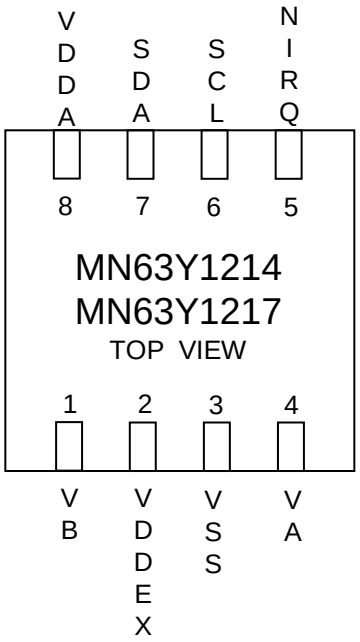
Evaluation board circuit diagram and implementation MN63Y1214/1217

Ver. 1.1
Aug. 19, 2014

Sensing Systems Development Center
Semiconductor Business Unit
Panasonic Semiconductor Solutions Co.,Ltd.

MN63Y1214/1217 Pin layout



Pin No.	Name	Input/Output	IO type	function
1	VB	I/O	---	Coil terminal
2	VDDEX	---	Power	External Power Supply
3	VSS	---	GND	Ground
4	VA	I/O	---	Coil terminal
5	NIRQ	Output	Open Drain	USE : Pull up to VDDEX NOT USE : Open or Connect to Ground
6	SCL	Input	---	I2C Clock input
7	SDA	I/O	Open Drain	I2C Data input/output. Pull up to VDDEX
8	VDDA	---	Power	Internal analog power supply (Connect a capacitor between this pin and VSS shortest as possible.)

Pattern of the evaluation board (40mm x 30mm Antenna)

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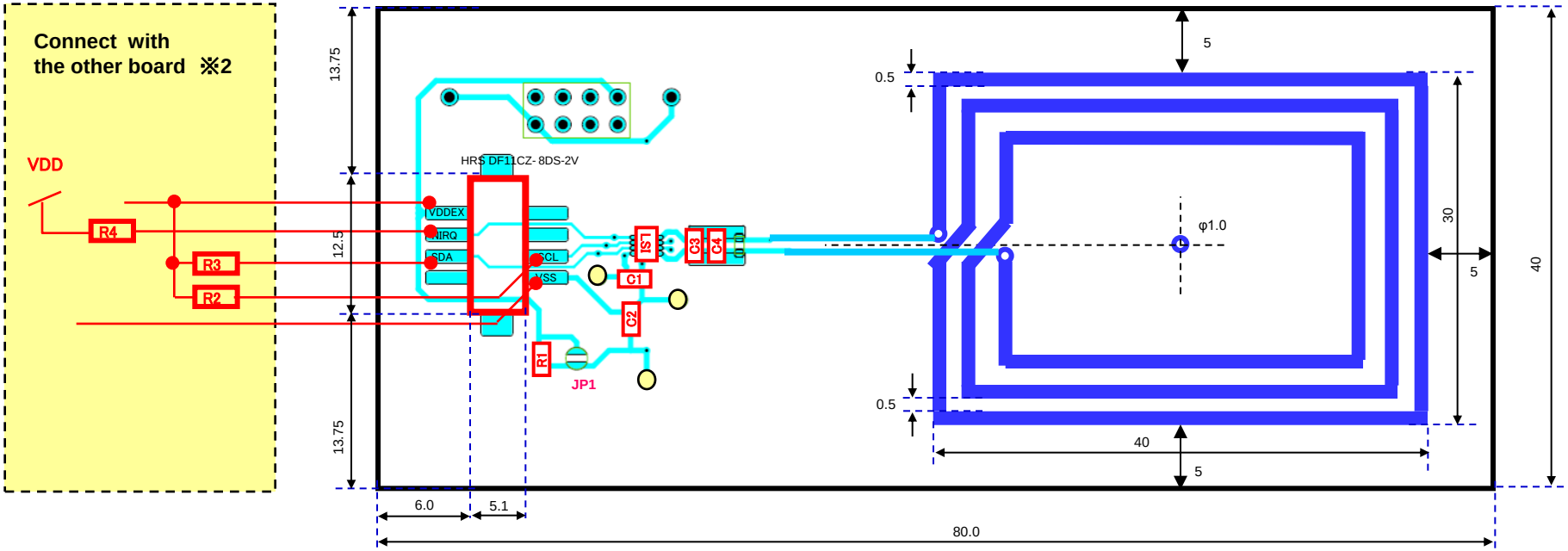
■ ANT4030_03_0505_B0_L_1214_V0

