspecified      (0),
    uncompressed     (1),
    mpeg2            (2),
    h264            (3),
    jpeg2000         (4),
    smptevc2         (5),
    vp8              (6),
    h264ScaleExtn    (7),
    h265HEVC         (8)
} (unspecified.. h265HEVC)

```

-- An integer representing the coding type of the encoded video signal.
 -- A value of zero shall indicate unspecified.

4.1.2.7 Source aspect ratio

The sub-identifier for the source aspect ratio shall be a value of the following type:

```

SourceAspectRatio ::= INTEGER {
    Unspecified      (0),
    fourByThree      (43),
    sixteenByNine    (169),
    twoPointTwoOne   (221)
} (unspecified..twoPointTwoOne)

```

-- An integer representing the source aspect ratio of the encoded
 -- video signal.
 -- A value of zero shall indicate unspecified.

4.1.2.8 Active format description codes

The sub-identifier for the active format description codes shall be a value of the following type:

```

ActiveFormatDescriptionCodes ::= INTEGER
-- An integer representing the active format description codes for
-- video used with the range of source aspect ratios.
-- The codes are from 0000-1111
-- See SMPTE ST 2016-1:2009 for code descriptions.

```

4.1.3 Video signal formats

4.1.3.1 Video signal format root location

Video signal formats shall be rooted at the following location in the MIB tree:

```

iec62379          OBJECT IDENTIFIER ::= { iso(1) standard(0) 62379 }
videoFormat       OBJECT IDENTIFIER ::= { iec62379 video(3) format(2) }
videoSignalFormat OBJECT IDENTIFIER ::= { videoFormat Signal(1) }

```

The following definitions shall be used to identify the specified formats.

NOTE Annex C contains an example of set of formats defined by this standard.

4.1.3.2 Unspecified video

```

unspecifiedVideo  OBJECT IDENTIFIER ::=
                                { videoSignalFormat unspecified(0) }
-- wildcard - any supported format allowed

```

4.1.3.3 No video

```

noVideo           OBJECT IDENTIFIER ::= { videoSignalFormat none(1) }
-- indicates the output is non-existent

```

4.1.3.4 Invalid video

```

invalidVideo      OBJECT IDENTIFIER ::= { videoSignalFormat invalid(2) }

```

-- indicates an error, such as inability to decode a signal earlier in
-- the chain

4.1.3.5 Video source

```
videoSource          OBJECT IDENTIFIER ::= { videoSignalFormat source(3) }
-- video source
```

The video source identifier shall have four parameters. The first shall be the frame rate, the second shall be the video source type, the third shall be the vertical resolution and the fourth shall be the scan type.

4.1.3.6 Video coding type

```
videoCodingType      OBJECT IDENTIFIER ::= { videoSignalFormat coding(4) }
-- video coding type
```

The video coding type identifier shall have one parameter. This shall be either the coding type or uncompressed, if not coded.

4.1.3.7 Aspect ratio

```
aspectRatio          OBJECT IDENTIFIER ::=
                                { videoSignalFormat aspectRatio (5) }
-- aspect ratio of the video
```

The video aspect ratio identifier shall have two parameters. The first shall be the source aspect ratio, the second shall be the active format description code for the source aspect ratio.

4.2 Video transport format definitions

4.2.1 General

For management purposes, the transport format shall be identified by an object identifier, either a “Common control interface standard” object identifier as defined in this standard or an object identifier defined elsewhere.

NOTE Permitting video transport format identifiers to be defined outside this standard allows use of proprietary formats within the standard protocol and also allows industry standard formats to emerge that may eventually be incorporated into future revisions of this standard.

4.2.2 Video transport root location

Video transport formats shall be rooted at the following location in the MIB tree:

```
videoTransportFormat OBJECT IDENTIFIER ::= { videoFormat transport(2) }
```

The following definitions shall be used to identify the specified transport formats.

```
unspecifiedTransport OBJECT IDENTIFIER ::=
                                { videoTransportFormat unspecified(0) }
```

```
analogue              OBJECT IDENTIFIER ::= { videoTransportFormat analogue(1) }
```

4.3 Video metadata format definitions

4.3.1 General

For management purposes, the metadata format shall be identified by an object identifier, either a “Common control interface standard” object identifier as defined in this standard or an object identifier defined elsewhere.

NOTE Permitting video metadata format identifiers to be defined outside this standard allows use of proprietary formats within the standard protocol and also allows industry standard formats to emerge that may eventually be incorporated into future revisions of this standard.

4.3.2 Video metadata root location

Video metadata formats shall be rooted at the following location in the MIB tree:

```
videoMetadataFormat  OBJECT IDENTIFIER ::= { videoFormat metadata(3) }
```

The following definitions shall be used to identify the specified metadata formats.

```
unspecifiedMetadata OBJECT IDENTIFIER ::=
    { videoMetadataFormat unspecified(0) }
```

5 MIB definitions for video blocks

5.1 General

This clause defines a set of managed object types for representing control functions in network controlled video equipment. The format of the definitions is as specified in IEC 62379-1.

For management purposes, a piece of video equipment shall be modelled as a number of discrete video blocks and video connectors, as specified in IEC 62379-1. Each video block may have zero or more inputs and zero or more outputs, and each input or output may carry one or more channels. Each video connector shall connect one video block output to one video block input with a one-to-one mapping of channels between the blocks.

NOTE 1 A piece of equipment may be fixed-function, in which case the number of video blocks present and the connections between them will be immutable, or it may be programmable, in which case the number of video blocks present and/or the connections between them may be changed by the user.

Each video block shall be modelled either by one of the standard video block types defined in this standard or by a video block type defined elsewhere. Associated with each defined block type shall be a (possibly empty) group of managed object types that represent the control functions for that block. A block type shall be identified by the node in the object identifier tree that is the root node for the group of managed object types associated with that block type.

NOTE 2 Permitting video block types to be defined outside this standard allows control of proprietary functions using the standard protocol and also allows industry standard block types to emerge that may eventually be incorporated into future revisions of this standard.

NOTE 3 An empty group of managed object types is permitted to allow for blocks that have no associated control functions.

NOTE 4 Annex D contains worked examples of the block structure.

5.2 Type definitions

5.2.1 General

In addition to the types defined in IEC 62379-1, the following types are used to specify the syntax of the abstract data structures representing managed object values.

5.2.2 Textual conventions

```
VideoTransportType ::= OBJECT IDENTIFIER
-- A reference to the transport used for a video connection.
-- The value may be defined in 4.2, or in a subpart of IEC 62379-5, or
-- elsewhere.
```

5.2.3 Sequences

```
VPortEntry ::= SEQUENCE {
    vPortBlockId      BlockId,
    vPortDirection    PortDirection,
    vPortFormat        MediaFormat,
    vPortTransport     VideoTransportType,
    vPortName          Utf8String
}

VLockedEntry ::= SEQUENCE {
    vLockedBlockId      BlockId,
    vLockedTime         CardinalNumber,
}

VMixerBlockEntry ::= SEQUENCE {
    vMixerBlockId       BlockId,
    vMixerFadeDuration  CardinalNumber,
}
```

```

    vMixerFadeNow      TruthValue
}

VMixerInputEntry ::= SEQUENCE {
    vMixerInputBlockId   BlockId,
    vMixerInputNumber    IndexNumber,
    vMixerInputLevel     VideoLevel,
    vMixerInputFadeToLevel VideoLevel,
    vMixerInputDelay     CardinalNumber
}

VCrosspointBlockEntry ::= SEQUENCE {
    vCrosspointBlockId   BlockId,
    vCrosspointConfigure TruthValue,
    vCrosspointCopy      BlockId
}

VCrosspointPathEntry ::= SEQUENCE {
    vCrosspointPathBlockId   BlockId,
    vCrosspointPathSrc       VideoChannel,
    vCrosspointPathDst       VideoChannel,
    vCrosspointPathGain      VideoLevel,
    vCrosspointPathNewGain   VideoLevel,
}

VConverterBlockEntry ::= SEQUENCE {
    vConverterBlockId       BlockId,
    vConverterQuality        VideoQuality,
    vConverterEnabled        TruthValue,
    vConverterOutputFormat   MediaFormat,
    vConverterError          TruthValue
}

VLevelAlarmBlockEntry ::= SEQUENCE {
    vlaBlockId             BlockId,
    vlaType                 VideoLevelAlarmType,
    vlaThreshold            VideoLevel,
    vlaWarningTime          CardinalNumber,
    vlaFailureTime          CardinalNumber,
    vlaCounter              CardinalNumber,
    vlaEnabled              TruthValue,
    vlaStatus               VideoAlarmStatus
}

```

5.3 Video port and associated managed object type definitions

5.3.1 Generic port functionality

5.3.1.1 Video port block structure

All video inputs to and outputs from the unit shall be represented using a video port block. A base table of managed objects provides control common to all ports. Extension tables provide functionality specific to certain types of port.

A video port block, as shown in Figure 1, shall have the following structure:



Key

c = number of channels on the input or output

Figure 1 – Video port blocks

The group of objects in Table 1 shall be implemented by all compliant video equipment that contains one or more video ports. The root node for these objects shall be

```
{ iso(1) standard(0) iec62379 video(3) videoMIB(1) videoPort(1) }
```

This node shall be used as the video block type identifier for video port blocks.

Table 1 – Managed objects for video ports

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vPortTable(1)	SEQUENCE OF VPortEntry		none	none	no	m
└vPortEntry(1)	VPortEntry		none	none	no	m
└└vPortBlockId(1)	BlockId	yes	none	none	no	m
└└vPortDirection(2)	PortDirection		listener	none	no	m
└└vPortFormat(3)	MediaFormat		listener	none	yes	m
└└vPortTransport(4)	VideoTransportType		listener	none	no	o
└└└vPortName(5)	Utf8String		listener	supervisor	no	o

5.3.1.2 vPortTable

A table of video port descriptors for this unit. Each video port on the unit has a corresponding entry in this table.

5.3.1.3 vPortEntry

An entry in the video port table.

5.3.1.4 vPortBlockId

The block identifier for this port. Used as an index when accessing the video port table.

5.3.1.5 vPortDirection

The direction (input or output) of this port.

5.3.1.6 vPortFormat

The format of the video data currently being received or transmitted via this port. If the port is not active, the value `noVideo` shall be returned.

5.3.1.7 vPortTransport

The type of transport used by the port.

5.3.1.8 vPortName

The name assigned to this port. This is an arbitrary text string assigned by the system manager.

5.3.2 Video locked to reference

5.3.2.1 Video lock objects

The group of objects in Table 2 shall be implemented by all compliant video equipment that provides statistics for video signals being locked to a reference signal. The root node for these objects shall be

