RNS
relationships & services

COMPANY PROFILE

PCBs for LED, optical sensor and security device makers

Single-sided, double-sided, white BT resin and aluminum PCBs with ENIG and soft gold. Korean PCB manufacturer since 1998.

1998	**UL**	**ISO 9001**	**3 × 3 mm**
founded	File E201744	:2015	smallest board

RNS Co., Ltd. · 78, Hogupo-ro 74beon-gil, Namdong-gu, Incheon, Republic of Korea
sales@rnsok.com · Tel +82-32-822-0192 · en.rnscorp.co.kr

01 · ABOUT US

RNS Co., Ltd.

RNS has made printed circuit boards in Incheon, Korea since 1998. Our boards go into LED packages, IR emitters and photo sensors, sensor modules, security equipment such as card terminals and fingerprint readers, and safe door locks. We focus on single-sided and double-sided boards in special materials — white BT resin, High-Tg and halogen-free FR-4, CEM and aluminum — with gold finishes, made in high volume under strict quality control.

History

1998 Founded (Kukmin Electronics) · registered exporter

1999 UL certification

2007 Registered as a venture company

2009 Incorporated as RNS Co., Ltd.

2014 Award from the Mayor of Incheon

2019 ISO 9001 · government smart factory program

Certifications

UL Recognized
Component – Wiring, Printed
UL File No. **E201744**

ISO 9001:2015
Quality management system
Scope: manufacture of printed circuit boards

Why RNS

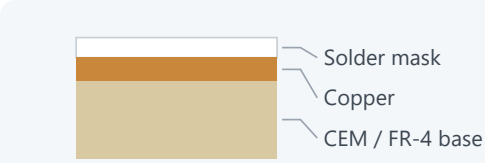
- Optoelectronics focus: LED and sensor packages
- Gold finishes: ENIG, soft gold, hard gold
- Special materials: white BT, High-Tg, halogen-free, aluminum
- High volume, small size: lots over 100,000 pcs
- Gold-price-linked pricing for heavy gold boards

Key numbers

1 – 2	3 × 3 mm	0.1 mm	0.15 mm	75 µm	0.3 – 1.3 µm
Layers	Smallest board	Thinnest board	Smallest via	Line / space	Soft gold

02 · PRODUCT LINEUP

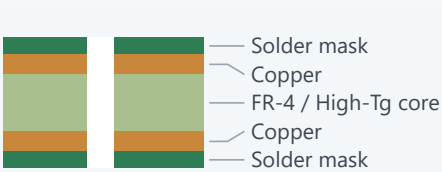
Special PCBs we make



One Side PCB

Single-sided boards for LED lighting, power and control boards, made in high volume.

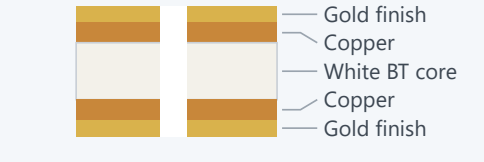
Material	CEM-1, CEM-3, FR-4, metal
Thickness	0.4 – 1.8 mm
Finish	OSP, lead-free HASL, ENIG, carbon ink
Use	LED lighting, power supplies, door locks



Double Side PCB

Plated through-hole boards for sensors, modules and control boards.

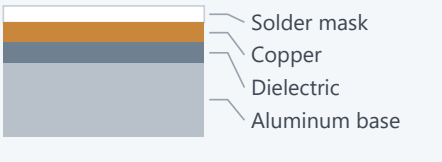
Material	FR-4, High-Tg, halogen-free, BT · Polyimide, Teflon, Rogers on request
Thickness	0.2 – 1.8 mm
Finish	ENIG, hard gold, OSP, HASL, immersion tin
Use	Sensors, card terminals, fingerprint readers, radar



BT Resin PCB

White BT resin with ENIG or soft gold for LED packages, IR emitters and optical sensors.

Material	White BT resin
Thickness	0.2 – 0.8 mm
Finish	ENIG, soft gold 0.3 – 1.3 µm
Use	SMD / IR LED, photo sensor packages



Metal PCB (Aluminum)

Aluminum-base boards that pull heat away from LEDs and power parts.

