



## BULLETIN

---

### *L1-Only Product Line Transition*

NovAtel is committed to offering the best products possible to our customers. To allow us to better focus on adding value and enhancing the performance of our L1-only products, NovAtel has taken steps to create a more streamlined L1-only product line. This will also allow us to support these products more effectively and simplify the ordering process for our customers. As a result of this product line transition, some mature products are being discontinued, while others are evolving to support new functionality.

Information on the transition is given in the sections below and a complete list of discontinued L1-only products is provided starting on page 4. Pricing for our current offering of L1-only receiver products is included on page 9.

Every effort has been made to ensure customers currently using our L1-only products can be fully transitioned to this enhanced product line with minimal impact. However, if you have any questions or concerns about the transition, please contact your local dealer. To receive future information on new products and software updates, including the upcoming release of L1-only software discussed below, please subscribe to NovAtel AutoNews at [www.novatel.ca/AutoNews/SubscribeForm.asp](http://www.novatel.ca/AutoNews/SubscribeForm.asp).

### **Upcoming Software Release with Expanded SUPERSTAR II Features**

NovAtel is currently testing our latest software release, which will expand the functionality of the SUPERSTAR II to include support for SBAS (Satellite-Based Augmentation System) corrections, such as those provided by the WAAS, EGNOS, and MSAS systems, RTCM-104 DGPS base station operation, and support for precise timing applications with 50 ns accuracy (typical). The new software will be available in February 2004.

### **SUPERSTAR II OEM Board Standardization**

In mid December, NovAtel will begin shipping a higher-memory version of the SUPERSTAR II, designed to replace the existing SUPERSTAR II variants and become the standard for future development. The new version, available in 5 V and 3.3 V models, provides the same functionality and pin-out as the existing variants but includes higher flash memory and SRAM capacities to support the expanded features available in the February 2004 software release. All higher-memory SUPERSTAR II cards will be field-updateable with the new software, which will include additional standard features, and will carry the same pricing as existing SUPERSTAR II variants.

### **SUPERSTAR I Discontinuation**

The SUPERSTAR I product line is being discontinued in favor of the SUPERSTAR II, which provides the same pin-out and form factor as the SUPERSTAR I at a lower price. With the new software available early next year, the majority of the functionality previously supported on the SUPERSTAR I, including precise timing, will be available on the SUPERSTAR II.

With the discontinuation of the SUPERSTAR I hardware, SMART ANTENNAS containing the SUPERSTAR I are being discontinued as well. SUPERSTAR II RS-422 SMART ANTENNAS are available as drop-in replacements now and will offer the same features as the SUPERSTAR I version beginning in February 2004. SUPERSTAR II RS-232 SMART ANTENNAS will be available in April 2004. Remaining inventory of SUPERSTAR I-based products is available through your local dealer.



## Software Models and Part Numbering

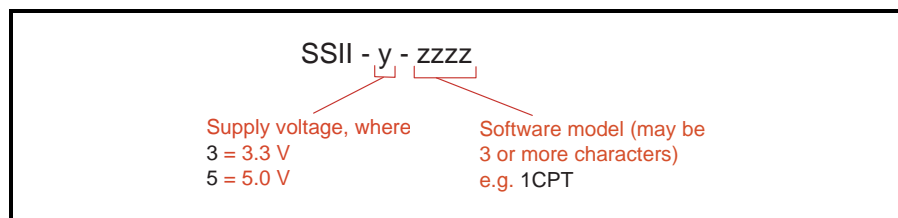
As part of the product line transition, NovAtel is simplifying the ordering of software options by introducing a standard set of models for all SUPERSTAR II-based products. These models are designed to include the functionality previously available on the SUPERSTAR I. Note that SBAS support and timing functionality will be available starting in February 2004, with field updates available for those who order the new models prior to that date. Additional models and features, including waypoint storage, will be available later in 2004.

**Table 1 - SUPERSTAR II Family Software Models**

Model	Feature							
	SBAS <sup>1</sup>	1 Hz PVT	1 Hz Carrier Phase Output	10 Hz Carrier Phase Output	Precise Timing <sup>1</sup> (50 ns typical)	RTCM-104 DGPS Base Station <sup>1</sup>	Default baud rate of 9,600 bps	Default baud rate of 19,200 bps
-STD	✓	✓					✓	
-1CPT	✓	✓	✓		✓		✓	
-1CPT-19	✓	✓	✓		✓			✓
-10CP-19	✓	✓	✓	✓				✓
-BASE	✓	✓				✓	✓	

With the creation of these new models, NovAtel has implemented a part numbering system for our SUPERSTAR II-based products that allows our customers to specify the hardware configuration and software model with a single part number. This system is used throughout the rest of this document to indicate replacement parts and pricing. For the SUPERSTAR II OEM cards, the part number follows the format below.

