BIXOLON®

RFID Programming Manual

SLP-TX40xR/ XD5-4xtR/ XT5-4xNR Series

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http://www.bixolon.com

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1. Manual Information

This manual provides information on the use of commands for the encoding and control of information on RFID Tags.

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Basic Theory

2-1 RFID Printer

The RFID printer is a device that facilitates the encoding and printing of labels or tickets that are embedded with an HF or UHF frequency band RFID transponder.

2-2 RFID Transponder

The RFID transponder is also referred to as the RFID tag or inlay, and is made up of an RFID chip (IC) bonded to an antenna.
The RFID chip (IC) contains an RF circuit, encoder, decoder, memory, etc.

2-3 RFID Label Selection

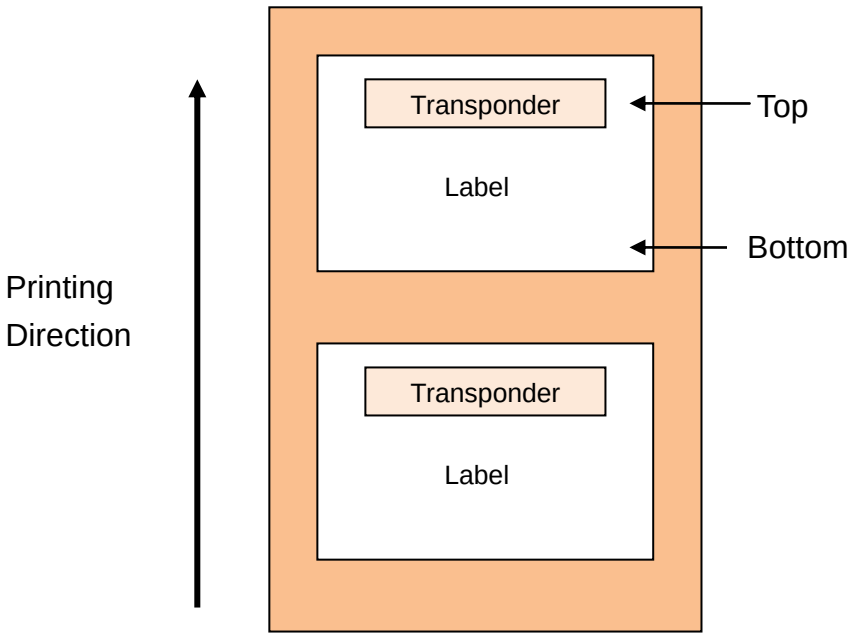
When selecting RFID labels, the type of RFID transponder used and its bonded location should be considered for effective encoding.

1) RFID Transponder Type Selection

Select an RFID transponder fitted with an EPC GEN2 type UHF band chip.

2) Transponder Bonded Location

The RFID transponder should be located near the top of the RFID label to ensure stable operation.



♣ For XD5-4xtR model, under 87mm RFID inlay tags are recommanded.

2-4 EPC GEN2 Chip Memory Structure

The memory structure of the EPC GEN2 chip is detailed in the chart below.

GEN2 (EPC Class 1 Generation 2) Tag Memory Allocation

MEM BANK	MEM BANK NAME	MEM BANK BIT ADDRESS	BIT NUMBER																R/W ADDRESS
			15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
10	TID (ROM)	0x10 – 0x1F	0	0	0	1	MODEL NUMBER												**2,3**
		0x00 – 0x0F	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**0,1**
01	EPC (NVM)	0x70 – 0x7F	EPC[15:0]																**14,15**
		0x60 – 0x6F	EPC[31:16]																**12,13**
		0x50 – 0x5F	EPC[47:32]																**10,11**
		0x40 – 0x4F	EPC[63:48]																**8,9**
		0x30 – 0x3F	EPC[79:64]																**6,7**
		0x20 – 0x2F	EPC[95:80]																**4,5**
		0x10 – 0x1F	PROTOCOL-CONTROL BITS (PC)																**2,3**
		0x00 – 0x0F	CRC-16																**0,1**
00	RESERVED (NVM)	0x30 – 0x3F	ACCESS PASSWORD[15:0]																**6,7**
		0x20 – 0x2F	ACCESS PASSWORD[31:16]																**4,5**
		0x10 – 0x1F	KILL PASSWORD[15:0]																**2,3**
		0x00 – 0x0F	KILL PASSWORD[31:16]																**0,1**

1) The MEM BANK consists of 00 (Reserved), 01 (EPC), and 10 (TID), and may include a User Memory Field equipped tag in the case of special chips.

