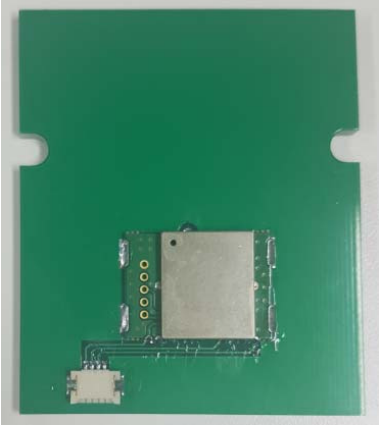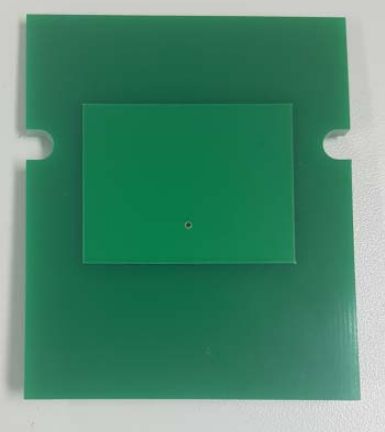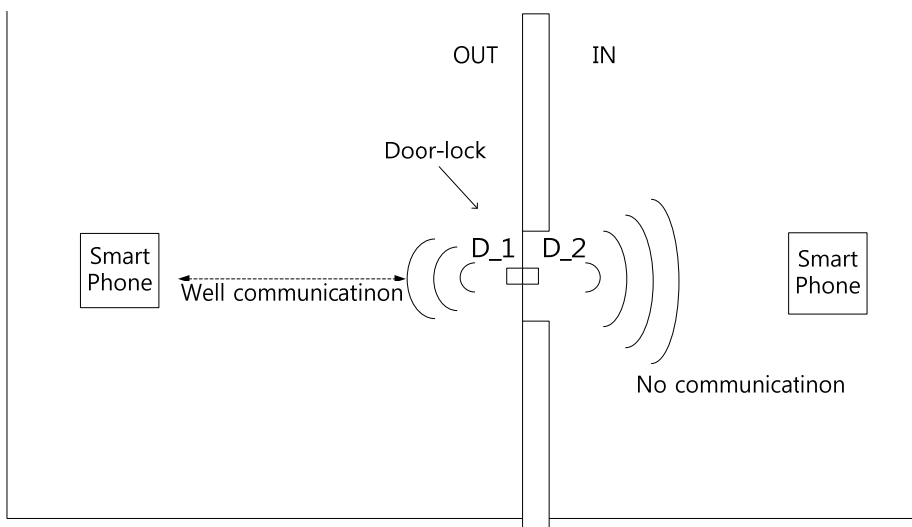# IS2540XSR and IS2541XSR Manual