**Figure 1 - SUPERSTAR II OEM Cards Part Numbering**

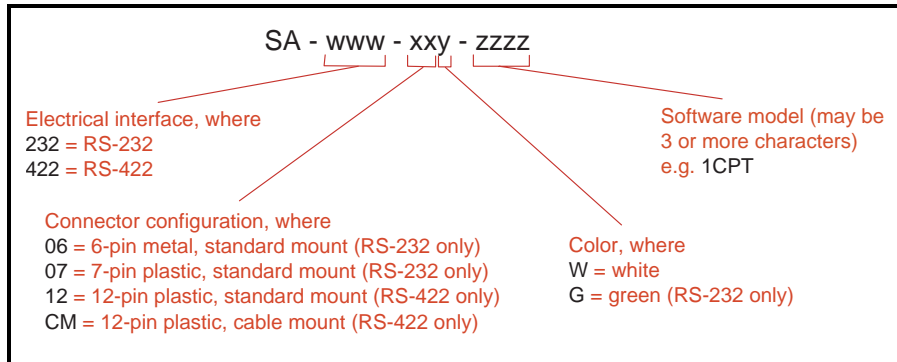


<sup>1</sup> SBAS (WAAS, EGNOS, MSAS), DGPS base station, and precise timing functionality will be available in February 2004.



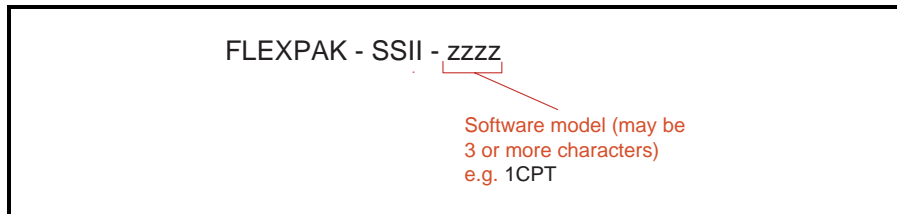
SUPERSTAR II SMART ANTENNAS use the following part number system.

**Figure 2 - SUPERSTAR II SMART ANTENNA Part Numbering**



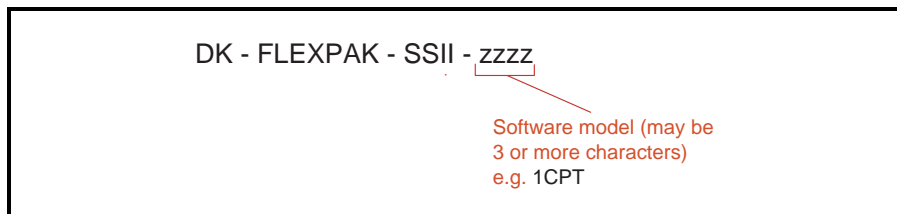
The FlexPak-SSII is denoted using the following format.

**Figure 3 – FlexPak-SSII Part Numbering**



Development kits will be indicated with the string “DK-“ preceding the receiver part number. For example, FlexPak-SSII development kits will be specified as shown below.

**Figure 4 – FlexPak-SSII Development Kit Part Numbering**



Part numbers for existing ALLSTAR OEM cards and ALLSTAR SMART ANTENNAS will remain unchanged, with software options ordered as separate line items.



### Discontinued Products Cross-Reference

The tables below provide a complete list of L1-only items being discontinued, ordered by part number, and suggested replacements. Remaining inventory of some discontinued items may be available, however please confirm quantities prior to ordering. During the transition, purchase orders may require revision to match the new product line and part numbering system.

