



IEEE 1722.1REV - AECP New Controls

Ashley Butterworth
Apple Inc.

Barometric Pressure Control

- A barometric pressure sensor source or sink

Name	BAROMETRIC_PRESSURE
Value Type	Any linear or array value type that provides sufficient range and resolution for the implementation
Value Details	Limits and resolution are implementation defined
Units	PASCALS
Access	Implementation defined (may be read-write or read-only)

Vendor URL Control

- URL pointing to the Vendor's webpage

Name	VENDOR_URL
Value Type	CONTROL_UTF8
Value Details	Null terminated UTF-8 string.
Units	UNITLESS
Access	read-only

Entity URL Control

- URL pointing to the product webpage

Name	ENTITY_URL
Value Type	CONTROL_UTF8
Value Details	Null terminated UTF-8 string.
Units	UNITLESS
Access	read-only

Configuration URL Control

- URL pointing to the configuration page for the Entity (e.g. built in web server providing a config page)

Name	ENTITY_URL
Value Type	CONTROL_UTF8
Value Details	Null terminated UTF-8 string.
Units	UNITLESS
Access	read-only

Generic URL Control

- Generic URL whose use is context dependent (i.e. isn't a vendor, entity or configuration URL)

Name	GENERIC_URL
Value Type	CONTROL_UTF8
Value Details	Null terminated UTF-8 string.
Units	UNITLESS
Access	read-only

Fault Control

- Indicates if an entity has what it considers to be a fault state

Name	FAULT
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (no fault) and 255 (fault)
Units	UNITLESS
Access	read-only?

Controller Target Entity Control

- The Entity ID of the target for the commands of a control

Name	CONTROLLER_TARGET_ENTITY
Value Type	LINEAR_UINT64
Value Details	EUI-64
Units	UNITLESS
Access	read-write, only implemented by an AVDECC Controller

Controller Target Object Control

- The object to which the controller targets the GET/SET_CONTROL commands

Name	CONTROLLER_TARGET_OBJECT
Value Type	2 LINEAR_UINT16 values
Value Details	2 values are the descriptor_type and descriptor_index respectively
Units	UNITLESS
Access	read-write, only implemented by an AVDECC Controller

Latency Compensation Control

- A delay control used for compensating for the different latencies through different devices (between the AVTP timing reference planes and the Jacks)

Name	LATENCY_COMPENSATION
Value Type	Any linear or array value type that provides sufficient range and resolution for the implementation
Value Details	Limits and resolution are implementation defined
Units	any of the TIME quantities
Access	read-write

Port Operational Status Control

- Indicates if a port is operational for the devices intended purpose

Name	PORT_OPERATIONAL_STATUS
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (link down/not operational) and 255 (link up/operational)
Units	UNITLESS
Access	read-only

Port Mode Options Control

- Defines the physical speed/duplex and media type for a port

Name	PORT_MODE_OPTIONS
Value Type	SELECTOR_UINT16
Value Details	Enumerated list of options. Full list defined in standard, entity only lists those that it supports.
Units	UNITLESS
Access	read-only?

Port Mode Status Control

- Current physical speed/duplex/media of port

Name	PORT_MODE_STATUS
Value Type	Single LINEAR_UINT16
Value Details	One of the values listed in the paired PORT_MODE_OPTIONS control
Units	UNITLESS
Access	read-only

gPTP Neighbor Prop Delay Threshold Control

- The gPTP variables `ieee8021AsPortDSNeighborPropDelayThreshHs`, `ieee8021AsPortDSNeighborPropDelayThreshMs` and `ieee8021AsPortDSNeighborPropDelayThreshLs`

Name	GPTP_NEIGHBORPROPDELAYTHRESH
Value Type	3 LINEAR_UINT32
Value Details	Value as defined by gPTP variables
Units	FRACTIONAL_NANOSECONDS (2 ⁻¹⁶ nanoseconds)
Access	Ideally read-write but may be read-only if not changeable

gPTP Neighbor Rate Ratio Control

- gPTP ieee8021AsPortDSNeighborRateRatio

Name	GPTP_NEIGHBORRATERATIO
Value Type	Single LINEAR_INT32
Value Details	Same definition as gPTP variable
Units	UNITLESS
Access	read-only

gPTP Intervals Control

- gPTP message intervals

Name	GPTP_INTERVALS
Value Type	Three LINEAR_INT8 values
Value Details	Range is -128 to 127
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable

gPTP Remote Intervals Control

- gPTP message intervals for the remote end

Name	GPTP_REMOTE_INTERVALS
Value Type	Three LINEAR_INT8 values
Value Details	Range is -128 to 127
Units	UNITLESS
Access	Ideally read-write but may be read-only if device cannot send gPTP Signal message

