ARETE
mobile

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ARETE
mobile

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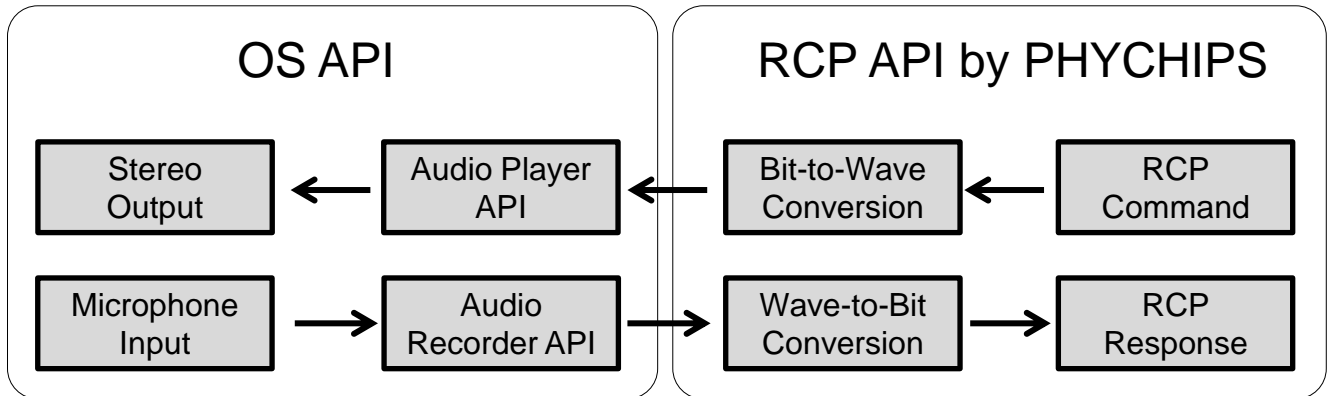
Revision History

Version	Date	Changes
00	2014-01-20	Initial released

APP is converting binary bit stream to audio wave to transmit data to ARETE POP. This process is using audio player API in OS. ARETE POP is generating audio wave to transmit data to smart phone and APP is using audio recorder API in OS to capture audio wave. RCP API constructs and deconstructs RCP Packet. Additionally, converting bit-to-wave and vice versa. To learn more about RCP, please refer to A100_SM1001 SDK manual.

OS API

| Stereo Output | ← | Audio Player API |
| Microphone Input | → | Audio Recorder API |

RCP API by PHYCHIPS

| Bit-to-Wave Conversion | ← | RCP Command |
| Wave-to-Bit Conversion | → | RCP Response |

To get device information, you should call **getReaderInfo** method. This method is generating RCP packet whose command code is 0x03. Then RCP is converted into wave format.