```
{ iso(1) standard(0) iec62379 video(3) videoMIB(1) videoPort(1) }
```

Table 2 – Managed objects for video locked

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vLockedTable(2)	SEQUENCE OF VLockedEntry		none	none	no	m
└vLockedEntry(1)	VLockedEntry		none	none	no	m
└└vLockedBlockId(1)	BlockId	yes	none	none	no	m
└└└vLockedTime(2)	CardinalNumber		listener	none	yes	m

5.3.2.2 vLockedTable

A table of video port locked descriptors for this unit. Each video port on the unit that supports measurement of lock against the reference has a corresponding entry in this table.

5.3.2.3 vLockedEntry

An entry in the locked table.

5.3.2.4 vLockedBlockId

The block identifier of the associated video port. Used as an index when accessing the locked table.

5.3.2.5 vLockedTime

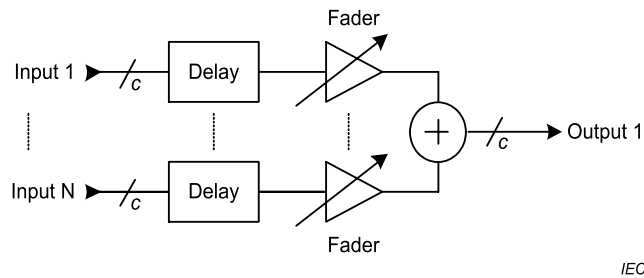
The time (in seconds) that the video signal on this port has been locked to the unit's reference clock.

5.4 Other video block and associated managed object type definitions

5.4.1 Video mixer blocks

5.4.1.1 Video mixer block structure

A video mixer block, shown in Figure 2, shall have the following structure:



Key

c = number of channels on a connection

Figure 2 – Video mixer block

A video mixer block may be used to represent a simple switched selector or combiner, by limiting the permitted values for the fader level controls to mInfinity or fullScale.

The delay function permits video streams that have passed through various processing or transport paths to be brought back into time alignment, either with other video streams or with associated audio streams. Equipment that doesn't support this functionality is represented as having a fixed zero delay.

5.4.1.2 Video mixer objects

The group of objects in Table 3 shall be implemented by all compliant video equipment that has a management model that incorporates one or more video mixer blocks. The root node for these objects shall be

```
{ iso(1) standard(0) iec62379 video(3) videoMIB(1) videoMixer(2) }
```

This node shall be used as the block type identifier for video mixer blocks.

Table 3 – Managed objects for video mixer blocks

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vMixerBlockTable(1)	SEQUENCE OF VMixerBlockEntry		none	none	no	m
lVMixerBlockEntry(1)	VMixerBlockEntry		none	none	no	m
lVMixerBlockId(1)	BlockId	yes	none	none	no	m

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vMixerFadeDuration (2)	CardinalNumber		listener	operator	no	o
LvMixerFadeNow (3)	TruthValue		listener	operator	yes	o
vMixerInputTable (2)	SEQUENCE OF VMixerInputEntry		none	none	no	m
LvMixerInputEntry (1)	VMixerInputEntry		none	none	no	m
vMixerInputBlockId (1)	BlockId	yes	none	none	no	m
vMixerInputNumber (2)	IndexNumber	yes	none	none	no	m
vMixerInputLevel (3)	VideoLevel		listener	operator	no	m
vMixerInputFadeToLevel (4)	VideoLevel		listener	operator	no	o
LvMixerInputDelay (5)	CardinalNumber		listener	operator	no	o

5.4.1.3 vMixerBlockTable

A table of video mixer block descriptors for this unit. Each video mixer block in the unit has a corresponding entry in this table.

5.4.1.4 vMixerBlockEntry

An entry in the video mixer block table.

5.4.1.5 vMixerBlockId

The block identifier for this block. Used as an index when accessing the video mixer block table.

5.4.1.6 vMixerFadeDuration

The transition time (in milliseconds) for a smooth fade or cross-fade operation performed by this block. A value of zero indicates a hard switchover.

5.4.1.7 vMixerFadeNow

When set to `true`, causes the block to perform a smooth fade or cross-fade operation. Using values taken from this block's entries in the mixer input table, the unit shall simultaneously ramp the fader level for each input in `vMixerInputEntry` from its current value to the value specified by `vMixerInputFadeToLevel`. Automatically reset to `false` when the operation is complete.

5.4.1.8 vMixerInputTable

A table of video mixer input descriptors for this unit. Each input of each video mixer block in the unit has a corresponding entry in this table.

5.4.1.9 vMixerInputEntry

An entry in the video mixer input table.

5.4.1.10 vMixerInputBlockId

The block identifier of the associated block. Used as an index when accessing the video mixer input table.

5.4.1.11 vMixerInputNumber

The block input number for this input. Used as an index when accessing the video mixer input table.

5.4.1.12 vMixerInputLevel

The fader level for this input. When a level is set, the fader immediately changes to the level specified, over the duration in `vMixerFadeDuration`. For blocks that only support switching between inputs, the only permitted values are `mInfinity` and `fullScale`. Blocks that automatically switch between inputs may reject `SET` operations on this object.

5.4.1.13 vMixerInputFadeToLevel

The fader level for this input that will be applied when `vMixerFadeNow` is set to `true`. For blocks that only support switching between inputs, the only permitted values are `mInfinity` and `fullScale`. Blocks that automatically switch between inputs may reject `SET` operations on this object.

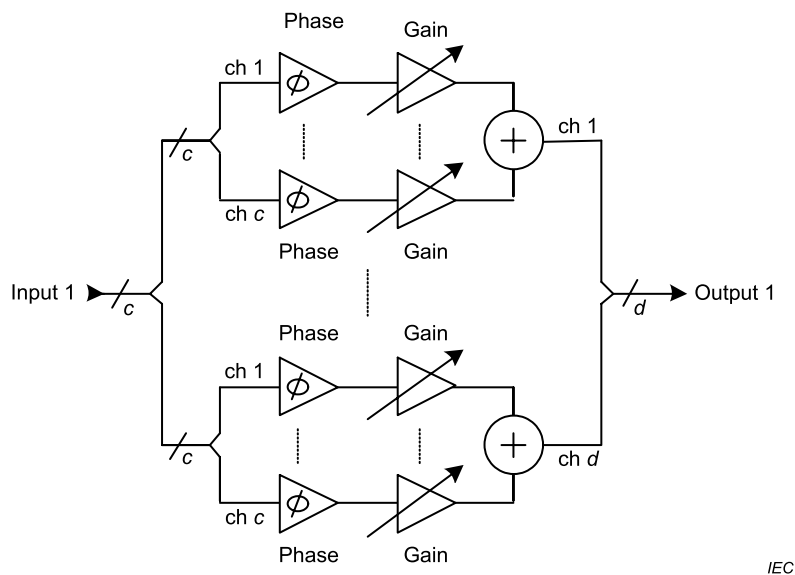
5.4.1.14 vMixerInputDelay

The delay (in microseconds) applied to samples arriving at this input.

5.4.2 Video crosspoint blocks

5.4.2.1 Video crosspoint block structure

A video crosspoint block, shown in Figure 3, shall have the following structure:



Key

c = number of input channels
 d = number of output channels

Figure 3 – Video crosspoint block

5.4.2.2 Video crosspoint objects

The group of objects in Table 4 shall be implemented by all compliant video equipment that has a management model that incorporates one or more video crosspoint blocks. The root node for these objects shall be

```
{ iso(1) standard(0) iec62379 video(3) videoMIB(1) videoCrosspoint(3) }
```

This node shall be used as the block type identifier for video crosspoint blocks.

Table 4 – Managed objects for video crosspoint blocks

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vCrosspointBlockTable(1)	SEQUENCE OF VCrosspointBlockEntry		none	none	no	m
LvCrosspointBlockEntry(1)	VCrosspointBlockEntry		none	none	no	m
vCrosspointBlockId(1)	BlockId	yes	none	none	no	m
vCrosspointConfigure(2)	TruthValue		listener	operator	yes	m
LvCrosspointCopy(3)	BlockId		none	operator	yes	o
vCrosspointPathTable(2)	SEQUENCE OF VCrosspointPathEntry		none	none	no	m
LvCrosspointPathEntry(1)	VCrosspointPathEntry		none	none	no	m
vCrosspointPathBlockId(1)	BlockId	yes	none	none	no	m
vCrosspointPathSrc(2)	VideoChannel	yes	none	none	no	m
vCrosspointPathDst(3)	VideoChannel	yes	none	none	no	m
vCrosspointPathGain(4)	VideoLevel		listener	operator	no	m
LvCrosspointPathNewGain(5)	VideoLevel		listener	operator	no	o

5.4.2.3 vCrosspointBlockTable

A table of video crosspoint block descriptors for this unit. Each video crosspoint block in the unit has a corresponding entry in this table.

5.4.2.4 vCrosspointBlockEntry

An entry in the video crosspoint block table.

5.4.2.5 vCrosspointBlockId

The block identifier for this block. Used as an index when accessing the video crosspoint block table.

5.4.2.6 vCrosspointConfigure

When set to `true`, causes this block to be configured as specified by the corresponding `vCrosspointPathNewGain` and `vCrosspointPathNewPhase` entries in the crosspoint path table. Automatically reset to `false` if the block supports delayed configuration and any of the corresponding entries in the crosspoint path table are modified. Permanently `true` if the block does not support delayed configuration.

5.4.2.7 vCrosspointCopy

When set to a block identifier that identifies another video crosspoint block in the unit with an identical structure to this block, copies the values of `vCrosspointPathGain` and `vCrosspointPathPhase` for each path in the crosspoint from the identified block to this block. If set to a block identifier that does not identify a video crosspoint block in the unit with an identical structure to this block, the `SET` operation shall be rejected.

NOTE A possible application is the ability to have some common configurations available as presets by creating 'dummy' crosspoint blocks with the required settings which are referenced in the block table but which aren't actually part of the video path.

5.4.2.8 vCrosspointPathTable

A table of video crosspoint path descriptors for this unit. Each path in each video crosspoint block in the unit has a corresponding entry in this table.

5.4.2.9 vCrosspointPathEntry

An entry in the video crosspoint path table.

5.4.2.10 vCrosspointPathBlockId

The block identifier of the associated block. Used as an index when accessing the video crosspoint path table.

5.4.2.11 vCrosspointPathSrc

The source video channel associated with this path. Used as an index when accessing the video crosspoint path table.

5.4.2.12 vCrosspointPathDst

The destination video channel associated with this path. Used as an index when accessing the video crosspoint path table.

5.4.2.13 vCrosspointPathGain

The signal gain from source to destination of this path. If this value is set, the change occurs immediately.

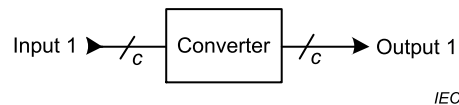
5.4.2.14 vCrosspointPathNewGain

The signal gain from source to destination of this path that will be applied when vCrosspointConfigure is set to true.

5.4.3 Video converter blocks

5.4.3.1 Video converter block structure

A video converter block, shown in Figure 4, shall have the following structure:



Key

c = number of channels on a connection

Figure 4 – Video converter block

A converter block converts an incoming video signal in one video format to an outgoing video signal in a different video format.

NOTE This block may be used for any kind of conversion including the encoding and decoding of compressed formats.

The block's mode table shall be used to determine what format the converter should output. If only one mode is enabled then the converter block is forced to perform that conversion, if it is able. If more than one mode is enabled the block should pick the output format according to its own implementation rules. If the block does not support any of the output formats that are enabled it shall set vConverterError to true.

5.4.3.2 Video converter objects

The group of objects in Table 5 shall be implemented by all compliant video equipment that has a management model that incorporates one or more video converter blocks. The root node for these objects shall be

