

# How to check DDM information via SNMP

## 1) show ddm

- CLI :

```
DGS-3627:admin#sh ddm
Command: show ddm

DDM Log          :Enabled
DDM Trap         :Disabled
Success.
```

- SNMP MIB Description:

- DDM Log:

⇒ **OID:** 1.3.6.1.4.1.171.12.72.1.2

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.1.2

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.1.2
SNMPv2-SMI::enterprises.171.12.72.1.2.0 = INTEGER: 1
```

```
Object name      swDdmLogState
Object ID        1.3.6.1.4.1.171.12.72.1.2
Module           DDM-MGMT-MIB

Base syntax      Integer
Composed syntax  INTEGER
Access           Read-Write
Status           Current
Value list       1 : enabled(1)
                 2 : disabled(2)

Parent node      swDdmCtrl
First child      None
Description      This object indicates the log action state.
```

- DDM Trap:

⇒ **OID:** 1.3.6.1.4.1.171.12.72.1.1

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.1.1

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.1.1
SNMPv2-SMI::enterprises.171.12.72.1.1.0 = INTEGER: 2
```

```
Object name      swDdmTrapState
Object ID        1.3.6.1.4.1.171.12.72.1.1
Module           DDM-MGMT-MIB

Base syntax      Integer
Composed syntax  INTEGER
Access           Read-Write
Status           Current
Value list       1 : enabled(1)
                 2 : disabled(2)

Parent node      swDdmCtrl
First child      None
Description      This object indicates the trap action state.
```

## 2) show ddm ports status:

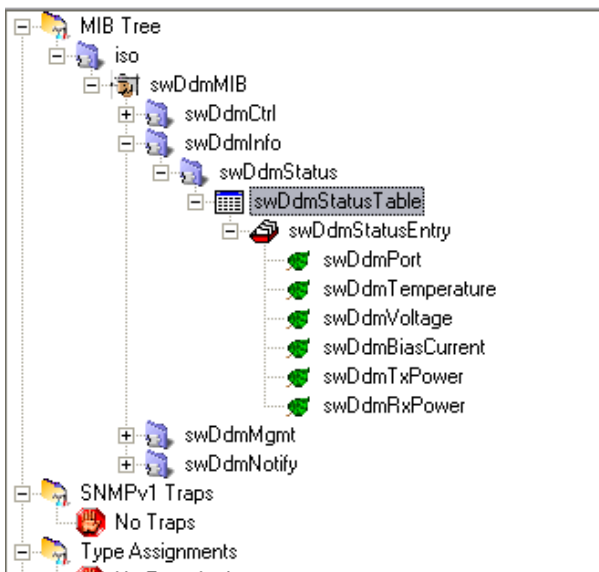
- CLI::

```
DGS-3627:admin#show ddm ports s
Command: show ddm ports status
```

Port	Temperature (in Celsius)	Voltage (V)	Bias Current (mA)	TX Power (mW)	RX Power (mW)
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
.....					
....					

- SNMP MIB Description:

### DDM Status Table:



The MIB Tree diagram shows the following structure:

- iso
  - swDdmMIB
    - swDdmCtrl
    - swDdmInfo
    - swDdmStatus
      - swDdmStatusTable (highlighted)
        - swDdmStatusEntry
          - swDdmPort
          - swDdmTemperature
          - swDdmVoltage
          - swDdmBiasCurrent
          - swDdmTxPower
          - swDdmRxPower
    - swDdmMgmt
    - swDdmNotify

Object name	swDdmStatusTable
Object ID	1.3.6.1.4.1.171.12.72.2.1.1
Module	DDM-MGMT-MIB
Base syntax	Sequence Of swDdmStatusEntry
Access	Not_Accessible
Status	Current
Sequence	1:swDdmPort - Integer 2:swDdmTemperature - Octet String 3:swDdmVoltage - Octet String 4:swDdmBiasCurrent - Octet String 5:swDdmTxPower - Octet String 6:swDdmRxPower - Octet String
Parent node	swDdmStatus
First child	swDdmStatusEntry
Description	This table contains the DDM status information.