**Table 2 - Discontinued L1-Only Products**

Discontinued Part	Description	Software Options	Suggested Replacement	Description
<b>Discontinued STARBOX Enclosures</b>				
100-600304-001	SUPERSTAR I in STARBOX enclosure	None	FLEXPAK-SSII-STD	Shock, water, and dust resistant SUPERSTAR II enclosure with 2 Mb SRAM and 8 Mb flash
		Option 1	FLEXPAK-SSII-1CPT-19	
		Option 2	FLEXPAK-SSII-1CPT	
		Option 3	FLEXPAK-SSII-10CP-19	
		Option 14	FLEXPAK-SSII-STD <sup>2</sup>	
		Option 16	FLEXPAK-SSII-1CPT <sup>3</sup>	
100-600304-002	SUPERSTAR II in STARBOX enclosure	None	FLEXPAK-SSII-STD	Shock, water, and dust resistant SUPERSTAR II enclosure with 2 Mb SRAM and 8 Mb flash
		Option 1	FLEXPAK-SSII-1CPT-19	
		Option 2	FLEXPAK-SSII-1CPT	
		Option 3	FLEXPAK-SSII-10CP-19	
100-600304-400	RT-STAR in STARBOX enclosure	N/A	FLEXPAK-G2L-RT20	FlexPak enclosure containing OEM4-G2L with 20 cm real-time kinematic positioning
<b>Discontinued SUPERSTAR I RS-232 SMART ANTENNAS</b>				
100-601903-00x	White RS-232 SUPERSTAR I SMART ANTENNA with 7-pin plastic connector	None	SA-232-07W-STD <sup>4</sup>	White RS-232 SUPERSTAR II SMART ANTENNA with 7-pin plastic connector
		Option 1	SA-232-07W-1CPT-19 <sup>4</sup>	
		Option 2	SA-232-07W-1CPT <sup>4</sup>	
		Option 3	SA-232-07W-10CP-19 <sup>4</sup>	
		Option 14	SA-232-07W-STD <sup>2,4</sup>	
		Option 16	SA-232-07W-1CPT <sup>3,4</sup>	
100-601903-05x	Green RS-232 SUPERSTAR I SMART ANTENNA with 6-pin metal connector	None	SA-232-06G-STD <sup>4</sup>	Green RS-232 SUPERSTAR II SMART ANTENNA with 6-pin metal connector
		Option 1	SA-232-06G-1CPT-19 <sup>4</sup>	
		Option 2	SA-232-06G-1CPT <sup>4</sup>	
		Option 3	SA-232-06G-10CP <sup>4</sup>	
		Option 14	SA-232-06G-STD <sup>2,4</sup>	
		Option 16	SA-232-06G-1CPT <sup>3,4</sup>	

<sup>2</sup> Waypoint storage will be available as a standard feature later in 2004.

<sup>3</sup> Precise timing functionality will be available in February 2004.

<sup>4</sup> RS-232 SUPERSTAR II SMART ANTENNAS will be available in April 2004.



Discontinued Part	Description	Software Options	Suggested Replacement	Description
<b>Discontinued ALLSTAR RS-232 SMART ANTENNAS</b>				
100-601903-502	White RS-232 ALLSTAR SMART ANTENNA with 7-pin plastic connector with SBAS and 5 Hz PVT software	Option 7 & Option 12 (included)	100-601903-522	White RS-232 ALLSTAR SMART ANTENNA with 7-pin plastic connector (software options ordered separately)
100-601903-512	White RS-232 ALLSTAR SMART ANTENNA with 7-pin plastic connector with SBAS software	Option 12 (included)	100-601903-522	White RS-232 ALLSTAR SMART ANTENNA with 7-pin plastic connector (software options ordered separately)
<b>Discontinued SUPERSTAR I RS-422 SMART ANTENNAS</b>				
100-601910-00x	White RS-422 SUPERSTAR I SMART ANTENNA with 12-pin standard connector	None	SA-422-12W-STD	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin standard connector
		Option 1	SA-422-12W-1CPT-19	
		Option 2	SA-422-12W-1CPT	
		Option 3	SA-422-12W-10CP-19	
		Option 14	SA-422-12W-STD <sup>5</sup>	
100-601910-01x	White RS-422 SUPERSTAR I SMART ANTENNA with 12-pin central cable mount	None	SA-422-CMW-STD	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin central cable mount
		Option 1	SA-422-CMW-1CPT-19	
		Option 2	SA-422-CMW-1CPT	
		Option 3	SA-422-CMW-10CP-19	
		Option 14	SA-422-CMW-STD <sup>5</sup>	
100-601910-11x	White RS-422 SUPERSTAR I SMART ANTENNA with 12-pin central cable mount (4 Mb flash)	None	SA-422-CMW-STD	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin central cable mount
		Option 1	SA-422-CMW-1CPT-19	
		Option 2	SA-422-CMW-1CPT	
		Option 3	SA-422-CMW-10CP-19	
		Option 14	SA-422-CMW-STD <sup>5</sup>	
		None	SA-422-CMW-STD	
		Option 1	SA-422-12W-1CPT-19	
		Option 2	SA-422-12W-1CPT	
		Option 3	SA-422-12W-10CP-19	
		Option 14	SA-422-12W-STD <sup>5</sup>	
<b>Discontinued SUPERSTAR II RS-422 SMART ANTENNAS</b>				
100-601911-002	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin standard connector and low memory capacity	None	SA-422-12W-STD	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin standard connector, 2 Mb SRAM, and 8 Mb flash
		Option 1	SA-422-12W-1CPT-19	
		Option 2	SA-422-12W-1CPT	
		Option 3	SA-422-12W-10CP-19	
100-601911-012	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin central cable mount and low memory capacity	None	SA-422-CMW-STD	White RS-422 SUPERSTAR II SMART ANTENNA with 12-pin central cable mount, 2 Mb SRAM, and 8 Mb flash
		Option 1	SA-422-CMW-1CPT-19	
		Option 2	SA-422-CMW-1CPT	
		Option 3	SA-422-CMW-10CP-19	