```
{ iso(1) standard(0) iec62379 video(3) videoMIB(1) videoConverter(4) }
```

This node shall be used as the block type identifier for video converter blocks.

Table 5 – Managed objects for video converter blocks

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vConverterBlockTable(1)	SEQUENCE OF VConverterBlockEntry		none	none	no	m
lvConverterBlockEntry(1)	VConverterBlockEntry		none	none	no	m

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vConverterBlockId(1)	BlockId	yes	none	none	no	m
vConverterQuality(2)	VideoQuality		listener	supervisor	no	o
vConverterEnabled(3)	TruthValue		listener	supervisor	no	o
vConverterOutputFormat(4)	MediaFormat		listener	none	no	m
vConverterError(5)	TruthValue		listener	none	no	o

5.4.3.3 vConverterBlockTable

A table of video converter block descriptors for this unit. Each video converter block in the unit has a corresponding entry in this table.

5.4.3.4 vConverterBlockEntry

An entry in the video converter block table.

5.4.3.5 vConverterBlockId

The block identifier for this block. Used as an index when accessing the video converter block table.

5.4.3.6 vConverterQuality

The quality of the conversion performed by this block.

5.4.3.7 vConverterEnabled

If *true*, indicates the incoming video signal may be converted to one of the enabled video formats for this block's output in the mode table. If *false*, indicates the incoming video signal shall be output in the same format as it arrives.

5.4.3.8 vConverterOutputFormat

A description of the current video signal format being output by the converter block.

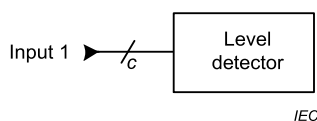
5.4.3.9 vConverterError

If *true*, indicates the video cannot be converted to any of the output formats enabled in the mode table.

5.4.4 Video level alarm blocks

5.4.4.1 Video level alarm block structure

A video level alarm block, shown in Figure 5, shall have the following structure:



IEC

Key

c = number of channels on a connection

Figure 5 – Video level alarm block

A video level alarm block detects video level fault conditions in a video stream.

NOTE A video level alarm block may be used to represent, for example, a video loss detector or an overload indicator.

5.4.4.2 Video level alarm objects

The group of objects in Table 6 shall be implemented by all compliant video equipment that has a management model that incorporates one or more video level alarm blocks. The root node for these objects shall be

{ iso(1) standard(0) iec62379 video(2) videoMIB(1) videoLevelAlarm(5) }

This node shall be used as the block type identifier for video level alarm blocks.

Table 6 – Managed objects for video level alarm blocks

Identifier	Syntax	Index	Readable	Writable	Volatile	Status
vLevelAlarmBlockTable(1)	SEQUENCE OF VLevelAlarmBlockEntry		none	none	no	m
vLevelAlarmBlockEntry(1)	VLevelAlarmBlockEntry		none	none	no	m
vlaBlockId(1)	BlockId	yes	none	none	no	m
vlaType(2)	VideoLevelAlarmType		listener	supervisor	no	m
vlaThreshold(3)	VideoLevel		listener	supervisor	no	m
vlaWarningTime(4)	CardinalNumber		listener	supervisor	no	o
vlaFailureTime(5)	CardinalNumber		listener	supervisor	no	m
vlaCounter(6)	CardinalNumber		listener	supervisor	no	m
vlaEnabled(7)	TruthValue		listener	supervisor	no	m
vlaStatus(8)	VideoAlarmStatus		listener	none	yes	m

5.4.4.3 vLevelAlarmBlockTable

A table of video level alarm block descriptors for this unit. Each video level alarm block in the unit has a corresponding entry in this table.

5.4.4.4 vLevelAlarmBlockEntry

An entry in the video level alarm block table.

5.4.4.5 vlaBlockId

The block identifier for this block. Used as an index when accessing the video level alarm block table.

5.4.4.6 vlaType

The type of video level alarm. If *lower*, the alarm is triggered by the video level being less than the threshold. If *higher*, the alarm is triggered by the video level being greater than the threshold.

5.4.4.7 vlaThreshold

The detection threshold for a video level alarm to be raised by this block.

5.4.4.8 vlaWarningTime

The detection time (in seconds) for a video level warning alarm to be raised by this block, see 5.4.4.12.

5.4.4.9 vlaFailureTime

The detection time (in seconds) for a video level failure alarm to be raised by this block, see 5.4.4.12.

5.4.4.10 vlaCounter

The length of time (in seconds) for which the video level has been in breach of (i.e. above or below, as determined by *vlaType*) the detection threshold.

The counter shall be held at zero whenever the video level is not in breach of the detection threshold.

The counter may be set by the management entity. If at the time of the *SET* request the video is in breach of the detection threshold, the counter shall continue from the value set.

5.4.4.11 vlaEnabled

Controls whether the alarm is primed for operation. If `true` warning and failure alarms will be raised when the video level alarm counter breaches the warning and failure times respectively. If `false`, the alarm is disabled and no alarms will be raised.

5.4.4.12 vlaStatus

Indicates the status of the alarm block. The value shall be `failure` if the video level is in breach of the detection threshold and `vlaCounter` is greater than or equal to `vlaFailureTime`, otherwise `warning` if the video level is in breach of the detection threshold and `vlaCounter` is greater than or equal to `vlaWarningTime`, otherwise `ok`.

Annex A (informative)

Machine-readable video format definitions

This annex provides a machine-readable version of the video data format definitions which is intended to be interpretable by standard MIB browsing software tools. If there is any inconsistency between this annex and Clause 4, Clause 4 takes precedence.

The format used to describe the data format identifiers conforms to IETF STD 58 (SMIv2).

NOTE This annex is not intended to cover every format permitted by the definitions in Clause 4.

IEC62379-3-FORMATS DEFINITIONS ::= BEGIN

IMPORTS

iec62379

FROM IEC62379-1-MIB

Unsigned32, MODULE-IDENTITY, OBJECT-IDENTITY

FROM SNMPv2-SMI

TEXTUAL-CONVENTION

FROM SNMPv2-TC;

-- 1.0.62379.3.2

videoFormat MODULE-IDENTITY

LAST-UPDATED "201408271200Z" -- August 27, 2014 at 12:00 GMT

ORGANIZATION

"IEC PT62379"

CONTACT-INFO

"Not specified"

DESCRIPTION

"The video format identifiers defined in clause 4 of
IEC 62379-3 Ed.1.

Note that although the video formats defined here were originally specified for use by the EBU ECN-IPM group, they are likely to be usable elsewhere. The arrangement also allows the set of formats to be easily expanded to include future formats. Some of these formats are currently used in IEC 62379-7, Measurements for EBU ECN-IPM."

REVISION "201408271200Z" -- August 27, 2014 at 12:00 GMT

DESCRIPTION

"Added H265HEVC to Coding Type
following suggestions from JTC
liaison.

Corrected OID values for UHD4K
and UHD 8K to include the line
resolution in the OID"

REVISION "201309261200Z" -- September 26, 2013 at 12:00 GMT

DESCRIPTION

"Added VerticalResolution as copy of LineResolution
following comments on CD vote. LineResolution has been
used earlier and VerticalResolution has been added to
ensure that the earlier use will not be broken.
Updated document clause references as required.
Added uhd4k and uhd8k entries to SourceType list.
Corrected description of aspect ratio.
Added additional frame rates from 100 to 300.
Clarified descriptions for frame rates in 29Hz and 59Hz OIDs.
Added additional uhd4k and uhd8k entries to videoSource framework."

REVISION "201210251450Z" -- October 25, 2012 at 14:50 GMT

DESCRIPTION

"Added transport and metadata formats
Transport format will have to have additional entries"

REVISION "201106101200Z" -- June 10, 2011 at 12:00 GMT

DESCRIPTION

```

    "Moved invalidVideo up and added additional coding types VP8
    and H264 Scalable Extn and also Aspect Ratio entries.
    Removed Video bit rate types and value."
    ::= { video 2 }

--
-- Textual conventions
--

-- 4.1 Video signal format definitions
-- 4.1.2.2 Video parameters
    FrameRate ::= TEXTUAL-CONVENTION
        DISPLAY-HINT
            "d-3"
        STATUS current
        DESCRIPTION
            "This type represents the video frame rate in Hz.

            This is computed by calculating the frame rate ratio,
            such as 24000/1001 = 23.976Hz and multiplying by 1000
            to convert the value to an integer; in this case 23976.

            For display purposes the value needs to be divided by
            1000 and a decimal point inserted as shown in the
            Display-Hint."
        SYNTAX Unsigned32 (0..2147483647)

    SourceType ::= TEXTUAL-CONVENTION
        STATUS current
        DESCRIPTION
            "An enumeration describing the video definition source
            type."
        SYNTAX INTEGER
            {
                unspecified(0),
                sd(1),
                hd(2),
                uhd4k(3),
                uhd8k(4)
            }
-- {
-- unspecified(0),
-- sd(1),
-- hd(2),
-- uhd4k(3),
-- uhd8k(4)
-- } (unspecified..uhd8k)
--

    LineResolution ::= TEXTUAL-CONVENTION
        STATUS current
        DESCRIPTION
            "An integer representing the number of lines of vertical
            resolution."
        SYNTAX INTEGER (0..2147483647)

    ScanType ::= TEXTUAL-CONVENTION
        STATUS current
        DESCRIPTION
            "An enumeration describing the video scan type.
            psf = Progressive Segmented Frame"
        SYNTAX INTEGER
            {
                unspecified(0),
                progressive(1),
                interlaced(2),
                psf(3)
            }
-- {

```

```
-- unspecified(0),
-- progressive(1),
-- interlaced(2),
-- psf(3)
-- } (unspecified..psf)
--
CodingType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An enumeration describing the video coding type."
    SYNTAX INTEGER
        {
            unspecified(0),
            uncompressed(1),
            mpeg2(2),
            h264(3),
            jpeg2000(4),
            smptecvc2(5),
            vP8(6),
            h264ScaleExtn(7),
            h265HEVC(8)
        }
-- {
-- unspecified(0),
-- uncompressed(1),
-- mpeg2(2),
-- h264(3),
-- jpeg2000(4),
-- smptecvc2(5),
-- vP8(6),
-- h264ScaleExtn(7),
-- h265Hevc(8)
-- } (unspecified..h265Hevc)
--
SourceAspectRatio ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An enumeration describing the source aspect ratio."

        fourByThree = 4:3
        sixteenByNine = 16:9
        twoPointTwoOne = 2.21:1"
    SYNTAX INTEGER
        {
            unspecified(0),
            fourByThree(43),
            sixteenByNine(169),
            twoPointTwoOne(221)
        }
-- {
-- unspecified(0),
-- fourByThree(43),
-- sixteenByNine(169),
-- twoPointTwoOne(221)
-- } (unspecified..twoPointTwoOne)
--
ActiveFormatDescriptionCodes ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An integer representing the active format description codes
        for video used with the range of source aspect ratios."
    SYNTAX INTEGER (0..15)

VerticalResolution ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An integer representing the number of lines of vertical
        resolution."

