



ATID Co.,Ltd

AT288N API Reference Guide for Windows Developers

Android Developer Guide

SW Team

2023-06-12

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1. Intro

The purpose of this document is to guide the usage of SDK Library for net framework developers, who intend to develop applied programs using AT288 SDK Library.

The tool for this document is the **Visual Studio 2019** C# by Microsoft; and the platform to be developed is compatible with Windows for PC (above Windows XP)

Library	Description
AT288Lib.Net.dll	To control AT288N,compatible with Windows .NET Library

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2. Reference Library Guide

2.1. Reader Class

Reader Class uses AT288N SDK Library to connect to AT288N device, or end connection. Also, it is capable of calling "Method" to control AT288N Device or change or un-change the settings, as well as receiving the event returned from AT288N Device.

2.1.1. Constructor

Reset new instance of Reader Class

➤ Syntax

```
public Reader()
```

➤ Remarks

This constructor uses the basic property value without one particularly set in advance

2.1.2. Basic Method

2.1.2.1. Open

Open connection with AT288N Device with serial port

➤ Syntax

```
public bool Open(string portName, int baudRate)
```

➤ Parameters

portName : Input name of serial port to connect with AT288 Device

baudRate : Input Serial Port BaudRate.

➤ Return value

'True' is returned if connection to AT288 Device had succeeded, 'false' is returned if it had failed

2.1.2.2. Close

Close connection with AT288N device

➤ Syntax

```
public void Close()
```

➤ Remarks

The reader is closed, and connection with AT288N Device is ended

2.1.2.3. Activate

Synchronize Reader class with the status of AT288N Device

➤ Syntax

```
public bool Activate()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed.

➤ Remarks

Connection completion event is operated upon calling open method. Call method to synchronize applied program to AT288N device. When Active method is called, Firmware version property return event and extension property return event are automatically formed

2.1.2.4. Inventory

Perform Inventory function based on SetTagType and SetContinueMode setting.

➤ Syntax

```
public bool Inventory()
public bool Inventory(string mask)
```

➤ Parameters

mask : Masking pattern to select Tag (hex string)

Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Remarks

Inventory Tag data is passed to dReadTag event

In order to use Selection function, location for masking pattern has to be pre-set with methods such as SetSelectionBank, SetSElectionOffset, or SetSelection Action

2.1.2.5. Inventory6b6cAnyone

Inventory function is performed without differentiating ISO 18000-6B/6C

Syntax

```
public bool Inventory6b6cAnyone()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

It is only usable when IsAT288N_MA property value is true

Inventory tag data is passed to Read Tag

2.1.2.6. InventoryMemory

Perform the Inventory action and read the values of the specific memory banks of Tag.

Syntax

```
public bool InventoryMemory(MemoryType m_ReadBank, int m_nReadOffset, int m_nReadLength)
public bool InventoryMemory(MemoryType m_ReadBank, int m_nReadOffset, int
```

```
m_nReadLength, string m_strSelectionMask)
```

➤ **Parameters**

➤ **m_ReadBank**: Tag's Memory Bank to be accessed

m_nReadOffset: The starting address of the Tag Memory Bank for access

m_nReadLength: Memory length for access

m_strSelectionMask: Masking pattern (Hex string) to select Tag

➤ **Return value**

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ **Remarks**

Inventory tag data is passed to ReadTag event

It cannot function when IsAT288N_MA property value is true

2.1.2.7. InventoryMultiple

Performs inventory function with Multiple mode

➤ **Syntax**

```
public bool InventoryMultiple(string lpszMask)
```

➤ **Parameters**

lpszMask : Masking pattern. (Hex string) for tag selection

➤ **Return value**

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Remarks

Inventory tag data is passed to ReadTag event

2.1.2.8. InventorySelection

Only 6C Gen2 Type Tag is operated; AT288 Device performs Inventory operation using 2 of EPC Masking selections

➤ **Syntax**

```
public bool InventorySelection(SelectionMaskOperationType operation,
                                string mask1,
                                SelectionActionType action1,
                                string mask2,
                                SelectionActionType action2)
```

➤ **Parameters**

operation : lpszMask1, lpszMask2 and action operation(calculation)

mask1 : First Masking value for Selection Filtering

action1 : Designate lpszMask1's Masking operation(action)

mask2 : 2nd Masking value for Selection Filtering

action2 : Designate lpszMask2's Masking operation(action)

action2 : Designate lpszMask2's Masking operation(action)

➤ **Return value**

True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ **Remarks**

In order to perform inventory with 2 conditions, 2 masking values are set, and use operation to calculate the results of two masking actions. Unlike Masking selection with one condition, masking starting address does not use SetSelectionOffset, and Tag memory is also limited to EPC. Put 'X' in the mask value instead of starting address. For example, in order to mask the Tag with EPC starting with 0x1234, put "XXXX1234" as the mask. Inventory execution result is passed to Action event, and tag value recognized with ReadTag event is passed to inventory

2.1.2.9. InventorySingle

Perform the Inventory function in Single mode..

➤ **Syntax**

```
public bool InventorySingle(string lpszMask)
```

➤ **Parameters**

lpszMask : Masking pattern (Hex string) to select Tag

➤ **Return value**

Masking pattern (Hex string) to select Tag

➤ **Remarks**

Implements Inventory once and stops; Inventory tag data is passed to ReadTag

2.1.2.10. StopOperation

Stops action type performance in progress

➤ **Syntax**

```
public bool StopOperation()
```

➤ **Return value**

True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ **Remarks**

Implements Inventory once and stops; Inventory tag data is passed to ReadTag

2.1.2.11. ReadMemory

Record the value on the specific memory bank of the tag

➤ **Syntax**

```
public bool ReadMemory(MemoryType m_ReadBank, int m_nReadOffset, int m_nReadLength)
public bool ReadMemory(MemoryType m_ReadBank, int m_nReadOffset, int m_nReadLength, string m_strSelectionMask)
```

➤ Parameters

m_ReadBank : Tag's Memory Bank to be accessed

m_nReadOffset : Starting address of the memory bank of the Tag that is about to be accessed

m_nReadLength : Length of Memory to be accessed

m_strSelectionMask : masking pattern to select Tag (Hex string)Return value

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Read tag data is forwarded to a ReadTag event and, in case of failure, a failure code is passed to a response event.