<sup>5</sup> Waypoint storage will be available as a standard feature later in 2004.

<sup>6</sup> Precise timing functionality will be available in February 2004.



Discontinued Part	Description	Software Options	Suggested Replacement	Description
<b>Discontinued ALLSTAR OEM Cards</b>				
220-600944-002	ALLSTAR with right-angle main connector and 1 Mb SRAM	Any	220-600944-003	ALLSTAR with straight main connector and 1 Mb SRAM
220-600944-013	ALLSTAR with straight main connector and 1 Mb SRAM	Any	220-600944-003	ALLSTAR with straight main connector and 1 Mb SRAM
220-600944-018	ALLSTAR with right-angle main connector, on-board rechargeable battery, and 1 Mb SRAM	Any	220-600944-019	ALLSTAR with straight main connector, on-board rechargeable battery, and 1 Mb SRAM
220-600944-051	ALLSTAR with flex cable main connector and 4 Mb SRAM	Any	220-600944-053	ALLSTAR with straight main connector and 4 Mb SRAM
220-600944-052	ALLSTAR with right-angle main connector and 4 Mb SRAM	Any	220-600944-053	ALLSTAR with straight main connector and 4 Mb SRAM
220-600944-056	ALLSTAR with right-angle main connector, on-board rechargeable battery, and 4 Mb SRAM	Any	220-600944-057	ALLSTAR with straight main connector, on-board rechargeable battery, and 4 Mb SRAM
220-600944-203 and -223	ALLSTAR with straight main connect and 1 Mb SRAM	Any	220-600944-003	ALLSTAR with straight main connector and 1 Mb SRAM
220-600944-307	ALLSTAR with straight main connector, on-board rechargeable battery, and 1 Mb SRAM	Any	220-600944-019	ALLSTAR with straight main connector, on-board rechargeable battery, and 1 Mb SRAM
<b>Discontinued SUPERSTAR I OEM Cards</b>				
220-604061-xxx	SUPERSTAR I	None	SSII-5-STD	5 V SUPERSTAR II with 2 Mb SRAM, 8 Mb flash, straight main connector, and straight RF connector
		Option 1	SSII-5-1CPT-19	
		Option 2	SSII-5-1CPT	
		Option 3	SSII-5-10CP-19	
		Option 14	SSII-5-STD <sup>7</sup>	
		Option 16	SSII-5-1CPT <sup>8</sup>	

<sup>7</sup> Waypoint storage will be available as a standard feature later in 2004.

<sup>8</sup> Precise timing functionality will be available in February 2004.