        If used, this is the equivalent of LineResolution which has been previously
```

used in another situation and VerticalResolution has been added to avoid breaking that previous usage.

Although it is not likely to break that previous usage, this has textual convention has been added just in case!

The two may be used interchangeably."
SYNTAX INTEGER (0..2147483647)

```
--
-- Node definitions
--

-- 1.0.62379.3
video OBJECT IDENTIFIER ::= { iec62379 3 }

-- 4.1.3 Video signal formats
-- 1.0.62379.3.2.1
videoSignalFormat OBJECT IDENTIFIER ::= { videoFormat 1 }

-- 4.1.3.2 Unspecified video
-- 1.0.62379.3.2.1.0
unspecifiedVideo OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "VideoFormat wildcard value - any supported format allowed."
    ::= { videoSignalFormat 0 }

-- 4.1.3.3 No video
-- 1.0.62379.3.2.1.1
noVideo OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Indicates the output is non-existent."
    ::= { videoSignalFormat 1 }

-- 4.1.3.4 Invalid video
-- 1.0.62379.3.2.1.2
invalidVideo OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Indicates an error, such as an inability to decode a signal
        earlier in the chain."
    ::= { videoSignalFormat 2 }

-- 4.1.3.5 Video Source
-- 1.0.62379.3.2.1.3
videoSource OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video source descriptions."
    ::= { videoSignalFormat 3 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.23
frameRate23 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 23Hz.
        Actual value is 24000/1001 = 23.976Hz."
    ::= { videoSource 23 }
```

```
-- 1.0.62379.3.2.1.3.23.3
frameRate23uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 23.976Hz."
  ::= { frameRate23 3 }

-- 1.0.62379.3.2.1.3.23.3.2160
frameRate23uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 23.976Hz at
    2160 lines of vertical resolution."
  ::= { frameRate23uhd4k 2160 }

-- 1.0.62379.3.2.1.3.23.3.2160.1
frameRate23uhd4kat2160P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 23.976Hz at
    2160 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate23uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.23.4
frameRate23uhd8k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 23.976Hz."
  ::= { frameRate23 4 }

-- 1.0.62379.3.2.1.3.23.4.4320
frameRate23uhd8kat4320 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 23.976Hz at
    4320 lines of vertical resolution."
  ::= { frameRate23uhd8k 4320 }

-- 1.0.62379.3.2.1.3.23.4.4320.1
frameRate23uhd8kat4320P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 23.976Hz at
    4320 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate23uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.24
frameRate24 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 24Hz."
  ::= { videoSource 24 }

-- 1.0.62379.3.2.1.3.24.3
frameRate24uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 24Hz."
  ::= { frameRate24 3 }
```

```
-- 1.0.62379.3.2.1.3.24.3.2160
frameRate24uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 24Hz at
    2160 lines of vertical resolution."
  ::= { frameRate24uhd4k 2160 }

-- 1.0.62379.3.2.1.3.24.3.2160.1
frameRate24uhd4kat2160P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 24Hz at
    2160 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate24uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.24.4
frameRate24uhd8k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 24Hz."
  ::= { frameRate24 4 }

-- 1.0.62379.3.2.1.3.24.4.4320
frameRate24uhd8kat4320 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 24Hz at
    4320 lines of vertical resolution."
  ::= { frameRate24uhd8k 4320 }

-- 1.0.62379.3.2.1.3.24.4.4320.1
frameRate24uhd8kat4320P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 24Hz at
    4320 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate24uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.25
frameRate25 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 25Hz."
  ::= { videoSource 25 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.25.1
frameRate25SD OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Standard Definition Video at a Frame Rate of 25Hz."
  ::= { frameRate25 1 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.25.1.625
frameRate25SDat625 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
```

```

        "Standard Definition Video at a Frame Rate of 25Hz at
        625 lines of vertical resolution."
    ::= { frameRate25SD 625 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.1.625.1
frameRate25SDat625P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 25Hz at
        625 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate25SDat625 1 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.1.625.2
frameRate25SDat625I OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 25Hz at
        625 lines of vertical resolution with interlaced
        scanning."
    ::= { frameRate25SDat625 2 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.1.625.3
frameRate25SDat625S OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 25Hz at
        625 lines of vertical resolution with progressive
        segmented frame."
    ::= { frameRate25SDat625 3 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.25.2
frameRate25HD OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 25Hz."
    ::= { frameRate25 2 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.25.2.1080
frameRate25HDat1080 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 25Hz at
        1080 lines of vertical resolution."
    ::= { frameRate25HD 1080 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.2.1080.1
frameRate25HDat1080P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 25Hz at
        1080 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate25HDat1080 1 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.2.1080.2

```

```
frameRate25HDat1080I OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 25Hz at
    1080 lines of vertical resolution with interlaced
    scanning."
  ::= { frameRate25HDat1080 2 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.25.2.1080.3
frameRate25HDat1080S OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 25Hz at
    1080 lines of vertical resolution with progressive
    segmented frame."
  ::= { frameRate25HDat1080 3 }

-- 1.0.62379.3.2.1.3.25.3
frameRate25uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 25Hz."
  ::= { frameRate25 3 }

-- 1.0.62379.3.2.1.3.25.3.2160
frameRate25uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 25Hz at
    2160 lines of vertical resolution."
  ::= { frameRate25uhd4k 2160 }

-- 1.0.62379.3.2.1.3.25.3.2160.1
frameRate25uhd4kat2160P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 25Hz at
    2160 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate25uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.25.4
frameRate25uhd8k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 25Hz."
  ::= { frameRate25 4 }

-- 1.0.62379.3.2.1.3.25.4.4320
frameRate25uhd8kat4320 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 25Hz at
    4320 lines of vertical resolution."
  ::= { frameRate25uhd8k 4320 }

-- 1.0.62379.3.2.1.3.25.4.4320.1
frameRate25uhd8kat4320P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 25Hz at
    4320 lines of vertical resolution with progressive
```

```

        scanning."
        ::= { frameRate25uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.29
frameRate29 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 29Hz.
        Actual value is 30000/1001 = 29.97Hz."
        ::= { videoSource 29 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.29.1
frameRate29SD OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 29.97Hz."
        ::= { frameRate29 1 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.29.1.525
frameRate29SDat525 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 29.97Hz at
        525 lines of vertical resolution."
        ::= { frameRate29SD 525 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.1.525.1
frameRate29SDat525P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 29.97Hz at
        525 lines of vertical resolution with progressive
        scanning."
        ::= { frameRate29SDat525 1 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.1.525.2
frameRate29SDat525I OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 29.97Hz at
        525 lines of vertical resolution with interlaced
        scanning."
        ::= { frameRate29SDat525 2 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.1.525.3
frameRate29SDat525S OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Standard Definition Video at a Frame Rate of 29.97Hz at
        525 lines of vertical resolution with progressive
        segmented frame."
        ::= { frameRate29SDat525 3 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.29.2
frameRate29HD OBJECT-IDENTITY
    STATUS current

```

```
DESCRIPTION
    "High Definition Video at a Frame Rate of 29.97Hz."
::= { frameRate29 2 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.29.2.1080
frameRate29HDat1080 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 29.97Hz at
        1080 lines of vertical resolution."
    ::= { frameRate29HD 1080 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.2.1080.1
frameRate29HDat1080P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 29.97Hz at
        1080 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate29HDat1080 1 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.2.1080.2
frameRate29HDat1080I OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 29.97Hz at
        1080 lines of vertical resolution with interlaced
        scanning."
    ::= { frameRate29HDat1080 2 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.29.2.1080.3
frameRate29HDat1080S OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 29.97Hz at
        1080 lines of vertical resolution with progressive
        segmented frame."
    ::= { frameRate29HDat1080 3 }

-- 1.0.62379.3.2.1.3.29.3
frameRate29uhd4k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 29.97Hz."
    ::= { frameRate29 3 }

-- 1.0.62379.3.2.1.3.29.3.2160
frameRate29uhd4kat2160 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 29.97Hz at
        2160 lines of vertical resolution."
    ::= { frameRate29uhd4k 2160 }

-- 1.0.62379.3.2.1.3.29.3.2160.1
frameRate29uhd4kat2160P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 29.97Hz at
```

```

    2160 lines of vertical resolution with progressive
    scanning."
    ::= { frameRate29uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.29.4
frameRate29uhd8k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 29.97Hz."
    ::= { frameRate29 4 }

-- 1.0.62379.3.2.1.3.29.4.4320
frameRate29uhd8kat4320 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 29.97Hz at
        4320 lines of vertical resolution."
    ::= { frameRate29uhd8k 4320 }

-- 1.0.62379.3.2.1.3.29.4.4320.1
frameRate29uhd8kat4320P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 29.97Hz at
        4320 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate29uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.30
frameRate30 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 30Hz."
    ::= { videoSource 30 }

-- 1.0.62379.3.2.1.3.30.3
frameRate30uhd4k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 30Hz."
    ::= { frameRate30 3 }

-- 1.0.62379.3.2.1.3.30.3.2160
frameRate30uhd4kat2160 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 30Hz at
        2160 lines of vertical resolution."
    ::= { frameRate30uhd4k 2160 }

-- 1.0.62379.3.2.1.3.30.3.2160.1
frameRate30uhd4kat2160P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 30Hz at
        2160 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate30uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.30.4
frameRate30uhd8k OBJECT-IDENTITY

```

```
STATUS current
DESCRIPTION
  "UHD8K Video at a Frame Rate of 30Hz."
::= { frameRate30 4 }

-- 1.0.62379.3.2.1.3.30.4.4320
frameRate30uhd8kat4320 OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "UHD8K Video at a Frame Rate of 30Hz at
  4320 lines of vertical resolution."
::= { frameRate30uhd8k 4320 }