Refer to 2.2.1.3 Response

It cannot function when IsAT288N_MA property value is true, and TagType property value is ISO18000_6B

2.1.2.12. WriteMemory

Record the value on the specific memory bank of the tag

➤ Syntax

```
public bool WriteMemory(MemoryType m_WriteBank, int m_nWriteOffset, string m_strWriteValue)
public bool WriteMemory(MemoryType m_WriteBank, int m_nWriteOffset, string m_strWriteValue, string m_strSelectionMask)
```

➤ Parameters

m_WriteBank : Memory bank of the Tag that is about to be accessed

m_nWriteOffset : Starting address of the memory bank of the Tag that is about to be accessed

m_strWriteValue : Data that is to be recorded on Tag (Hex string)

m_strSelectionMask : Masking pattern to select the Tag (Hex string)Return value

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to Response event; Refer to 2.2.1.3 Response

It cannot function when IsAT288N_MA property value is true, and TagType property value is ISO18000_6B

2.1.2.13. Lock

Lock or unlock the access to the TagSyntax

```
public bool Lock(AccessPermType kill, AccessPermType access, AccessPermType epc, AccessPermType tID, AccessPermType user)
```

```
public bool Lock(AccessPermType kill, AccessPermType access, AccessPermType epc, AccessPermType tID, AccessPermType user, string lpszMask)
```

➤ Parameters

kill : Set lock on Kill password

access : Set lock on Access password

epc : Set lock on EPC

tID : Set lock on TID

user : Set lock on User

lpszMask : Masking pattern to select Tag (Hex string)

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to Response event. It cannot function when IsAT288N_MA property value is true, and TagType property value is ISO18000_6B.

2.1.2.14. Kill

It makes the Tag no longer usable

➤ Syntax

```
public bool Kill(string killPassword)
public bool Kill(string killPassword, string lpszMask)
```

➤ Parameters

killPassword : Kill password that is stored in the Tag in order to operate the killing

lpszMask : Masking pattern to select the Tag (Hex string)Return value

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to Response event. Once the Kill is executed on the Tag, it is irreversible. Thus, Kill method must be used in caution. Refer to Response; It cannot function when IsAT288N_MA property value is true, and TagType property value is ISO18000_6B

2.1.3. Property Method

Provides setting function for Tag operation property and module property

2.1.3.1. GetModelType

Returns the model type of AT288N associated with the host

➤ Syntax

```
public ModelType GetModelType()
```

➤ Return value

AT288N's type value (Refer to the ModelType Enumeration value.)

➤ Remarks

Must be used after activating Method call

2.1.3.2. GetFirmwareVersion

Read AT288N UHF module's F/W version

➤ Syntax

```
public string GetFirmwareVersion()
```

➤ Return value

Upon success, firmware version is returned as a string; upon failure, blank string is returned.

2.1.3.3. RequestVersion

Request F/W version of UHF module on AT288N.

➤ Syntax

```
public bool RequestVersion()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The result of the execution is passed to the Property event

2.1.3.4. RequestDeviceVersion

Request the main board F/W version of AT288N.

➤ Syntax

```
public bool RequestDeviceVersion()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed.

➤ Remarks

Execution result is passed to PropertyEx event

2.1.3.5. GetSDKVersion

Read SDK version

➤ Syntax

```
public static string GetFirmwareVersion()
```

➤ Return value

SDK version is returned in string; When failed, blank string is returned

2.1.3.6. GetGlobalBand

Read country setting of UHF module

➤ Syntax

```
public GlobalBandType getGlobalBand()
```

➤ Return value

Country setting

➤ Remarks

Refer to GlobalBandType Enumeration

2.1.3.7. RequestGlobalBand

Read country setting of UHF module

➤ Syntax

```
public bool RequestGlobalBand()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to Property event

2.1.3.8. GetLBTChannel

Read LBT Channel information

➤ Syntax

```
public int GetLBTChannel()
```

➤ Return value

LBT Channel information

➤ Remarks

This method is only valid when GetModelType's returned value is ModelType.AT288Japan

2.1.3.9. RequestLBTChannel

Read LBT Channel information

➤ Syntax

```
public bool RequestLBTChannel()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Remarks

The execution result is passed to Property event

This method is only valid when GetModelType's returned value is ModelType.AT288Japan

2.1.3.10. SetLBTChannel

Set LBT Channel information

➤ Syntax

```
public bool SetLBTChannel(int nValue)
```

➤ Parameters

value : LBT Channel information

Remarks

Create value referring to the table below. When bit is 1 from the table below, the corresponding frequency is used, and when it is 0, it is not used.

This method is only valid when returned value of GetModelType is ModelType.AT288Japan

Bit	8Bit	7Bit	6Bit	5Bit	4Bit	3Bit	2Bit	1Bit	0Bit
Ch No.	9	8	7	6	5	4	3	2	1
Freq.(MHz)	923.4	922.8	922.2	921.6	921.0	920.4	919.2	918.0	916.8

이 메서드는 GetModelType의 반환 값이 ModelType.AT288Japan 일 때만 유효하다.

