

Revision Information : RED4S



Revision History

Version	Date	Description
01	2017-11-08	Initial release
02	2017-11-21	Fix typo
03	2017-11-22	Added some information

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1. Purpose of Revision

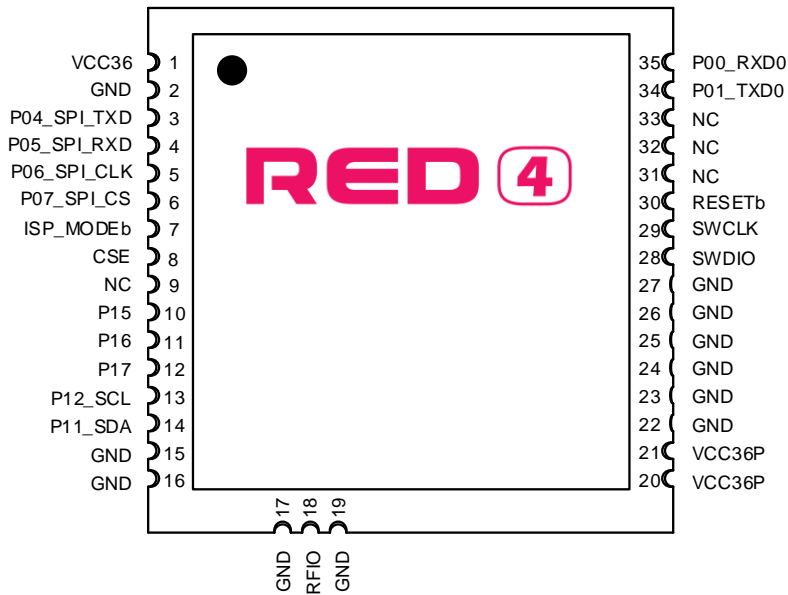
- PHYCHIPS revised the RED4 to RED4S for below reasons
 - 1) Some components in RED4 are discontinued
 - 2) To improve performance

- **Key Feature of RED4S**
 - 1) Backward compatible with RED4
 - Same size and footprint with RED4
 - Pin to pin(except several pins)
 - Same RCP with RED4

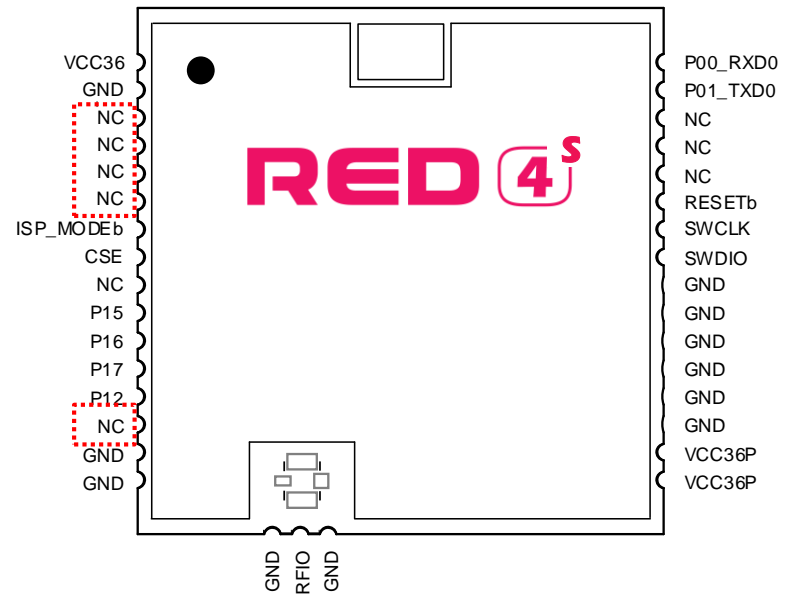
 - 2) Performance improvement
 - Better leakage cancellation structure to cover various antennas
 - Extended Max. output power (27dBm)