-- 1.0.62379.3.2.1.3.30.4.4320.1
frameRate30uhd8kat4320P OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "UHD8K Video at a Frame Rate of 30Hz at
  4320 lines of vertical resolution with progressive
  scanning."
::= { frameRate30uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.50
frameRate50 OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "Video at a Frame Rate of 50Hz."
::= { videoSource 50 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.50.2
frameRate50HD OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "High Definition Video at a Frame Rate of 50Hz."
::= { frameRate50 2 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.50.2.720
frameRate50HDat720 OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "High Definition Video at a Frame Rate of 50Hz at
  720 lines of vertical resolution."
::= { frameRate50HD 720 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.50.2.720.1
frameRate50HDat720P OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "High Definition Video at a Frame Rate of 50Hz at
  720 lines of vertical resolution with progressive
  scanning."
::= { frameRate50HDat720 1 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.50.2.1080
frameRate50HDat1080 OBJECT-IDENTITY
STATUS current
DESCRIPTION
  "High Definition Video at a Frame Rate of 50Hz at
```

```

    1080 lines of vertical resolution."
    ::= { frameRate50HD 1080 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.50.2.1080.1
frameRate50HDat1080P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "High Definition Video at a Frame Rate of 50Hz at
        1080 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate50HDat1080 1 }

-- 1.0.62379.3.2.1.3.50.3
frameRate50uhd4k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 50Hz."
    ::= { frameRate50 3 }

-- 1.0.62379.3.2.1.3.50.3.2160
frameRate50uhd4kat2160 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 50Hz at
        2160 lines of vertical resolution."
    ::= { frameRate50uhd4k 2160 }

-- 1.0.62379.3.2.1.3.50.3.2160.1
frameRate50uhd4kat2160P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 50Hz at
        2160 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate50uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.50.4
frameRate50uhd8k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 50Hz."
    ::= { frameRate50 4 }

-- 1.0.62379.3.2.1.3.50.4.4320
frameRate50uhd8kat4320 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 50Hz at
        4320 lines of vertical resolution."
    ::= { frameRate50uhd8k 4320 }

-- 1.0.62379.3.2.1.3.50.4.4320.1
frameRate50uhd8kat4320P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 50Hz at
        4320 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate50uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate

```

```
-- 1.0.62379.3.2.1.3.59
frameRate59 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 59Hz.
    Actual value is 60000/1001 = 59.94Hz.

    Colloquially also known as 60!"
  ::= { videoSource 59 }

-- 4.1.2.3 Source Type
-- 1.0.62379.3.2.1.3.59.2
frameRate59HD OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 59.94Hz."
  ::= { frameRate59 2 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.59.2.720
frameRate59HDat720 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 59.94Hz at
    720 lines of vertical resolution."
  ::= { frameRate59HD 720 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.59.2.720.1
frameRate59HDat720P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 59.94Hz at
    720 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate59HDat720 1 }

-- 4.1.2.4 Vertical resolution
-- 1.0.62379.3.2.1.3.59.2.1080
frameRate59HDat1080 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 59Hz at
    1080 lines of vertical resolution."
  ::= { frameRate59HD 1080 }

-- 4.1.2.5 Scan Type
-- 1.0.62379.3.2.1.3.59.2.1080.1
frameRate59HDat1080P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "High Definition Video at a Frame Rate of 59.94Hz at
    1080 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate59HDat1080 1 }

-- 1.0.62379.3.2.1.3.59.3
frameRate59uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 59.94Hz."
  ::= { frameRate59 3 }
```

```
-- 1.0.62379.3.2.1.3.59.3.2160
frameRate59uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 59.94Hz at
    2160 lines of vertical resolution."
  ::= { frameRate59uhd4k 2160 }

-- 1.0.62379.3.2.1.3.59.3.2160.1
frameRate59uhd4kat2160P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 59.94Hz at
    2160 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate59uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.59.4
frameRate59uhd8k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 59.94Hz."
  ::= { frameRate59 4 }

-- 1.0.62379.3.2.1.3.59.4.4320
frameRate59uhd8kat4320 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 59.94Hz at
    4320 lines of vertical resolution."
  ::= { frameRate59uhd8k 4320 }

-- 1.0.62379.3.2.1.3.59.4.4320.1
frameRate59uhd8kat4320P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 59.94Hz at
    4320 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate59uhd8kat4320 1 }

-- 4.1.2.2 Frame Rate
-- 1.0.62379.3.2.1.3.60
frameRate60 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 60Hz."
  ::= { videoSource 60 }

-- 1.0.62379.3.2.1.3.60.3
frameRate60uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 60Hz."
  ::= { frameRate60 3 }

-- 1.0.62379.3.2.1.3.60.3.2160
frameRate60uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 60Hz at
    2160 lines of vertical resolution."
  ::= { frameRate60uhd4k 2160 }
```

```
-- 1.0.62379.3.2.1.3.60.3.2160.1
frameRate60uhd4kat2160P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 60Hz at
    2160 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate60uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.60.4
frameRate60uhd8k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 60Hz."
  ::= { frameRate60 4 }

-- 1.0.62379.3.2.1.3.60.4.4320
frameRate60uhd8kat4320 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 60Hz at
    4320 lines of vertical resolution."
  ::= { frameRate60uhd8k 4320 }

-- 1.0.62379.3.2.1.3.60.4.4320.1
frameRate60uhd8kat4320P OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD8K Video at a Frame Rate of 60Hz at
    4320 lines of vertical resolution with progressive
    scanning."
  ::= { frameRate60uhd8kat4320 1 }

-- 1.0.62379.3.2.1.3.100
frameRate100 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 100Hz.

    Reserved for future use."
  ::= { videoSource 100 }

-- 1.0.62379.3.2.1.3.120
frameRate120 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 120Hz."
  ::= { videoSource 120 }

-- 1.0.62379.3.2.1.3.120.3
frameRate120uhd4k OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 120Hz."
  ::= { frameRate120 3 }

-- 1.0.62379.3.2.1.3.120.3.2160
frameRate120uhd4kat2160 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "UHD4K Video at a Frame Rate of 120Hz at
```

```

    2160 lines of vertical resolution."
    ::= { frameRate120uhd4k 2160 }

-- 1.0.62379.3.2.1.3.120.3.2160.1
frameRate120uhd4kat2160P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD4K Video at a Frame Rate of 120Hz at
        2160 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate120uhd4kat2160 1 }

-- 1.0.62379.3.2.1.3.120.4
frameRate120uhd8k OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 120Hz."
    ::= { framerate120 4 }

-- 1.0.62379.3.2.1.3.120.4.2160
frameRate120uhd8kat4320 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 120Hz at
        4320 lines of vertical resolution."
    ::= { frameRate120uhd8k 2160 }

-- 1.0.62379.3.2.1.3.120.4.2160.1
frameRate120uhd8kat4320P OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "UHD8K Video at a Frame Rate of 120Hz at
        4320 lines of vertical resolution with progressive
        scanning."
    ::= { frameRate120uhd8kat4320 1 }

-- 1.0.62379.3.2.1.3.125
framerate125 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 125Hz.

        Reserved for future use."
    ::= { videoSource 125 }

-- 1.0.62379.3.2.1.3.150
framerate150 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 150Hz.

        Reserved for future use."
    ::= { videoSource 150 }

-- 1.0.62379.3.2.1.3.200
framerate200 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video at a Frame Rate of 200Hz.

        Reserved for future use."
    ::= { videoSource 200 }

```

```
-- 1.0.62379.3.2.1.3.300
framerate300 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video at a Frame Rate of 300Hz.

    Reserved for future use."
  ::= { videoSource 300 }

-- 4.1.3.6 Video Coding Type
-- 1.0.62379.3.2.1.4
videoCodingType OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video coding type (if applicable)."
```

```
  ::= { videoSignalFormat 4 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.0
codingTypeUnspecified OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Unspecified video."
  ::= { videoCodingType 0 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.1
codingTypeUncompressed OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Uncompressed video."
  ::= { videoCodingType 1 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.2
codingTypeMPEG2 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "MPEG2 coded video."
  ::= { videoCodingType 2 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.3
codingTypeH264 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "H264 coded video."
  ::= { videoCodingType 3 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.4
codingTypeJPEG2000 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "JPEG2000 coded video."
  ::= { videoCodingType 4 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.5
codingTypeSMPTEVC2 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
```

```

    "SMPTE-VC2 coded video (DIRAC)"
    ::= { videoCodingType 5 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.6
codingTypeVP8 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "VP8 coded video"
    ::= { videoCodingType 6 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.7
codingTypeH264ScaleExtn OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "H.264 Advanced Video Coding (AVC) with
        Scalable Video Coding (SVC) coded video"
    ::= { videoCodingType 7 }

-- 4.1.2.6 Coding Type
-- 1.0.62379.3.2.1.4.8
codingTypeH265HEVC OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "H.265 High efficiency video coding (HEVC)"
    ::= { videoCodingType 8 }

-- 4.1.3.7 Video Aspect Ratio
-- 1.0.62379.3.2.1.5
aspectRatio OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video aspect ratio descriptions."
    ::= { videoSignalFormat 5 }

-- 4.1.2.7 Source Aspect Ratio
-- 1.0.62379.3.2.1.5.0
sourceAspectRatioUnspecified OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "The video source aspect ratio is unspecified."
    ::= { aspectRatio 0 }

-- 4.1.1.8 Active Format Description
-- 1.0.62379.3.2.1.5.0.0
srceARUnspecifiedAFD0000 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
    ::= { sourceAspectRatioUnspecified 0 }

-- 4.1.2.7 Source Aspect Ratio
-- 1.0.62379.3.2.1.5.43
sourceAspectRatio4x3 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Video with an aspect ratio of 4:3."
    ::= { aspectRatio 43 }

-- 4.1.2.8 Active Format Description
-- 1.0.62379.3.2.1.5.43.0

```

```
srceAR4x3AFD0000 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 0 }

-- 1.0.62379.3.2.1.5.43.1
srceAR4x3AFD0001 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 1 }

-- 1.0.62379.3.2.1.5.43.2
srceAR4x3AFD0010 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 2 }

-- 1.0.62379.3.2.1.5.43.3
srceAR4x3AFD0011 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 3 }

-- 1.0.62379.3.2.1.5.43.4
srceAR4x3AFD0100 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 4 }

-- 1.0.62379.3.2.1.5.43.5
srceAR4x3AFD0101 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 5 }

-- 1.0.62379.3.2.1.5.43.6
srceAR4x3AFD0110 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 6 }

-- 1.0.62379.3.2.1.5.43.7
srceAR4x3AFD0111 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 7 }

-- 1.0.62379.3.2.1.5.43.8
srceAR4x3AFD1000 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 8 }
```

```
-- 1.0.62379.3.2.1.5.43.9
srceAR4x3AFD1001 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 9 }

-- 1.0.62379.3.2.1.5.43.10
srceAR4x3AFD1010 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 10 }

-- 1.0.62379.3.2.1.5.43.11
srceAR4x3AFD1011 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 11 }

