3G GSM to 3G/4G Cellular Routers & RTUs



Introduction

The SN-68xx 3G-only GSM cellular router and RAM-68xx 3G-only GSM cellular RTU were introduced as Red Lion's first DIN-rail mountable industrial cellular products with more advanced security and routing capabilities than previous generations. Cellular continues to evolve quickly and provide customers with increasingly reliable and ever-expanding coverage for their connectivity needs. As such, these pioneering products are being discontinued.

Red Lion is announcing new 3G GSM routers and RTUs, upgradable to 4G LTE by purchasing a software license, which are replacements for these legacy products. This new solution provides a seamless upgrade path for customers as their application needs change, saving both time and money while reducing complexity. This document describes the alternatives available and provides information on how their features compare with the items being discontinued.

Timing

Red Lion Controls intends to honor the standard warranty obligation for this product when ordered and delivered in accordance with the following transition schedule:



^{*}Dates are subject to change based on component availability and product sales

June 1, 2017

- Product discontinuation announcement
- Red Lion begins accepting non-cancellable, non-returnable last time buy orders
- Orders may be scheduled for delivery between July 2017 and December 31, 2017

June 30, 2017

- General availability of SN-68xx cellular routers and RAM-68xx cellular RTUs ceases
- Acceptance of last time buy orders concludes

December 31, 2017

• Shipment of SN-68xx cellular routers and RAM-68xx cellular RTUs stops

Why is this transition taking place?

The SN/RAM-68xx 3G-only GSM cellular products are based on a cellular module that is no longer available. The new models are designed with newer components which will provide a longer life, and also uniquely offer the ability to unlock 4G LTE capability via a software license, eliminating the need to physically replace hardware if an application later requires the advanced connectivity of 4G LTE.

A detailed part-by-part cross reference guide for customers transitioning from SN/RAM-68xx products can be found in the Product Discontinuation notice available at www.redlion.net/eol. Below is a representation of how the recommended parts will compare to the old.

What happens to my current investment in SN/RAM-68xx products?

Existing SN/RAM-68xx products still function, will continue to be supported and carry our full warranty. For new deployments or replacement product, customers should use the new SN/RAM-67xx or SN/RAM-69xx hardware as described by our online Cross Reference guide or Product Discontinuation document, both available at www.redlion.net/eol.

How do I upgrade one of the new SN/RAM-67xx-yy°-3G or SN/RAM-69xx-EU-3G models to 4G LTE?

As your application needs change, upgrading will be as simple as ordering an upgrade license from Red Lion. Upon entering the 4G LTE software license key, the unit will be rebooted and will be capable of 4G LTE service. (Please note that a 4G LTE SIM card must be installed and you may need to upgrade to a compatible data plan from your cellular provider, as well.)

What if I want to upgrade my existing SN/RAM-68xx product to 4G LTE?

Unfortunately, the only options for upgrading an SN/RAM-68xx product to 4G LTE is to replace the hardware with an LTE-compatible, upgradable model (SN/RAM-67xx-GE-3G or 69xx-EU-3G), or to purchase one of our standard 4G LTE models with 3G fallback. Please contact Tech Support to talk through the options available to you.

Please see <u>Appendix A</u> for a spec-by-spec comparison of example cellular router products and <u>Appendix B</u> for a comparison of example cellular RTU products.

Prices listed are Red Lion standard list price at time of publication, in USD. Pricing is for illustrative purposes only and does not constitute a quote.

yy is reserved for carrier designation in part number. See discontinuation notice for specific part number information.

Appendix A

Comparison of SN-68xx-GE and SN-67xx-yy[⋄]-3G/69xx-EU-3G Cellular Routers





(2.6 W – 8.4 W Transmitting)



(2.6 W - 8.7 W Transmitting)

| 7 | SN-68xx | SN-67xx-yy-3G | SN-69xx-EU-3G | |
|------------------|-------------------------|--------------------------------|--------------------------------|---|
| | SN-68xx | SN-67xx-yy-3G (Americas) | SN-69xx-EU-3G (EMEA/APAC) | |
| Part Number | SN-6801 SN-6821 | SN-6701-yy-3G SN-6721-yy-3G | SN-6901-EU-3G SN-6921-EU-3G | |
| Example Power | | | | _ |
| Power | Input Voltage: 8-30 VDC | Input Voltage: 8-30 VDC | Input Voltage: 8-30 VDC | |

| Power Supply | Optionally included | Sold separately | Sold separately |
|--------------|-------------------------------|-----------------|-----------------|
| Connectivity | Ethernet: One (1) or five (5) | Same | Same |

10/100Base-T RJ-45 ports **Serial:** One (1) RS-232 (DB9) **USB:** One (1) USB 2.0 (mini) **Antennas:** Two (2) SMA conn. (antenna, diversity)

SN-6x21:120 x 96 x 51 mm Weight: 500g (1.1 lbs.)