Discontinued Part	Description	Software Options	Suggested Replacement	Description
<b>Discontinued Development Kits</b>				
241-600247-xxx	ALLSTAR development kit with plastic enclosure	None	DK-FLEXPAK-SSII-STD	FlexPak-SSII development kit
		Option 1	DK-FLEXPAK-SSII-1CPT-19	
		Option 3	DK-FLEXPAK-SSII-10CP-19	
		Option 6	N/A	
		Option 7	N/A	
		Option 9	DK-FLEXPAK-SSII-10CP-19	
		Option 12	DK-FLEXPAK-SSII-STD <sup>9</sup>	
241-600248-xxx	SUPERSTAR I or SUPERSTAR II development kit with plastic enclosure	None	DK-FLEXPAK-SSII-STD	FlexPak-SSII development kit
		Option 1	DK-FLEXPAK-SSII-1CPT-19	
		Option 2	DK-FLEXPAK-SSII-1CPT	
		Option 3	DK-FLEXPAK-SSII-10CP-19	
		Option 16	DK-FLEXPAK-SSII-1CPT <sup>11</sup>	
241-600249-001	SUPERSTAR I STARBOX development kit	None	DK-FLEXPAK-SSII-STD	FlexPak-SSII development kit
		Option 1	DK-FLEXPAK-SSII-1CPT-19	
		Option 2	DK-FLEXPAK-SSII-1CPT	
		Option 3	DK-FLEXPAK-SSII-10CP-19	
		Option 16	DK-FLEXPAK-SSII-1CPT <sup>11</sup>	
241-600249-002	SUPERSTAR II STARBOX development kit	None	DK-FLEXPAK-SSII-STD	FlexPak-SSII development kit
		Option 1	DK-FLEXPAK-SSII-1CPT-19	
		Option 2	DK-FLEXPAK-SSII-1CPT	
		Option 3	DK-FLEXPAK-SSII-10CP-19	
241-600249-100, -102, -103	ALLSTAR DGPS Base Station STARBOX development kit	N/A	241-500249-101	ALLSTAR DGPS Base Station STARBOX development kit
241-600249-40x	RT-STAR STARBOX development kit	N/A	N/A	N/A
241-601153-0xx	RS-232 SUPERSTAR I SMART ANTENNA development kit	None	DK-SA-232-07W-STD	RS-232 SUPERSTAR II SMART ANTENNA development kit
		Option 1	DK-SA-232-07W-1CPT-19	
		Option 2	DK-SA-232-07W-1CPT	
		Option 3	DK-SA-232-07W-10CP-19	
		Option 16	DK-SA-232-07W-1CPT <sup>11</sup>	
241-601153-522	RS-232 ALLSTAR SMART ANTENNA development kit	N/A	241-601153-532	RS-232 ALLSTAR SMART ANTENNA development kit

<sup>9</sup> SBAS functionality (WAAS, EGNOS, MSAS) will be available in February 2004.

<sup>10</sup> Waypoint storage will be available as a standard feature later in 2004.

<sup>11</sup> Precise timing functionality will be available in February 2004.



Discontinued Part	Description	Software Options	Suggested Replacement	Description
241-601156-xxx	RS-422 SUPERSTAR I SMART ANTENNA development kit	None	DK-SA-422-12W-STD	RS-422 SUPERSTAR II SMART ANTENNA development kit
		Option 1	DK-SA-422-12W-1CPT-19	
		Option 2	DK-SA-422-12W-1CPT	
		Option 3	DK-SA-422-12W-10CP-19	
		Option 14	DK-SA-422-12W-STD <sup>12</sup>	
		Option 16	DK-SA-422-12W-1CPT <sup>13</sup>	
<b>Discontinued ALLSTAR and RT-STAR OEM Cards</b>				
245-601944-016	ALLSTAR with straight main connector on reverse side and RTC backup	Any	220-600944-003	ALLSTAR with straight main connector and 1 Mb SRAM
245-601944-403	RT-STAR	N/A	OEM4-G2L-RT20	OEM4-G2L with 20 cm real-time kinematic positioning
<b>Discontinued SUPERSTAR II OEM Cards</b>				
245-604090-011 thru -016	5 V SUPERSTAR II with low memory capacity	None	SSII-5-STD	5 V SUPERSTAR II with 2 Mb SRAM, 8 Mb flash, straight main connector, and straight RF connector
		Option 1	SSII-5-1CPT-19	
		Option 2	SSII-5-1CPT	
		Option 3	SSII-5-10CP-19	
245-604090-111 thru -116	3.3 V SUPERSTAR II with low memory capacity	None	SSII-3-STD	3.3 V SUPERSTAR II with 2 Mb SRAM, 8 Mb flash, straight main connector, and straight RF connector
		Option 1	SSII-3-1CPT-19	
		Option 2	SSII-3-1CPT	
		Option 3	SSII-3-10CP-19	
245-604090-153	3.3 V SUPERSTAR II with straight main connector and right-angle RF connector and without supercap	None	SSII-3-STD	3.3 V SUPERSTAR II with 2 Mb SRAM, 8 Mb flash, straight main connector, and straight RF connector
		Option 1	SSII-3-1CPT-19	
		Option 2	SSII-3-1CPT	
		Option 3	SSII-3-10CP-19	
245-604090-915	5 V SUPERSTAR II with straight main connector on reverse side and straight RF connector	Option 1 (included)	SSII-5-1CPT-19	5 V SUPERSTAR II with 2 Mb SRAM, 8 Mb flash, straight main connector, and straight RF connector

