

# GNSS Receiver and Antenna Power Compatibilities

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### Receiver Output Bias Voltages

	wo/antenna	w/antenna
Trimble 4000SSE	8.35V	6.8V
Trimble 4000SSi	11.84V	10.4V
Trimble 4700	7.62V	7.4V
Trimble 5700	5.05V	4.97V
Trimble R7	5-7.2V	user selectable
Trimble NetRS	7.2V	7.1V
Ashtech Z-12	9.71V	9.64V
Ashtech Micro-Z	4.94V	4.85V
AOA Turbo Rouge	11.95V	11.93V
Novatel DL-4	5.03V	4.99V
Topcon GB-1000	4.9V	4.7V
Topcon Legacy-H GD	3.37V	3.19V
Topcon Odyssey-RS	4.9V	4.58V

### Antenna Input Range

Trimble fixed ground plane L1/L2	7-28V
Trimble removable ground plane L1/L2	7-28V
Trimble microcenter	7-28V
Trimble choking	7-28V
Trimble Zephyr	4.8-22V
Ashtech all	5-15V
Novatel Pinwheel	4-18V
Sokia 600	4-18V
Topcon Choking	2.7-12V
Topcon LegAnt	2.7-12V
Topcon PG-A1	2.7-12V

**NOTES:** The receiver output voltages were measured directly from the receiver. The antenna input voltages were provided from the manufactures. These values are the nominal operating values and there is a safety factor built into them. This means the antenna will operate slightly outside the published range but it is not recommended. Example: The Ashtech choking requiring 5-15V will work with the Ashtech Micro-Z receiver that outputs 4.85V with the antenna as a load.

Power Test:	P/N	Vintest	Iin	Pw
Ashtech Choking	701945-02 Rev: B	5.0V	42mA	.21W *
Novatel Pinwheel	01016790 (GPS-600)	5.0V	47mA	.24W *
Topcon LegAnt	01-830004	3.3V	44mA	.15W *
Topcon PG-A1	01-840201-04	?V	?mA	?W
Topcon Choking	01-031401-01	3.3V	44mA	.15W *
Zephyr Geodetic	41249-00	5.0V	99mA	.5W *
Zephyr	36105-00	5.0V	106mA	.53W *
Trimble Microcenter	33429-20	7.5V	56mA	.42W *
Trimble Rem GP	22020-00	7.5V	58mA	.44W *
Trimble Choking	29659-00	7.5V	56mA	.42W *
Trimble fixed GP	14532-00	7.5V	52mA	
	12.0	87mA		
AOA Choking		7.5V	38mA	
	12V	61mA		

\* The antenna are constant current devices. All have type A amplifiers which means they are always full on. Whatever voltage you put in, you will always have the same amount of current when you multiply to find the power. To calculate power at a different input voltages  $P=V_{in} \cdot I_{in}$

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