

FDDI-SMT73 MIB Objects

The MIB objects described in this section support the Catalyst 2800 FDDI modules. The objects are divided into the following groups:

- SMT Group
- MAC Group
- Enhanced MAC Counters Group
- Path Group
- Port Group

The SMT Group

`fddimibSMTNumber` (integer)

This read-only MIB object displays the number of SMT implementations (regardless of their current state) on this network management application entity. The value for this variable must remain constant at least from one re-initialization of the entity's network management system to the next re-initialization.

Valid Values: 2

The `fddimibSMT` Table

This MIB object displays a list of SMT entries. The number of entries shall not exceed the value of `fddimibSMTNumber`.

The SMT Group

fddimibSMTIndex (integer)

This read-only MIB object displays a unique value for each SMT. The value for each SMT must remain constant from at least one re-initialization of the entity's network management system to the next.

Valid Values: 1 to 2

fddimibSMTStationId (octet string)

This read-only MIB object is used to uniquely identify an FDDI station.

fddimibSMTOpVersionId (integer)

This read-only MIB object displays the version that this station is using for its operation. See also ANSI 7.1.2.2 for more information. The value of this variable is 2 for this SMT revision.

Valid Values: 2

fddimibSMTHiVersionId (integer)

This read-only MIB object displays the highest version of SMT that this station supports. See also ANSI 7.1.2.2 for more information.

Valid Values: 2

fddimibSMTLoVersionId (integer)

This read-only MIB object displays the lowest version of SMT that this station supports. See also ANSI 7.1.2.2 for more information.

Valid Values: 2

fddimibSMTUserData (octet string)

This read-write MIB object variable contains 32 octets of user defined information. The information should be an ASCII string.

fddimibSMTMIBVersionId (integer)

This read-only MIB object displays the version of the FDDI MIB of this station. The value of this variable is 1 for this SMT revision.

Valid Values: 1

fddimibSMTMACCts (integer)

This read-only MIB object displays the number of MACs in this station or concentrator.

Valid Values: 1

fddimibSMTNonMasterCts (integer)

The value of this read-only MIB object variable is the number of A, B, and S ports in this station or concentrator.

Valid Values: 1 to 2

fddimibSMTMasterCts (integer)

This read-only MIB object displays the number of M Ports in a node. If the node is not a concentrator, the value of the variable is zero.

Valid Values: 0

The SMT Group

fddimibSMTAvailablePaths (integer)

This read-only MIB object displays a value that indicates the PATH types available in the station.

Valid Values: 1 for SAS, 3 for DAS

The value is a sum. This value initially takes the value zero, then for each type of PATH that this node has available, 2 raised to a power is added to the sum. Possible PATH types and powers are:

| PATH | Power |
|-----------|-------|
| Primary | 0 |
| Secondary | 1 |
| Local | 2 |

For example, a station having Primary and Local PATHs available would have a value of 5 ($2^{**0} + 2^{**2}$).

fddimibSMTConfigCapabilities (integer)

This read-only MIB object displays a value that indicates the configuration capabilities of a node. The *holdAvailable* bit indicates the support of the optional *Hold Function*, which is controlled by fddiSMTConfigPolicy. The *CF-Wrap-AB* bit indicates that the station has the capability of performing a *wrap_ab*. See also ANSI SMT 9.7.2.2 for more information.

Valid Values: 0

The value is a sum. This value initially takes the value zero, then for each of the configuration policies currently enforced on the node, 2 raised to a power is added to the sum. The powers are according to the following:

| Policy | Power |
|---------------|-------|
| holdAvailable | 0 |
| CF-Wrap-AB | 1 |

fddimibSMTCConfigPolicy (integer)

This read-write MIB object contains a value that indicates the configuration policies currently desired in a node. *Hold* is one of the terms used for the Hold Flag, an optional ECM flag used to enable the optional Hold policy.

