

UNAVCO Resources: GNSS Receivers

Article Number: 434 | Rating: 4/5 from 1 votes | Last Updated: Fri, Mar 22, 2019 at 5:50 PM

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The following receivers are, or have been at one time, supported by UNAVCO and/or are available at special pricing for UNAVCO members and associate members. Click on the receiver name for more information and a list of receiver-specific resources.

GPS/GNSS Receiver Comparison Table

	Receiver	Multi-GNSS ?	Available as special buy	Available on loan	Serviceable at UNAVCO	File Size (24 hr, 15 s)	Memory	Time lasts recording at 15 s	Power draw w/ antenna	Time lasts on 18amphr battery
	Alert Geomatics/XEOS Resolute Polar	● Y	● Y	● Y	● N	● 4.2MB	● 8GB	● 5.2 years	● 1.2- 2W	● 1 Week
	Ashtech ProFlex 500 CORS	● Y	● Y	● N	● Y	N/A	● 8MB + Ext. USB	N/A	● <5W	● >1.5 days
	Javad Sigma	● Y	● N	● N	● N	N/A	● up to 2 GB	N/A	● 4 W	● 1.9 days
	Leica GR25	● Y	● Y	● N	● N	● 1.6 MB ● 1.2 MB (zip)	● up to 32 GB SD card	● 54 years on an 32 GB card	N/A	N/A
	Leica GR10	● Y	● Y	● N	● N	● 1.6 MB ● 1.2 MB (zip)	● up to 32 GB SD card	● 54 years on an 32 GB card	● 3.5 W	● 2.5 days
	Septentrio PolaRx5	● Y	● Y	● N	● N	N/A	● up to 32 GB	N/A	● 2-4 W	● 4.5 days
	Septentrio PolaRx4	● Y	● Y	● N	● N	N/A	● up to 7.4 GB	N/A	● 6.1W	● 1.25 days
	Septentrio AsteRx3 HDC	● Y	● Y	● N	● N	N/A	N/A	N/A	N/A	N/A
	Septentrio AsteRx2el HDC	● N	● Y	● N	● N	N/A	N/A	N/A	N/A	N/A
	Topcon NetG5	● Y	● Y	● N	● Y	● 6.8 MB (default messages)	● up to 32 GB	● ~10 years	● 4 W	● 1.9 days
	Topcon Net-G3 and Net-G3A	● Y	● Y	● N	● Y	● 6.8 MB (default messages)	● up to 8 GB CF card	● 3.2 years	● 4 W	● 1.9 days
	Topcon GB-1000	● Y	● N	● Y	● Y	● 4.6 MB	● 1 GB internal, 1 GB CF card	● 1.2 years	● 3.9+ W	● 1.9 days
	Trimble NetR9	● Y	● Y	● Y	● Y	● 0.9 MB	● 8 GB	● 24 years at	● 3.8 W	● 2.4 days

							Internal + External USB	8 GB		
	Trimble NetR8	Y	N	Y	Y	0.9 MB	4 GB	12 years	4.3 W	1.8 days
	Trimble NetR5	Y	N	N	Y	1.4 MB	256 MB	6 months	4.8 W	1.6 days
	Trimble NetRS	N	N	Y	Y	800 kb	1 GB	3.5 years	3.4 W	2.25 days
	Trimble R7	N	N	Y	Y	1 MB	up to 2 GB CF card	4 mo.- 5.5 years or 512 files	3.7 W	2 days
	Trimble 5700	N	N	Y	Y	1 MB	up to 2 GB CF card	4 mo.- 5.5 years or 512 files	3 W	2.5 days
	Trimble 4800/5800/R8	N	N	N	N	-	0 MB	requires external data collection	varies: 6+ W - 2.5 W	1.25 - 3 days
No longer supported	Receiver	GNSS ?	Available as special buy	Available on loan	Serviceable at UNAVCO	File Size (24 hr, 15 s)	Memory	Time lasts recording at 15 s	Power Draw	Time lasts on 18amphr battery
	Allen Osborne TurboRogue	N	N	N	N	2.2 MB turbo binary 900 kb conan binary	low	low	high	low
	Ashtech Z-12	N	N	N	N	1.8 MB	32 MB or less	18 days or less	12 W	15 hrs
	Ashtech MicroZ & ICGRS	N	N	N	Y	3.8 MB	32-128 MB	8 days - 1 month	8 W	23 hrs
	Canadian Marconi AllStar	N	N	N	N		0 MB	requires external data collection		
	Trimble 4000	N	N	N	N	1.8 MB	10 MB or less	5 days	10 W	18 hrs
	Trimble 4700	N	N	N	N		0 MB	requires external data collection	4.5 W	1.7 days

Available as special buy: Special pricing is available to UNAVCO members and associate members on select equipment. For more information see the [GNSS Equipment Purchase Information](#) page.

Available on loan: UNAVCO maintains a large pool of GPS and related equipment, available on loan to member and associate member institutions and NSF-funded programs. To submit a request, fill out the [Online Support Request Form](#).

Serviceable at UNAVCO: UNAVCO is licensed to repair select GNSS receivers and antennas. For more information see the [Equipment Repairs](#) page.

File size (24 hr, 15 s): File size for a 24 hour-long file collected at a 15 second sample rate. File size is approximate and varies based on # of satellites tracked and frequencies recorded. File sizes shown here were taken from site data in the UNAVCO data archive.

Memory: Memory for receivers from the dealer may vary; values are given for UNAVCO-owned receivers.

Time last recording at 15 s: Estimated length of time the receiver can record at its given internal memory at a sample rate of 15 seconds.

Power draw: Estimated power draw in Watts. The power draw varies depending on the other equipment e.g. antenna(s) connected to the receiver.

Time lasts on 18 amphr battery: Estimated length of time the receiver can operate on the 12 volt, 18 amphr battery standard for UNAVCO campaign systems, without a solar panel. Time will vary based on temperature and battery health.

Posted by: [Freddy Blume](#) - Mon, Dec 1, 2014 at 9:21 PM. This article has been viewed 93928 times.

Online URL: <https://kb.unavco.org/kb/article/unavco-resources-gnss-receivers-434.html>