- **DDM port:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.1

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.1

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.1
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.1 = INTEGER: 1
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.2 = INTEGER: 2
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.3 = INTEGER: 3
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.4 = INTEGER: 4
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.5 = INTEGER: 5
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.6 = INTEGER: 6
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.7 = INTEGER: 7
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.8 = INTEGER: 8
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.9 = INTEGER: 9
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.10 = INTEGER: 10
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.11 = INTEGER: 11
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.12 = INTEGER: 12
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.13 = INTEGER: 13
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.14 = INTEGER: 14
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.15 = INTEGER: 15
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.16 = INTEGER: 16
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.17 = INTEGER: 17
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.18 = INTEGER: 18
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.19 = INTEGER: 19
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.20 = INTEGER: 20
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.21 = INTEGER: 21
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.22 = INTEGER: 22
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.23 = INTEGER: 23
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.24 = INTEGER: 24
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.25 = INTEGER: 25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.26 = INTEGER: 26
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.1.27 = INTEGER: 27
```

Object name	swDdmPort
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.1
Module	DDM-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 1..65535
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the port.

- **DDM Temperature:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.2

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.2.25  
(.25 = port 25)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.2.25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.2.25 = STRING: " -"
```

Object name	swDdmTemperature
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.2
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1 : 0..255
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the real time value of the temperature. As the value is a floating point data type, the DisplayString type is used to define this parameter.

- **DDM Voltage:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.3

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.3.25  
(.25 = port 25)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.3.25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.3.25 = STRING: " -"
```

Object name	swDdmVoltage
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.3
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1 : 0..255
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the real time value of the supply voltage. As the value value is a floating point data type, the DisplayString type is used to define this parameter.

- **DDM Bias Current:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.4

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.4.25  
(.25 = port 25)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.4.25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.4.25 = STRING: " -"
```

Object name	swDdmBiasCurrent
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.4
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1 : 0..255
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the real time value of the tx bias.

- **DDM TX Power:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.5

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.5.25  
(.25 = port 25)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.5.25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.5.25 = STRING: " -"
```

Object name	swDdmTxPower
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.5
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1 : 0..255
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the real time value of the tx power. As the value is a floating point data type, the DisplayString type is used to define this parameter.

- **DDM RX Power:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.2.1.1.1.5

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.5.25  
(.25 = port 25)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.2.1.1.1.6.25
SNMPv2-SMI::enterprises.171.12.72.2.1.1.1.6.25 = STRING: " -"
```

Object name	swDdmRxPower
Object ID	1.3.6.1.4.1.171.12.72.2.1.1.1.6
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1 : 0..255
Parent node	swDdmStatusEntry
First child	None
Description	This object indicates the real time value of the rx power. As the value is a floating data type, the DisplayString type is used to define this parameter.

### 3) show ddm ports configuration

- CLI:

```

DGS-3627:admin#show ddm ports 23 configuration
Command: show ddm ports 23 configuration

Port:          23
-----

DDM state : Enabled
Shutdown  : Alarm

Threshold      Temperature    Voltage    Bias-Current    TX-Power    RX-Power
-----
High Alarm     -                    -          -                -            -
Low Alarm      -                    -          -                -            -
High Warning   -                    -          -                -            -
Low Warning    -                    -          -                -            -

A means that the threshold is administratively configured.
  
```

- SNMP MIB Description:

#### # Port Mgmt Table:

The MIB Tree shows the following structure:

- iso
  - swDdmMIB
    - swDdmCtrl
    - swDdmInfo
    - swDdmMgmt
      - swDdmThresholdMgmt
      - swDdmActionMgmt
        - swDdmActionMgmtTable
        - swDdmPortMgmtTable
          - swDdmPortMgmtEntry (highlighted)
          - swDdmPortState
          - swDdmPortShutdown
  - swDdmNotify

Object name	swDdmPortMgmtEntry
Object ID	1.3.6.1.4.1.171.12.72.3.2.2.1
Module	DDM-MGMT-MIB
Base syntax	Sequence
Access	Not_Accessible
Status	Current
Index	1.swDdmPort
Parent node	swDdmPortMgmtTable
First child	swDdmPortState
Description	This is an entry of the swDdmPortMgmtTable.

- **DDM Port state:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.2.2.1.1

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.1.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.1.23 i 2  
(.23 = port 23)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.1.23
SNMPv2-SMI::enterprises.171.12.72.3.2.2.1.1.23 = INTEGER: 1
```

```
C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.1.23 i 2
SNMPv2-SMI::enterprises.171.12.72.3.2.2.1.1.23 = INTEGER: 2
```

Object name	swDdmPortState
Object ID	1.3.6.1.4.1.171.12.72.3.2.2.1.1
Module	DDM-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swDdmPortMgmtEntry
First child	None
Description	This object indicates the DDM state information by port.

- **DDM Port shutdown:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.2.2.1.2

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.2.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.2.23 i 3  
(.23 = port 23)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.2.23
SNMPv2-SMI::enterprises.171.12.72.3.2.2.1.2.23 = INTEGER: 1
```

```
C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.2.2.1.2.23 i 3
SNMPv2-SMI::enterprises.171.12.72.3.2.2.1.2.23 = INTEGER: 3
```

Object name	swDdmPortShutdown
Object ID	1.3.6.1.4.1.171.12.72.3.2.2.1.2
Module	DDM-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : alarm(1) 2 : warning(2) 3 : none(3) 4 : other(4)
Parent node	swDdmPortMgmtEntry
First child	None
Description	This object indicates whether or not to shutdown the port on which the operating parameter exceeds the specified threshold.