Valid Values: 0 to 1

Default Value: 0

The value is a sum. This value initially takes the value zero, then for each of the configuration policies currently enforced on the node, 2 raised to a power is added to the sum. The powers are according to the following:

| Policy | Power |
|-------------------|-------|
| configurationhold | 0 |

fddimibSMTConnectionPolicy (integer)

This read-write MIB object contains a value representing the connection policies in effect on a node. A station sets the corresponding bit for each of the connection types that it rejects. The letter designations, X and Y, in the rejectX-Y names have the following significance: X represents the PC-Type of the local PORT and Y represents the PC_Type of the adjacent PORT (PC_Neighbor). The evaluation of Connection- Policy (PC-Type, PC-Neighbor) is done to determine the setting of T- Val (3) in the PC-Signalling sequence (refer to ANSI 9.6.3). Note that Bit 15, (rejectM-M), is always set and cannot be cleared.

Valid Values: 32768 to 65535

Default Value: 61695 for SAS and CDDI

65280 for DAS

The SMT Group

The value is a sum. This value initially takes the value zero, then for each of the connection policies currently enforced on the node, 2 raised to a power is added to the sum. The powers are according to the following:

| Policy | Power |
|-----------|-------|
| rejectA-A | 0 |
| rejectA-B | 1 |
| rejectA-S | 2 |
| rejectA-M | 3 |
| rejectB-A | 4 |
| rejectB-B | 5 |
| rejectB-S | 6 |
| rejectB-M | 7 |
| rejectS-A | 8 |
| rejectS-B | 9 |
| rejectS-S | 10 |
| rejectS-M | 11 |
| rejectM-A | 12 |
| rejectM-B | 13 |
| rejectM-S | 14 |
| rejectM-M | 15 |

fddimibSMTTNotify (integer)

This read-write MIB object contains the timer, expressed in seconds, used in the Neighbor Notification protocol. It has a range of 2 seconds to 30 seconds.

Valid Values: 2 to 30

Default Value: 30 seconds (refer to ANSI SMT 8.2)

fddimibSMTStatRptPolicy (integer)

This read-write MIB object, if true, indicates that the node will generate Status Reporting Frames for its implemented events and conditions. It has an initial value of true. This variable determines the value of the SR_Enable Flag (refer to ANSI SMT 8.3.2.1).

Valid Values: true (1)

false (2)

Default Value: true (1)

fddimibSMTTraceMaxExpiration (FddiTimeMilli)

This read-write MIB object is the maximum propagation time for a trace on an FDDI topology. See ANSI SMT 9.4.4.2.2 for more information.

Valid Values: 6002 to 343597 ms

Default Value: 7000 ms

fddimibSMTBypassPresent (integer)

This read-only MIB object displays a flag indicating if the station has a bypass on its AB port pair.

Valid Values: true (1)

false (2)

fddimibSMTECMState (integer)

This read-only MIB object indicates the current state of the ECM state machine. See also ANSI SMT 9.5.2 for more information.

Valid Values: ec0 (1) Out
 ec1 (2) In
 ec2 (3) Trace
 ec3 (4) Leave
 ec4 (5) Path_Test
 ec5 (6) Insert
 ec6 (7) Check
 ec7 (8) Deinsert

Default Value: ec1 (2) In

fddimibSMTCFState (integer)

This read-only MIB object displays the attachment configuration for the station or concentrator. See also ANSI SMT 9.7.2.2 for more information.

Valid Values: cf0 (1) isolated
 cf1 (2) local_a
 cf2 (3) local_b
 cf3 (4) local_ab
 cf4 (5) local_s
 cf5 (6) wrap_a

cf6 (7) wrap_b
cf7 (8) wrap_ab
cf8 (9) wrap_s
cf9 (10) c_wrap_a
cf10 (11) c_wrap_b
cf11 (12) c_wrap_s
cf12 (13) thru

Default Value: cf8 (9) wrap_s for SAS and CDDI

cf12 (13) thru for DAS

fddimibSMTRemoteDisconnectFlag (integer)

This read-only MIB object displays a flag indicating that the station was remotely disconnected from the network as a result of receiving an fddiSMTAction disconnect (refer to ANSI SMT 6.4.5.3) in a Parameter Management Frame. A station requires a Connect Action to rejoin and clear the flag. See also ANSI SMT 6.4.5.2 for more information.

Valid Values: true (1)

false (2)

Default Value: false (2)

fddimibSMTStationStatus (integer)

This read-only MIB object displays the current status of the primary and secondary paths within this station.