2) The RESERVED Field is designed for security purposes and the storage of an Access Password (4Byte) and a Kill Password (4Byte), whose default values are both saved as 00 00 00 00.

3) The TID Field contains the unique manufacturer ID data encoded and shipped by the manufacturer, and is not for use by regular users.

4) The EPC Field consists of 0~15 totaling 16 bytes, with 4~15 totaling 12 bytes available for the input of data desired by the user, and 0~3 totaling 4 bytes containing the CRC-16 and PC (Protocol Control) that must not be modified at will by the user.

5) To read/write data in the EPC Address, the >RFW command can be used.

Ex.) If the first block number=10 and the number of blocks=6, reading/writing of the EPC Address 10~15 can be done.

3. RFID Printer Settings

After first installing the RFID label printer, make sure to perform the following steps 1~5.

1) RFID Transponder Selection
This step involves the selection of the RFID transponder type and entails the “>RFS” command.

2) Read/Write Retries (Retry Number Coding) Setting
This step involves the setting of the number of retries to execute with an RFID label when the initial writing of the RFID label fails, and entails the use of the “>RFS” or ”>RR” command.

3) Number of Labels (Number of Labels Upon Retry) Setting
This step involves the setting of the number of labels for a retry when the initial writing of the RFID label fails, and entails the use of the “>RFS” or ”>RR” command.

4) RF Send/Receive Power Setting
This step involves the setting of the sending/receiving power when reading or writing via the RFID transponder, and entails the use of the “>RFS” or “>RFP” command.

Ex.) >RFS,5,3,2,15
- 5: Transponder Type (5: GEN2)
- 3: Write/Read Retries
- 2: Number of Labels
- 15: Send/Receive Power (0~30, higher the number the higher the power)

5) RFID Label Coding Position (Read/Write Position of Transponder) Setting
When using an RFID label for the first time with the printer, to determine the optimal position for RFID label coding (write/read), the automatic transponder position calculation function of the printer can be used as follows.

- Use Command
(1) Insert the RFID label into the printer and turn on the printer power.
(2) Do Media Calibration and then recognize the RFID Label(Tag).
(3) Send the “>RFCP” command to the printer.
(4) When the printer receives the “>RFCP” command, the optimal coding position is automatically calculated and subsequently saved on the printer. The saved value remains even when the printer is turned off, and is permanently stored.

4. RFID Printer Operation Sequence

The basic operation sequence of the RFID printer is as follows.

4-1 RFID Printer Operation Sequence

Start Printing → Print (Feed) → Stop when Reaching RFID Transponder Coding (Write/Read) Position → (Unlock RFID Transponder) → (Write RFID Data) → (Lock RFID Transponder) → Resume Printing → End Printing

No	Medel Name	Operation Sequence
1	SLP-TX40xR	Start Printing → Feed → Stop when Reaching RFID Transponder Coding (Write/Read) Position → (Unlock RFID Transponder) → (Write RFID Data) → (Lock RFID Transponder) → Printing → End Printing
2	XT5-4xNR XD5-4xtR	*** In case of RFID Transponder Coding position is negative number.** Start Printing → Feed → Stop when Reaching RFID Transponder Coding (Write/Read) Position → (Unlock RFID Transponder) → (Write RFID Data) → (Lock RFID Transponder) → Printing → End Printing *** In case of RFID Transponder Coding position is positive number.** Start Printing → Print → Stop when Reaching RFID Transponder Coding (Write/Read) Position → (Unlock RFID Transponder) → (Write RFID Data) → (Lock RFID Transponder) → Resume Printing → End Printing

4-2 Write/Read Operation Status

No	Medel Name	Operation Status
1	SLP-TX40xR	- Write/Read Successful : Blinking Green LED - Write/Read Failed : Blinking Red LED and Vertical Black Line Printing (Occurs with write failures in excess of the designated number of retry) - Write/Read Error : Continuous Red LED (Occurs with write failures in excess of the designated number of labels)
2	XT5-4xNR XD5-4xtR	- Write/Read Failed : Vertical Black Line Printing (Occurs with write failures in excess of the designated number of retry)