## # Threshold Mgmt Table

	Object name	swDdmThresholdMgmtTable
	Object ID	1.3.6.1.4.1.171.12.72.3.1.1
	Module	DDM-MGMT-MIB
	Base syntax	Sequence Of swDdmThresholdMgmtEntry
	Access	Not_Accessible
	Status	Current
	Sequence	1:swDdmThresholdType - Integer 2:swDdmHighAlarm - Octet String 3:swDdmLowAlarm - Octet String 4:swDdmHighWarning - Octet String 5:swDdmLowWarning - Octet String
	Parent node	swDdmThresholdMgmt
	First child	swDdmThresholdMgmtEntry
	Description	This table contains DDM temperature configuration information.

### - Threshold:

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.1.1.1

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.23  
(.23 = port 23)

```
C:\> snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.23
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.23.1 = INTEGER: 1
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.23.2 = INTEGER: 2
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.23.3 = INTEGER: 3
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.23.4 = INTEGER: 4
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.23.5 = INTEGER: 5
```

Object name	swDdmThresholdType
Object ID	1.3.6.1.4.1.171.12.72.3.1.1.1
Module	DDM-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : temperature(1) 2 : voltage(2) 3 : bias(3) 4 : txPower(4) 5 : rxPower(5)
Parent node	swDdmThresholdMgmtEntry
First child	None
Description	This object indicates the threshold type.

- **High Alarm:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.1.1.1.2

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.2.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.2.23 x 3  
(.23 = port 23)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.2.23
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.2.23.1 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.2.23.2 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.2.23.3 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.2.23.4 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.2.23.5 = STRING: " -"
```

Object name	swDdmHighAlarm
Object ID	1.3.6.1.4.1.171.12.72.3.1.1.1.2
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Write
Status	Current
Value list	1 : 0..255
Parent node	swDdmThresholdMgmtEntry
First child	None
Description	This object indicates the high alarm threshold value to be configured. As the value is a floating point data type, the DisplayString type is used to define this parameter.

- **Low Alarm:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.1.1.1.3

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.3.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.3.23 x 3  
(.23 = port 23)

```
C:\> snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.3.23
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.3.23.1 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.3.23.2 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.3.23.3 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.3.23.4 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.3.23.5 = STRING: " -"
```

Object name	swDdmLowAlarm
Object ID	1.3.6.1.4.1.171.12.72.3.1.1.1.3
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Write
Status	Current
Value list	1 : 0..255
Parent node	swDdmThresholdMgmtEntry
First child	None
Description	This object indicates the low alarm threshold value to be configured. As the value is a floating data type, the DisplayString type is used to define this parameter.

- **High Warning:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.1.1.1.4

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.4.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.4.23 x 3  
(.23 = port 23)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.4.23
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.4.23.1 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.4.23.2 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.4.23.3 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.4.23.4 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.4.23.5 = STRING: " -"
```

Object name	swDdmHighWarning
Object ID	1.3.6.1.4.1.171.12.72.3.1.1.1.4
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Write
Status	Current
Value list	1 : 0..255
Parent node	swDdmThresholdMgmtEntry
First child	None
Description	This object indicates the high warning threshold value to be configured. As the value is a floating data type, the DisplayString type is used to define this parameter.

- **Low Warning:**

⇒ **OID:** 1.3.6.1.4.1.171.12.72.3.1.1.1.5

⇒ **CMD:** snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.5.23  
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.5.23 x 3  
(.23 = port 23)

```
C:\>snmpwalk -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.72.3.1.1.1.5.23
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.5.23.1 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.5.23.2 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.5.23.3 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.5.23.4 = STRING: " -"
SNMPv2-SMI::enterprises.171.12.72.3.1.1.1.5.23.5 = STRING: " -"
```

Object name	swDdmLowWarning
Object ID	1.3.6.1.4.1.171.12.72.3.1.1.1.5
Module	DDM-MGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Write
Status	Current
Value list	1 : 0..255
Parent node	swDdmThresholdMgmtEntry
First child	None
Description	This object indicates the low warning threshold value to be configured. As the value is a floating data type, the DisplayString type is used to define this parameter.