Valid Values: concatenated (1)
 separated (2)
 thru (3)

Default Value: separated (2) for SAS and CDDI thru (3) for DAS

fddimibSMTPeerWrapFlag (integer)

This read-only MIB object variable assumes the value of the PeerWrapFlag in CFM. See ANSI SMT 9.7.2.4.4 for more information.

Valid Values: true (1)
 false (2)

Default Value: false (2)

fddimibSMTTimeStamp (FddiTimeMilli)

This read-only MIB object variable assumes the value of TimeStamp. See also ANSI SMT 8.3.2.1 for more information.

fddimibSMTTransitionTimeStamp (FddiTimeMilli)

This read-only MIB object variable assumes the value of TransitionTimeStamp. See ANSI SMT 8.3.2.1 for more information.

fddimibSMTStationAction (integer)

This read-write MIB object, when read, always returns a value of other.

Valid Values: other (1)

Attempts to set this object to all other values results in an appropriate error.

The MAC Group

Implementation of the MAC Group is mandatory for all systems which implement manageable FDDI subsystems.

fddimibMACNumber (integer)

This read-only MIB object displays the total number of MAC implementations (across all SMTs) on this network management application entity. The value for this variable must remain constant from at least one re-initialization of the entity's network management system to the next re-initialization.

Valid Values: 1 to 2

Default Value: 1 for each FDDI in the system

The MAC Table

fddimibMACTable

This MIB object displays a list of MAC entries. The number of entries shall not exceed the value of fddimibMACNumber.

The MAC Group

fddimibMACSMTIndex (integer)

This read-only MIB object displays the value of the SMT index associated with this MAC.

Valid Values: 1 to 2

Default Value: 1 for Slot A

2 for Slot B

fddimibMACIndex (integer)

This read-only MIB object is an index variable for uniquely identifying the MAC object instance, which is the same as the corresponding resource index in SMT.

Valid Values: 1

fddimibMACIfIndex (integer)

This read-only MIB object displays the value of the MIB-II ifIndex corresponding to this MAC. If none is applicable, 0 is returned.

Valid Values: 26 for slot A

27 for slot B

fddimibMACFrameStatusFunctions (integer)

This read-only MIB object indicates the MAC's optional Frame Status processing functions.

Valid Values: 1

The value is a sum. This value initially takes the value zero, then for each function present, 2 raised to a power is added to the sum. The powers are according to the following:

| Function | Power |
|--------------|-------|
| fs-repeating | 0 |
| fs-setting | 1 |
| fs-clearing | 2 |

fddimibMACTMaxCapability (FddiTimeNano)

This read-only MIB object indicates the maximum time value of fddiMACTMax that this MAC can support.

Valid Values: 1342200000

fddimibMACTVXCapability (FddiTimeNano)

This read-only MIB object indicates the maximum time value of fddiMACTVXValue that this MAC can support.

Valid Values: 134220000

fddimibMACAvailablePaths (integer)

This read-only MIB object indicates the paths available for this MAC. See ANSI SMT 9.7.7 for more information.

Valid Values: 1 for SAS and CDDI

3 for DAS

The MAC Group

The value is a sum. This value initially takes the value zero, then for each type of PATH that this MAC has available, 2 raised to a power is added to the sum. The powers are according to the following:

| PATH | Power |
|-----------|-------|
| Primary | 0 |
| Secondary | 1 |
| Local | 2 |

fddimibMACCurrentPath (integer)

This read-only MIB object indicates the Path into which this MAC is currently inserted. See also ANSI 9.7.7 for more information.

Valid Values: primary (4)

fddimibMACUpstreamNbr (octet string)

This read-only MIB object is the MAC's upstream neighbor's long individual MAC address. It has an initial value of the SMT-Unknown-MAC Address and is only modified as specified by the Neighbor Information Frame protocol. See also ANSI SMT 7.2.1 and 8.2.

fddimibMACDownstreamNbr (octet string)

This read-only MIB object is the MAC's downstream neighbor's long individual MAC address. It has an initial value of the SMT-Unknown-MAC Address and is only modified as specified by the Neighbor Information Frame protocol. See ANSI SMT 7.2.1 and 8.2 for more information.

fddimibMACOldUpstreamNbr (octet string)

This read-only MIB object displays the previous value of the MAC's upstream neighbor's long individual MAC address. It has an initial value of the SMT-Unknown- MAC Address and is only modified as specified by the Neighbor Information Frame protocol. See ANSI SMT 7.2.1 and 8.2 for more information.

fddimibMACOldDownstreamNbr (octet string)

This read-only MIB object displays the previous value of the MAC's downstream neighbor's long individual MAC address. It has an initial value of the SMT-Unknown-MAC Address and is only modified as specified by the Neighbor Information Frame protocol. See ANSI SMT 7.2.1 and 8.2 for more information.

fddimibMACDupAddressTest (integer)

This read-only MIB object displays the Duplicate Address Test flag, Dup_Addr_Test. See ANSI 8.2 for more information.