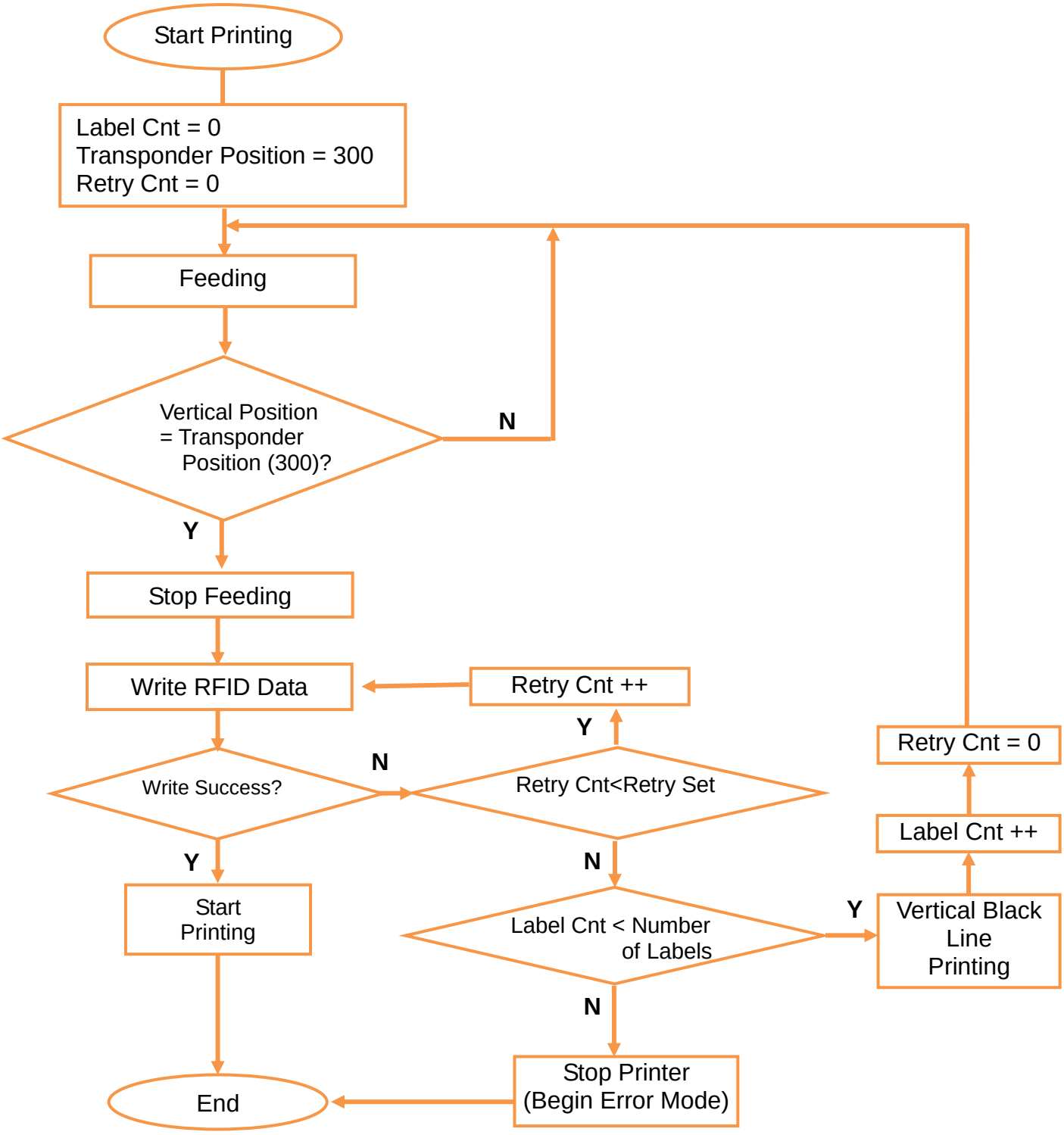
4-3 RFID Data Writing Sample

1) Basic Settings
   - Retry Set = 3
   - Number of Labels = 2

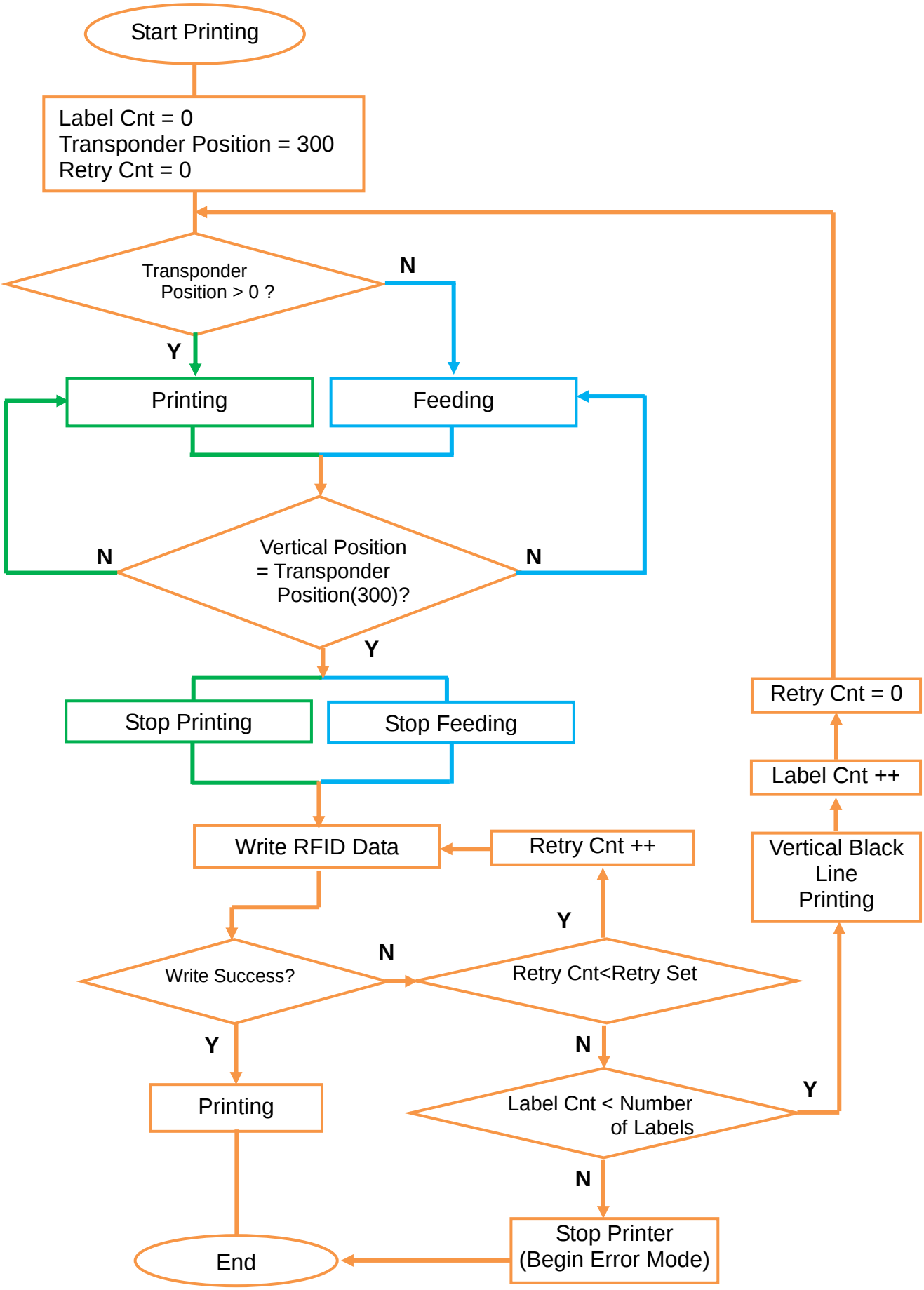
2) Command Coding Values

```
>RFS,5,3,2,15
T50,50,3,1,1,0,0,N,N,'Label Printer Test 1'
>RFW,A,4,12,’ABCDEFABCDEF’
P1
```

3) Flow Chart (TX40xR)



4) Flow chart (XT5-4xNR, XD5-4xtR)



5. RFID Label Design

The RFID Label Design function can be used only after setting the following values.
(Refer to “3. RFID Printer Settings”)

- RFID Transponder Type (Tag Type)
- Number of Labels Upon Retry
- Number of coding Retries
- Sending/Receiving Power
- RFID Label Coding Position

※ CAUTION
Make designs so as not to print on the RFID transponder and/or coding position (read/write position of the transponder).

5-1 ASCII Formatted Label Writing

Writing Labels of Gen2 96-bit Data in ASCII Format

1) Commands

Line	SLCS Command	Description
1	T100, 100, 3, 1, 1, 0, 0, N, N, ’Wirte example’	Print ‘Write example’ at the (100,100) point of the label
2	>RFW, A, 4, 12, ’ABCDEFABCDEF’	W, A: Write ASCII 4, 12: to 12 bytes (Writing is possible from Block 4 of the GEN2 Tag) Write Data: ABCDEFABCDEF
3	P1	Start printing

2) Printed Label

Write example

(Entered RFID Transponder Value: ABCDEFABCDEF)