2.1.3.11. GetState

Returns the operational status of the AT288N device

➤ Syntax

```
public int GetState()
```

➤ Return value

int type that indicates the operating status

➤ Remarks

Must be used after activating Method call

Refer to CommandType Enumeration

2.1.3.12. IsAction

Returns whether is AT288N Device is operating with inventory, ReadMemory, WriteMemory, Lock or Kill method

➤ Syntax

```
public bool IsAction()
```

➤ Return value

Value indicating operating status

2.1.3.13. SetTimeout

Set excess time for properties type return method

➤ Syntax

```
public void SetTimeout(int timeout)
```

➤ Parameters

timeout : Set the excess time. The unit is in ms

➤ Remarks

As the method used to prevent from waiting indefinitely for return method to receive a property value from AT288 Device, Action event generates a Timeout event once a set time is exceeded

2.1.3.14. RequestBatteryState

Read AT288N's remaining battery condition

➤ Syntax

```
public bool RequestBatteryState()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to PropertyEx event

2.1.3.15. RequestAutoPowerOff

GetAutoPowerOff

Read the waiting time until AT288N is powered off, if no input has been charged by the user and is not connected with the host

➤ Syntax

```
public bool RequestAutoPowerOff()  
public bool GetAutoPowerOff()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to PropertyEx event

2.1.3.16. SetAutoPowerOff

Set the waiting time for AT288N to be powered off, if no input has been charged by the user and is not connected with the host

➤ Syntax

```
public bool SetAutoPowerOff(int value)
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Parameters

value : Latency to power off

➤ Remarks

Unit is "minute", and If set to 0, the battery will not be turned off until it becomes discharged.

2.1.3.17. RequestDataFormat

Read whether AT288N's serial number is included in the data that is transmitted to the inventory result

➤ Syntax

```
public bool RequestDataFormat()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to PropertyEx event

2.1.3.18. SetInventoryFormat

Set the format on the data transmitted to Inventory

➤ Syntax

```
public bool SetInventoryFormat(int value)
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Parameters

value : inventory format

➤ Remarks

value : 0 (PC + EPC)

value : 1 (Serial Number + PC + EPC)

value : 2 (EPC)

value : 3 (Serial Number + EPC)

2.1.3.19. GetPower

Read Antenna transmit power level

➤ Syntax

```
public int GetPower()
```

➤ Return value

Transmit power level (0~19)

➤ Remarks

When value is 0, maximum output(30dBm) is generated; When value increases, output is decreased by 1dBm. For example, when value is set to 5, output power level is 25dBm.

2.1.3.20. RequestPower

Read Antenna transmit power level

➤ Syntax

```
public bool RequestPower()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to Property event

2.1.3.21. SetPower

Set Antenna transmit power level

➤ Syntax

```
public bool SetPower(int value)
```

➤ Parameters

value : Transmit power level (0~19)

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Maximum output(30dBm) is derived when value is 0; when value increases, output is decreased by 1dBm. For example, if the value is set to 5, output power level is 25dBm

2.1.3.22. GetAccessPassword


Read Access password set on AT288N

➤ Syntax

```
public string GetAccessPassword()
```

➤ Return value

When succeeded, password string set in AT288 Device is returned, when failed, blank string

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is returned

2.1.3.23. RequestAccessPassword

Read Access password set on AT288N

➤ Syntax

```
public bool RequestAccessPassword()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Set Access password on AT288N

2.1.3.24. SetAccessPassword

Access password를 AT288N에 설정한다.

➤ Syntax

```
public bool SetAccessPassword(String password)
```

➤ Parameters

- **password** : access password(Hex string)

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

2.1.3.25. GetContinueMode

Reads whether to read the Tag consecutively or to read once when performing inventory function

➤ Syntax

```
public bool GetContinueMode()
```

➤ Return value

Returns 'true' when Continue Mode is activated, and returns 'false' when it is inactivated

2.1.3.26. RequestContinueMode


Reads whether to read the Tag consecutively or to read once when performing inventory function
When performing inventory function.

➤ Syntax

```
public bool RequestContinueMode()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

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Remarks

Execution result is passed to Property event

2.1.3.27. SetContinueMode

Sets whether to read the Tag consecutively or to read once when performing inventory function

➤ Syntax

```
public bool SetAccessPassword(bool isEnabled)
```

➤ Parameters

isEnabled : Set continue mode

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

When enabled is true, continue with mode on; when it is false, continue mode off

2.1.3.28. GetReportingTime

Read time to report the overlapped Tag again when performing Inventory function Inventory

➤ Syntax

```
public int GetReportingTime()
```

➤ Return value

Return time to re-recognize the Tag value in unit of ms

2.1.3.29. RequestReportingTime

Read time to report the overlapped Tag again when performing Inventory function Inventory

➤ Syntax

```
public bool RequestReportingTime()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to Property event

2.1.3.30. SetReportingTime

Set time to report the overlapped Tag again when performing Inventory function Inventory

➤ Syntax

```
public bool SetReportingTime(int time)
```

➤ Parameters

time : Recognition time

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The value is set in unit of ms.

2.1.3.31. GetAntennaSwitchingTime

Reads Antenna's activation time

➤ Syntax

```
public int GetAntennaSwitchingTime()
```

➤ Return value

Antenna's activation time is returned. Returned value is in ms unit

2.1.3.32. RequestAntennaSwitchingTime

Reads Antenna's activation time

➤ Syntax

```
public bool RequestAntennaSwitchingTime()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Remarks

Executed result is passed to Property event

2.1.3.33. SetAntennaSwitchingTime

Set the activation time for the Antenna

➤ Syntax

```
public bool SetAntennaSwitchingTime(int value)
```

➤ Parameters

value : Activated time

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The set value is in unit of ms

2.1.3.34. GetAntennaldleTime

Read Antenna's idle time

➤ Syntax

```
public int GetAntennaldleTime()
```

➤ Return value

Returns Antenna's idle time. The returned value is in ms unit

2.1.3.35. RequestAntennaldleTime

Read activated time for Antenna

➤ Syntax

```
public bool RequestAntennaIdleTime()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Executed result is passed to Property event

2.1.3.36. SetAntennaIdleTime

Set the activation time for the Antenna

➤ Syntax

```
public bool SetAntennaIdleTime(int value)
```

➤ Parameters

value : Idle time

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Set value is in unit of ms

2.1.3.37. GetSelectionBank

Read the Memory Bank of Tag to be selected

➤ Syntax

```
public MemoryType GetSelectionBank()
```

➤ Return value

Memory Bank for selection

➤ Remarks

Refer to MemoryType Enumeration

2.1.3.38. RequestSelectionBank

Read the Memory Bank of Tag to be selected

➤ Syntax

```
public bool RequestSelectionBank()
```

➤ Return value

Memory Bank for selection

➤ Remarks

Refer to MemoryType Enumeration

2.1.3.39. SetSelectionBank

Set the Memory Bank for Tag to be selected.

➤ Syntax

```
public bool SetSelectionBank(MemoryType type)
```

➤ Parameters

type : Memory Bank for selection

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Refer to MemoryType Enumeration

2.1.3.40. GetSelectionOffset

Read the address for masking pattern comparison to start upon selection.

➤ Syntax

```
public int GetSelectionOffset()
```

➤ Return value

Address where the comparison of the masking pattern begins

➤ Remarks

The returned value is in unit of bit

2.1.3.41. RequestSelectionOffset

Read the address for masking pattern comparison to start upon selection

➤ Syntax

```
public bool RequestSelectionOffset()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to Property event.