Baud Rate Control

- Sets the Baud Rate of a serial stream

Name	BAUD_RATE
Value Type	SELECTOR_UINT32
Value Details	List of supported baud rates
Units	BITS_PER_SEC
Access	Ideally read-write but may be read-only if not changeable by controller

Serial Bit Width Control

- The number of bits in a symbol

Name	BIT_WIDTH
Value Type	SELECTOR_UINT8
Value Details	
Units	BITS
Access	Ideally read-write but may be read-only if not changeable by controller

Parity Control

- What parity is being used

Name	PARITY
Value Type	SELECTOR_UINT8
Value Details	3 possible settings 0 (None), 1 (Odd) and 2 (Even)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

Stop Bits Control

- How many stop bits are in use

Name	STOP_BITS
Value Type	LINEAR_UINT8
Value Details	3 possible settings 10, 15 and 20
Units	BITS with multiplier of -1 (/10)
Access	Ideally read-write but may be read-only if not changeable by controller

Port Transmit Rate

- FQTSS portTransmitRate variable

Name	FQTSS_PORT_TRANSMIT_RATE
Value Type	LINEAR_UINT32
Value Details	Single value containing the portTransmitRate variable
Units	BITS_PER_SECOND
Access	Read-only

FQTSS Delta Bandwidth

- FQTSS deltaBandwidth(N) variables

Name	FQTSS_DELTA_BANDWIDTH
Value Type	LINEAR_UINT16
Value Details	1 to 8 values depending on the number of traffic classes
Units	PERCENT with multiplier of -2
Access	Ideally read-write but may be read-only if not changeable by controller

FQTSS Admin Idle Sloope

- FQTSS adminIdleSlope(N) variables

Name	FQTSS_ADMIN_IDLE_SLOPE
Value Type	LINEAR_UINT32
Value Details	1 to 8 values depending on the number of traffic classes
Units	BITS_PER_SECOND
Access	Ideally read-write but may be read-only if not changeable by controller

FQTSS Oper Idle Slope

- FQTSS operIdleSlope(N) variables

Name	FQTSS_OPER_IDLE_SLOPE
Value Type	LINEAR_UINT32
Value Details	1 to 8 values depending on the number of traffic classes
Units	BITS_PER_SECOND
Access	Read-only

MSRP Enabled Status

- SRP msrpEnabledStatus variable

Name	MSRP_ENABLED_STATUS
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not enabled) and 255 (enabled)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Port Enabled Status

- SRP msrpPortEnabledStatus variable

Name	MSRP_PORT_ENABLED_STATUS
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not enabled) and 255 (enabled)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Max Fan In

- SRP msrpMaxFanInPorts variable

Name	MSRP_MAX_FAN_IN_PORTS
Value Type	LINEAR_UINT16
Value Details	Single value, total number of ports being used in latency calculations (0 is a valid value)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Latency Max Frame Size

- SRP msrpLatencyMaxFrameSize variable

Name	MSRP_LATENCY_MAX_FRAME_SIZE
Value Type	LINEAR_UINT16
Value Details	Default of 2000 bytes.
Units	BYTES
Access	Ideally read-write but may be read-only if not changeable by controller

SRP Domain Boundary Port

- SRP SRPdomainBoundaryPort variable

Name	MSRP_SRP_DOMAIN_BOUNDARY_PORT
Value Type	Two LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not a boundary port) and 255 (boundary port)
Units	UNITLESS
Access	Read-only

SRP Port VLAN Identifier

- SRP SR_PVID variable

Name	MSRP_SR_PVID
Value Type	LINEAR_UINT16
Value Details	VLAN ID (limits applied to VLANs)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Talker Pruning

- SRP TalkerPruning variable

Name	MSRP_TALKER_PRUNING
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not enabled) and 255 (enabled)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Talker Port Pruning

- SRP TalkerPruningPerPort variable

Name	MSRP_TALKER_PORT_PRUNING
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not enabled) and 255 (enabled)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller

MSRP Talker VLAN Pruning

- SRP TalkerVlanPruning variable

Name	MSRP_TALKER_VLAN_PRUNING
Value Type	Single LINEAR_UINT8
Value Details	“Boolean” value, i.e. 0 (not enabled) and 255 (enabled)
Units	UNITLESS
Access	Ideally read-write but may be read-only if not changeable by controller