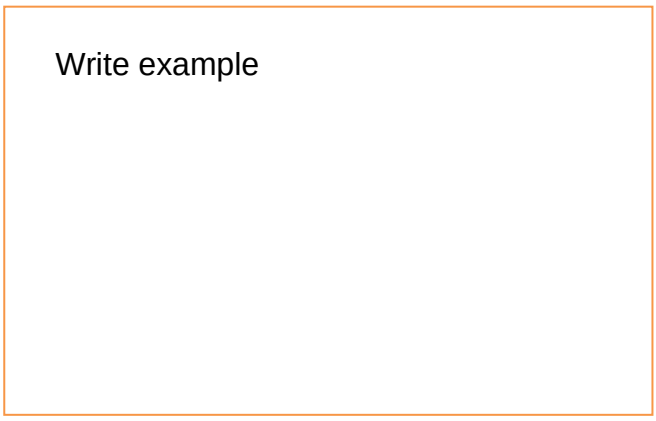
5-2 Hexadecimal Formatted Label Writing

Writing Labels of Gen2 96-bit Data in Hexadecimal Format

1) Commands

Line	SLCS Command	Description
1	T100, 100, 3, 1, 1, 0, 0, N, N, 'Write example'	Print 'Write example' at the (100,100) point of the label
2	>RFW, H, 4, 12, '112233445566778899001122'	W, H: Write Hex 4, 12: 4 to 12 bytes (Writing is possible from Block 4 of the GEN2 Tag) Write Data: 112233445566778899001122
3	P1	Start printing

2) Printed Label



(Entered RFID Transponder Value: 112233445566778899001122)

5-3 ASCII Format Reading & Sending to Host

Reading Data Stored on the RFID Transponder in ASCII Format & Sending to Host

1) Command

Line	SLCS Command	Description
1	>RFR, A, 4, 12, S	R, A: Read ASCII 4, 12: 4 to 12 bytes S: Send data to host

2) Execution Results

- Data Stored in RFID Transponder: ABCDEFABCDEF
- Data Sent to Host: ABCDEFABCDEF

5-4 Hexadecimal Format Reading & Sending to Host

Reading Data Stored on the RFID Transponder in Hexadecimal Format & Sending to Host

1) Command

Line	SLCS Command	Description
1	>RFR, H, 4, 12, S	R, H: Read Hex 4, 12: 4 to 12 bytes S: Send data to host

2) Execution Results

- Data Stored in RFID Transponder: 11223344556678899001122
- Data Sent to Host: 11223344556678899001122

6. RFID Commands

>RFS - RFID Setup

Description

For setting the RFID transponder type, number of coding(write/read) retries, number of labels upon retry, and sending/receiving power

Syntax

>RFS, p1, p2, p3, p4

Parameters

p1: RFID Transponder Type
- 0 = none
- 1 = ISO 18000-6 Type A
- 2 = ISO 18000-6 Type B
- 3 = EPC Class 0
- 4 = EPC Class 1
- 5 = EPC Class 1 Generation 2
- Default: 5

p2: Number of Coding Retries Upon Coding Failure (Write/Read Retries)
- Can set from 0~10 times
- Default: 3

p3: Number of Labels Upon Retry Following RFID Label Writing Failure (Number of Labels)
- Can set from 0~10 times
- Default: 2

p4: Sending/Receiving Power Adjustment (0~30)
- 0: Minimum Output
- 30: Maximum Output
- Default: 15

♣ **Must be executed when modifying the RFID label or using it for the first time.**

Example

For GEN2 Tag, Number of coding Retries = 4, Number of Labels = 2, Sending/Receiving Power = 15

>RFS, 5, 4, 2, 15

>RFCP - RFID Calibration of Transponder Position

Description

For calculating and saving the optimal coding position (read/write position of the transponder) of the RFID label on the printer and printing

Syntax

>RFCP

Examples

- After determining optimal coding position, for saving to the printer

>RFCP

Usage

1) Insert the RFID label in the printer and turn on the printer power.
2) Do Media Calibration and then recognize the RFID Label(Tag).
3) Send the “>RFCP” command to the printer.
4) When the printer receives the “>RFCP” command, the optimal coding position is automatically calculated and subsequently saved on the printer. The saved value remains even when the printer is turned off, and is permanently stored.

♣ The >RFI command can be used to send position values to the host.

♣ Must be used only after executing the “>RFS” command

♣ This process must be repeated each time a different RFID label type is used.