Valid Values: none (1)

pass (2)

fail (3)

fddimibMACRequestedPaths (integer)

This read-write MIB object contains a list of permitted Paths which specifies the Path(s) into which the MAC may be inserted. See ANSI SMT 9.7 for more information.

Valid Values: 0 to 255

The value is a sum which represents the individual paths that are desired. This value initially takes the value zero, then for each type of PATH that this node is, 2 raised to a power is added to the sum. The powers are according to the following:

| PATH | Power |
|------------------------|--------------|
| local | 0 |
| secondary-alternate | 1 |
| primary-alternate | 2 |
| concatenated-alternate | 3 |
| secondary-preferred | 4 |
| primary-preferred | 5 |

The MAC Group

| PATH | Power |
|------------------------|-------|
| concatenated-preferred | 6 |
| thru | 7 |

fddimibMACDownstreamPORTType (integer)

This read-only MIB object indicates the PC-Type of the first port that is downstream of this MAC (the exit port).

Valid Values: a (1)
b (2)
s (3)
m (4)
none (5)

fddimibMACSMTAddress (octet string)

This read-only MIB object displays the 48-bit individual address of the MAC used for SMT frames.

fddimibMACTReq (FddiTimeNano)

This read-only MIB object variable is the T_Req_value passed to the MAC. Without having detected a duplicate, the time value of this variable shall assume the maximum supported time value which is less than or equal to the time value of fddiPATHMaxT-Req. When a MAC has an address detected as a duplicate, it may use a time value for this variable greater than the time value of fddiPATHMaxLowerBound. A station shall cause claim when the new T_Req may cause the value of T_Neg to change in the claim process, (that is, time value new T_Req < T_Neg, or old T_Req = T_Neg).

Default Value: 164986880

fddimibMACTNeg (FddiTimeNano)

This read-only MIB object is reported as a FddiTimeNano number.

fddimibMACTMax (FddiTimeNano)

This read-only MIB object variable is the T_Max_value passed to the MAC. The time value of this variable shall assume the minimum supported time value which is greater than or equal to the time value of fddiPATHTMaxLowerBound.

Default Value: 167772160

fddimibMACTvxValue (FddiTimeNano)

This read-only MIB object variable is the TVX_value passed to the MAC. The time value of this variable shall assume the minimum supported time value which is greater than or equal to the time value of fddiPATHTVXLowerBound.

Default Value: 2621440

fddimibMACFrameCts (counter)

This read-only MIB object returns a count of the number of frames received by this MAC (refer to ANSI MAC 7.5.1).

fddimibMACCopiedCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of frames addressed to (A bit set) and successfully copied into the station's receive buffers (C bit set) by this MAC. See ANSI MAC 7.5 for more information. Note that this count does not include MAC frames.

The MAC Group

fddimibMACTransmitCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of frames transmitted by this MAC. See ANSI MAC 7.5 for more information. Note that this count does not include MAC frames.

fddimibMACErrorCts (counter)

This read-only MIB object returns a count of the number of frames that were detected in error by this MAC that had not been detected in error by another MAC. See ANSI MAC 7.5.2 for more information.

fddimibMACLostCts (counter)

This read-only MIB object returns a count of the number of instances that this MAC detected a format error during frame reception such that the frame was stripped. See ANSI MAC 7.5.3 for more information.

fddimibMACFrameErrorThreshold (integer)

This read-write MIB object contains a threshold for determining when a MAC Condition report (see ANSI 8.3.1.1) shall be generated. Stations not supporting variable thresholds shall have a value of 0 and a range of (0..0).