 - 3) Certification
 - Major certifications such as FCC, CE, TELEC can be acquired by PHYCHIPS
 - Customers can use PHYCHIPS certification number if needed

2. Change of Pin Diagram



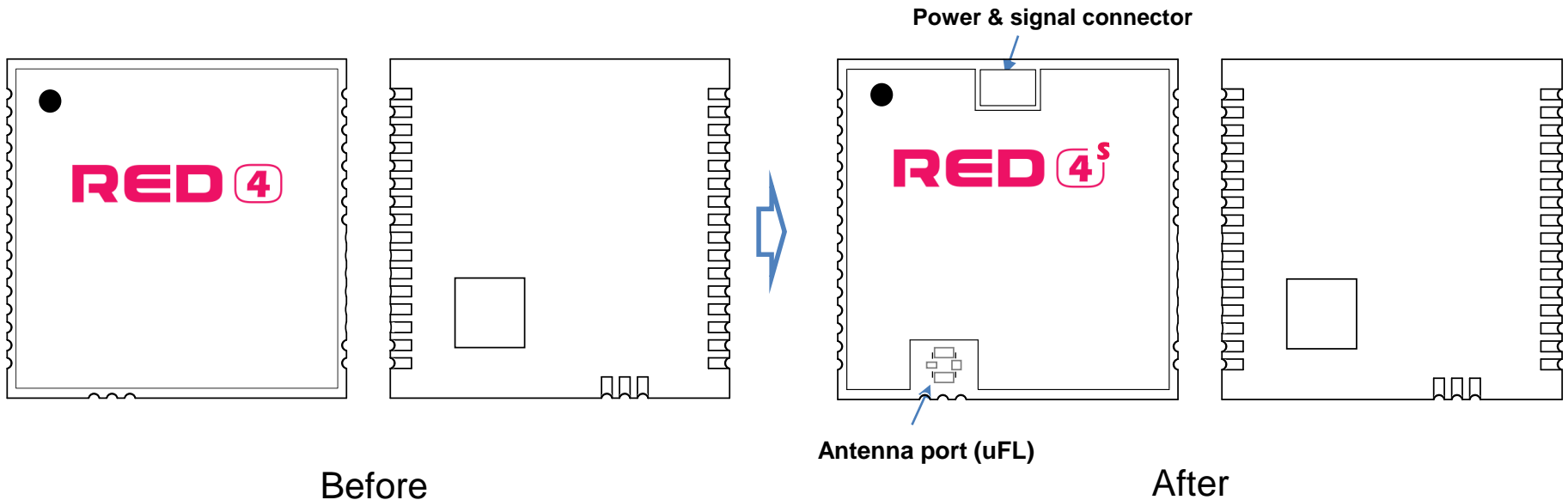
Before



After

Pins in the RED box are not available

3. Same Footprint & Added Connection



- **RED4S**

- 1) Module size and footprint are identical to RED4
- 2) Added antenna port and power & signal connector to get major certifications such as FCC, CE, TELEC by RED4S itself

4. Firmware Version

	RED4	RED4S
Firmware version	RED4_v2.5.x	RED4_v3.0.x or later

5. RED4 vs. RED4S

Item	RED4	RED4S
Max. Tx power	25dBm (23dBm for Japan)	27dBm (TBD)
Current	450mA	450mA (TBD)
Package type	SMD	SMD Connector
On board antenna port	N	Y
Size	24x24x3mm ³	24x24x3mm ³
Sensitivity	-65dBm	-65dBm
Support multi-band (Single Stock Keeping Unit)	Y	Y
Supportable national regulations	US (FCC) EU (ETSI) JAPAN (TELEC) Korea (KC)	US (FCC) EU (ETSI) JAPAN (TELEC) Korea (KC)
Certified by module itself	US (FCC)	US (FCC) EU (ETSI) JAPAN (TELEC)
Mass production status	EOL	Sample: Dec. 2017 MP: Feb. 2018

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