>RFP - *Read/Write Power Control*

Description

For setting the sending/receiving power (read/write power)

Syntax

>RFP, p1

Parameter

p1: Sending/Receiving Power Adjustment (0~30)

0: Minimum Output

30: Maximum Output

Default: 15

Example

For changing the sending/receiving power to 18

>RFP, 18

>RR - *Set Write/Read Retries & Number of Labels*

Description

For setting the number of retries as well as number of labels upon retry when read/write failures occur

Syntax

>RR, p1, p2

Parameters

p1: Number of Coding Retries Upon Coding Failure (Number of retry)

Default: 3

P2: Number of Labels Upon Retry Following RFID Label Writing Failure (Number of Label)

Default: 2

Example

>RR, 5, 3 (5 retries, 3 labels)

>RFTP – *Trans-Position*

Description

For setting the RFID label coding position (read/write position of the transponder)

Syntax

>RFTP, p1

Parameter

p1: RFID Label Coding Position (Y-Axis Value)

Default: 0(dot)

♣ **>The RFTP command serves to modify the previously determined optimal coding position via the >RFCP position and should thus be used with extreme caution.**

♣ **When the RFID label coding position is not known with precision, the use of the >RFCP command is recommended.**

Example

For setting the RFID label coding position to 400

>RFTP, 400

>RFES - *Define EPC Data Structure*

Description

For defining the EPC data structure for EPC data writing

Syntax

>RFESn, 'p1, p2, p3,.....p15'

Parameters

n : Total Bits of a Field

p1,....p15: Bits Per Field

Example

For total bits: 64bit,
field1: 2bit,
field2: 3bit,
field3: 14bit,
field4: 20bit,
field5: 25bit

>RFES64, '2, 3, 14, 20, 25'
>RFW, E, '0, 3, 12345, 454332, 22111221'

♣ The set EPC data structure is erased when the printer power is turned off.
♣ The EPC data structure must be set each time the printer power is reset.

>RF - *RFID Read / Write*

Description

For reading or writing RFID labels

Syntax

>RFn, p1, (p2), (p3), (p4), ('DATA')

Parameters

n: Function Selection

W = Write RFID Label

R = Read RFID Label

p1: Data Type

A = ASCII

H = Hexadecimal

E = EPC

U = User field Select

p2: Starting Block Number

Default: 4

p3: Number of Bytes for Reading or Writing

Default: 12 (*must be designated in units of 2 bytes*)

p4: Processing Method for Read Data (omit when writing)

S = Send Reading Value to Host

DATA: A (ASCII) = Enter data in ASCII format

H (Hexadecimal) = Enter data in Hex format

E (EPC) = Enter data in EPC format (must not be larger than the number of bits set per field)

- **For the write command, writing does not begin directly after receiving the command but rather after the RFID coding position is reached following the commencement of printing via the P command.**
- **For the read command, reading begins after moving to the RFID coding position directly following receipt of the command.**

Examples

● Writing

A (ASCII) : >RFW, A, 4, 12, '123456789012'
H (Hexadecimal) : >RFW, H, 4, 12, '123456789012123456789012'
E (EPC) : >RFES96,'16,16,16,16,16,16'
>RFW, E, '13000, 18, 33, 33, 33, 65034'

● Reading

>RFR, A, 4, 12, S (Reading value sent to host)
Value Stored in RFID Transponder: ABCDEFABCDEF
Data Sent to Host: ABCDEFABCDEF

>RFZ - *RF Password*

Description

For setting the RFID access password and kill password

Syntax

>RFZ, ’p1, p2, p3 , p4’

Parameters

p1: Old Access Password 4byte (Currently Active Access Password)
p2: Old Kill Password 4byte (Currently Active Kill Password)
p3: New Access Password 4byte (Modified Access Password)
p4: New Kill Password 4byte (Modified Kill Password)

- **The desired passwords must be set each time the Lock command.**
- **The accurate tag passwords must be set each time the Unlock command. (Default Setting value : 00 00 00 00)**

Example

>RFZ, '00000000, 00000000, 33333333, 33333333'

>RFLK - *RF Lock*

Description

For locking kill, access, and EPC data via the access password

- *Kill Password Read/Write Lock*
- *Access Password Read/Write Lock*
- *EPC Memory Write Lock*

Syntax

>RFLK

Example

For locking the kill, access, EPC data of a tag

>RFZ, '00000000, 00000000, 33333333, 33333333'

>RFLK

P1

- **Must be used only after the >RFZ command is executed**
- **Excluding the kill, access, and EPC data, use the >RFLP command to lock the TID and user data.**
- **When printing labels and/or using the P command, the commands are executed at the RFID coding position.**

>RFUL - *RF Unlock*

Description

For unlocking the locked kill, access, and EPC data via the access password

Syntax

>RFUL

Example

For unlocking the kill, access, EPC data of a tag

```
>RFZ, '00000000, 00000000, 33333333, 33333333'
>RFUL
  P1
```

♣ Must be used only after the >RFZ command is executed

♣ Excluding the kill, access, and EPC data, use the >RFLP command to unlock the TID and user data.