Intro

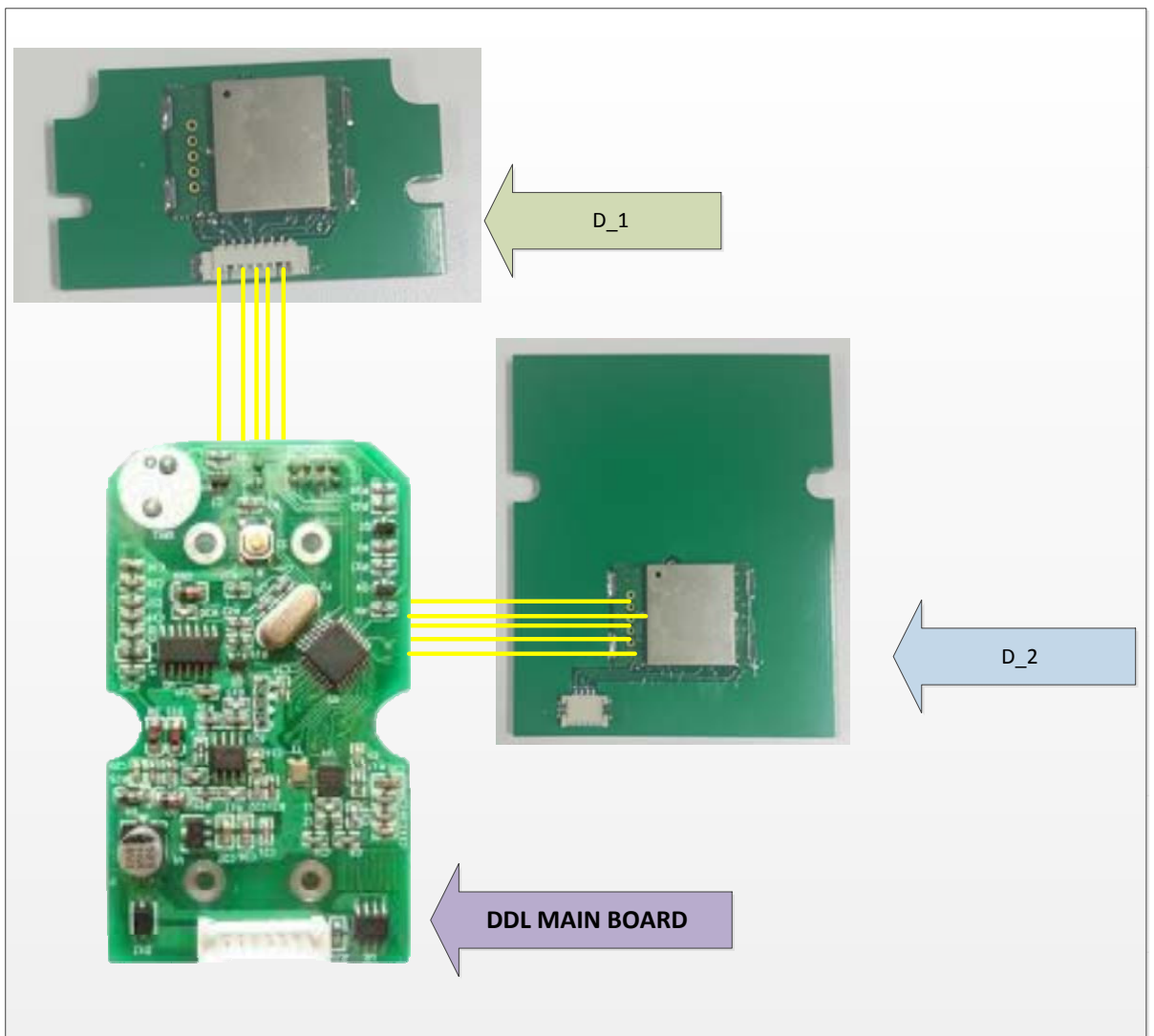IS2540XSR and IS2541XSR BLE Modules are developed to implement wireless communication possible only at outside of door for a Digital Door Lock(DDL) system.

Module configuration

D_1 : IS2540XSR with Antenna	D_2 : IS2541XSR with Antenna
 Back view	 Back view
 Front view	 Front view

D1 and D2 cannot work standalone. They need to be controlled by main MCU on digital doorlock main board.

How to connect to DDL Main board and how it works

D_1

D_2

DDL MAIN BOARD

OUT   IN

Door-lock

D_1   D_2

Smart Phone

Smart Phone

Well communicatinon

No communicatinon

When people touched doorlock Main board wakes D_1 to transmit BLE signal to the front.

At the same time D_1 send a signal to D_2 to transmit a different signal to disturb smartphone to get normal BLE signal at the back side of DDL.

D_1 is just normal BLE module. D_2 is just making a RF signal when D_1 transmit any RF signal.

In the data point of view, D_1 just transfer the date from smart phone to DDL Main Board only after D_1 and Smartphone have made BLE connection.