2.1.3.42. SetSelectionOffset

Set address where masking pattern comparison is started upon selection.

➤ Syntax

```
public void SetSelectionOffset(int data)
```

➤ Parameters

data : Address where masking pattern comparison is started

➤ Remarks

Set starting address in bit unit

2.1.3.43. GetSelectionAction

Read action that is applied when selection is operated

➤ Syntax

```
public SelectionActionType GetSelectionAction()
```

➤ **Return value**

action

➤ **Remarks**

Refer to SelectionActionType Enumeration

2.1.3.44. RequestSelectionAction

Read action that is to be applied upon selection

➤ **Syntax**

```
public bool RequestSelectionAction()
```

➤ **Return value**

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ **Remarks**

Execution result is passed to Property event

2.1.3.45. SetSelectionAction

Set action that is to be applied upon selection

➤ **Syntax**

```
public void SetSelectionAction(SelectionActionType type)
```

➤ **Parameters**

type : action to be applied

➤ **Remarks**

Refer to SelectionActionType Enumeration

2.1.3.46. GetSelectionSession

Read session that is to be applied upon Selection

➤ **Syntax**

```
public InventorySessionFlag GetSelectionSession()
```

➤ **Return value**

session

➤ **Remarks**

Refer to InventorySessionFlag Enumeration type

2.1.3.47. RequestSelectionSession

Read session that is to be applied upon Selection

➤ **Syntax**

```
public bool RequestSelectionSession()
```

➤ **Return value**

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ **Remarks**

Execution result is passed to Property event

2.1.3.48. SetSelectionSession

set session that is to be applied upon Selection

➤ Syntax

```
public bool SetSelectionSession(InventorySessionFlag session)
```

➤ Parameters

value : Session to be applied

➤ Remarks

Refer to InventorySessionFlag Enumeration

2.1.3.49. GetAlgorithmParameter

Read Q algorithm used to perform Inventory operation

➤ Syntax

```
public int GetAlgorithmParameter(AlgorithmMethod method, AlgorithmType type)
```

➤ Parameters

method : Algorithm used for Inventory operation

type : Algorithm type

➤ Return value

Specified value of Q algorithm

➤ Remarks

Supports Q algorithm using maximum/minimum value; Starting value, maximum value, and minimum value can be set as detailed value

2.1.3.50. RequestAlgorithmParameter

Read Q algorithm used to perform Inventory operation

➤ Syntax

```
public bool RequestAlgorithmParameter(AlgorithmMethod method, AlgorithmType type)
```

➤ Parameters

method : Algorithm used for Inventory operation

type : 알고리즘 type


➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Execution result is passed to Property event

Supports Q algorithm using maximum/minimum value; Starting value, maximum value, and minimum value can be set as detailed value

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2.1.3.51. SetAlgorithmParameter

Set the Q algorithm value for Inventory

➤ Syntax

```
public bool SetAlgorithmParameter (AlgorithmMethod method, AlgorithmType type,
int value)
```

➤ Parameters

method : Algorithm used to operate Inventory

type : Algorithm type

value : Specified value of Q algorithm

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Supports Q algorithm using maximum/minimum value; Starting value, maximum value, and minimum value can be set as detailed value.

2.1.3.52. GetBaudRate

AT288N Device reads the speed of the Serial Port to communicate with the Host.

➤ Syntax

```
public BaudRateType GetBaudRate()
```

➤ Return value

baudrate

➤ Remarks

Refer to BaudRateType Enumeration

2.1.3.53. RequestBaudRate

AT288N Device reads the speed of the Serial Port to communicate with the Host.

➤ Syntax

```
public bool RequestBaudRate()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

Remarks

The execution result is passed to Property event

2.1.3.54. SetBaudRate

AT288N Device reads the speed of the Serial Port to communicate with the Host.

➤ Syntax

```
public bool SetBaudRate(BaudRateType baudRate)
```

➤ Parameters

baudRate : baudrate to be applied

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Refer to BaudRateType Enumeration

2.1.3.55. GetBuzzer

Read whether AT288N buzzer is used

➤ Syntax

```
public bool GetBuzzer()
```

➤ Return value

true(enable), false(disable)

2.1.3.56. RequestBuzzer

Read whether AT288N buzzer is used

➤ Syntax

```
public bool RequestBuzzer()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to the Property event

2.1.3.57. SetBuzzer

Decides whether to use AT288N's buzzer

➤ Syntax

```
public bool SetBuzzer(bool enabled)
```

➤ Parameters

enabled : true(enable), false(disable)

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

2.1.3.58. RequestAllPropertyEx

Read all extended properties.