<sup>12</sup> Waypoint storage will be available as a standard feature later in 2004.

<sup>13</sup> Precise timing functionality will be available in February 2004.





## Price List

Pricing for NovAtel's line of L1-only receiver products is given below. NovAtel also offers a full-line of dual-frequency receivers and accessories. For information on development kit contents or other NovAtel products, please see our full price list at [www.novatel.com/Documents/pricelist.pdf](http://www.novatel.com/Documents/pricelist.pdf).

### SUPERSTAR II OEM Card

SSII-3-BASE .....	3.3 V, DGPS base station <sup>14</sup> , SBAS <sup>14</sup> , default baud rate of 9,600 bps .....	\$1115
SSII-3-10CP-19.....	3.3 V, 10 Hz carrier phase output, SBAS <sup>14</sup> , default 19,200 bps .....	\$365
SSII-3-1CPT-19 .....	3.3 V, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 19,200 bps .....	\$165
SSII-3-1CPT.....	3.3 V, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 9,600 bps .....	\$165
SSII-3-STD.....	3.3 V, SBAS <sup>14</sup> , default baud rate of 9,600 bps .....	\$115
SSII-5-BASE .....	5 V, DGPS base station <sup>14</sup> , SBAS <sup>14</sup> , default baud rate of 9,600 bps .....	\$1115
SSII-5-10CP-19.....	5 V, 10 Hz carrier phase output, SBAS <sup>14</sup> , default 19,200 bps .....	\$365
SSII-5-1CPT-19 .....	5 V, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 19,200 bps .....	\$165
SSII-5-1CPT.....	5 V, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 9,600 bps .....	\$165
SSII-5-STD.....	5 V, SBAS <sup>14</sup> , default baud rate of 9,600 bps .....	\$115

### FlexPak-SSII GPS Receiver Enclosure

FLEXPAK-SSII-BASE .....	DGPS base station <sup>14</sup> , SBAS <sup>14</sup> , default baud rate of 9,600 bps.....	\$1465
FLEXPAK-SSII-10CP-19 .....	10 Hz carrier phase output, SBAS <sup>14</sup> , default 19,200 bps.....	\$715
FLEXPAK-SSII-1CPT-19 .....	1 Hz carrier phase output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 19,200 bps.....	\$515
FLEXPAK-SSII-1CPT .....	1 Hz carrier phase output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , default 9,600 bps.....	\$515
FLEXPAK-SSII-STD .....	SBAS <sup>14</sup> , default baud rate of 9,600 bps.....	\$465

### FlexPak-SSII Development Kits

DK-FLEXPAK-SSII-BASE .....	Development kit containing FLEXPAK-SSII-BASE.....	\$1715
DK-FLEXPAK-SSII-10CP-19 ..	Development kit containing FLEXPAK-SSII-10CP-19 .....	\$965
DK-FLEXPAK-SSII-1CPT-19 ..	Development kit containing FLEXPAK-SSII-1CPT-19.....	\$765
DK-FLEXPAK-SSII-1CPT .....	Development kit containing FLEXPAK-SSII-1CPT .....	\$765
DK-FLEXPAK-SSII-STD .....	Development kit containing FLEXPAK-SSII-STD .....	\$715