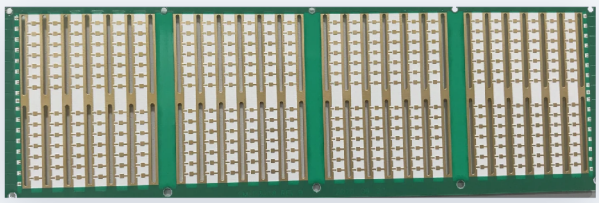
Material	Aluminum base, 1 layer
Thickness	1.0 – 1.6 mm
Finish	OSP, lead-free HASL, ENIG
Use	LED modules, power boards

Special options

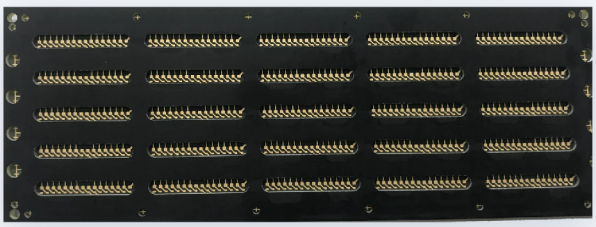
Gold finishes (ENIG, hard gold up to 1.5 µm, soft gold for wire bonding) · Small size from 3 × 3 mm and 0.1 mm thin · Unbalanced copper (e.g. ½ oz / 2 oz, up to 105 µm)

Manufacturing capabilities

Layers	1 layer (single-sided), 2 layers (double-sided); 4 layers on request
Materials	FR-4, High-Tg FR-4, Halogen-free FR-4, BT resin (white), CEM, Aluminum (metal core)
Board thickness	Standard 0.4 – 1.8 mm · Special 0.1 – 0.39 mm
Smallest board size	3 × 3 mm
Copper thickness	Standard 17 / 35 µm · Special 8, 12, 70, 105 µm · Unbalanced copper (e.g. ½ oz / 1 oz, ½ oz / 2 oz, 1 oz / 2 oz)
Line width / space (outer)	Standard 125 µm · Special 75 µm
Drill size	0.2 – 6.5 mm (mechanical) · smallest via 0.15 mm
Drill position tolerance	±20 µm
SMD pitch	0.12 mm
Impedance control	±10 % (±5 % on request)
Surface finish	ENIG, electrolytic hard gold, soft gold, OSP, lead-free HASL, immersion tin, carbon ink, peelable mask
Gold thickness	ENIG 0.03 – 0.05 µm · Hard (electrolytic) gold 0.03 – 1.5 µm · Soft gold 0.3 – 1.3 µm
Profile	Routing, V-cut, press punching
Testing	Electrical test (BBT), AOI, final visual inspection



Double-sided BT resin panel, soft gold



Double-sided panel, gold contacts, black solder mask

04 · APPLICATIONS & CUSTOMERS

Where our boards go

LED packages
White BT resin and gold-finished SMD / IR LED substrates

Optical sensors
Photo sensors, proximity sensors, ToF and VCSEL modules

Security equipment
Card terminals, communication devices, fingerprint readers

Safes & door locks
Control boards for safe door locks and electronic locks

LED lighting
Aluminum and single-sided LED module boards

Radar & modules
Double-sided boards for 60 GHz radar sensor modules

Our customers

KODENSHI · S-1 CORPORATION SAMSUNG GROUP AFFILIATE · ODTECH · STARNEX · EAGLE SAFEES · Edge Foundry Co.,Ltd

How ordering works

1. Send Gerber files with quantity, material and finish.
2. Our engineers review the data (DFM) and quote.
3. Sample lot for your approval.
4. Mass production — every lot electrically tested and inspected.

Contact

78, Hogupo-ro 74beon-gil, Namdong-gu, Incheon, Republic of Korea

Email **sales@rnsok.com**
Tel +82-32-822-0192 · Fax +82-32-822-0196
Web **en.rnscorp.co.kr**