➤ Syntax

```
public bool RequestAllPropertyEx()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to the PropertyEx event

2.1.3.59. RequestDevicePower

Read whether AT288N Device's power is on or off

➤ Syntax

```
public bool RequestDevicePower()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to the PropertyEx event

2.1.3.60. RequestPowerEx

Read Antenna transmit power level

➤ Syntax

```
public bool RequestPowerEx()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

The execution result is passed to the PropertyEx event

2.1.3.61. SetPowerEx

Set Antenna transmit power level

➤ Syntax

```
public bool SetPowerEx(int nPower)
```

➤ Parameters


nPower : Transmit Power level to be applied

Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

If the antenna output level is normally set, the PropertyEx event is returned as PowerGain, and the data returns the Antenna output level as an integer.

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2.1.3.62. RequestTagType

Return Tag Type recognizable by the AT288N Device

➤ Syntax

```
public bool RequestTagType()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

If Tag Type is returned from AT288 device like expected, data is returned in TagType Enumeration type once PropertyEx event returns property value as Tagtype

2.1.3.63. SetTagType

Set Tag Type recognizable by the AT288N Device

➤ Syntax

```
public bool SetTagType(TagType type)
```

➤ Parameters

type : Tag type to be applied

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

If Tag Type is set properly like expected, data is returned in TagType Enumeration type once PropertyEx event returns property value as Tagtype

2.1.3.64. RequestConnectionType

Read AT288N Device's connection method

➤ Syntax

```
public bool RequestConnect ionType()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

ConnectType is returned as the Property value from PropertyEx event; for the data, ConnectType Enumeration type is returned

2.1.3.65. SetConnectionType

Set AT288N Device's connection method

➤ Syntax

```
public bool SetConnectionType(ConnectType type)
```

➤ Parameters

type : Connection type to be applied

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed.

➤ Remarks

ConnectType is returned as the property value from PropertyEx event; for the data, ConnectType Enumeration type is returned

2.1.3.66. RequestInventoryType

Read Inventory method

➤ Syntax

```
public bool RequestInventoryType()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

InventoryMode is returned from the PropertyEx event; for the data, InventoryTypeEnumeration type is returned

2.1.3.67. SetInventoryType

Set Inventory method.

➤ Syntax

```
public bool SetInventoryType(InventoryType type)
```

➤ Parameters

type : inventory type to be applied.

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed.

➤ Remarks

InventoryMode is returned from the PropertyEx event; for the data, InventoryTypeEnumeration type is returned

2.1.3.68. RequestStoredMode

Read the status of stored mode

➤ Syntax

```
public bool RequestStoredMode()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

With PropertyEx event, StoredMode is returned as property value, and the data is bool type

2.1.3.69. SetStoredMode

Set On/Off status for the saving(storing) mode

➤ Syntax

```
public bool SetStoredMode(bool isEnabled)
```

➤ Parameters

isEnabled : On/Off status to be applied

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

With PropertyEx event, StoredMode is returned as property value, and the data is bool type

2.1.3.70. RequestStoredInventoryList

Read inventory tag list stored in AT288N device.

➤ Syntax

```
public bool RequestStoredInventoryList()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

Tag value is returned from ReadTag event while Tag is being returned; Once all the Tag value in the internal memory is returned, GetStoredData is returned as Property value from PropertyEx event

2.1.3.71. RemoveStoredInventoryList

Deletes the Inventory Tag list stored in the AT288N device

➤ Syntax

```
public bool RemoveStoredInventoryList ()
```

➤ Return value

"True" is returned if the method call had succeeded; "False" is returned if it had failed

➤ Remarks

- Once Tag list in all of internal memory is deleted as expected, PropertyEx event returns property value with DelStoredData

2.1.3.72. **GetResponseMessage**

onvert response code returned to event handler into response message

➤ **Syntax**


```
Public static string GetResponseMessage( int code)
```

➤ **Parameters**

code : Response code returned by event handler

➤ **Return value**

If successful, result string corresponding to the result code value is returned, and if failed, blank string is returned

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2.1.4. Property

Provides properties and module property settings for Tag operation.

2.1.4.1. State

Reader object brings the last working state

➤ Syntax

```
public CommandType State{ get; }
```

➤ Property value

CommandType Enumeration that indicates the last working state

➤ Remarks

State is equal to the last returned Action event

2.1.4.2. IsOpened

Returns whether AT288N device and host are connected

➤ Syntax

```
public bool IsOpened{ get; }
```

➤ Property value

bool type variable that indicates whether connection is made or not

➤ Remarks

If the AT288N Device is connected, 'true' is returned; if not, 'false' is returned

2.1.4.3. Address

Returns Port name connected with the Reader object

➤ Syntax

```
public string Address{ get; }
```

➤ Property value

Port name in connection

➤ Remarks

If open, the port name used to call Open is returned, but after calling Close, a blank string is returned.

2.1.4.4. AntennaldleTime

Brings or Sets Antenna idle time

➤ Syntax

```
public int AntennaldleTime{ set; get; }
```

➤ Property value

Antenna idle time

➤ **Remarks**

Antenna idle time is in unit of ms

2.1.4.5. **Connection**

Brings AT288N Device's connection method

➤ **Syntax**

```
public ConnectType Connection{ get; }
```

➤ **Property value**

Connection method

➤ **Remarks**

Refer to ConnectType Enumeration

2.1.4.6. **firmwareVersion**

Brings AT288N UHF module's F/W version

➤ **Syntax**

```
public string firmwareVersion{ get; }
```

➤ **Property value**

UHF module F/W version

2.1.4.7. **IsAT288N**

Return whether AT288 connected with Host is new version

➤ **Syntax**

```
public bool IsAT288N{ get; }
```

➤ **Property value**

Whether AT288N is right

➤ **Remarks**

There are 2 versions to AT288, which is AT288(old) and AT288(new). The old version of AT288 might have some limitations in some functions

2.1.4.8. **IsAT288N_MA**

Returns whether AT288 connected to Host is new version MA type

➤ **Syntax**

```
public bool IsAT288N_MA{ get; }
```

➤ **Property value**

Whether AT288N MA is right

➤ Remarks

There are 2 versions to AT288N which are MA and MI. MI version only supports ISO 188000-6c, but can use all the functions; While, MA version supports 18000-6B/6C, but has limits to the functions

2.1.4.9. TagType

Returns Tag type that AT288N recognizes

➤ Syntax

```
public TagType TagType{ get; }
```

➤ Property value

Tag type that is recognized

➤ Remarks

Refer to TagType Enumeration

2.1.4.10. Version

Return version information

➤ Syntax


```
public string Version{ get; }
```

➤ Property value

Blank string

➤ Remarks

Not used

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2.1.5. Event

Delivers Tag operation result and information on AT288N device to Application

2.1.5.1. Action

Handler to cope with incoming events that inform AT288 Device's change of status(action)

➤ Syntax

```
public event EventHandler<EventArgs> Action
```

➤ Remarks

When a status change message is received from the AT288 device, the received status information is placed in the EventArgs to notify the event processing handler.