Valid Values: 0 to 65535

Default Value: 0

fddimibMACFrameErrorRatio (integer)

This read-only MIB object variable is the value of the ratio, $((\text{delta fddiMACLostCts} + \text{delta fddiMACErrorCts}) / (\text{delta fddiMACFrameCts} + \text{delta fddiMACLostCts})) * 2^{16}$.

Valid Values: 0

fddimibMACRMTState (integer)

This read-only MIB object indicates the current state of the RMT State Machine. See ANSI 10.3.2 for more information.

Valid Values: rm0 (1) Isolated

rm1 (2) Non_Op

rm2 (3) Ring_Op

rm3 (4) Detect

rm4 (5) Non_Op_Dup

rm5 (6) Ring_Op_Dup

rm6 (7) Directed

rm7 (8) Trace

fddimibMACDaFlag (integer)

This read-only MIB object displays the value of the RMT flag Duplicate Address Flag, DA_Flag. See ANSI 10.2.1.2.

Valid Values: true (1)

false (2)

Default Value: 2

The MAC Group

fddimibMACUnaDaFlag (integer)

This read-only MIB object displays a flag, UNDA_Flag (see ANSI 8.2.2.1), set when the upstream neighbor reports a duplicate address condition. It is cleared when the condition clears.

Valid Values: true (1)

false (2)

Default Value: 2

fddimibMACFrameErrorFlag (integer)

This read-only MIB object indicates the MAC Frame Error Condition is present when set. It is cleared when the condition clears and on station initialization.

Valid Values: true (1)

false (2)

Default Value: 2

fddimibMACMAUnitdataAvailable (integer)

This read-only MIB object variable shall take on the value of the MAC_Avail flag defined in RMT.

Valid Values: true (1)

false (2)

Default Value: 1

fddimibMACHardwarePresent (integer)

This read-only MIB object variable indicates the presence of underlying hardware support for this MAC object. If the value of this object is false, the reporting of the objects in this entry may be handled in an implementation-specific manner.

Valid Values: true (1)

fddimibMACMAUnitdataEnable (integer)

This read-write MIB object variable determines the value of the MA_UNITDATA_Enable flag in RMT. The default and initial value of this flag is true.

Valid Values: true (1)

false (2)

Default Value: 2

The Enhanced MAC Counters Group

Implementation of this group is optional, but systems claiming support must implement all variables in this group.

The MAC Counters Table

fddimibMACCountersTable

This MIB object displays a list of MAC Counters entries. The number of entries shall not exceed the value of fddimibMACNumber.

The Enhanced MAC Counters Group

fddimibMACTokenCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of times the station has received a token (total of non-restricted and restricted) on this MAC (see ANSI MAC 7.4). This count is valuable for determination of network load.

fddimibMACTvxExpiredCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of times that TVX has expired.

fddimibMACNotCopiedCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of frames that were addressed to this MAC but were not copied into its receive buffers (see ANSI MAC 7.5). For example, this might occur due to local buffer congestion. Because of implementation considerations, this count may not match the actual number of frames not copied. It is not a requirement that this count be exact.

Note This count does not include MAC frames.

fddimibMACLateCts (counter)

This read-only MIB object returns a count that should as closely as possible match the number of TRT expirations since this MAC was reset or a token was received (refer to ANSI MAC 7.4.5).

fddimibMACRingOpCts (counter)

This read-only MIB object returns the count of the number of times the ring has entered the *Ring_Operational* state from the *Ring_Not Operational* state. This count is updated when a SM_MA_STATUS indication of a change in the Ring_Operational status occurs (see ANSI 6.1.4). Because of implementation considerations, this count may be less than the actual RingOp_Ct. It is not a requirement that this count be exact.

fddimibMACNotCopiedRatio (integer)

This read-only MIB object variable is the value of the ratio:

$$(\text{delta fddiMACNotCopiedCts} / (\text{delta fddiMACCopiedCts} + \text{delta fddiMACNotCopiedCts})) * 2^{16}.$$

Valid Values: 0

fddimibMACNotCopiedFlag (integer)

This read-only MIB object indicates that the Not Copied condition is present when read as true. It is set to false when the condition clears and on station initialization.

Valid Values: true (1)

false (2)

Default Value: 2

fddimibMACNotCopiedThreshold (integer)

This read-write MIB object contains a threshold for determining when a MAC condition report shall be generated. Stations not supporting variable thresholds shall have a value of 0 and a range of (0 to 0).