(2.6 W - 5.0 W Transmitting)

| Construction | Metal housing | Same | Same |
|--------------|---|------|------|
| Dimensions | SN-6x0x: 120 x 96 x 32 mm Weight: 453g (1 lb.) | Same | Same |

| GSM | HSPA : Bands 1, 2, 5, 6, 8; |
|-------------|------------------------------------|
| Frequencies | Frequencies |
| | 800/850/900/1900 /2100 |
| | MHz |
| | GSM : 850/900/1800/1900 |
| | |

MHz

HSPA: Bands 1, 2, 5, 6; Frequencies 800/850/ 1900/2100 MHz GSM: 850/900MHz [Optional LTE: Bands 1, 4, 17; Frequencies

700/2100MHz, AWS

(1700/2100) MHz]

HSPA: Bands 1, 2, 5, 8; Frequencies 850/900/ 1900/2100 MHz

GSM:

850/900/1800/1900MHz

[**Optional LTE**: Bands 1, 3, 7, 8, 20; Frequencies 800/900/ 1800/2100/2600MHz]

560

| Mounting | DIN-rail, Panel, Flush-mount | Same | Same |
|------------------|------------------------------|------------------------|----------------------|
| List Price (ex.) | SN-6801 - \$ 560 | SN-6701-AT-3G - \$ 560 | SN-6901-EU-3G - \$! |

 $^{^{\}diamond}$ yy is reserved for carrier designation in part number. See <u>discontinuation notice</u> for specific part number information.

Prices listed are Red Lion standard list price at time of publication, in USD. Pricing is for illustrative purposes only and does not constitute a quote.

Appendix B

Comparison of RAM-68xx-GE and RAM-67xx-yy-3G/69xx-EU-3G Cellular RTUs









RAM-68vv

RAM-67xx-vv-36

RAM-69xx-AT-30

| | RAM-68xx | RAM-67xx-yy-3G | RAM-69xx-A1-3G |
|------------------------|---|--|--|
| | RAM-68xx | RAM-67xx-yy-3G (Americas) | RAM-69xx-EU-3G (EMEA/APAC) |
| Part Number Example | RAM-6801 RAM-6821 | RAM-6701-yy-3G RAM-6721-yy-3G | RAM-6901-EU-3G RAM-6921-EU-3G |
| Power | Input Voltage: 8-30 VDC (2.6 W – 5.0 W Transmitting) | Input Voltage: 8-30 VDC (2.6 W – 8.4 W Transmitting) | Input Voltage: 8-30 VDC (2.6 W – 8.7 W Transmitting) |
| Power Supply | Optionally included | Sold separately | Sold separately |
| Connectivity | Ethernet: One (1) or five (5) 10/100Base-T RJ-45 ports, WAN on port 5 Serial: One (1) RS-232 (DB9) USB: One (1) USB 2.0 (mini) Antennas: Two (2) SMA conn. (antenna, diversity) | Same | Ethernet: Same Serial: Same USB: Same Antennas: Three (3) SMA conn. (antenna, diversity, GPS) |
| Construction | Metal housing | Same | Same |
| Dimensions | RAM-6x0x: 120 x96 x 32 mm Weight: 453g (1 lb.) RAM-6x21:120 x 96 x 51 mm Weight: 500g (1.1 lbs.) | Same | Same |
| Frequencies | HSPA: Bands 1, 2, 5, 6, 8; Frequencies 800/850/900/1900 /2100 MHz GSM: 850/900/1800/1900 MHz | HSPA: Bands 1, 2, 5, 6; Frequencies 800/850/ 1900/2100 MHz GSM: 850/900MHz [Optional LTE: Bands 1, 4, 17; Frequencies 700/2100MHz, AWS (1700/2100) MHz] | HSPA: Bands 1, 2, 5, 8; Frequencies 850/900/ 1900/2100 MHz GSM: 850/900/1800/1900MHz [Optional LTE: Bands 1, 3, 7, 8, 20; Frequencies 800/900/ 1800/2100/2600MHz] |
| Mounting | DIN-rail, Panel, Flush-mount | Same | Same |
| List Price (ex) | RAM-6801 \$ 710 | \$ 710 | \$ 710 |
| | | | |

 $^{^{\}diamond}$ yy is reserved for carrier designation in part number. See <u>discontinuation notice</u> for specific part number information.