### RS-422 SMART ANTENNA with SUPERSTAR II

SA-422-12W-BASE.....	White, 12-pin standard, DGPS base station <sup>14</sup> , SBAS <sup>14</sup> , default 9,600 bps.	\$1399
SA-422-12W-10CP-19 .....	White, 12-pin standard, 10 Hz CP output, SBAS <sup>14</sup> , default 19,200 bps.....	\$649
SA-422-12W-1CPT-19.....	White, 12-pin std, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , 19,200 bps....	\$449
SA-422-12W-1CPT .....	White, 12-pin std, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , 9,600 bps.....	\$449
SA-422-12W-STD .....	White, 12-pin standard, SBAS <sup>14</sup> , default baud rate of 9,600 bps.....	\$399
SA-422-CMW-BASE .....	White, 12-pin cable, DGPS base station <sup>14</sup> , SBAS <sup>14</sup> , default 9,600 bps .....	\$1399
SA-422-CMW-10CP-19 .....	White, 12-pin cable mount, 10 Hz CP output, SBAS <sup>14</sup> , default 19,200 bps..	\$649
SA-422-CMW-1CPT-19 .....	White, 12-pin cable, 1 Hz CP output, precise timing <sup>14</sup> , SBAS <sup>14</sup> , 19,200 bps	\$449
SA-422-CMW-1CPT .....	White, 12-pin cable mount, 1 Hz CP, precise timing <sup>14</sup> , SBAS <sup>14</sup> , 9,600 bps..	\$449
SA-422-CMW-STD .....	White, 12-pin cable mount, SBAS <sup>14</sup> , default baud rate of 9,600 bps .....	\$399

<sup>14</sup> Support for SBAS, DGPS base station operation, and precise timing applications on the SUPERSTAR II will be available in February 2004.



*RS-422 SMART ANTENNA Development Kit*

DK-SA-422-12W-BASE .....	Development kit containing SA-422-12W-BASE .....	\$1739
DK-SA-422-12W-10CP-19 .....	Development kit containing SA-422-12W-10CP-19 .....	\$989
DK-SA-422-12W-1CPT-19 .....	Development kit containing SA-422-12W-1CPT-19 .....	\$789
DK-SA-422-12W-1CPT .....	Development kit containing SA-422-12W-1CPT .....	\$789
DK-SA-422-12W-STD .....	Development kit containing SA-422-12W-STD .....	\$739

**RS-232 SMART ANTENNA with SUPERSTAR II (Available April 2004)**

SA-232-07W-BASE .....	White, 7-pin plastic, DPGS base station <sup>15</sup> , SBAS <sup>15</sup> , default 9,600 bps .....	\$1399
SA-232-07W-10CP-19 .....	White, 7-pin plastic conn, 10 Hz CP output, SBAS <sup>15</sup> , default 19,200 bps .....	\$649
SA-232-07W-1CPT-19 .....	White, 7-pin plastic, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 19,200 bps .....	\$449
SA-232-07W-1CPT .....	White, 7-pin plastic, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 9,600 bps .....	\$449
SA-232-07W-STD .....	White, 7-pin plastic connector, SBAS <sup>15</sup> , default baud rate of 9,600 bps .....	\$399

SA-232-06W-BASE .....	White, 6-pin metal, DPGS base station <sup>15</sup> , SBAS <sup>15</sup> , default 9,600 bps .....	\$1399
SA-232-06W-10CP-19 .....	White, 6-pin metal conn, 10 Hz CP output, SBAS <sup>15</sup> , default 19,200 bps .....	\$649
SA-232-06W-1CPT-19 .....	White, 6-pin metal, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 19,200 bps .....	\$449
SA-232-06W-1CPT .....	White, 6-pin metal, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 9,600 bps .....	\$449
SA-232-06W-STD .....	White, 6-pin metal connector, SBAS <sup>15</sup> , default baud rate of 9,600 bps .....	\$399

SA-232-06G-BASE .....	Green, 6-pin metal, DPGS base station <sup>15</sup> , SBAS <sup>15</sup> , default 9,600 bps .....	\$1399
SA-232-06G-10CP-19 .....	Green, 6-pin metal conn, 10 Hz CP output, SBAS <sup>15</sup> , default 19,200 bps .....	\$649
SA-232-06G-1CPT-19 .....	Green, 6-pin metal, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 19,200 bps .....	\$449
SA-232-06G-1CPT .....	Green, 6-pin metal, 1 Hz CP output, precise timing <sup>15</sup> , SBAS <sup>15</sup> , 9,600 bps .....	\$449
SA-232-06G-STD .....	Green, 6-pin metal connector, SBAS <sup>15</sup> , default baud rate of 9,600 bps .....	\$399

