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# Smartcard API

## API

- [BS2\\_ScanCard](#):
- [BS2\\_WriteCard](#): SmartCard
- [BS2\\_EraseCard](#): SmartCard

## BS2CSNCard

```
typedef struct {
    uint8_t type;
    uint8_t size;
    uint8_t data[BS2_CARD_DATA_SIZE];
} BS2CSNCard;
```

### 1. type

Access

가

0x00		
0x01	CSN	
0x02	Secure	
0x03	Access	
0x06	QR	
0x0A	Wiegand	BS2WiegandConfig.format ( BS2WiegandConfig.CSNIndex BS2WiegandConfig.CardMask가 0
0x0B	Config	
0x1A	Wiegand	BS2WiegandMultiConfig.formats[0]
0x2A	Wiegand	BS2WiegandMultiConfig.formats[1]
0x3A	Wiegand	BS2WiegandMultiConfig.formats[2]
0x4A	Wiegand	BS2WiegandMultiConfig.formats[3]
0x5A	Wiegand	BS2WiegandMultiConfig.formats[4]
0x6A	Wiegand	BS2WiegandMultiConfig.formats[5]
0x7A	Wiegand	BS2WiegandMultiConfig.formats[6]
0x8A	Wiegand	BS2WiegandMultiConfig.formats[7]
0x9A	Wiegand	BS2WiegandMultiConfig.formats[8]
0xAA	Wiegand	BS2WiegandMultiConfig.formats[9]
0xBA	Wiegand	BS2WiegandMultiConfig.formats[10]
0xCA	Wiegand	BS2WiegandMultiConfig.formats[11]
0xDA	Wiegand	BS2WiegandMultiConfig.formats[12]

0xEA	Wiegand	BS2WiegandMultiConfig.formats[13]
0xFA	Wiegand	BS2WiegandMultiConfig.formats[14]

**2. size**

**3. data**

**BS2SmartCardHeader**

```
typedef struct {
    uint16_t hdrCRC;
    uint16_t cardCRC;
    BS2_CARD_TYPE cardType;
    uint8_t numOfTemplate;
    uint16_t templateSize;
    uint16_t issueCount;
    uint8_t duressMask;
    uint8_t cardAuthMode;
    uint8_t useAlphanumericID;
    uint8_t cardAuthModeEx;
    uint8_t numOfFaceTemplate;
    uint8_t reserved[1];
} BS2SmartCardHeader;
```

**1. hdrCRC**

card header . (cardCRC - reserved)

**2. cardCRC**

card data . (BS2SmartCardHeader.cardType - BS2SmartCardData.accessOnData)

**3. cardType**

0x00	
0x01	CSN
0x02	Secure
0x03	Access
0x0A	Wiegand
0x0B	Config

**4. numOfTemplate**

AOC	template	<a href="#">BS2SmartCardCredentials</a>
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AOC	template	, numOfFacetemplate	0
-----	----------	---------------------	---

**5. templateSize**

BioStar 2 가 300 384 가 300

**6. issueCount**

**7. duressMask**

**8. cardAuthMode**

IR Face  
 Visual Face **cardAuthModeEx**

2	
3	
4	PIN
5	PIN
6	, , PIN
254	
255	( )

**9. useAlphanumericID**

Alphanumeric ID flag

**10. cardAuthModeEx**

IR Face **cardAuthMode**  
 [+ V2.7.1] Visual Face

	1	2	3
21			
22			
23			
24		PIN	
25			
26			PIN
27			PIN
28		PIN	
29			
30			PIN
31			
32			PIN

	1	2	3
33			PIN
34			PIN
35			PIN
254			
255	(		

**11. numOfFaceTemplate**

template 가 ( :384, :552)  
 BS2SmartCardCredentials templateData

AOC      template    BS2SmartCardCredentials

AOC      template      , numOfTemplate      0

**12. reserved**

**BS2SmartCardCredentials**

```
typedef struct {
    uint8_t pin[BS2_PIN_HASH_SIZE];
    uint8_t templateData[BS2_SMART_CARD_MAX_TEMPLATE_COUNT *
BS2_FINGER_TEMPLATE_SIZE];
} BS2SmartCardCredentials;
```

**1. pin**

pin code

**2. templateData**

4

**BS2AccessOnCardData**

```
typedef struct {
    uint16_t accessGroupID[BS2_SMART_CARD_MAX_ACCESS_GROUP_COUNT];
    BS2_DATETIME startTime;
    BS2_DATETIME endTime;
```

```
} BS2AccessOnCardData;
```

**1. accessGroupID**

**2. startTime**

가 , 0

**3. endTime**

가 , 0

**BS2SmartCardData**

```
typedef struct {
    BS2SmartCardHeader header;
    uint8_t cardID[BS2_CARD_DATA_SIZE];
    BS2SmartCardCredentials credentials;
    BS2AccessOnCardData accessOnData;
} BS2SmartCardData;
```

**1. header**

SmartCard

**2. cardID**

Access on Card 32 byte Card ID  
 Secure Credential card 24 byte Card ID  
 Secure Credential Card(SCC) , 32 byte Card ID(24 bytes), issueCount(4 byte) Time Stamp(4 byte)  
 , BS2UserBlob cardObjs array가 SC Card , SC Card cardObjs

**3. credentials**

pin code

**4. accessOnData**

AOC 가

**BS2Card**

```
typedef struct {
    uint8_t isSmartCard;
    union {
        BS2CSNCard card;
        BS2SmartCardData smartCard;
    };
}BS2Card;
```

**1. isSmartCard**

SmartCard flag

## 2. *card*

### 3. *smartCard*

SmartCard

From:

<https://kb.supremainc.com/bs2sdk/> - **BioStar 2 Device SDK**

Permanent link:

[https://kb.supremainc.com/bs2sdk./doku.php?id=ko:smartcard\\_api](https://kb.supremainc.com/bs2sdk./doku.php?id=ko:smartcard_api)

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