Valid Values: 0 to 0

Default Value: 0

The PATH Group

Implementation of the PATH group is mandatory for all systems which implement manageable FDDI subsystems.

The PATH Group

fddimibPATHNumber (integer)

This read-only MIB object displays the total number of PATHs possible (across all SMTs) on this network management application entity. The value for this variable must remain constant from at least one reinitialization of the entity's network management system to the next.

Valid Values: 1 to 4

The PATH Table

fddimibPATHTable

This MIB object displays a list of PATH entries. The number of entries shall not exceed the value of fddimibPATHNumber.

fddimibPATHSMTIndex (integer)

This read-only MIB object displays the value of the SMT index associated with this PATH.

Valid Values: 1 for Slot A

2 for Slot B

fddimibPATHIndex (integer)

This read-only MIB object is an index variable for uniquely identifying the primary, secondary and local PATH object instances. Local PATH object instances are represented with integer values 3 to 255.

Valid Values: 1 for primary path

2 for secondary path

fddimibPATHTVXLowerBound (FddiTimeNano)

This read-write MIB object specifies the minimum time value of fddiMACTvxValue that shall be used by any MAC that is configured in this path. The operational value of fddiMACTvxValue is managed by setting this variable. This variable has the time value range of:

$$0 < \text{fddimibPATHTVXLowerBound} < \text{fddimibPATHMaxTReq}$$

Changes to this variable shall either satisfy the time value relationship:

$$\text{fddimibPATHTVXLowerBound} \leq \text{fddimibMACTVXCapability}$$

of each of the MACs currently on the path, or be considered out of range.

Default Value: 2500000 nsec (2.5 ms).

fddimibPATHHTMaxLowerBound (FddiTimeNano)

This read-write MIB object specifies the minimum time value of fddiMACTMax that shall be used by any MAC that is configured in this path. The operational value of fddiMACTMax is managed by setting this variable. This variable has the time value range of:

$$\text{fddimibPATHMaxTReq} \leq \text{fddimibPATHHTMaxLowerBound}$$

and an absolute time value range of:

$$10000\text{nsec (10 msec)} \leq \text{fddimibPATHHTMaxLowerBound}$$

Changes to this variable shall either satisfy the time value relationship:

$$\text{fddimibPATHHTMaxLowerBound} \leq \text{fddimibMACTMaxCapability}$$

of each of the MACs currently on the path, or be considered out of range.

Default Value: 165000000 nsec (165 msec)

The PATH Group

fddimibPATHMaxTReq (FddiTimeNano)

This read-write MIB object specifies the maximum time value of fddiMACT-Req that shall be used by any MAC that is configured in this path. The operational value of fddiMACT-Req is managed by setting this variable. This variable has the time value range of:

```
fddimibPATHTVXLowerBound < fddimibPATHMaxTReq <=
fddimibPATHTMaxLowerBound.
```

Default Value: 165000000 nsec (165 msec)

The PATH Configuration Table

fddimibPATHConfigTable

This MIB object displays a table of PATH configuration entries. This table lists all the resources that may be in this PATH.

fddimibPATHConfigSMTIndex (integer)

This read-only MIB object displays the value of the SMT index associated with this configuration entry.

Valid Values: 1 for Slot A

2 for Slot B

fddimibPATHConfigPATHIndex (integer)

This read-only MIB object displays the value of the PATH resource index associated with this configuration entry.

Valid Values: 1 for Primary path

2 for Secondary path

fddimibPATHConfigTokenOrder (integer)

This read-only MIB object displays an object associated with token order for this entry. Thus if the token passes resources a, b, c and d, in that order, then the value of this object for these resources would be 1, 2, 3 and 4 respectively.

Valid Values: 1, 2 or 3

fddimibPATHConfigResourceType (integer)

This read-only MIB object displays the type of resource associated with this configuration entry.

Valid Values: mac (2)

port (4)

fddimibPATHConfigResourceIndex (integer)

This read-only MIB object displays the value of the SMT resource index used to refer to the instance of this MAC or Port resource.

Valid Values: 1 for Slot A or S or MAC

2 for Slot B

fddimibPATHConfigCurrentPath (integer)

This read-only MIB object displays the current insertion status for this resource on this PATH.