♣ When printing labels and/or using the P command, the commands are executed at the RFID coding position.

>RFLP - *RF Lock Payload*

Description

For modifying the lock payload of a tag via the access password
Refer to the chart below to calculate the desired 3-byte value and modify the lock payload.

Lock-Command Payload

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	-	-	-	-	20	21	22	23
Access Action		EPC Action		TID Action		User Action		EPC Mask		TID Mask		User Mask		Kill Action						Kill Mask		Access Mask	

Masks and Associated Action Fields

Kill pwd		**Access pwd**		**EPC memory**		**TID memory**		**User memory**	
0	1	2	3	4	5	6	7	8	9
Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write	Skip/ write
10	11	12	13	14	15	16	17	18	19
Pwd Read/ write	Perma Lock	Pwd Read/ write	Perma Lock	Pwd Write	Perma Lock	Pwd Write	Perma Lock	Pwd Write	Perma Lock

Lock action-field functionality

Pwd-write	**Perma lock**	**Description**
0	0	Associated memory bank is writeable from either the open or secured states
0	1	Associated memory bank is permanently writeable from either the open or Secured states and may never be locked
1	0	Associated memory bank is writeable from the secured state but not form The open state.
1	1	Associated memory bank is not writeable from any state.
Pwd read/write	**Perma lock**	**Description**
0	0	Associated password location is readable and writeable from either the open or secured states.
0	1	Associated password location is permanently readable and writeable from either the open or secured states and my never be locked
1	0	Associated password location is readable and writeable from the secured but not from the open states.
1	1	Associated password location is not readable writeable from any state.

Syntax

>RFLP, n, 'p1, p2, p3'

Parameters

n: Function Selection

L: Lock

U: Unlock

p1								p2								p3							
MSB							LSB	MSB							LSB	MSB							LSB
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	-	-	-	-	20	21	22	23
Access Action		EPC Action		TID Action		User Action		EPC Mask		TID Mask		User Mask		Kill Action						Kill Mask		Access Mask	

Examples

1. Kill Password Read/Write Lock
   Access Password Read/Write Lock
   EPC Memory Write Lock

   >RFZ, '00000000, 00000000, 33333333, 33333333'
   >RFLP,L,'A0,82,0A'
   P1

2. Kill Password Read/Write Unlock
   Access Password Read/Write Unlock
   EPC Memory Write Unlock

   >RFZ, '00000000, 00000000, 33333333, 33333333'
   >RFLP,U,'00,08,0A'
   P1

- **Must be used only after the >RFZ command is executed**
- **When using the P command, the command is executed at the RFID coding position.**
- **Due to complicated operation, the use of the >RFLK and >RFUL commands is recommended.**

>RFI - *RF Information*

Description

For sending the current RFID settings information and historical data to the host

Syntax

>RFI, p1

Parameter

p1: Item

1: Tag Type

2: Sending/Receiving Power (Read/Write Power)

3: Coding Position (Read/Write Position of the Transponder)

4: Number of Retries

5: Number of Labels

Converted Value Format

Text String + 0x0d +0x0a

Example

>RFI, 1	Converted Value: GEN2 + 0x0d +0x0a
>RFI, 2	Converted Value: 20 + 0x0d +0x0a

7. RFID Programming Samples

7-1 RFID Setting

1) Insert the RFID label and turn on the printer power.

2) Use the **“>RFS” Command** to set the RFID transponder type, transponder read/write position, error handling, and sending/receiving power.

Ex) >RFS, 5, 3, 2, 15

3) Execute Command(“>RFCP”) or Pause button to calculate the optimal RFID transponder coding position (read/write position of the transponder).

- Use Command
(1) Insert the RFID label into the printer and turn on the printer power.
(2) Do Media Calibration and then recognize the RFID Label(Tag).
(3) Send the “>RFCP” command to the printer.
(4) When the printer receives the “>RFCP” command, the optimal coding position is automatically calculated and subsequently saved on the printer. The saved value remains even when the printer is turned off, and is permanently stored.