Prices listed are Red Lion standard list price at time of publication, in USD. Pricing is for illustrative purposes only and does not constitute a quote.

Product Discontinuation Announcement



June 1, 2017

Product Affected by this Announcement

Red Lion Controls announces the end of life (EOL) of the following products. Final purchases will be accepted based on product availability. Red Lion will continue to repair products as long as parts remain available.

Please Note: Some of the products being discontinued shipped with an accessory in the box. Their replacements do not, and the accessory should be purchased separately. Please see footnotes for more information. The part number for the appropriate add-on accessory is included at the end of this document.

| Part Number | Suggested Replacement | Last NCNR | Shipments |
|-----------------|--|--------------|------------|
| | | Order Entry* | Cease* |
| SN-6800-AT | SN-6701-AT-3G ¹ | 6/30/2017 | 12/31/2017 |
| SN-6800-AT-AC | SN-6701-AT-3G ^{1,2} | 6/30/2017 | 12/31/2017 |
| SN-6800-AT-MX | SN-6701-AT-3G ^{1,2} | 6/30/2017 | 12/31/2017 |
| SN-6800-BM | SN-6900-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6800-BM-AC | SN-6900-AM ^{2,3} | 6/30/2017 | 12/31/2017 |
| SN-6800-BM-ACDC | SN-6900-AM ^{2,3} | 6/30/2017 | 12/31/2017 |
| SN-6800-BM-MX | SN-6900-AM ^{2,3} | 6/30/2017 | 12/31/2017 |
| SN-6800-GE | SN-6701-GE-3G ¹ (AMER) | 6/30/2017 | 12/31/2017 |
| | SN-6901-EU-3G ¹ (EMEA/APAC) | | |
| SN-6800-GE-AC | SN-6701-GE-3G ^{1,2} (AMER) | 6/30/2017 | 12/31/2017 |
| | SN-6901-EU-3G ^{1,2} (EMEA/APAC) | | |
| SN-6800-GE-MX | SN-6701-GE-3G ^{1,2} (AMER) | 6/30/2017 | 12/31/2017 |
| | SN-6901-EU-3G ^{1,2} (EMEA/APAC) | | |
| SN-6800-TE | SN-6900-AM ^{1,3} | 6/30/2017 | 12/31/2017 |
| SN-6800-TE-ACDC | SN-6900-AM ^{1,2,3} | 6/30/2017 | 12/31/2017 |
| SN-6800-TEIM-MX | SN-6900-AM ^{1,2,3} | 6/30/2017 | 12/31/2017 |
| SN-6801-AT | SN-6701-AT-3G | 6/30/2017 | 12/31/2017 |
| SN-6801-AT-AC | SN-6701-AT-3G ² | 6/30/2017 | 12/31/2017 |
| SN-6801-BM | SN-6901-AM ^{1,3} | 6/30/2017 | 12/31/2017 |
| SN-6801-BM-AC | SN-6901-AM ^{1,2,3} | 6/30/2017 | 12/31/2017 |
| SN-6801-GE | SN-6701-GE-3G (AMER) | 6/30/2017 | 12/31/2017 |
| | SN-6901-EU-3G (EMEA/APAC) | | |

*Dates may be subject to change depending on product sales

¹ – Replacement product doesn't have a Molex connector

² – Replacement product is not bundled with a power adapter. Sold separately.

³ – Replacement product supports 4G LTE (no upgrade required). Check carrier compatibility.