*RS-232 SMART ANTENNA Development Kit (Available April 2004)*

DK-SA-232-07W-BASE .....	Development kit containing SA-232-07W-BASE .....	\$1599
DK-SA-232-07W-10CP-19 .....	Development kit containing SA-232-07W-10CP-19 .....	\$849
DK-SA-232-07W-1CPT-19 .....	Development kit containing SA-232-07W-1CPT-19 .....	\$649
DK-SA-232-07W-1CPT .....	Development kit containing SA-232-07W-1CPT .....	\$649
DK-SA-232-07W-STD .....	Development kit containing SA-232-07W-STD .....	\$599

DK-SA-232-06G-BASE .....	Development kit containing SA-232-06G-BASE .....	\$1599
DK-SA-232-06G-10CP-19 .....	Development kit containing SA-232-06G-10CP-19 .....	\$849
DK-SA-232-06G-1CPT-19 .....	Development kit containing SA-232-06G-1CPT-19 .....	\$649
DK-SA-232-06G-1CPT .....	Development kit containing SA-232-06G-1CPT .....	\$649
DK-SA-232-06G-STD .....	Development kit containing SA-232-06G-STD .....	\$599

<sup>15</sup> Support for SBAS, DGPS base station operation, and precise timing applications on the SUPERSTAR II will be available in February 2004.



**ALLSTAR OEM Card and Enclosure**

220-600944-003.....	ALLSTAR with 1 Mb SRAM.....	\$175
220-600944-019.....	ALLSTAR with 1 Mb SRAM and on-board rechargeable lithium battery .....	\$200
220-600944-041.....	ALLSTAR with 1 Mb SRAM and connector on reverse side.....	\$175
220-600944-050.....	ALLSTAR with 4 Mb SRAM and connector on reverse side.....	\$200
220-600944-053.....	ALLSTAR with 4 Mb SRAM.....	\$200
220-600944-057.....	ALLSTAR with 4 Mb SRAM and on-board rechargeable lithium battery .....	\$225
100-600304-041.....	STARBOX enclosure containing ALLSTAR with 1 Mb SRAM.....	\$475
100-600304-050.....	STARBOX enclosure containing ALLSTAR with 4 Mb SRAM.....	\$500
241-600249-041.....	ALLSTAR development kit with STARBOX enclosure and 1 Mb SRAM .....	\$825

*ALLSTAR Options (in addition to the prices above)*

SW-AS-OP01.....	1 Hz carrier phase output .....	\$50
SW-AS-OP03.....	10 Hz carrier phase output .....	\$250
SW-AS-OP06.....	2 Hz position, velocity, and time output .....	\$150
SW-AS-OP07.....	5 Hz position, velocity, and time output <sup>16</sup> .....	\$200
SW-AS-OP09.....	5 Hz carrier phase output (available with OP07 and OP12) <sup>17</sup> .....	\$100
SW-AS-OP12.....	Support for SBAS corrections <sup>16</sup> .....	\$50

**ALLSTAR DGPS Base Station**

245-601944-103.....	ALLSTAR DGPS Base Station with RTCM-104 corrections.....	\$2,000
100-600304-100.....	STARBOX enclosure containing ALLSTAR DGPS Base Station .....	\$2,300
241-600249-101.....	ALLSTAR DGPS Base Station STARBOX development kit.....	\$2,700

**RS-232 SMART ANTENNA with ALLSTAR**

100-601903-522.....	White RS-232 SMART ANTENNA with 7-pin plastic connector .....	\$450
100-601903-542.....	White RS-232 SMART ANTENNA with 6-pin metal connector.....	\$495
100-601903-552.....	Green RS-232 SMART ANTENNA with 6-pin metal connector .....	\$495
241-601153-532.....	Development kit containing 100-601903-522 .....	\$650

*RS-232 SMART ANTENNA Options (in addition to the prices above)*

SW-SAA-OP07.....	5 Hz position, velocity, and time output <sup>16</sup> .....	\$200
SW-SAA-OP09.....	5 Hz carrier phase output (available with OP07 and OP12) <sup>17</sup> .....	\$100
SW-SAA-OP12.....	Support for SBAS corrections <sup>16</sup> .....	\$50

<sup>16</sup> An ALLSTAR with 4 Mb SRAM is required for this option.

<sup>17</sup> 5 Hz carrier phase output (OP09) are only available when both 5 Hz PVT (OP07) and SBAS support (OP12) are purchased and the ALLSTAR includes 4 Mb SRAM.