Unit : mm

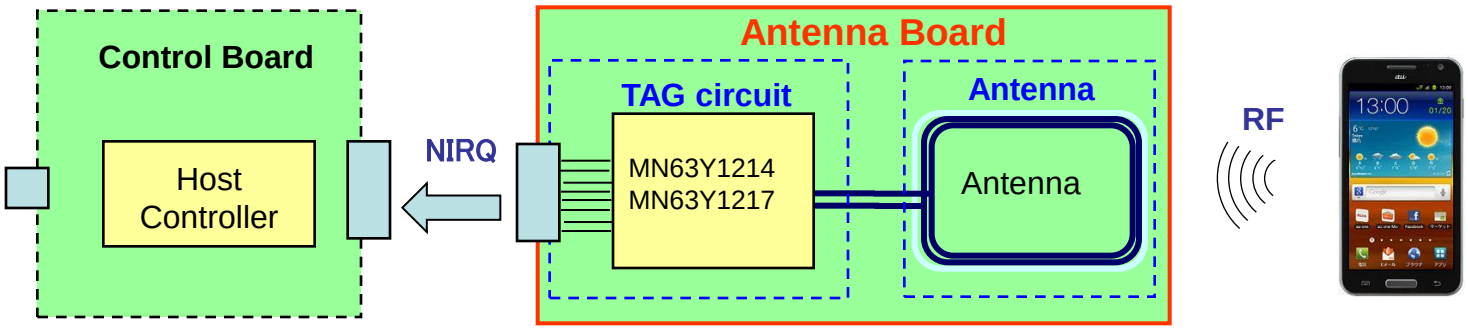


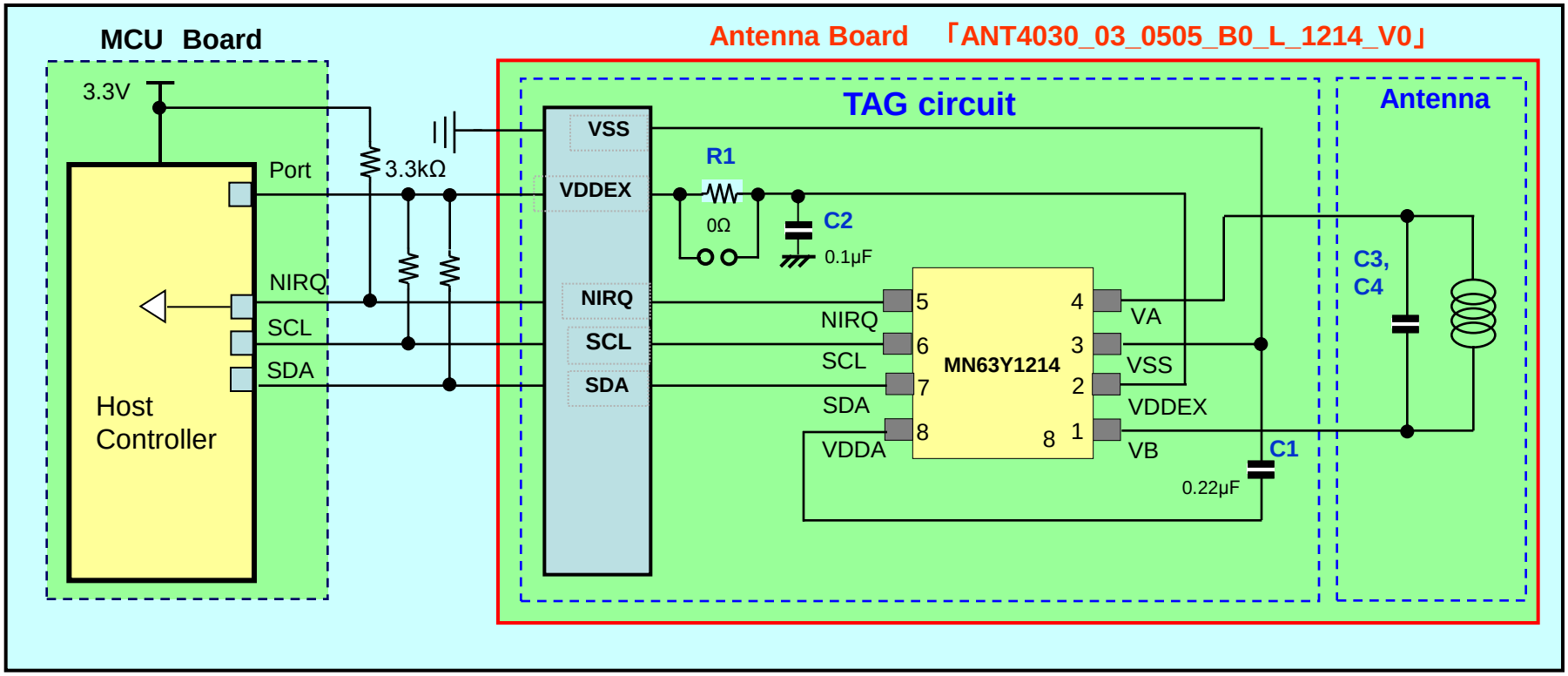
※ Substrate size may differ from the substrate which exists to a visitor.
※ I connect pulling up resistance (R2,R3,R4) to the microcomputer board of our offer.

