

Comparing Bluetooth GPS Devices

22 May 2015 by Cory MacVie for Fulcrum
<http://www.fulcrumapp.com/blog/bluetooth-gps-comparison/>

For years, GPS devices were standalone pieces of equipment that required their own operating system and had overly complicated interfaces and functions. If someone wanted to collect data using their GPS device in the field, it often meant a lot of configuring, testing and training to collect even the most basic data. If you had a complex form or survey requiring photo collection and were concerned with location, it required that you buy expensive equipment.

Those days are officially over. With [easily available web services like] Fulcrum [and other free applications], you can build powerful forms and surveys in your web browser, deploy them to your smartphone or tablet and immediately begin collecting data using the GPS on your device. On some occasions, the native GPS on your [mobile device] isn't accurate enough, so users must turn to external Bluetooth GPS devices for improved accuracy.



Bluetooth GPS Devices

Your [mobile device's] GPS is designed to prioritize getting a location fix quickly, with accuracy of secondary importance. However, the accuracy of [mobile] GPS is continually improving, and is by no means "inaccurate". Most smartphones and tablets made in the last year currently have a 3 - 5 meter accuracy level. On the other hand, an external GPS device is designed for precision. Once it locks onto enough satellites, it can maintain a very high level of accuracy often required in the field.




Increased Battery Life









Using Bluetooth GPS devices has another added benefit for users; it decreases your smartphone's battery consumption. Typically, the Bluetooth connection between the [mobile device] and an external Bluetooth GPS requires little power, so this method can greatly increase your [mobile device's] battery life for outdoor applications. Acquiring multiple satellite signals and calculating the location multiple times a second requires a lot of energy. Using a Bluetooth GPS pushes that workload off the [mobile device], giving it a longer battery life in the field. [No data plan is required!]






Comparing Bluetooth Devices

[...] External Bluetooth GPS devices work by replacing your [mobile device]'s native GPS location, and by then making the new location available for apps that need it. Any app that uses the device's location service will also see accuracy and precision improvement. Many of the higher end GPS devices on the bottom of the list are extremely accurate, more so than others, however they require [proprietary] apps [...] to conduct additional computations and to achieve sub-centimeter accuracy. The chart below can help you find the best Bluetooth GPS device for your needs. [...]

Last Updated: Sept 21, 2015

Picture	Maker	Model	Compatibility	Battery Life	Weight	Accuracy	Cost
	Dual	XGPS150A	iOS/Android	8h	1.8oz (51.03g)	+/-2.5 m	\$89 Review
	Garmin	GLO	iOS/Android	12h	2.12oz (60.1g)	3 m	\$129
	Dual	XGPS160	iOS/Android	10h	2.6oz (73.1g)	+/-2.5 m	\$149

Picture	Maker	Model	Compatibility	Battery Life	Weight	Accuracy	Cost
	Bad Elf	GPS Pro	iOS/Android	25h+	3.2oz (90.7g)	+/-2.5 m	\$149
	Bad Elf	GPS Pro+	iOS/Android	25h+	3.2oz (90.7g)	+/-2.5 m	\$249
	Bad Elf	GNSS Surveyor	iOS/Android	25h+	3.2oz (90.7g)	1-3 m	\$599 Review
	Trimble	Leap	iOS/Android	16h	9.5oz (269g)	2 m	\$999
	EOS	Arrow Lite	iOS/Android	16h	13.1oz (372g)	60 cm	\$1,995
	SXBlue	Bluell	Android	10h	18.24oz (517g)	60 cm	\$2,195
	Trimble	R1 GNSS	iOS/Android	10h+	6.6oz (187g)	60 cm	\$2,495
	SXBlue	IIGNSS	Andorid	10h	17.1oz (487g)	60 cm	\$2,895

Picture	Maker	Model	Compatibility	Battery Life	Weight	Accuracy	Cost
	EOS	Arrow 100	iOS/Android	8h	13.1oz (372g)	60 cm	\$2,995
	SXBlue	IIB	Android	10h	18.24oz (517g)	60 cm	\$3,695
	SXBlue	III-L GNSS	Android	9h	18.24oz (517g)	10 cm	\$6,995
	SXBlue	IIIGNSS	Android	9h	17.1oz (487g)	1 cm	\$6,995
	EOS	Arrow 200	iOS/Android	8.5h	13.1oz (372g)	1 cm	\$6,995
Foreign Brands							
GlobalSat							
Qstarz							
Canmore							
Holux							