

Evaluation board circuit diagram and implementation <MN63Y1208>

Ver 1.2

2013/3/1

Semiconductor Business Group
Industrial Devices Company
Panasonic Corporation

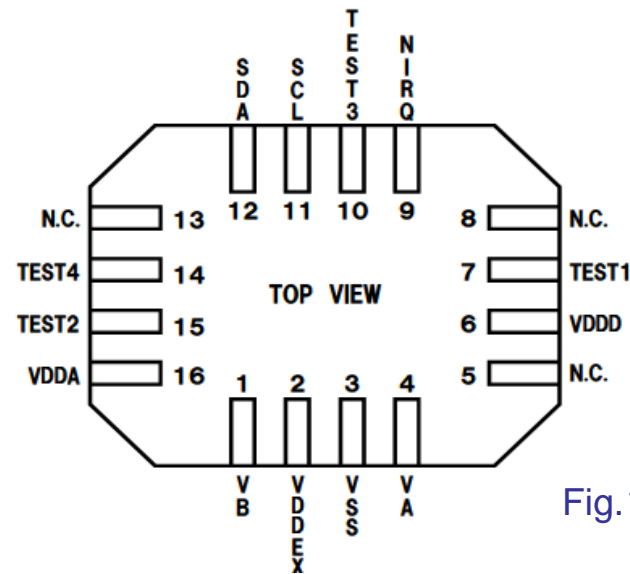


Fig.1 List of pin placement

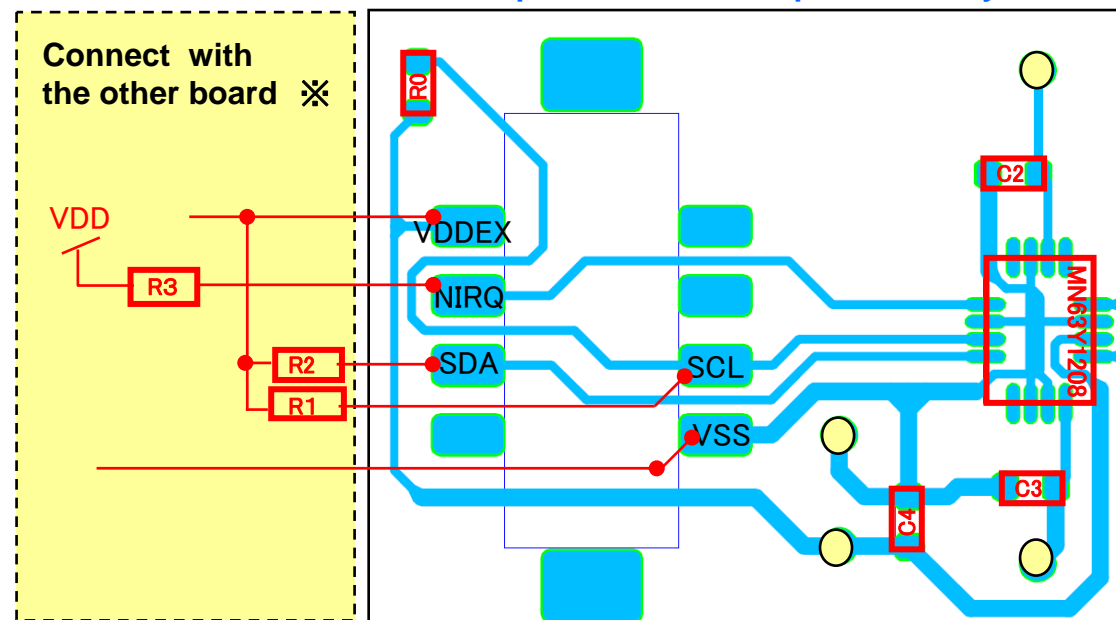
Tab.1 Pins of the NFC tag

PIN Number	Terminal name	Input/output	Input and output type	function
1	VB	I/O	—	Coil terminal
2	VDDEX	—	Power	Power supply for contact (Input 1.7V ~ 3.6V)
3	VSS	—	GND	Ground
4	VA	I/O	—	Coil terminal
5	N.C.	—	—	Unconnected pin
6	VDDD	—	Power	Digital internal power supply (Connect capacitance between VSS)
7	TEST1	input	—	Test control (Normally connected to VSS)
8	N.C.	—	—	Unconnected pin
9	NIRQ	output	Open Drain	Interrupt request output
10	TEST3	input	—	Test control (Normally connected to VSS)
11	SCL	input	—	HOST I/F (I2C 100kHz)
12	SDA	I/O	Open Drain	HOST I/F (I2C 100kHz)
13	N.C.	—	—	Unconnected pin
14	TEST4	input	—	Test control (Normally connected to VSS)
15	TEST2	input	—	Test control (Normally connected to VSS)
16	VDDA	—	Power	Analog internal power supply (Connect capacitance between VSS)