♣ **Must be executed when modifying the RFID label or using it for the first time.**

7-2 EPC Data Writing

1) Commands

```
T56, 32, 4, 1, 1, 0, 0, N, B, 'RFID Print Test 1'
T57, 81, 2, 1, 1, 0, 0, N, N, 'RFID Data: 01 01 01 01 01 01 01 01 01 01 01 01'
>RFES96,'8,8,8,8,8,8,8,8,8,8,8,8'
>RFW, E, '1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1'                    → EPC Data Writing
T59, 351, 4, 1, 1, 0, 0, N, B, '*Complete *'
P1
```

2) Printed Label

RFID Print Test 1
RFID Data : 01 01 01 01 01 01 01 01 01 01 01 01

*** Complete ***

3) RFID Transponder Data
: 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01
(Hexadecimal 12 byte)

7-3 Hexadecimal Data Writing

1) Commands

```
T56, 32, 4, 1, 1, 0, 0, N, B, 'RFID Print Test 1'
T57, 81, 2, 1, 1, 0, 0, N, N, 'RFID Data: 11 22 33 44 55 66 77 88 99 AA BB CC'
>RFW, H, 4, 12, '1122334455667788 99AABBCC'          → Hexadecimal Data Writing
T59, 351, 4, 1, 1, 0, 0, N, B, '* Complete *'
P1
```

2) Printed Label

RFID Print Test 1

RFID Data : 11 22 33 44 55 66 77 88 99 AA BB CC

*** Complete ***

3) RFID Transponder Data

: 0x11 0x22 0x33 0x44 0x55 0x66 0x77 0x88 0x99 0xAA 0xBB 0xCC
(Hexadecimal 12 byte)

7-4 ASCII Data Writing

1) Commands

```
T56, 32, 4, 1, 1, 0, 0, N, B, 'RFID Print Test 1'
T57, 81, 2, 1, 1, 0, 0, N, N, 'RFID Data: A B C D E F G H I J K L'
>RFW, A, 4, 12, 'ABCDEFGHIJKL'              → ASCII Data Writing
T59, 351, 4, 1, 1, 0, 0, N, B, '* Complete *'
P1
```

2) Printed Label

RFID Print Test 1
RFID Data : A B C D E F G H I J K L

*** Complete ***

3) RFID Transponder Data
: 0x41 0x42 0x43 0x44 0x45 0x46 0x47 0x48 0x49 0x4A 0x4B 0x4C
(Hexadecimal 12 byte)

7-5 Secured Writing (Write & Lock)

1) Commands

>RFZ, '00000000, 00000000, 33333333, 33333333' → Access/Kill Password Modification
T56, 32, 4, 1, 1, 0, 0, N, B, 'RFID Write and Lock Test '
T57, 81, 2, 1, 1, 0, 0, N, N, 'RFID Data: 01 01 01 01 01 01 01 01 01 01 01 01'
>RFES96,'8,8,8,8,8,8,8,8,8,8,8,8'
>RFW, E, '1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1' → EPC Data Writing
>RFLK → Regular Locking of Kill, Access, and EPC Data
T59, 351, 4, 1, 1, 0, 0, N, B, '* Complete *'
P1

2) Printed Label

RFID Write and Lock Test
RFID Data : 01 01 01 01 01 01 01 01 01 01 01 01

*** Complete ***

3) RFID Transponder Data
: 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01
(Hexadecimal 12 byte)
Kill, Access, and EPC Data Locked.
(Data cannot be modified unless first unlocked.)

7-6 Secured Writing (Unlock & Write)

1) Commands

```
>RFZ, '00000000, 00000000, 33333333, 33333333' → Access/Kill Password Modification
>RFUL          → Unlocking Locked Kill, Access, and EPC Data to Facilitate Writing
T56, 32, 4, 1, 1, 0, 0, N, B, 'RFID Unlock and Write Test '
T57, 81, 2, 1, 1, 0, 0, N, N, 'RFID Data: 01 01 01 01 01 01 01 01 01 01 01 01'
>RFES96,'8,8,8,8,8,8,8,8,8,8,8,8'
>RFW, E, '1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1'                    → EPC Data Writing
T59, 351, 4, 1, 1, 0, 0, N, B, '* Complete *'
P1
```

2) Printed Label

RFID Unlock and Write Test
RFID Data : 01 01 01 01 01 01 01 01 01 01 01 01

*** Complete ***

3) RFID Transponder Data
: 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01 0x01
(Hexadecimal 12 byte)

Revision History

Rev.	Date	Page	Description
1.00	01.15.20	-	New
1.10	11.24.20	-	Manual Revision for RFID New Model