-- 1.0.62379.3.2.1.5.43.12
srceAR4x3AFD1100 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 12 }

-- 1.0.62379.3.2.1.5.43.13
srceAR4x3AFD1101 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 13 }

-- 1.0.62379.3.2.1.5.43.14
srceAR4x3AFD1110 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 14 }

-- 1.0.62379.3.2.1.5.43.15
srceAR4x3AFD1111 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio4x3 15 }

-- 4.1.2.7 Source Aspect Ratio
-- 1.0.62379.3.2.1.5.169
sourceAspectRatio16x9 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video with an aspect ratio of 16:9."
  ::= { aspectRatio 169 }

-- 4.1.2.8 Active Format Description
-- 1.0.62379.3.2.1.5.169.0
srceAR16x9AFD0000 OBJECT-IDENTITY
  STATUS current
```

```
DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
    ::= { sourceAspectRatio16x9 0 }

-- 1.0.62379.3.2.1.5.169.1
srceAR16x9AFD0001 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 1 }

-- 1.0.62379.3.2.1.5.169.2
srceAR16x9AFD0010 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 2 }

-- 1.0.62379.3.2.1.5.169.3
srceAR16x9AFD0011 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 3 }

-- 1.0.62379.3.2.1.5.169.4
srceAR16x9AFD0100 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 4 }

-- 1.0.62379.3.2.1.5.169.5
srceAR16x9AFD0101 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 5 }

-- 1.0.62379.3.2.1.5.169.6
srceAR16x9AFD0110 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 6 }

-- 1.0.62379.3.2.1.5.169.7
srceAR16x9AFD0111 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 7 }

-- 1.0.62379.3.2.1.5.169.8
srceAR16x9AFD1000 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio16x9 8 }

-- 1.0.62379.3.2.1.5.169.9
```

```

srceAR16x9AFD1001 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 9 }

-- 1.0.62379.3.2.1.5.169.10
srceAR16x9AFD1010 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 10 }

-- 1.0.62379.3.2.1.5.169.11
srceAR16x9AFD1011 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 11 }

-- 1.0.62379.3.2.1.5.169.12
srceAR16x9AFD1100 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 12 }

-- 1.0.62379.3.2.1.5.169.13
srceAR16x9AFD1101 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 13 }

-- 1.0.62379.3.2.1.5.169.14
srceAR16x9AFD1110 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 14 }

-- 1.0.62379.3.2.1.5.169.15
srceAR16x9AFD1111 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio16x9 15 }

-- 4.1.2.7 Source Aspect Ratio
-- 1.0.62379.3.2.1.5.221
sourceAspectRatio2pt21 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Video with an aspect ratio of 2.21:1"
  ::= { aspectRatio 221 }

-- 4.1.2.8 Active Format Description
-- 1.0.62379.3.2.1.5.221.0
srceAR2pt21AFD0000 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."

```

```
::= { sourceAspectRatio2pt21 0 }

-- 1.0.62379.3.2.1.5.221.1
srceAR2pt21AFD0001 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 1 }

-- 1.0.62379.3.2.1.5.221.2
srceAR2pt21AFD0010 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 2 }

-- 1.0.62379.3.2.1.5.221.3
srceAR2pt21AFD0011 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 3 }

-- 1.0.62379.3.2.1.5.221.4
srceAR2pt21AFD0100 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 4 }

-- 1.0.62379.3.2.1.5.221.5
srceAR2pt21AFD0101 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 5 }

-- 1.0.62379.3.2.1.5.221.6
srceAR2pt21AFD0110 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 6 }

-- 1.0.62379.3.2.1.5.221.7
srceAR2pt21AFD0111 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 7 }

-- 1.0.62379.3.2.1.5.221.8
srceAR2pt21AFD1000 OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
  ::= { sourceAspectRatio2pt21 8 }

-- 1.0.62379.3.2.1.5.221.9
srceAR2pt21AFD1001 OBJECT-IDENTITY
  STATUS current
```

```

DESCRIPTION
    "See SMPTE ST 2016-1:2009 for code descriptions."
    ::= { sourceAspectRatio2pt21 9 }

-- 1.0.62379.3.2.1.5.221.10
srceAR2pt21AFD1010 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 10 }

-- 1.0.62379.3.2.1.5.221.11
srceAR2pt21AFD1011 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 11 }

-- 1.0.62379.3.2.1.5.221.12
srceAR2pt21AFD1100 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 12 }

-- 1.0.62379.3.2.1.5.221.13
srceAR2pt21AFD1101 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 13 }

-- 1.0.62379.3.2.1.5.221.14
srceAR2pt21AFD1110 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 14 }

-- 1.0.62379.3.2.1.5.221.15
srceAR2pt21AFD1111 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "See SMPTE ST 2016-1:2009 for code descriptions."
        ::= { sourceAspectRatio2pt21 15 }

-- 4.2 Video transport format definitions
--
-- Probably need to add some others in here - below analogue
--
-- 1.0.62379.3.2.2
videoTransportFormat OBJECT IDENTIFIER ::= { videoFormat 2 }

-- 1.0.62379.3.2.2.0
unspecifiedTransport OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Unspecified transport."
        ::= { videoTransportFormat 0 }

```

```
-- 1.0.62379.3.2.2.1
analogue OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Analogue transport."
  ::= { videoTransportFormat 1 }

-- Metadata
-- 1.0.62379.3.2.3
videoMetadataFormat OBJECT IDENTIFIER ::= { videoFormat 3 }

-- 1.0.62379.3.2.3.0
unspecifiedMetadata OBJECT-IDENTITY
  STATUS current
  DESCRIPTION
    "Unspecified metadata."
  ::= { videoMetadataFormat 0 }

END
```

Annex B (informative)

Machine-readable video block definitions

This annex provides a machine-readable version of the video block definitions which is intended to be interpretable by standard MIB browsing software tools. It does not express all the requirements of this standard, for instance where access to an object is restricted at certain privilege levels. If there is any inconsistency between this annex and Clause 5, Clause 5 takes precedence.

The format used to describe the MIB objects conforms to IETF STD 58 (SMIv2).

```
IEC62379-3-MIB DEFINITIONS ::= BEGIN

IMPORTS
    iec62379, BlockId, PortDirection, MediaFormat, Utf8String,
    CardinalNumber, IndexNumber
    FROM IEC62379-1-MIB
    OBJECT-GROUP, MODULE-COMPLIANCE
    FROM SNMPv2-CONF
    Integer32, OBJECT-TYPE, MODULE-IDENTITY
    FROM SNMPv2-SMI
    TruthValue, TEXTUAL-CONVENTION
    FROM SNMPv2-TC;

-- 1.0.62379.3.1
videoMIB MODULE-IDENTITY
    LAST-UPDATED "201309181500Z"      -- September 18, 2013 at 15:00 GMT
    ORGANIZATION
        "IEC PT62379"
    CONTACT-INFO
        "Not specified"
    DESCRIPTION
        "The MIB module for managing video functions in IEC 62379
        compliant equipment."
    REVISION "201309181257Z"      -- September 18, 2013 at 12:57 GMT
    DESCRIPTION
        "Updated document clause references following
        comments in CD vote"
    REVISION "201210231500Z"      -- October 23, 2012 at 15:00 GMT
    DESCRIPTION
        "The MIB module defined in IEC 62379-3 Ed.1."
    ::= { video 1 }

--
-- Textual conventions
--

-- 5.2 Type definitions
-- 5.2.1 Textual conventions
VideoTransportType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "A reference to the transport used for a video connection."
    SYNTAX OBJECT IDENTIFIER

-- Probably doesn't make any sense for video.
VideoChannel ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An enumeration identifying a video channel."
    SYNTAX INTEGER (1..240)
```

```

-- Probably doesn't make any sense for video.
VideoQuality ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "New description required here probably or remove

        An enumeration identifying an video signal processing quality
        level. Semantics are equipment specific. Equipment that
        supports selectable quality levels shall as a minimum support
        the values low and high."
    SYNTAX INTEGER (1..127)

-- Does this make sense for video?
VideoLevel ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "New description required here probably or remove

        An absolute or relative video level in units of ???.
    SYNTAX Integer32

-- Does this make sense for video?
VideoLevelAlarmType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "New description required here probably or remove

        An enumeration representing the trigger condition for a video
        level alarm. If lower, the alarm is triggered by the video
        level being less than the threshold; if higher, the alarm is
        triggered by the video level being greater than the threshold"
    SYNTAX INTEGER
        {
            lower(1),
            higher(2)
        }
-- {
-- lower(1),
-- higher(2)
-- } (lower..higher)
--
VideoAlarmStatus ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "An enumeration representing an alarm's status"
    SYNTAX INTEGER
        {
            ok(1),
            warning(2),
            failure(3)
        }
-- {
-- ok(1),
-- warning(2),
-- failure(3)
-- } (ok..failure)
--
--
-- Node definitions
--
-- 1.0.62379.3
video OBJECT IDENTIFIER ::= { iec62379 3 }

-- Object identifier values for module compliance statements
-- 1.0.62379.3.1.0
videoMIBCompliance OBJECT IDENTIFIER ::= { videoMIB 0 }

```

```
-- Compliance statements
-- this module
-- 1.0.62379.3.1.0.1
videoMIBComplianceV1 MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION
        "The compliance statement for entities that conform to
        IEC 62379-3 (201X)."
```

MODULE -- this module

```
    GROUP vPortGroup
        DESCRIPTION
            "Mandatory for equipment that contains one
            or more analogue ports."
    GROUP videoMixerGroup
        DESCRIPTION
            "Mandatory for equipment that contains one
            or more video mixer blocks."
    GROUP videoCrosspointGroup
        DESCRIPTION
            "Mandatory for equipment that contains one
            or more video crosspoint blocks."
    GROUP videoConverterGroup
        DESCRIPTION
            "Mandatory for equipment that contains one
            or more video converter blocks."
    GROUP videoLevelAlarmGroup
        DESCRIPTION
            "Mandatory for equipment that contains one
            or more video alarm blocks."
::= { videoMIBCompliance 1 }
```

-- Object identifier values for MIB object groups.

-- The following definitions are also used as BlockType values

```
-- 1.0.62379.3.1.1
videoPort OBJECT IDENTIFIER ::= { videoMIB 1 }
```

-- 5.2.3 Sequences

-- 5.3 Video port and associated managed object type definitions

-- 5.3.1 Generic port functionality

```
-- 1.0.62379.3.1.1.1
vPortTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
::= { videoPort 1 }
```

```
-- 1.0.62379.3.1.1.1.1
vPortEntry OBJECT-TYPE
    SYNTAX VPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    INDEX { vPortBlockId }
::= { vPortTable 1 }
```

```
VPortEntry ::=
    SEQUENCE {
        vPortBlockId
        BlockId,
        vPortDirection
        PortDirection,
```