Valid Values: primary (4)

thru (6)

The PORT Group

fddimibPORTNumber (integer)

This read-only MIB object displays the total number of PORT implementations (across all SMTs) on this network management application entity. The value for this variable must remain constant from at least one reinitialization of the entity's network management system to the next.

Valid Values: 1, 2, 3 or 4

The fddimibporT Table

fddimibPORTTable

This MIB object displays a list of PORT entries. The number of entries shall not exceed the value of fddimibPORTNumber.

fddimibPORTSMTIndex (integer)

This read-only MIB object displays the value of the SMT index associated with this PORT.

Valid Values: 1 for Slot A

2 for Slot B

fddimibPORTIndex (integer)

This read-only MIB object displays a unique value for each PORT within a given SMT, which is the same as the corresponding resource index in SMT. The value for each PORT must remain constant from at least one reinitialization of the entity's network management system to the next.

Valid Values: 1 for Slot A or S
2 for Slot B

fddimibPORTMyType (integer)

This read-only MIB object displays the value of the PORT's PC_Type. See ANSI 9.4.1, and 9.6.3.2 for more information.

Valid Values: a (1)
b (2)
s (3)

fddimibPORTNeighborType (integer)

This read-only MIB object displays the type of the remote PORT as determined in PCM. This variable has an initial value of none, and is only modified in PC_RCode(3)_Actions. See ANSI SMT 9.6.3.2 for more information.

Valid Values: a (1)
b (2)
s (3)
m (4)
none (5)

The PORT Group

fddimibPORTConnectionPolicies (integer)

This read-write MIB object contains a value representing the PORT's connection policies desired in the node. The value of pc-mac-lct is a term used in the PC_MAC_LCT Flag (see ANSI 9.4.3.2). The value of pc-mac-loop is a term used in the PC_MAC_Loop Flag.

Valid Values: 0 to 3

Default Value: 0

The value is a sum. This value initially takes the value zero, then for each PORT policy, 2 raised to a power is added to the sum. The powers are according to the following:

| Policy | Power |
|-------------|-------|
| pc-mac-lct | 0 |
| pc-mac-loop | 1 |

fddimibPORTMACIndicated (integer)

This read-only MIB object displays the indications, (T_Val(9), R_Val(9)) in PC- Signaling, of the intent to place a MAC in the output token path to a PORT. See ANSI SMT 9.6.3.2.

Valid Values: tVal9FalseRVal9False (1)

tVal9FalseRVal9True (2)

tVal9TrueRVal9False (3)

tVal9TrueRVal9True (4)

Default Value: 1 for Port B or S

2 for Port A

fddimibPORTCurrentPath (integer)

This read-only MIB object indicates the Path(s) into which this PORT is currently inserted.

| | | |
|---------------|-----|------------------|
| Valid Values: | ce0 | (1) isolated |
| | ce3 | (4) primary |
| | ce4 | (5) concatenated |
| | ce5 | (6) thru |

Default Value: 4 for SAS or UTP
6 for DAS

fddimibPORTRequestedPaths (octet string)

This read-write MIB object variable is a list of permitted Paths where each list element defines the Port's permitted Paths. The first octet corresponds to *none*, the second octet to *tree*, and the third octet to *peer*.

Valid Values: 0 to FFFFFFFF

Default Value: Hex value 01 29 28 for SAS or UTP
Hex value 01 19 99 for DAS in Slot A
Hex value 01 29 E1 for DAS in Slot B

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fddimibPORTMACPlacement (integer)

This read-only MIB object indicates the MAC, if any, whose transmit path exits the station via this PORT. The value shall be zero if there is no MAC associated with the PORT. Otherwise, the MACIndex of the MAC will be the value of the variable.

Valid Values: 1 for port S or port B

0 for port A

fddimibPORTAvailablePaths (integer)

This read-only MIB object indicates the paths that are available to this PORT. In the absence of faults, the A and B ports will always have both the Primary and Secondary paths available.

Valid Values: 1 for SAS or UTP

3 for DAS

The value is a sum. This value initially takes the value zero, then for each type of PATH that this port has available, 2 raised to a power is added to the sum. The powers are according to the following:

| Path | Power |
|-----------|-------|
| Primary | 0 |
| Secondary | 1 |
| Local | 2 |

fddimibPORTPMDClass (integer)

This read-only MIB variable indicates the type of PMD entity associated with this port.

