ARETE
mobile

Notice

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ARETE
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ARETE mobile is launched by PHYCHIPS Inc. for mobile device and currently registered worldwide with its ARETE mobile trade mark legally protected by law.

Revision History

Version	Date	Changes
00	2014-03-06	Initially released
01	2014-05-23	Removed Interferer RSSI API

▌Received Signal Strength Indicator (RSSI) indices measured signal power in RX port. There are 2 kinds of RSSI in ARETE POP. Tag RSSI and interferer RSSI. When reading a tag, the tag transmits its ID to reader. The signal power of received ID is tag RSSI. The tag far away from reader has lower RSSI while the near tag has higher RSSI.

TAG 1

TAG 2
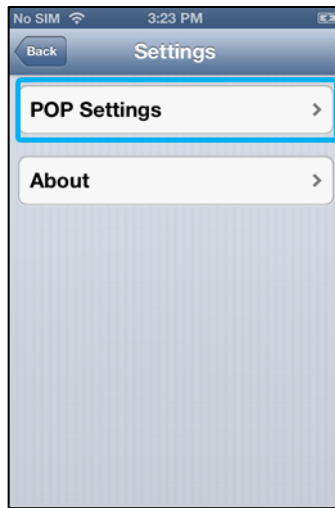
ID

ID

Reader

RX

TX
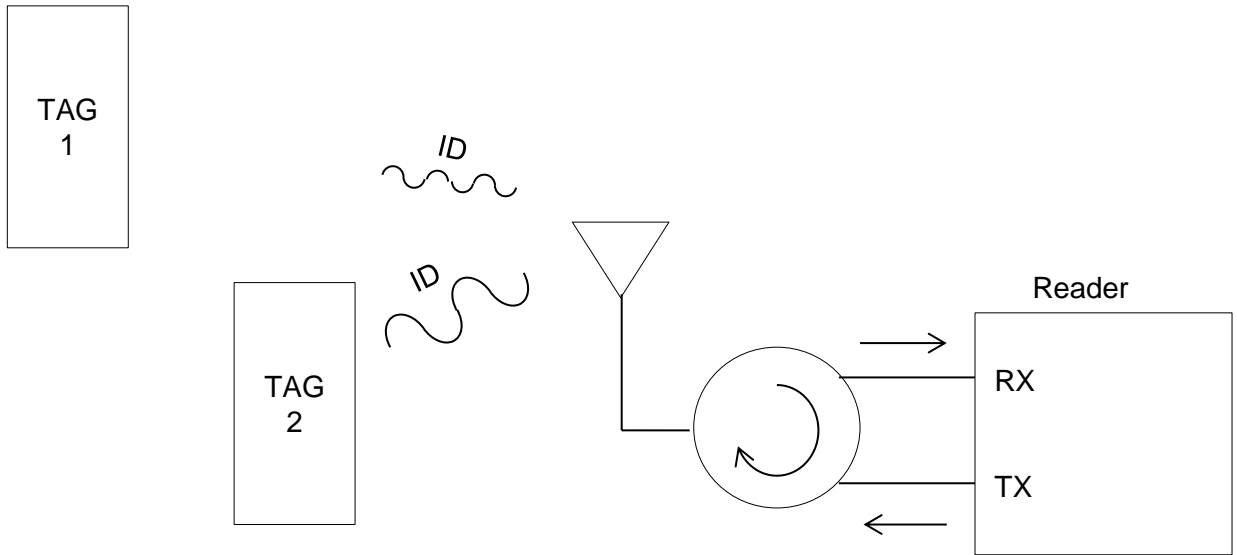
▌Interferer RSSI is other reader's transmitting signal power in RX port. When 2 readers exist in the same area, each reader interferes with communicating with tags. Before starting communicate with tags, a reader can see if there is other reader by using interferer RSSI. It is useful in Japanese LBT regulation. If reader is using frequency hopping to avoid interferer, this function is not necessary.
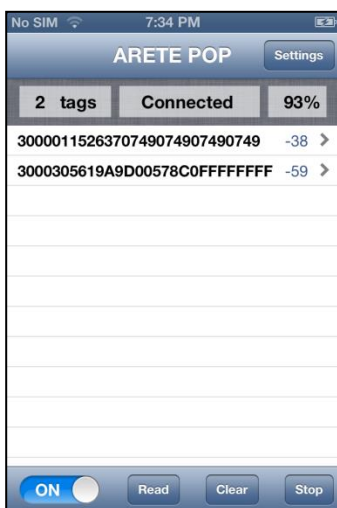
Reader 1