```

        vPortFormat
        MediaFormat,
        vPortTransport
        VideoTransportType,
        vPortName
        Utf8String
    }

-- 1.0.62379.3.1.1.1.1.1
vPortBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    ::= { vPortEntry 1 }

-- 1.0.62379.3.1.1.1.1.2
vPortDirection OBJECT-TYPE
    SYNTAX PortDirection
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    ::= { vPortEntry 2 }

-- 1.0.62379.3.1.1.1.1.3
vPortFormat OBJECT-TYPE
    SYNTAX MediaFormat
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    ::= { vPortEntry 3 }

-- 1.0.62379.3.1.1.1.1.4
vPortTransport OBJECT-TYPE
    SYNTAX VideoTransportType
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    ::= { vPortEntry 4 }

-- 1.0.62379.3.1.1.1.1.5
vPortName OBJECT-TYPE
    SYNTAX Utf8String
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.1."
    ::= { vPortEntry 5 }

-- 5.3.2 Video locked to Reference
-- 1.0.62379.3.1.1.2
vLockedTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VLockedEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.2."
    ::= { videoPort 2 }

-- 1.0.62379.3.1.1.2.1

```

```

vLockedEntry OBJECT-TYPE
    SYNTAX VLockedEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.2."
    INDEX { vLockedBlockId }
    ::= { vLockedTable 1 }

VLockedEntry ::=
    SEQUENCE {
        vLockedBlockId
            BlockId,
        vLockedTime
            CardinalNumber
    }

-- 1.0.62379.3.1.1.2.1.1
vLockedBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.2."
    ::= { vLockedEntry 1 }

-- 1.0.62379.3.1.1.2.1.2
vLockedTime OBJECT-TYPE
    SYNTAX CardinalNumber
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.3.2."
    ::= { vLockedEntry 2 }

-- 1.0.62379.3.1.1.99
vPortGroup OBJECT-GROUP
    OBJECTS { vPortDirection, vPortFormat, vPortTransport, vPortName,
vLockedTime
    }
    STATUS current
    DESCRIPTION
        "The group of objects used to control a video port."
    ::= { videoPort 99 }

-- 1.0.62379.3.1.2
videoMixer OBJECT IDENTIFIER ::= { videoMIB 2 }

-- 5.4 Other video block and associated managed object type definitions
-- 5.4.1 Video mixer blocks
-- 1.0.62379.3.1.2.1
vMixerBlockTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VMixerBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { videoMixer 1 }

-- 1.0.62379.3.1.2.1.1
vMixerBlockEntry OBJECT-TYPE
    SYNTAX VMixerBlockEntry
    MAX-ACCESS not-accessible
    STATUS current

```

```

DESCRIPTION
    "See IEC 62379-3 clause 5.4.1."
INDEX { vMixerBlockId }
::= { vMixerBlockTable 1 }

VMixerBlockEntry ::=
    SEQUENCE {
        vMixerBlockId
            BlockId,
        vMixerFadeDuration
            CardinalNumber,
        vMixerFadeNow
            TruthValue
    }

-- 1.0.62379.3.1.2.1.1.1
vMixerBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerBlockEntry 1 }

-- 1.0.62379.3.1.2.1.1.2
vMixerFadeDuration OBJECT-TYPE
    SYNTAX CardinalNumber
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerBlockEntry 2 }

-- 1.0.62379.3.1.2.1.1.3
vMixerFadeNow OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerBlockEntry 3 }

-- 1.0.62379.3.1.2.2
vMixerInputTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VMixerInputEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { videoMixer 2 }

-- 1.0.62379.3.1.2.2.1
vMixerInputEntry OBJECT-TYPE
    SYNTAX VMixerInputEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    INDEX { vMixerInputNumber, vMixerInputBlockId }
    ::= { vMixerInputTable 1 }

VMixerInputEntry ::=
    SEQUENCE {
        vMixerInputBlockId

```

```

        BlockId,
        vMixerInputNumber
            IndexNumber,
        vMixerInputLevel
            VideoLevel,
        vMixerInputFadeToLevel
            VideoLevel,
        vMixerInputDelay
            CardinalNumber
    }

-- 1.0.62379.3.1.2.2.1.1
vMixerInputBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerInputEntry 1 }

-- 1.0.62379.3.1.2.2.1.2
vMixerInputNumber OBJECT-TYPE
    SYNTAX IndexNumber
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerInputEntry 2 }

-- 1.0.62379.3.1.2.2.1.3
vMixerInputLevel OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerInputEntry 3 }

-- 1.0.62379.3.1.2.2.1.4
vMixerInputFadeToLevel OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerInputEntry 4 }

-- 1.0.62379.3.1.2.2.1.5
vMixerInputDelay OBJECT-TYPE
    SYNTAX CardinalNumber
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.1."
    ::= { vMixerInputEntry 5 }

-- 1.0.62379.3.1.2.99
videoMixerGroup OBJECT-GROUP
    OBJECTS { vMixerFadeDuration, vMixerFadeNow, vMixerInputLevel,
vMixerInputFadeToLevel, vMixerInputDelay
    }
    STATUS current
    DESCRIPTION
        "The group of objects used to control a video mixer block."
    ::= { videoMixer 99 }

```

```
-- 1.0.62379.3.1.3
videoCrosspoint OBJECT IDENTIFIER ::= { videoMIB 3 }

-- 5.4.2 Video crosspoint blocks
-- 1.0.62379.3.1.3.1
vCrosspointBlockTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VCrosspointBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { videoCrosspoint 1 }

-- 1.0.62379.3.1.3.1.1
vCrosspointBlockEntry OBJECT-TYPE
    SYNTAX VCrosspointBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    INDEX { vCrosspointBlockId }
    ::= { vCrosspointBlockTable 1 }

VCrosspointBlockEntry ::=
    SEQUENCE {
        vCrosspointBlockId
            BlockId,
        vCrosspointConfigure
            TruthValue,
        vCrosspointCopy
            BlockId
    }

-- 1.0.62379.3.1.3.1.1.1
vCrosspointBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointBlockEntry 1 }

-- 1.0.62379.3.1.3.1.1.2
vCrosspointConfigure OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointBlockEntry 2 }

-- 1.0.62379.3.1.3.1.1.3
vCrosspointCopy OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointBlockEntry 3 }

-- 1.0.62379.3.1.3.2
vCrosspointPathTable OBJECT-TYPE
```

```

SYNTAX SEQUENCE OF VCrosspointPathEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "See IEC 62379-3 clause 5.4.2."
 ::= { videoCrosspoint 2 }

-- 1.0.62379.3.1.3.2.1
vCrosspointPathEntry OBJECT-TYPE
    SYNTAX VCrosspointPathEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    INDEX { vCrosspointPathBlockId, vCrosspointPathSrc, vCrosspointPathDst }
    ::= { vCrosspointPathTable 1 }

VCrosspointPathEntry ::=
    SEQUENCE {
        vCrosspointPathBlockId
            BlockId,
        vCrosspointPathSrc
            VideoChannel,
        vCrosspointPathDst
            VideoChannel,
        vCrosspointPathGain
            VideoLevel,
        vCrosspointPathNewGain
            VideoLevel
    }

-- 1.0.62379.3.1.3.2.1.1
vCrosspointPathBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointPathEntry 1 }

-- 1.0.62379.3.1.3.2.1.2
vCrosspointPathSrc OBJECT-TYPE
    SYNTAX VideoChannel
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointPathEntry 2 }

-- 1.0.62379.3.1.3.2.1.3
vCrosspointPathDst OBJECT-TYPE
    SYNTAX VideoChannel
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointPathEntry 3 }

-- Probably doesn't make sense for video
-- 1.0.62379.3.1.3.2.1.4
vCrosspointPathGain OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

    "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointPathEntry 4 }

-- Probably doesn't make sense for video
-- 1.0.62379.3.1.3.2.1.5
vCrosspointPathNewGain OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.2."
    ::= { vCrosspointPathEntry 5 }

-- 1.0.62379.3.1.3.99
videoCrosspointGroup OBJECT-GROUP
    OBJECTS { vCrosspointConfigure, vCrosspointCopy, vCrosspointPathGain,
vCrosspointPathNewGain }
    STATUS current
    DESCRIPTION
        "The group of objects used to control a video crosspoint
        block."
    ::= { videoCrosspoint 99 }

-- 1.0.62379.3.1.4
videoConverter OBJECT IDENTIFIER ::= { videoMIB 4 }

-- 5.4.3 Video converter blocks
-- 1.0.62379.3.1.4.1
vConverterBlockTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VConverterBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.3."
    ::= { videoConverter 1 }

-- 1.0.62379.3.1.4.1.1
vConverterBlockEntry OBJECT-TYPE
    SYNTAX VConverterBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.5."
    INDEX { vConverterBlockId }
    ::= { vConverterBlockTable 1 }

VConverterBlockEntry ::=
    SEQUENCE {
        vConverterBlockId
            BlockId,
        vConverterQuality
            VideoQuality,
        vConverterEnabled
            TruthValue,
        vConverterOutputFormat
            MediaFormat,
        vConverterError
            TruthValue
    }

-- 1.0.62379.3.1.4.1.1.1
vConverterBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible

```

```

STATUS current
DESCRIPTION
    "See IEC 62379-3 clause 5.4.5."
::= { vConverterBlockEntry 1 }

-- 1.0.62379.3.1.4.1.1.2
vConverterQuality OBJECT-TYPE
    SYNTAX VideoQuality
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.5.