| Part Number | Suggested Replacement | Last NCNR Order Entry* | Shipments Cease* |
|----------------|---|---------------------------|---------------------|
| SN-6801-GE-AC | SN-6701-GE-3G ² (AMER) SN-6901-EU-3G ² (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| SN-6801-MTS | SN-6901-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6801EB-AT | SN-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6801EB-BM | SN-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6801EB-GE | SN-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6821-AT | SN-6721-AT-3G | 6/30/2017 | 12/31/2017 |
| SN-6821-AT-AC | SN-6721-AT-3G ² | 6/30/2017 | 12/31/2017 |
| SN-6821-BM | SN-6921-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6821-BM-AC | SN-6921-AM ³ | 6/30/2017 | 12/31/2017 |
| SN-6821-GE | SN-6721-GE-3G (AMER) SN-6921-EU-3G (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| SN-6821-GE-AC | SN-6721-GE-3G ² (AMER) SN-6921-EU-3G ² (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| SN-6821-MTS | SN-6921-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6800-AT | RAM-6701-AT-3G ¹ | 6/30/2017 | 12/31/2017 |
| RAM-6800-AT-AC | RAM-6701-AT-3G ^{1,2} | 6/30/2017 | 12/31/2017 |
| RAM-6800-AT-MX | RAM-6701-AT-3G ^{1,2} | 6/30/2017 | 12/31/2017 |
| RAM-6800-BM | RAM-6900-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6800-BM-AC | RAM-6900-AM ^{2,3} | 6/30/2017 | 12/31/2017 |
| RAM-6800-BM-MX | RAM-6900-AM ^{2,3} | 6/30/2017 | 12/31/2017 |
| RAM-6800-GE | RAM-6701-GE-3G ¹ (AMER) RAM-6901-EU-3G ¹ (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| RAM-6800-GE-AC | RAM-6701-GE-3G ^{1,2} (AMER) RAM-6901-EU-3G ^{1,2} (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| RAM-6800-GE-MX | RAM-6701-GE-3G ^{1,2} (AMER) RAM-6901-EU-3G ^{1,2} (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| RAM-6801-AT | RAM-6701-AT-3G | 6/30/2017 | 12/31/2017 |
| RAM-6801-AT-AC | RAM-6701-AT-3G ² | 6/30/2017 | 12/31/2017 |
| RAM-6801-BM | RAM-6901-AM ^{1,3} | 6/30/2017 | 12/31/2017 |
| RAM-6801-BM-AC | RAM-6901-AM ^{1,2,3} | 6/30/2017 | 12/31/2017 |
| RAM-6801-GE | RAM-6701-GE-3G (AMER) RAM-6901-EU-3G (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| RAM-6801-GE-AC | RAM-6701-GE-3G ² (AMER) RAM-6901-EU-3G ² (EMEA/APAC) | 6/30/2017 | 12/31/2017 |
| RAM-6801EB-AT | RAM-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6801EB-BM | RAM-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6801EB-GE | RAM-6901EB-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6821-AT | RAM-6721-AT-3G | 6/30/2017 | 12/31/2017 |
| RAM-6821-AT-AC | RAM-6721-AT-3G ² | 6/30/2017 | 12/31/2017 |

Notes: *Dates may be subject to change depending on product sales

1 – Replacement product doesn't have a Molex connector

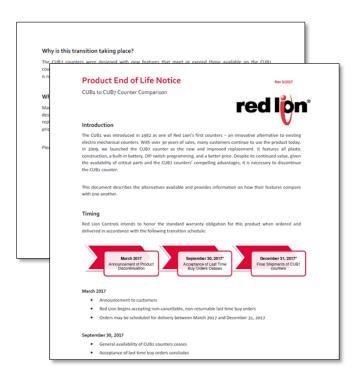
2 – Replacement product is not bundled with a power adapter. Sold separately.

3 – Replacement product supports 4G LTE (no upgrade required). Check carrier compatibility.

| Part Number | Suggested Replacement | Last NCNR | Shipments |
|----------------|---|--------------|------------|
| | | Order Entry* | Cease* |
| RAM-6821-BM | RAM-6921-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6821-BM-AC | RAM-6921-AM ³ | 6/30/2017 | 12/31/2017 |
| RAM-6821-GE | RAM-6721-GE-3G (AMER) | 6/30/2017 | 12/31/2017 |
| | RAM-6921-EU-3G (EMEA/APAC) | | |
| RAM-6821-GE-AC | RAM-6721-GE-3G ² (AMER) | 6/30/2017 | 12/31/2017 |
| | RAM-6921-EU-3G ² (EMEA/APAC) | | |

Associated Accessories

The part number for a barrel-style AC/DC power adapter that works with all suggested replacements is <u>FPSALACadapter2</u> and is sold separately.



Customers should take this opportunity to investigate transitioning to our suggested replacements. To help with this, we have created a document which explains the situation and provides additional details on the differences between the discontinued product and the suggested replacement. This is available at:

www.redlion.net/eol .

Visit <u>www.redlion.net</u> to learn more about Red Lion's product portfolio. If you have questions or need more information, please contact your local sales representative or Red Lion Technical Support at +1 (877) 432-9908 or +1 (717) 767-6511.

Notes: *Dates may be subject to change depending on product sales

- ¹ Replacement product doesn't have a Molex connector
- ² Replacement product is not bundled with a power adapter. Sold separately.
- ³ Replacement product supports 4G LTE (no upgrade required). Check carrier compatibility.