Figure of pattern of the evaluation board

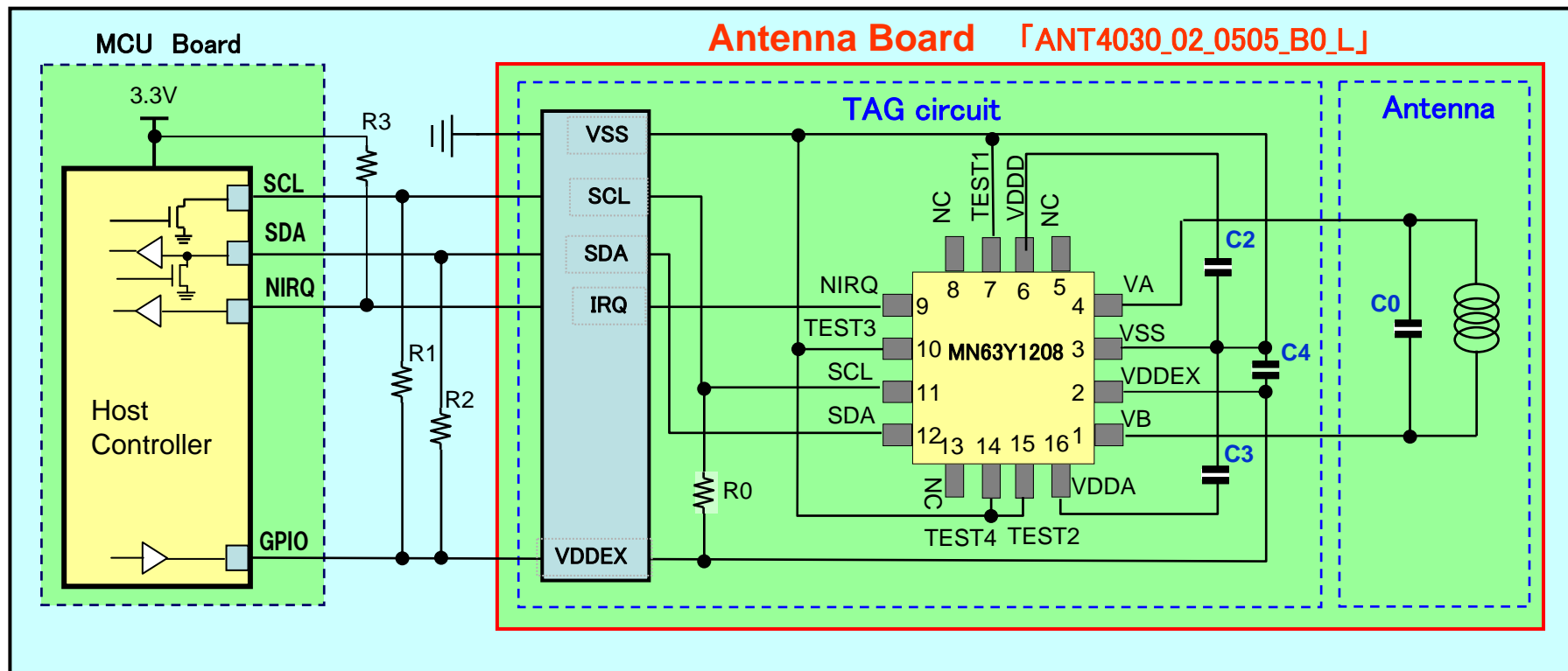
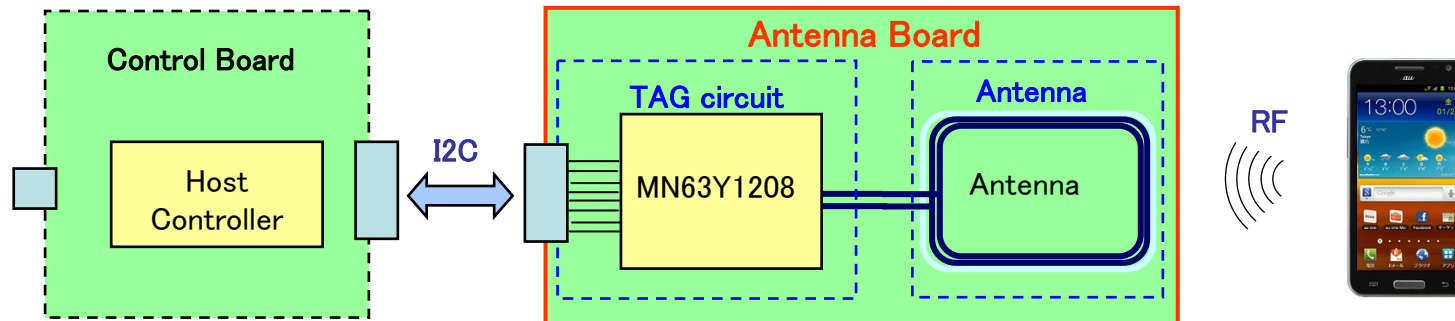
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Chip and Parts are implemented by the antenna board surface