External parts	Recommended Value	Detail explanation
R2,R3	3.3kΩ	These are pull up resistor for I2C signal lines. Please choose the value considering data speed, parasitic capacitance of signal lines, and current drive performance. In our NFC tag board " ANT4030_03_0505_B0_L _1214_V0 " it is not implemented.
R4	3.3kΩ	This is pull up resistor for interrupt signal lines. Please choose the value considering data speed, parasitic capacitance of signal lines, and current drive performance. In our NFC tag board " ANT4030_03_0505_B0_L _1214_V0 " it is not implemented.
C1 C2	0.22μF 0.1μF	It is a fixed value at the capacity between the power supply for operation stabilization of the tag LSI. C1 is connected to VDDA, and C2 is connected to VDDEX.
C3, C4	-	It is Resonance capacity. The optimal values differ for every antenna design. It is connected VA to VB. In our NFC tag board " ANT4030_03_0505_B0_L _1214_V0 ", capacity C3=150pF, the C4=22pF has been implemented.
R1	-	In our NFC tag board " ANT4030_03_0505_B0_L _1214_V0 ", the resistance of R1=0Ω has been implemented.

Connection with host micon

NFC tag system constitution





Connecter specification(1)

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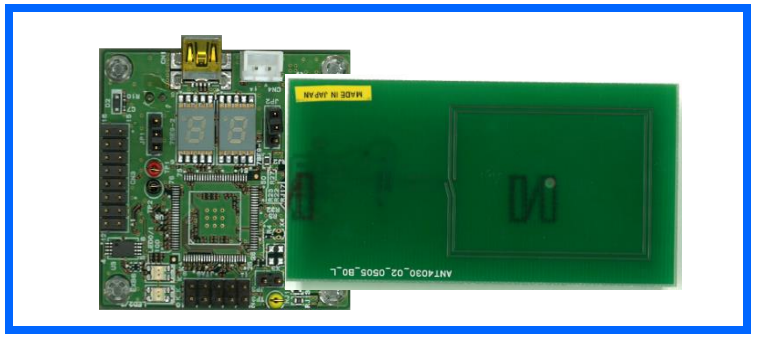
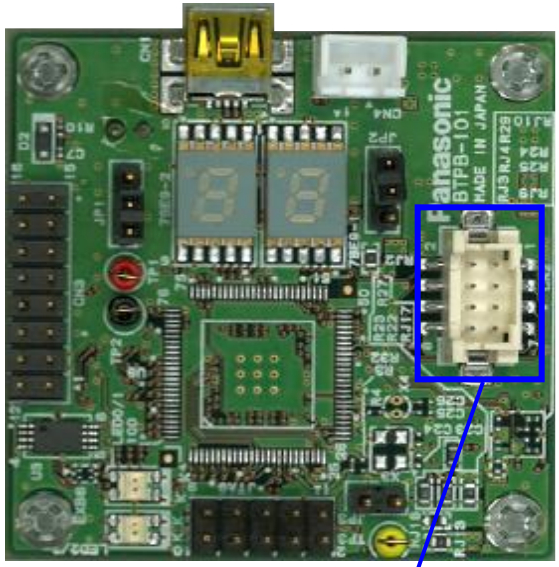
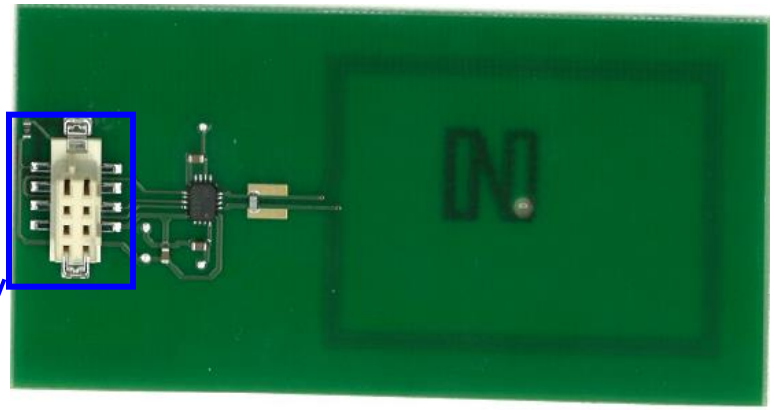
Connection image （Top view）