RX

TX

TAG

Reader 2

RX

TX
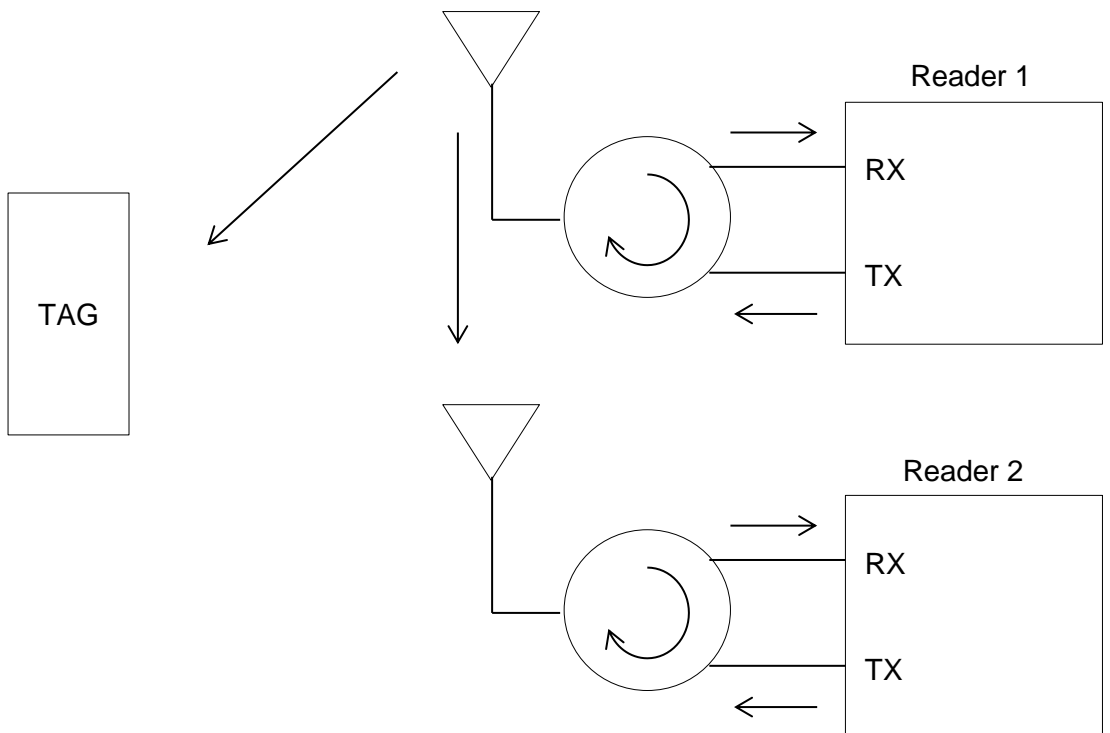
▍Tag RSSI can be read by using ARETE POP app

- ✓ Touch Settings button
- ✓ Choose Pop settings
- ✓ Switch Tag RSSI to turn tag RSSI report on/off.

No SIM 🎧 2:38 PM 🔋	No SIM 🎧 3:23 PM 🔋	No SIM 1:19 PM 🔋
ARETE POP Settings	Back **Settings**	Settings **POP Settings**
1 tags | Connected | 50%		Regulatory Parameters
3000E20068060000000000000000 1 >	**POP Settings** >	Output Power 25.0 >
		On/Off Time (ms) 100/400 >
	About >	Reading Parameters
		Stop Conditions 0/0/0 >
		Additional Fuctions
		Beep ON
		Tag RSSI OFF
ON | Read | Clear | Stop		
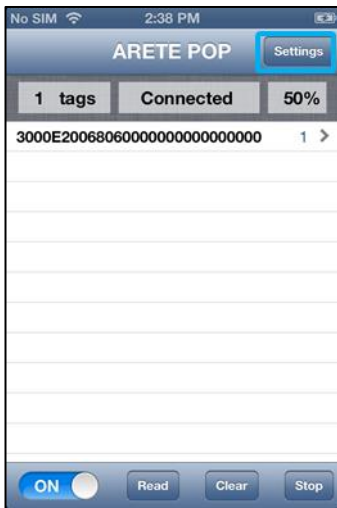
▍After enabling Tag RSSI, the tag RSSI appears in the tag list. It seems that the first ID is the near tag's ID.

No SIM 🎧 7:34 PM 🔋
ARETE POP Settings
2 tags | Connected | 93%
300001152637074907490749 -38 >
3000305619A9D00578C0FFFFFFFF -59 >
ON | Read | Clear | Stop

▌ ARETE POP SDK exposes below APIs for tag RSSI

For iOS
- (BOOL)startReadTagsWithRssi:(uint8_t)mtnu mtime:(uint8_t)mtime repeatCycle:(uint16_t)repeatCycle
@optional
- (void)tagRssiReceived:(NSData *)pcEpc rssi:(int8_t)rssi

For Android
boolean startReadTagsWithRssi(int max_tags, int max_time, int repeat_cycle)
void onTagWithRssiReceived(int[] pcEpc, int rssi)

▌ Interferer RSSI is not exposed at the API.

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Local Customer Service

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