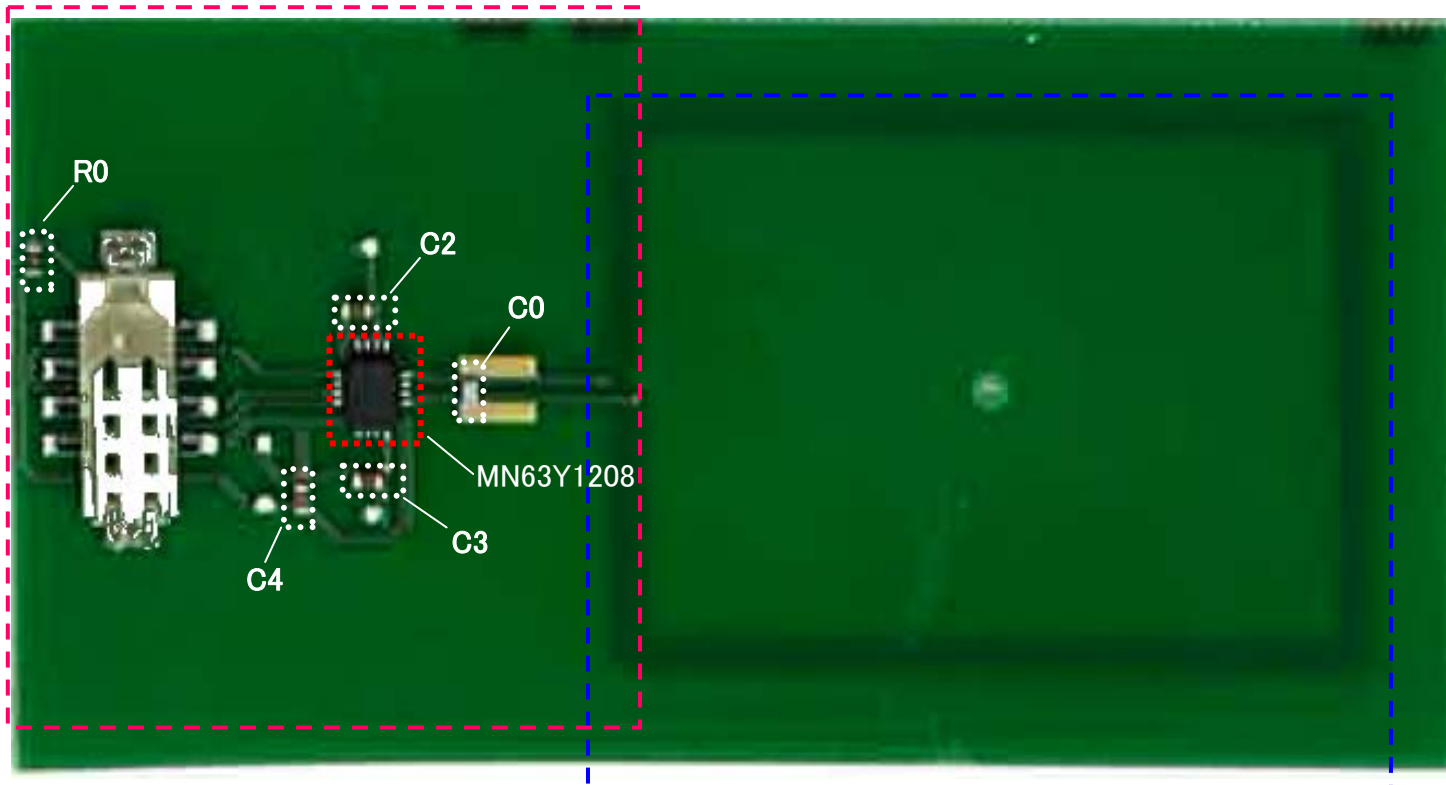


External part	Recommendation Value	Detailed explanation
R1,R2	3.3k Ω	It is pulling up resistance for I2C signal lines. Please decide the resistance level in consideration of transmission rate, wiring capacity, current ability. In our NFC tag board "ANT4030_02_0505_B0_L," it is not implemented.
R3	3.3k Ω	It is pulling up resistance for interrupt signal lines. Please decide the resistance level in consideration of wiring capacity, current ability. In our NFC tag board "ANT4030_02_0505_B0_L," it is not implemented.
C2、C3、C4	0.1 μ F	It is a fixed value at the capacity between the power supply for operation stabilization of the tag LSI. C2 is connected to VDDD, and C3 is connected to VDDA and C4 is connected to VDDEX