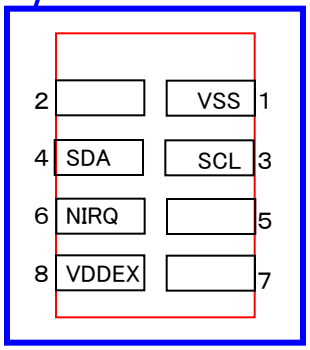
Micon board [BTPB-101B]

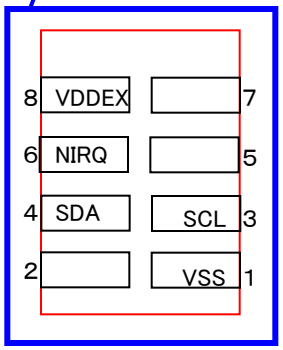


Antenna board [ANT4030_03_0505_B0_L_1214_V0]



DF11CZ-8DP-2V(27)
（ Hirose Electric ）

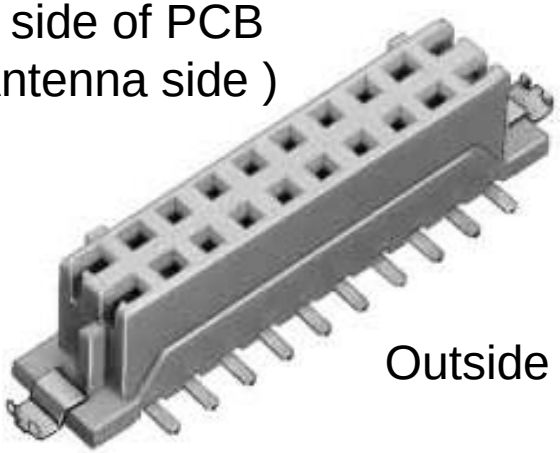




HRS DF11CZ- 8DS-2V
（ Hirose Electric ）

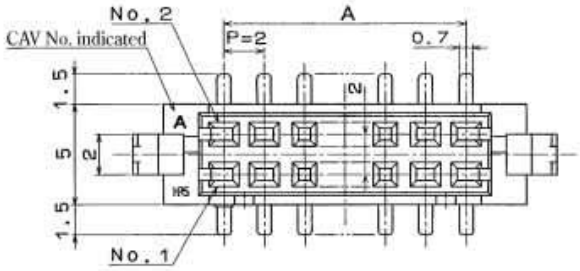
Connecter specification(2)

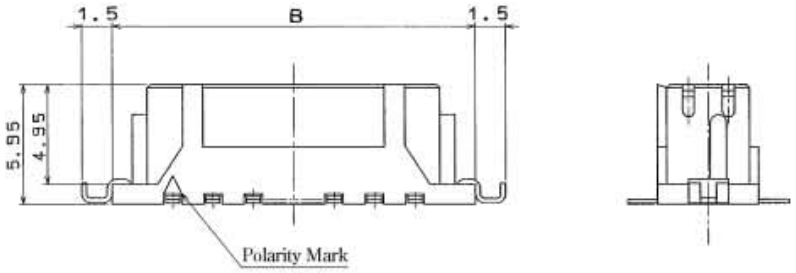
In side of PCB
(Antenna side)



Outside of PCB

※Figure is an example





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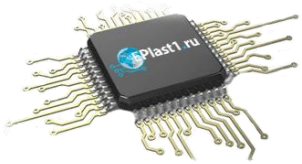

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