2.1.5.2. Property

Handler to cope with incoming property value event

➤ Syntax

```
public event EventHandler<PropertyEventArgs> Property
```

➤ Remarks

When a status change message is received from the AT288 device, the received status information is placed in the EventArgs to notify the event processing handler.

2.1.5.3. PropertyEx

Handler to cope with extension property value and incoming property value event

➤ Syntax

```
public event EventHandler<PropertyExEventArgs> PropertyEx
```

➤ Remarks

The value received by extension property asynchronous return method starting from the request is placed in PropertyEventArgs to notify the event processing handler

2.1.5.4. ReadTag


Handler to process incoming events of receiving Tag value read by Inventory or ReadMemory method

➤ Syntax

```
public event EventHandler<ReadTagEventArgs> ReadTag
```

➤ Remarks

The Tag value received by Inventory, RequestStoredInventory, or ReadMemory method is placed in ReadTagEventArgs to notify the event processing handler.

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2.1.5.5. Response


Handler to process events that updates the operation result of certain methods such as ReadMemory, WriteMemory, Lock, and Kill

➤ Syntax

```
public event EventHandler<ResponseEventArgs> Response
```

➤ Remarks

The result of operation is received and placed in ResponseEventArgs to be notified to event processing handler

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2.2. ActionEventArgs Class

It is class to deliver the operation status of AT288N device to Application in case when action event is generated

2.2.1. Constructor

Resets new instance of ActionEventArgs class.

➤ Syntax

```
public ActionEventArgs(CommandType command)
```

➤ Parameters

command : CommandType Enumeration to indicate reader status

➤ Remarks

Once change of status message is received from AT288N device, ActionEventArgs' new instance is created within Reader object and set status value to generate action event.

2.2.2. Property

Provides function to set Tag operation's property and module property

2.2.2.1. Command

Brings the last action that the Reader object carried out

➤ Syntax


```
public CommandType Command{ get; }
```

➤ Property value

The CommandType Enumeration that indicates the most recently performed action

➤ Remarks

Reader object stores the last status, and notifies the value to Application with Action event.
The property may differ from the last status value of the Reader object

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2.3. ResponseEventArgs Class

It is class to deliver the result of access order to the application, once the Access(Read/Write/Lock/Kill) order is set out and response event is generated

2.3.1. Constructor

Initializes the new instance of the ResponseEventArgs class with the specified result code and result message

➤ Syntax

```
public ResponseEventArgs(int code, string msg)
```

➤ Parameters

code : Result code delivered from AT288N Device

msg : String that has the meaning of the result code

➤ Remarks

When the result value is received from the AT288 device, the result value in the Reader object is changed to the corresponding result message; New instance of ResponseEventArgs and Response event are generated from the result code and result messages

2.3.2. Property

Provides functions to set Tag operation's property and module property

2.3.2.1. Code

Brings result code received from AT288 Device.

➤ Syntax

```
public int Code{ get; }
```

➤ Property value

Received result code

2.3.2.2. Message


Brings string that has the meaning of received result code

➤ Syntax

```
public string Message{ get; }
```

➤ Property value

Result String

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2.4. ReadTagEventArgs Class

Class to deliver the read Tag value to application once ReadTag event is generated upon Inventory and Read order

2.4.1. Constructor

Initializes the new instance of ReadTagEventArgs class with the specified Reader status and the Tag value

➤ Syntax

```
public ReadTagEventArgs(CommandType state, string serialNo, string tag)
```

➤ Parameters

state : CommandType Enumeration representing Reader status

serialNo : AT288N Device의 serial number

tag : Tag value received from AT288N Device

➤ Remarks

Once Tag value is received from AT288N device, Reader object's last status and the received Tag value create the new instance of ReadTagEventArgs and generates ReadTag event. For SerialNo, either AT288N's serial number or blank string is applied, depending on the setting on inventory data format.

2.4.2. Property

Provides setting function for Tag operation property and module property

2.4.2.1. State

Reader's last status when Tag value is received

➤ Syntax

```
public CommandType State{ get; }
```

➤ Property value

CommandType Enumeration representing the last action status of the Reader object, once the Tag value is received.

➤ Remarks

The last status value is stored, and the value is notified to the application along with the received Tag value through ReadTag event. The property may differ from the Reader object's last status value

2.4.2.2. TagValue

The received Tag value

➤ **Syntax**

```
public string TagValue{ get; }
```

➤ **Property value**

String that represents the Tag value received from AT288N Device

2.4.2.3. SerialNo


AT288N Device's Serial number of AT288N that transmitted the Tag value

➤ **Syntax**

```
public string SerialNo{ get; }
```

➤ **Property value**

String that represents AT288N Device's serial number

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2.5. PropertyEventArgs Class

Class to deliver the property value to Application once Property event is generated upon property value request method

2.5.1. Constructor

Initialize the new instance of PropertyEventArgs with the given property type and property value

➤ Syntax

```
public PropertyEventArgs(PropertyType property, int value)
public PropertyEventArgs(PropertyType property, string value)
public PropertyEventArgs(PropertyType property, bool value)
```

➤ Parameters

property : Type of the received property

value : The value of received property; It may be int type, string type or bool type

➤ Remarks

New instance of PropertyEventArgs and Property event are created in Reader object with property type and the property value, once the property value is received from AT288N device.

2.5.2. Property

Tag operation의 속성 및 모듈 속성 설정 기능을 제공한다.

2.5.2.1. BaudRate

Converts the received property values to BaudRateType and returns them.

➤ Syntax

```
public BaudRateType BaudRate{ get; }
```

➤ Property value

BaudRateType Enumeration type

2.5.2.2. Enabled

Converts the received property values to Bool type and returns them.

➤ Syntax

```
public bool Enabled{ get; }
```

➤ Property value

bool type representing property values

2.5.2.3. GlobalBand

Converts the received property values to GlobalBand type and returns them.

➤ Syntax

```
public GlobalBandType GlobalBand{ get; }
```

➤ Property value

GlobalBandType Enumeration

2.5.2.4. MemoryType

Converts the received property values to MemoryType and returns them.

