

# R9A06G037/ISL15102 Board Design

R30AN0418EJ0100

## Reference Material Guide

Rev.1.00

Aug 1, 2022

For a design guide for circuit design and layout design when designing a PLC board using Renesas Electronics PLC modem LSI R9A06G037 and ISL15102 with built-in Power Amp, refer to the following application notes.

**Table 1 Reference materials and items of circuit design guidelines**

Major items		Reference materials	Reference items
1	<a href="#">R9A06G037</a>	<a href="#">R30AN0410EJ0100</a>	2
2	<a href="#">AFE circuit and AC coupling circuit</a>	<a href="#">R30AN0412EJ0100</a>	3
3	<a href="#">DC-DC power supply circuit</a>	<a href="#">R30AN0412EJ0100</a>	4
4	<a href="#">AC-DC power supply circuit</a>	<a href="#">R30AN0412EJ0100</a>	5

**Table 2 Reference materials and items of PCB layout design guidelines**

Major items		Reference materials	Reference items
1	<a href="#">Parts Layout for the High Voltage Circuit Domain</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.1
2	<a href="#">Parts Layout for the Low Voltage Circuit Domain</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.2
3	<a href="#">Parts Layout around R9A06G037 and PCB Pattern</a>	<a href="#">R30AN0340EJ0400</a>	2.3
4	<a href="#">Parts Layout around the AFE Circuit and PCB Pattern</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.4
5	<a href="#">DC-DC Power Supply Circuit</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.5
6	<a href="#">AC-DC Power Supply Circuit</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.6
7-1	<a href="#">Layer structure PCB</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.7
7-2	<a href="#">GND Pattern</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.7
8	<a href="#">Power Supply Pattern</a>	<a href="#">R30AN0408EJ0200<sup>1)</sup></a>	2.8

Note1) Please replace R9A06G061 in the reference material with R9A06G037.

The reference material names are as follows.

- [R30AN0410EJ0100: R9A06G037/NJM45001 Circuit Design Guideline](#)
- [R30AN0340EJ0400: R9A06G037/NJM45001 PCB Design Guideline \(Layout Design\)](#)
- [R30AN0412EJ0100: R9A06G061/ISL15102 Circuit Design Guideline](#)
- [R30AN0408EJ0200: R9A06G061/ISL15102 PCB Design Guideline \(Layout Design\)](#)

**Revision History**

Rev.	Date	Description	
		Page	Summary
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