R0	100k Ω	It is pulling up resistance to prevent an uncertainty state of SCL causing the malfunction. When NFC tag LSI has the terms of use that R1 is not connected to, I am necessary.

※ I connect pulling up resistance (R,R2,R3) to the microcomputer board of our offer.

NFC tag system constitution

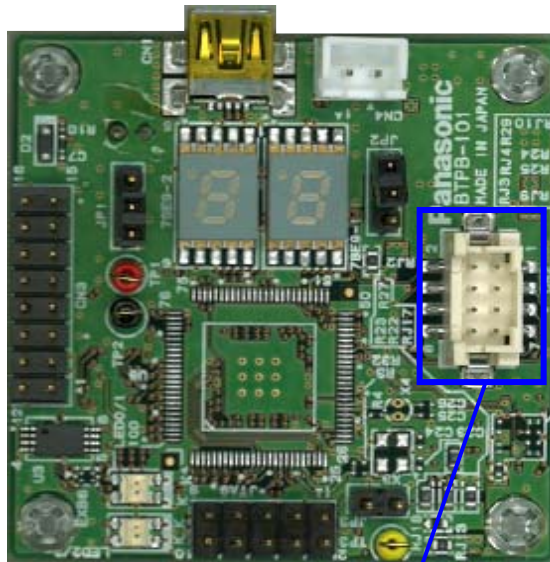
Chip and Parts are implemented by the board surface



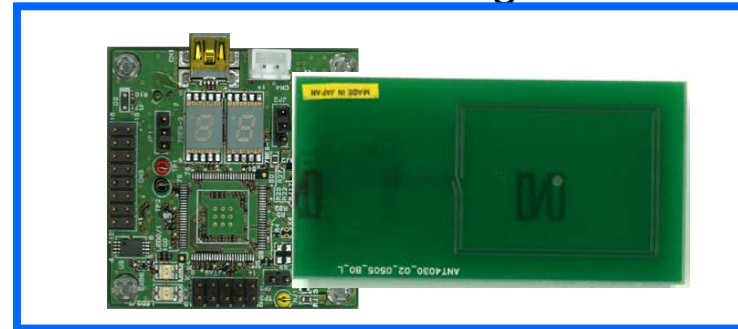
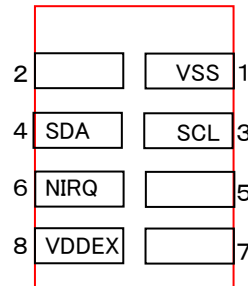
Antenna is implemented by the board back side

Connection image

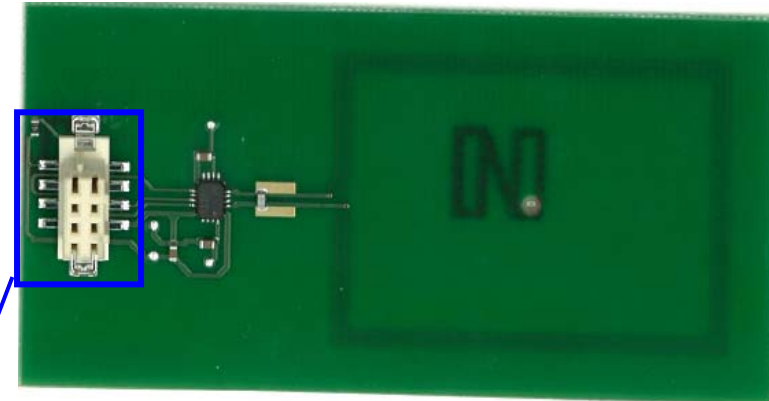
Micon Board [BTPB101-B]



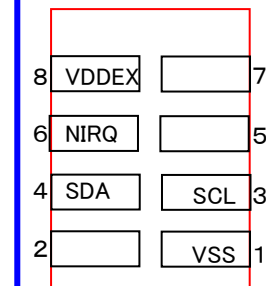
DF11CZ-8DP-2V(27)
(Hirose Electric)



Antenna Board [ANT4030_02_0505_B0_L]



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



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