➤ Syntax

```
public MemoryType MemoryType{ get; }
```

➤ Property value

MemoryType Enumeration

2.5.2.5. Property

Brings PropertyType that distinguishes what the received properties are

➤ Syntax

```
public PropertyType Property{ get; }
```

➤ Property value

PropertyType Enumeration

2.5.2.6. SelectionAction

Converts the received property values to SelectionActionType and returns them.

➤ Syntax

```
public SelectionActionType SelectionAction{ get; }
```

➤ Property value

SelectionActionType Enumeration

2.5.2.7. SelectionSession

Converts the received property values to InventorySessionFlag and returns them

➤ Syntax

```
public InventorySessionFlag SelectionSession{ get; }
```

➤ Property value

InventorySessionFlag Enumeration type

2.5.2.8. String

Converts the received property values to string and returns them

➤ Syntax

```
public string String{ get; }
```

➤ Property value

String type representing property value

2.5.2.9. Value


Converts the received property values to intType and returns them

➤ Syntax

```
public int Value{ get; }
```

➤ Property value

int type representing the property value

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2.6. PropertyEventArgs Class

Class to deliver extended property value to Application, once PropertyEx event is generated upon extension property value request method

2.6.1. Constructor

Initialize the new instance of PropertyEventArgs class with the given property type and property value.

➤ Syntax

```
public PropertyEventArgs(PropertyExType property)
public PropertyEventArgs(PropertyExType property, int value)
public PropertyEventArgs(PropertyExType property, string value)
public PropertyEventArgs(PropertyExType property, bool value)
```

➤ Parameters

property : Type of received property

value : The value of received property. It may be intType, stringType or boolType

➤ Remarks

New instance of PropertyEventArgs and PropertyEx event are created in Reader object with property type and the property value, once the property value is received from AT288N device.

2.6.2. Property

Provides setting function for Tag operation and module property.

2.6.2.1. Connection

Converts the extended property values received into ConnectType and returns them

➤ Syntax

```
public ConnectType Connection{ get; }
```

➤ Property value

ConnectType Enumeration type

2.6.2.2. Enabled

Converts the extended property values received into ConnectType and returns them

➤ Syntax

```
public bool Enabled{ get; }
```

➤ Property value

ConnectType Enumeration type

2.6.2.3. GlobalBand

Converts the extended property values received into GlobalBandType and returns them.

➤ Syntax

```
public GlobalBandType Global{ get; }
```

➤ Property value

GlobalBandType Enumeration type

2.6.2.4. MemoryType

Converts the extended property values received into MemoryType and returns them.

➤ Syntax

```
public MemoryType MemoryType{ get; }
```

➤ Property value

MemoryType Enumeration type

2.6.2.5. Property

Brings PropertyType that distinguishes what the extended property values received are

➤ Syntax

```
public PropertyType Property{ get; }
```

➤ Property value

PropertyType Enumeration type

2.6.2.6. SelectionAction

Converts the extended property values received into SelectionActionType and returns them

➤ Syntax

```
public SelectionActionType SelectionAction{ get; }
```

➤ Property value

SelectionActionType Enumeration type

2.6.2.7. SelectionSession

Converts the extended property values received into InventorySessionFlag and returns them

➤ Syntax

```
public InventorySessionFlag SelectionSession{ get; }
```

➤ Property value

InventorySessionFlag Enumeration type

2.6.2.8. String

Converts the extended property values received into String and returns them.

➤ Syntax

```
public string String{ get; }
```

➤ Property value

String type representing the extended property value.

2.6.2.9. Value

Converts the extended property values received into int type and returns them

➤ Syntax

```
public int Value{ get; }
```

➤ Property value

Int type representing the extended property value

2.7. Enumalation

2.7.1. ModelType

AT288N Device Type

Flag	Value	Description
None	0	Unknown
AT288	1	Standard
AT288Japan	2	Japanese

2.7.2. MemoryType

Memory bank.

Flag	Value	Description
Error	-1	Error occurred
Reserved	0	Reserved memory
EPC	1	EPC memory
TID	2	TID memory
User	3	User memory

2.7.3. AccessPermType

Lock action

Flag	Value	Description
Unlock	0	Unnlock the Tag.
Lock	1	Lock the Tag
PermaLock	2	Permanently lock the Tag
NoChange	3	Leave it as it is (No action)

2.7.4. GlobalBandType

UHF Frequency Band supported by AT288N Devices for each country

Flag	Value	Description
Error	-1	
Korea	0	
Japan	1	
Euro	2	
USA	3	
China	4	

Taiwan	5	
Brazil	6	
Malaysia	7	
Asia	8	
India	9	
Indonesia	10	
Israel	11	
Australia	12	
NewZealand	13	
Philippines	14	
Singapore	15	
Thailand	16	
Uruguay	17	
Vietnam	18	
SouthAfrica	19	
Morocco	20	

2.7.5. SelectionActionType

Method to compare mask values used in selection function

Flag	Value	Description
Error	-1	Error has been returned as the returned value
Matching	0	Activated when Mask matches the Tag
NonMatching	1	Activated when Mask does not match the Tag

2.7.6. SelectionMaskOperationType

Computation of 2 masking selection in Selection function

플래그	값	설명
And	0	두 개의 Mask Action 결과를 And 연산한다.
Or	1	두 개의 Mask Action 결과를 Or 연산한다.

2.7.7. InventorySessionFlag

Inventory 동작에 사용되는 Session.

플래그	값	설명
Error	-1	에러가 발생

S0	0	Inventory Session 0
S1	1	Inventory Session 1
S2	2	Inventory Session 2
S3	3	Inventory Session 3

2.7.8. AlgorithmMethod

Algorithm method used in Inventory action

Flag	Value	Description
FixedQ	0	Uses the Q fixed value as the Inventory Search algorithm. (Not supported)
DynamicQ	1	Uses the Q flow values as the Inventory Search algorithm (Not supported)
DynamicQAdjust	2	Uses the Q flow values + the adjusted value as the Inventory Search algorithm (Not supported)
DynamicQThresh	3	Uses the minimum/maximum value as the Inventory Search algorithm

2.7.9. AlgorithmType


Specified value of Algorithm used in Inventory action

Flag	Value	Description
Start	0	Starting value of Q algorithm.
Min	1	Minimum value of Q algorithm .
Max	2	Maximum value of Q algorithm.

