

1. LED Lighting Command

This command is used to drive the VBL to light up the LED.

Command:

Len	Adr	Cmd	Data[]	CRC-16	
0xXX	0xXX	0xE5	---	LSB	MSB

Data parameters are as follows:

Data[]							
ENum	EPC	Carrier Time	Pwd	MaskMem	MaskAdr	MaskLen	MaskData
0xXX	Variable Length	0xXX	4Byte	0xXX	2Bytes	0xXX	Variable Length

Parameter:

ENum: Represents the EPC number length within the range of (0x00~0x0f), measured in words. The length of the EPC should be within 15 words. In this case, there are no MaskMem, MaskAdr, MaskLen, MaskData parameters. When ENum is 0xff, MaskMem, MaskAdr, MaskLen, MaskData parameters are present, and the EPC parameter is absent. If any other value is provided, an error message regarding the parameters will be returned.

EPC: The EPC number of the tag to be lit. The length is determined based on the given EPC number, measured in words, and must be an integer length. The higher word comes first, with the higher byte of each word in the forefront. The full EPC number is required here.

CarrierTime: The duration of the Carrier-On after lighting up, measured in 100ms units. The allowed range for carrier duration is 0*100ms to 255*100ms, other values are reserved.

Pwd: Four bytes, which are the tag's access password. The 32-bit access password's highest bit is in the first byte (from left to right) of the Pwd, and the lowest bit is in the fourth byte. The first two bytes of Pwd hold the high word of the access password. Pwd can be zero or the correct access password.

MaskMem: One byte, mask area. 0x01: EPC memory area; 0x02: TID memory area; 0x03: User memory area. Other values are reserved. If other values appear in the command, an error message will be returned.

MaskAdr: Two bytes, the starting bit address of the mask (unit: Bits). Range 0~16383.

MaskLen: One byte, the bit length of the mask (unit: Bits).

MaskData: Mask data. The byte length of MaskData is MaskLen/8. If MaskLen is not a multiple of 8, then the byte length of MaskData is [MaskLen/8] rounded up plus 1. Fill in the low bits if it's not enough.

Note: When using the EPC number as a mask, MaskMem, MaskAdr, MaskLen, MaskData are empty.

Response:

Len	Adr	reCmd	Status	Data[]	CRC-16	
0xXX	0xXX	0xE5	0x00	-	LSB	MSB

2. Secondary Lighting Command

This command is used to light up VBL tags.

Command:

Len	Adr	Cmd	SubCmd	Data[]	CRC-16	
0xXX	0xXX	0xE7	0x04		LSB	MSB

Data parameters are as follows:

Data[]								
ENum	EPC	mType	Carrier Time	Pwd	MaskMem	MaskAdr	MaskLen	MaskData
0xXX	Variable Length	0xXX	0xXX	4Byte	0xXX	2Bytes	0xXX	Variable Length

Parameter:

ENum: Represents the EPC number length within the range of (0x00~0x0f), measured in words. The length of the EPC should be within 15 words. In this case, there are no MaskMem, MaskAdr, MaskLen, MaskData parameters. When ENum is 0xff, MaskMem, MaskAdr, MaskLen, MaskData parameters are present, and the EPC parameter is absent. If any other value is provided, an error message regarding the parameters will be returned.

EPC: The EPC number of the tag to be lit. The length is determined based on the given EPC number, measured in words, and must be an integer length. The higher word comes first, with the higher byte of each word in the forefront. The full EPC number is required here.

mType: Type of operation;

0 - Light up the tag at reserved area address 5.

1 - Light up the tag at reserved area address 6.

2 - Light up the tags at both reserved area addresses 5 and 6.

Other values are reserved.

CarrierTime: The duration of the Carrier-On after lighting up, measured in 100ms units. The allowed range for carrier duration is 0*100ms to 255*100ms, other values are reserved.

Pwd: Four bytes, which are the tag's access password. The 32-bit access password's highest bit is in the first byte (from left to right) of the Pwd, and the lowest bit is in the fourth byte. The first two bytes of Pwd hold the high word of the access password. Pwd can be zero or the correct access password.

MaskMem: One byte, mask area. 0x01: EPC memory area; 0x02: TID memory area; 0x03: User memory area. Other values are reserved. If other values appear in the command, an error message will be returned.

MaskAdr: Two bytes, the starting bit address of the mask (unit: Bits). Range 0~16383.

MaskLen: One byte, the bit length of the mask (unit: Bits).

MaskData: Mask data. The byte length of MaskData is MaskLen/8. If MaskLen is not a multiple of 8, then the byte length of MaskData is [MaskLen/8] rounded up plus 1. Fill in the low bits if it's not enough.

Note: When using the EPC number as a mask, MaskMem, MaskAdr, MaskLen, MaskData are empty.

Response:

Len	Adr	reCmd	Status	SubCmd	Data[]	CRC-16	
0x06	0xXX	0xE7	0x00	0x04		LSB	MSB