startReadTags

RCP API

Preamble	Msg Type	Code	PL (MSB)	PL (LSB)	Arg	End Mark	CRC-16
0xBB	0x00	0x03	0x00	0x01	0x01	0x7E	0xNNNN
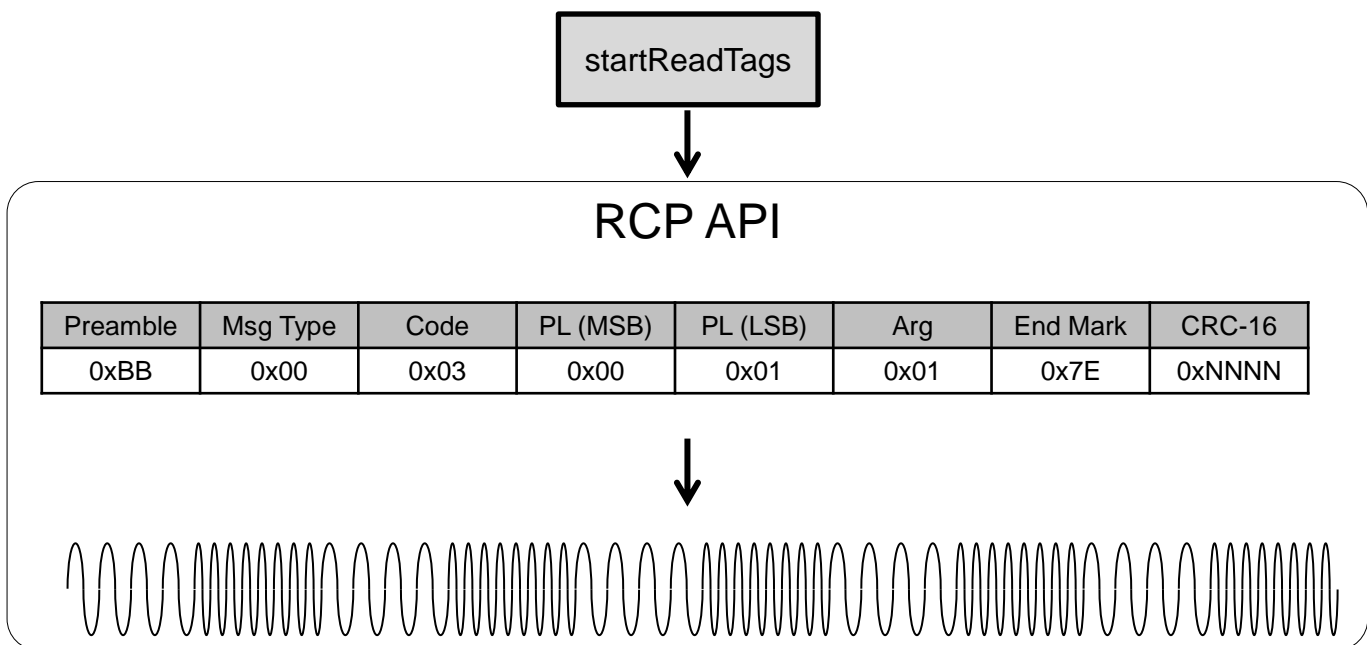
Arguments for **getReaderInfo** is shown below.

> Model (0x00)
>
> S/N (0x01)
>
> STATUS (0xB0)
>
> INFO (0xB1)

For example, to get unique device ID, set 0x01 for argument.

RcpApi.getReaderInfo(0x01) for Android

[self.rcp getReaderInfo:0x01] for iOS

When ARETE POP received command, it would return RCP response as shown below. If RCP is arrived at the smart phone, the smart phone calls call-back method, **onReaderInfoReceived** (Android) or **readerInfoReceived** (iOS). Call-back method is implemented as delegate (at iOS) and interface (Android).

RCP API
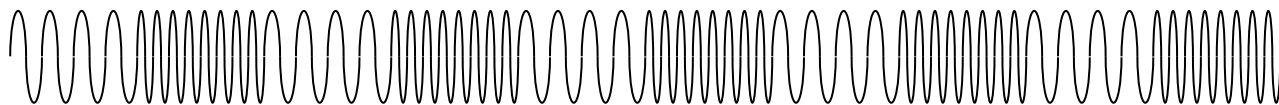
Preamble	Msg Type	Code	PL (MSB)	PL (LSB)	Argument		
0xBB	0x01	0x03	0x00	0x08	0x50 (P)	0x48 (H)	0x59 (Y)
Argument					End Mark	CRC-16	
0x43 (C)	0x48 (H)	0x49 (I)	0x50 (P)	0x53 (S)	0x7E	0xNNNN	

Argument of RCP response is the same as call-back method.

```
public void onReaderInfoReceived(int[] data)
{
  String SN = RcpLib.int2str(data);
}
```
for Android

```
- (void)readerInfoReceived:(NSData *)data
{
  NSString SN = [[NSString alloc] initWithData:data encoding:NSUTF8StringEncoding];
}
```
for iOS

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