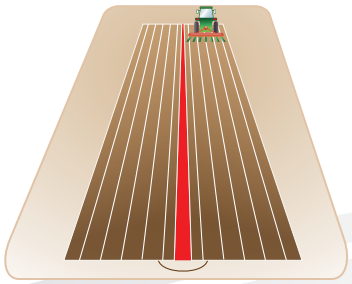
Accuracies
Leica Geosystems Agriculture

Accuracy Definitions



- **Pass-to-pass accuracy** measures the relative accuracy over a 15-minute interval. This is usually thought of as guess row error when driving rows, or as skip/overlap from one pass to the next when driving swaths.
- **Year-to-year accuracy** is the measure of **repeatable accuracy** that you can drive the same rows a day, week, month, or year later. So, 2 cm year-to-year accuracy means you can drive the same rows next year within 2 cm of this year's rows.

	Pass-to-Pass Accuracy (RMS)[1]			Repeatable Accuracy (RMS)		
	Leica mojoMINI 2	Leica mojo3D	Leica mojoXact Plus	Leica mojoMINI 2	Leica mojo3D	Leica mojoXact Plus
Autonomous[2]	20 - 25 cm	20 - 25 cm	10 - 15 cm	1.5 m	1.5 m	1.2 m
SBAS[2,3,4]	15 - 20 cm	15 - 20 cm	-	0.7 m	0.7 m	-
NDGPS[2]	-	15 - 20 cm	-	-	0.5 m	-
RTK	-	-	2 cm	-	-	1 cm + 1 ppm[5]

1 Accuracy tests performed in Purga, (QLD Australia) on a John Deere 7630 tractor in a level field driving at 5 km/h, using a Leica SD Hydraulic kit and driving in a racecourse shape. Data collected 6-14 Feb, 2013 Australian summer
All measurements consider only the horizatal distance perpendicular to the wayline.

2 When used with GeoPro antenna

3 Where SBAS is available

4 SBAS accuracies inferred from manufacturer specifications, could not be tested at test site in Australia

5 1 ppm means that the accuracy degrades by 1mm for every km of distance between the rover and the base

A note on GPS accuracy measures

It is important to know the different ways GPS receiver accuracies are specified. The two most common methods are a) RMS (Root Mean Square) which is the accuracy achieved 68% of the time, or b) an accuracy figure that is achieved 95% of the time (also known as 2DRMS). The conversion factor for converting one figure to another is two. For example, an accuracy figure of 20 cm RMS is equivalent to a 95% figure of 40 cm.

ABOUT GL1DE®

NovAtel's exclusive GL1DE® technology provides ultra-smooth positioning and exeptional pass-to-pass accuracy. GL1DE®'s steady, smooth output is especially well suited for manual guidance and auto-steer applications and will bridge through short periods of poor satellite availability. All Leica Geosystems agricultural products use GL1DE® technology.

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http://www.novatel.com/assets/Documents/Papers/GL1DE.pdf

For pass-to-pass applications
Leica mojoMINI 2
Leica mojo3D

- **Free** to air (no subscription fees)
- Reduce input costs
- Suitable for most broadacre applications (like spreading, spraying, harvesting)
- Reducing operator fatigue and improving productivity

For repeatable applications
Leica mojo3D & mojoXact Plus

- **Usage based** fee (no subscription fees) with network RTK
- **No fees** using Leica GeoAce RTK base station
- Ideal for high accuracy broadacre and row crop applications (like seeding)
- Minimizing input cost and maximizing yield

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- when it has to be **right**

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