Valid Values: multimode (1)

twisted-pair (6)

fddimibPORTConnectionCapabilities (integer)

This read-only MIB object displays a value that indicates the connection capabilities of the port. The pc-mac-lct bit indicates that the station has the capability of setting the PC_MAC_LCT Flag. The pc-mac-loop bit indicates that the station has the capability of setting the PC_MAC_Loop flag (refer to ANSI 9.4.3.2).

Valid Values: 0

The value is a sum. This value initially takes the value zero, then for each capability that this port has, 2 raised to a power is added to the sum. The powers are according to the following:

| Capability | Power |
|-------------|-------|
| pc-mac-lct | 0 |
| pc-mac-loop | 1 |

fddimibPORTBSFlag (integer)

This read-only MIB object variable assumes the value of the BS_Flag (refer to ANSI SMT 9.4.3.3).

Valid Values: false (2)

fddimibPORTLCTFailCts (counter)

This read-only MIB object returns the count of the consecutive times the link confidence test (LCT) has failed during connection management. See ANSI 9.4.1 for more information.

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fddimibPORTLerEstimate (integer)

This read-only MIB object displays a long-term average link error rate. It ranges from 10^{*-4} to 10^{*-15} and is reported as the absolute value of the base 10 logarithm. See ANSI SMT 9.4.7.5 for more information.

Valid Values: 4 to 15

Default Value: 8

fddimibPORTLemRejectCts (counter)

This read-only MIB object returns a link error monitoring count of the times that a link has been rejected.

fddimibPORTLemCts (counter)

This read-only MIB object returns the aggregate link error-monitor error count, set to zero only on station initialization.

fddimibPORTLerCutoff (integer)

This read-write MIB object contains the link error rate estimate at which a link connection will be broken. It ranges from 10^{*-4} to 10^{*-15} and is reported as the absolute value of the base 10 logarithm (default of 7).

Valid Values: 4 to 15

Default Value: 7

fddimibPORTLerAlarm (integer)

This read-write MIB object contains the link error rate estimate at which a link connection will generate an alarm. It ranges from 10^{*-4} to 10^{*-15} and is reported as the absolute value of the base 10 logarithm of the estimate (default of 8).

Valid Values: 4 to 15

Default Value: 8

fddimibPORTConnectState (integer)

This read-only MIB object displays an indication of the connect state of this PORT and is equal to the value of Connect_State (see ANSI 9.4.1).

Valid Values: disabled (1)
connecting (2)
standby (3)
active (4)

fddimibPORTPCMState (integer)

This read-only MIB object displays the state of this port's PCM state machine (see ANSI SMT 9.6.2).

Valid Values: pc0 (1) Off
pc1 (2) Break
pc2 (3) Trace
pc3 (4) Connect
pc4 (5) Next

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pc5 (6) Signal

pc6 (7) Join

pc7 (8) Verify

pc8 (9) Active

pc9 (10) Maint

fddimibPORTPCWithhold (integer)

This read-only MIB object displays the value of PC_Withhold (see ANSI SMT 9.4.1).

Valid Values: none (1)

fddimibPORTLerFlag (integer)

This read-only MIB object condition becomes active when the value of fddiPORTLerEstimate is less than or equal to fddiPORTLerAlarm. This will be reported with the Status Report Frames (SRF) (refer to ANSI SMT 7.2.7 and 8.3).

Valid Values: false (2)

fddimibPORTHardwarePresent (integer)

This read-only MIB object variable indicates the presence of underlying hardware support for this Port object. If the value of this object is false, the reporting of the objects in this entry may be handled in an implementation-specific manner.

Valid Values: true (1)

fddimibPORTAction (integer)

This read-write MIB object causes a control signal to be generated with a control_action of *Signal* and the *variable* parameter set with the appropriate value (that is, PC_Maint, PC_Enable, PC_Disable, PC_Start, or PC_Stop). Refer to ANSI 9.4.2.

Valid Values: other (1)

maintPORT (2)

enablePORT (3)

disablePORT (4)

startPORT (5)

stopPORT (6)

Default Value: other (1)