2.7.10. BaudRateType

Rate(speed) of serial communication between AT28N Device and Host

Flag	Value	Description
Error	-1	Error occurred
B115200	0	115200bps
B9600	1	9600bps

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2.7.11. ConnectType

Communication method between AT288N device and the host

Flag	Value	Description
Bluetooth	0	Bluetooth connection method
USB	1	USB connection method.

2.7.12. InventoryType

Inventory method

Flag	Value	Description
Multiple	0	Perform an inventory operation in a multiple-readable manner..
Single	1	Perform an inventory operation in a single readable manner..
Filter	2	Though a multiple-readable matter, inventory is not operated twice, for a Tag already been read.

2.7.13. TagType

Tag type recognized by AT288N Device

Flag	Value	Description
ISO18000_6B	0	The tags that can be recognized in the inventory are type ISO18000 6B.
ISO18000_6C_GEN1	1	Not used
ISO18000_6C_GEN2	2	The tags that can be recognized in the inventory are type ISO18000 6C Gen2

2.7.14. PropertyType

Property type

Flag	Value	Description
Buzzer	0x62	Buzzer Mode value: 0(Disable), 1(Enable)
ContinuousMode	0x63	Decides whether to read Tag consecutively or to read it once, when operating Inventory function value: 0(Disable), 1(Enable)
AntennaSwitchingTime	0x6A	Antenna activation time upon Inventory operation (unit: ms)

PowerGain	0x70	Antenna transmit power level. Value : 0 ~ 19
StartQValue	0x71	Starting value of Q algorithm Value: 0 ~ 15
PowerIdleTime	0x30	Antenna idle time upon Inventory operation (unit : ms)
Baudrate	0x31	Speed of serial port communication between AT288 Device and the Host. (0 : 115200 bps, 1 : 9600 bps)
RepeatTagReportTime	0x33	Set the time to re-recognize the duplicate Tag value upon inventory operation (unit : ms)
MinQValue	0x5B	Set the minimum value of Q algorithm.
MaxQValue	0x5D	Set the maximum value of Q algorithm.
GlobalBand	0x66	UHF frequency range for each country
SelectAction	0x38	Define action on mask value in Masking Selection function (0 : Matching, 1 : Non Matching)
SelectBank	0x39	Designate Tag memory bank to perform Mask in masking selection function (0 : Reserved, 1 : EPC, 2 :TID, 3 : User)
SelectOffset	0x3B	Address to start comparing masking values in Masking Selection (Defined in unit of bit)
SelectSession	0x73	Inventory session to compare masking values in Masking Selection (0 : S0, 1 : S1, 2 : S2, 3 : S3)
AccessPassword	0x77	Password for access to Tag
PacketOption	0x69	Return the output format to the tag value read by the Inventory function.
Version	0x76	RFID Module F/W version
AutoPowerOff	0x50	Time until AT288N is powered off (unit : minute)
AntennaStatus	0x65	Not used
GpioDelay	0x34	Not used
GpioInStatus	0x2D	Not used
GpioOutPortStatus	0x35	Not used

LinkMode	0x37	Not used
NetPort	0x32	Not used
OperationMode	0x78	Not used
ReaderIpAddress	0x72	Not used
ReaderMode	0x79	Not used
ServerAccessTime	0x36	Not used
ServerIpAddress	0x7A	Not used
SetDefault	0x64	Not used

2.7.15. CommandType

State of AT288N Device

Flag	Value	Description
Disconnected	0x00	Connection is off
Disconnecting	0x01	Terminating connection
Connected	0x02	Connection is terminated
Connecting	0x03	Connecting
Timeout	0x04	The response time for the sent command is timed out
Activate	0x05	Activated
StopOperation	0x33	The action has been terminated
Inventory6BSingle	0x61	Start inventory for 6B type tag in single method
Inventory6BMultiple	0x62	Start inventory for 6B type tag in multiple method
InventorySelect	0x64	Start inventory for 6C type tag in multi masking selection method
Inventory6CSingle	0x65	Start inventory for 6C type tag in single method
Inventory6CMultiple	0x66	Start inventory for 6C type tag in multiple method
InventoryMemory	0x69	Perform inventory action for 6C Typed tag, and read value of specific memory bank at the same time.
ReadMemory	0x72	Start reading data from Tag Memory
WriteMemory	0x77	Start writing data on Tag Memory
LockTag	0x6C	Lock the Tag
KillTag	0x6B	Dispose the Tag.

GpioControl	0x67	Not used
FastReset	0x71	Not used
SoftReset	0x73	Not used
HardReset	0x53	Not used
GpioOutput	0x47	Not used
ReadMemory6B	0x63	Not used

2.7.16. PropertyExType

Extended property type

Flag	Value	Description
All	0x30	
Power	0x31	AT288N's power status (On/Off)
PowerGain	0x32	Antenna transmit power level Value : 0 ~ 19
TagType	0x33	Tag Type recognized by AT288N Value : 0(6C), 1(6B)
ConnectType	0x34	Communication method between AT288N and the Host Value : 0(Bluetooth), 1(USB)
InventoryMode	0x35	Inventory Type Value : 0(multi), 1(single), 2(filter)
StoredMode	0x36	Tag data storing mode Value : 0(disable), 1(enable)
GetStoredData	0x61	Tag list on AT288N is successfully been delivered to the Host.
DelStoredData	0x62	Tag list on AT288N has been successfully deleted
InventoryFormat	0x38	Inventory data format (0 : PC+EPC , 1: SerialNo+PC+EPC , 2: EPC, 3: SerialNO+EPC)
BatteryState	0x39	AT288N's battery condition Value: 0(high), 1(low)
SerialNo	0x73	AT288N's Serial Number
NationalCode	0x6E	Not used
DeviceVersion	0x76	AT288N's mainboard F/W version



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