        Syntax reminder check

        Syntax to change to VideoQuality - does this make sense?"
    ::= { vConverterBlockEntry 2 }

-- 1.0.62379.3.1.4.1.1.3
vConverterEnabled OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.5."
    ::= { vConverterBlockEntry 3 }

-- 1.0.62379.3.1.4.1.1.4
vConverterOutputFormat OBJECT-TYPE
    SYNTAX MediaFormat
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.5."
    ::= { vConverterBlockEntry 4 }

-- 1.0.62379.3.1.4.1.1.5
vConverterError OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.5."
    ::= { vConverterBlockEntry 5 }

-- 1.0.62379.3.1.4.99
videoConverterGroup OBJECT-GROUP
    OBJECTS { vConverterQuality, vConverterEnabled, vConverterOutputFormat,
vConverterError }
    STATUS current
    DESCRIPTION
        "The group of objects used to control a video converter block."
    ::= { videoConverter 99 }

-- 1.0.62379.3.1.5
videoLevelAlarm OBJECT IDENTIFIER ::= { videoMIB 5 }

-- 5.4.4 Video level alarm blocks
--
-- Does this mechanism work for video? Alter as required.
--
-- 1.0.62379.3.1.5.1
vLevelAlarmBlockTable OBJECT-TYPE

```

```

    SYNTAX SEQUENCE OF VLevelAlarmBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-2 clause 5.4.4."
    ::= { videoLevelAlarm 1 }

-- 1.0.62379.3.1.5.1.1
vLevelAlarmBlockEntry OBJECT-TYPE
    SYNTAX VLevelAlarmBlockEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-2 clause 5.4.6."
    INDEX { vlaBlockId }
    ::= { vLevelAlarmBlockTable 1 }

VLevelAlarmBlockEntry ::=
    SEQUENCE {
        vlaBlockId
            BlockId,
        vlaType
            VideoLevelAlarmType,
        vlaThreshold
            VideoLevel,
        vlaWarningTime
            VideoLevel,
        vlaFailureTime
            VideoLevel,
        vlaCounter
            VideoLevel,
        vlaEnabled
            TruthValue,
        vlaStatus
            VideoAlarmStatus
    }

-- 1.0.62379.3.1.5.1.1.1
vlaBlockId OBJECT-TYPE
    SYNTAX BlockId
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 1 }

-- 1.0.62379.3.1.5.1.1.2
vlaType OBJECT-TYPE
    SYNTAX VideoLevelAlarmType
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 2 }

-- 1.0.62379.3.1.5.1.1.3
vlaThreshold OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 3 }

-- 1.0.62379.3.1.5.1.1.4

```

```

vlaWarningTime OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 4 }

-- 1.0.62379.3.1.5.1.1.5
vlaFailureTime OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 5 }

-- 1.0.62379.3.1.5.1.1.6
vlaCounter OBJECT-TYPE
    SYNTAX VideoLevel
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 6 }

-- 1.0.62379.3.1.5.1.1.7
vlaEnabled OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 7 }

-- 1.0.62379.3.1.5.1.1.8
vlaStatus OBJECT-TYPE
    SYNTAX VideoAlarmStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "See IEC 62379-3 clause 5.4.4."
    ::= { vLevelAlarmBlockEntry 8 }

-- 1.0.62379.3.1.5.2
videoLevelAlarmGroup OBJECT-GROUP
    OBJECTS { vlaType, vlaThreshold, vlaWarningTime, vlaFailureTime,
vlaCounter,
        vlaEnabled, vlaStatus }
    STATUS current
    DESCRIPTION
        "The group of objects used to control a video level alarm block."
    ::= { videoLevelAlarm 2 }

```

END

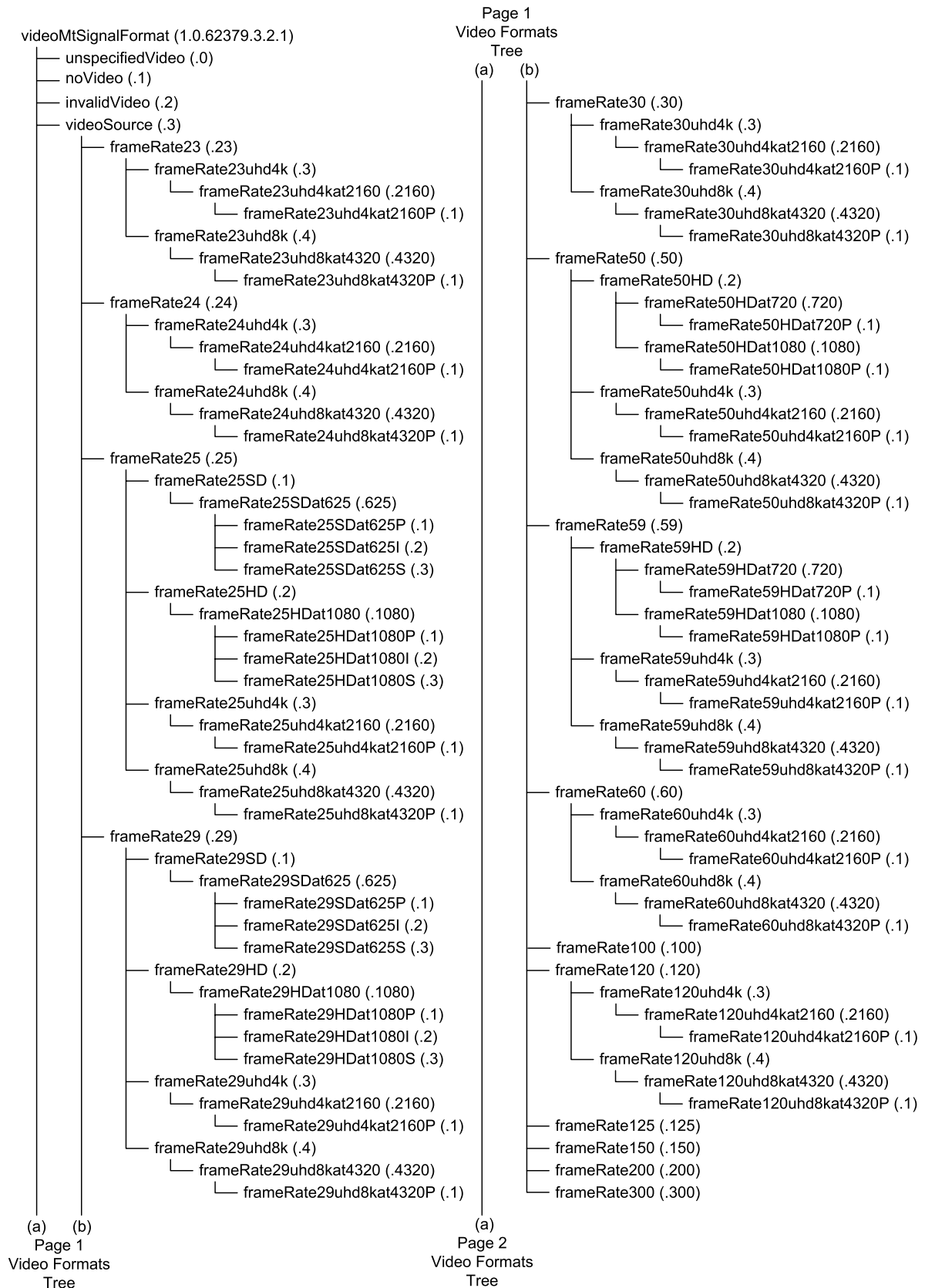
Annex C

(informative)

Tree of example video formats

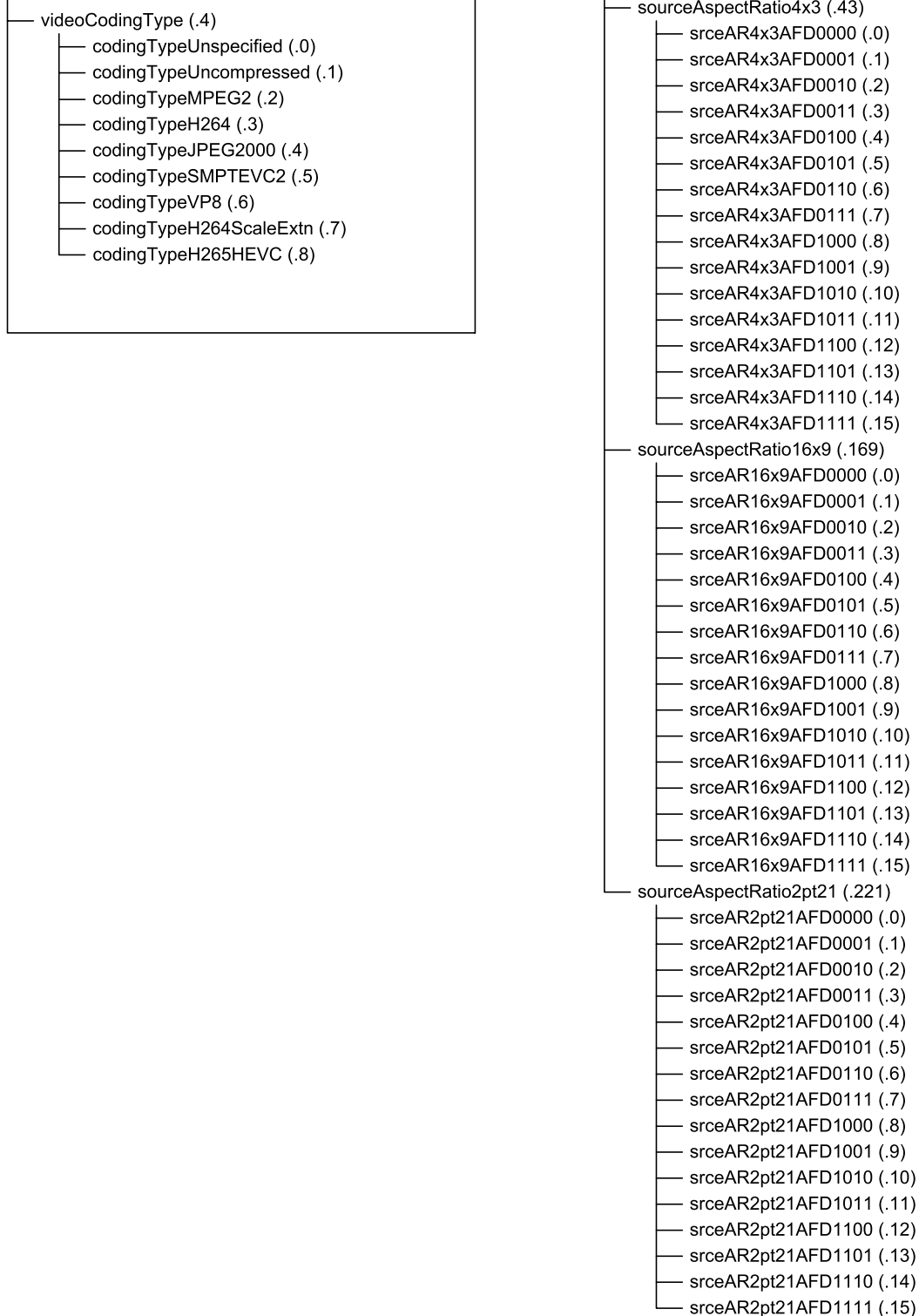
This annex shows a graphical tree of the example video formats defined in IEC 62379-3:2015. If there is any inconsistency between this annex and those in the appropriate clauses of IEC 62379-3:2015, then the clauses of IEC 62379-3:2015 take precedence.

Note that this annex is not intended to cover every format permitted by the definitions given in IEC 62379-3:2015.



Page 2
Video Formats

Tree
(a)



Annex D (informative)

Worked examples

For further study.

NOTE A worked example of the block structure with audio blocks, which work in a similar manner, may be found in IEC 62379-2:2008.

Bibliography

IEC 62379-2:2008, *Common control interface for networked digital audio and video products – Part 2: Audio*

IEC 62379-5 (all parts), *Common control interface for networked digital audio and video products – Part 5: Transmission over networks*

IEC 62379-7, *Common control interface for networked digital audio and video products – Measurements*¹

¹ To be published.

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