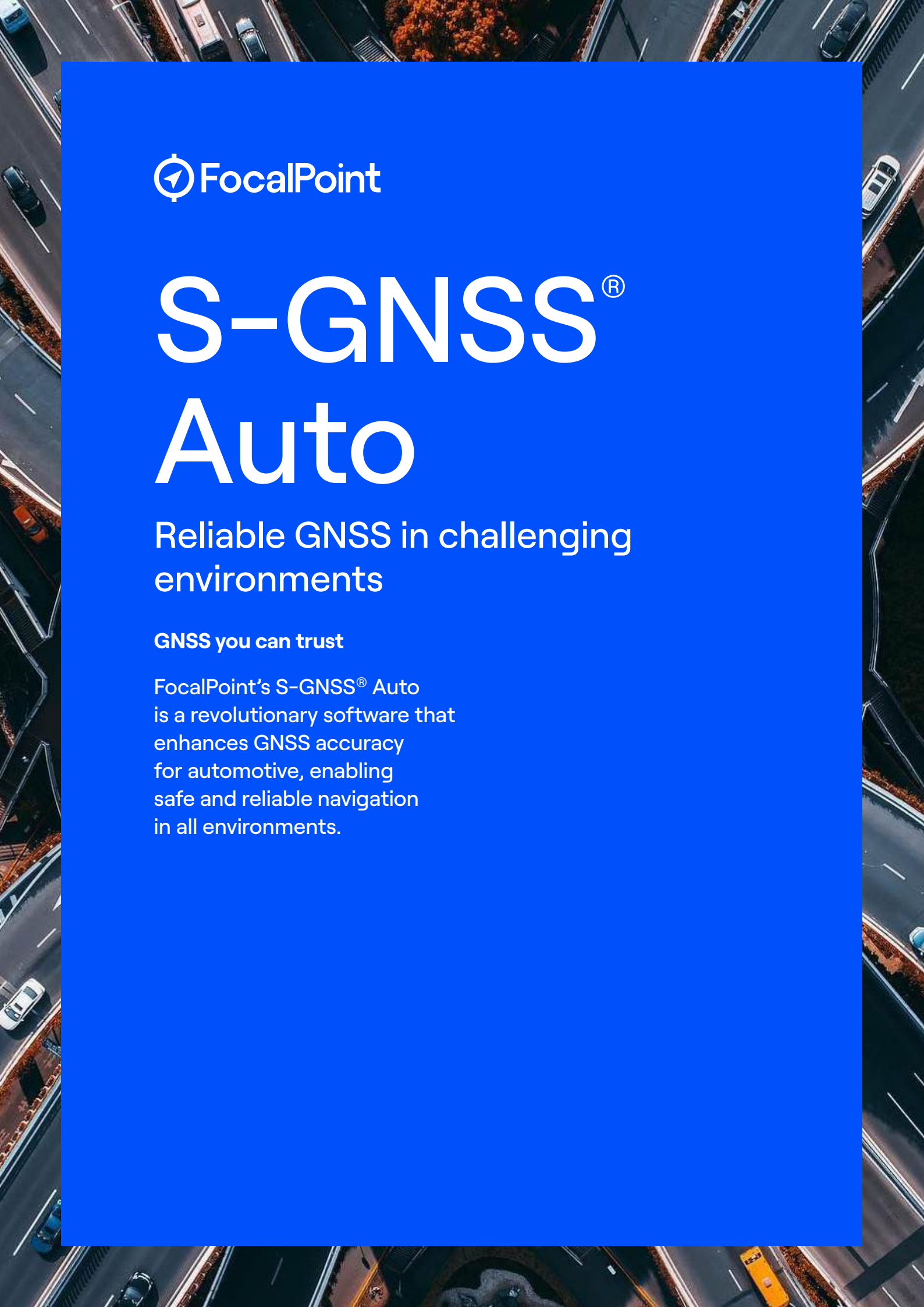


FocalPoint

S-GNSS® Auto

Reliable GNSS in challenging environments

GNSS you can trust

FocalPoint's S-GNSS® Auto is a revolutionary software that enhances GNSS accuracy for automotive, enabling safe and reliable navigation in all environments.

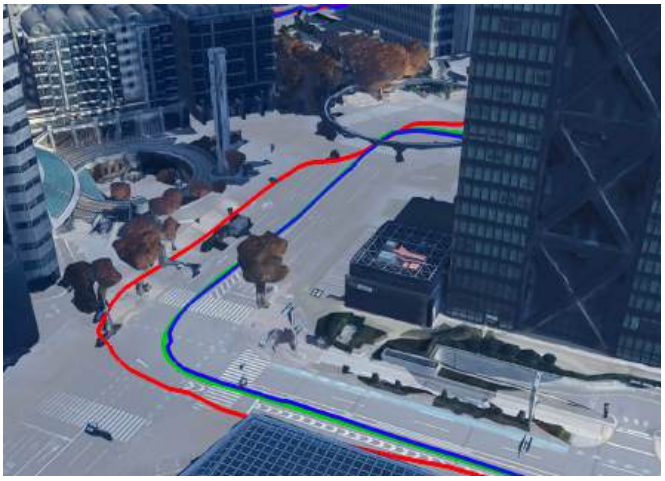
FocalPoint x

Ready for the future of mobility

FocalPoint and STMicroelectronics have collaborated to deliver enhanced GNSS reliability and accuracy in challenging environments. FocalPoint's S-GNSS® Auto, integrated onto ST's Teseo devices, provides the highly-reliable positioning foundation required for:

- Reliable navigation in urban canyons and forest roads.
- Enhanced ADAS performance and autonomy readiness.
- Better V2X and connected vehicle experiences.

Our combined GNSS solution is a key enabler of safer, smarter automotive systems — now and into the future.



Map generated from recent trial data | Shinjuku, Tokyo

BLUE: S-GNSS® ON
RED: S-GNSS® OFF
GREEN: GROUND TRUTH

Up to 4x accuracy, tested globally in locations across the world including Tokyo, Frankfurt, the Black Forest and Seoul.

Download the latest results

Harness the full potential of absolute location

The problem:
GNSS unreliability in challenging environments

GNSS is the only source of absolute location, essential for many automotive services, including:

Positioning and navigation

Telematics and V2X

ADAS and vehicle autonomy

However, GNSS signals are degraded in challenging environments such as urban canyons and forest roads.

- In cities, reflected signals from buildings (“multipath interference”) can dominate or interfere with the line-of-sight (LoS) signals, confusing the receiver.
- Receivers struggle to pick up weak or obstructed signals.
- In these environments, GNSS can be unreliable and sometimes unfit for use.

FocalPoint

The solution: S-GNSS® Auto

A unique, software-only solution to multipath

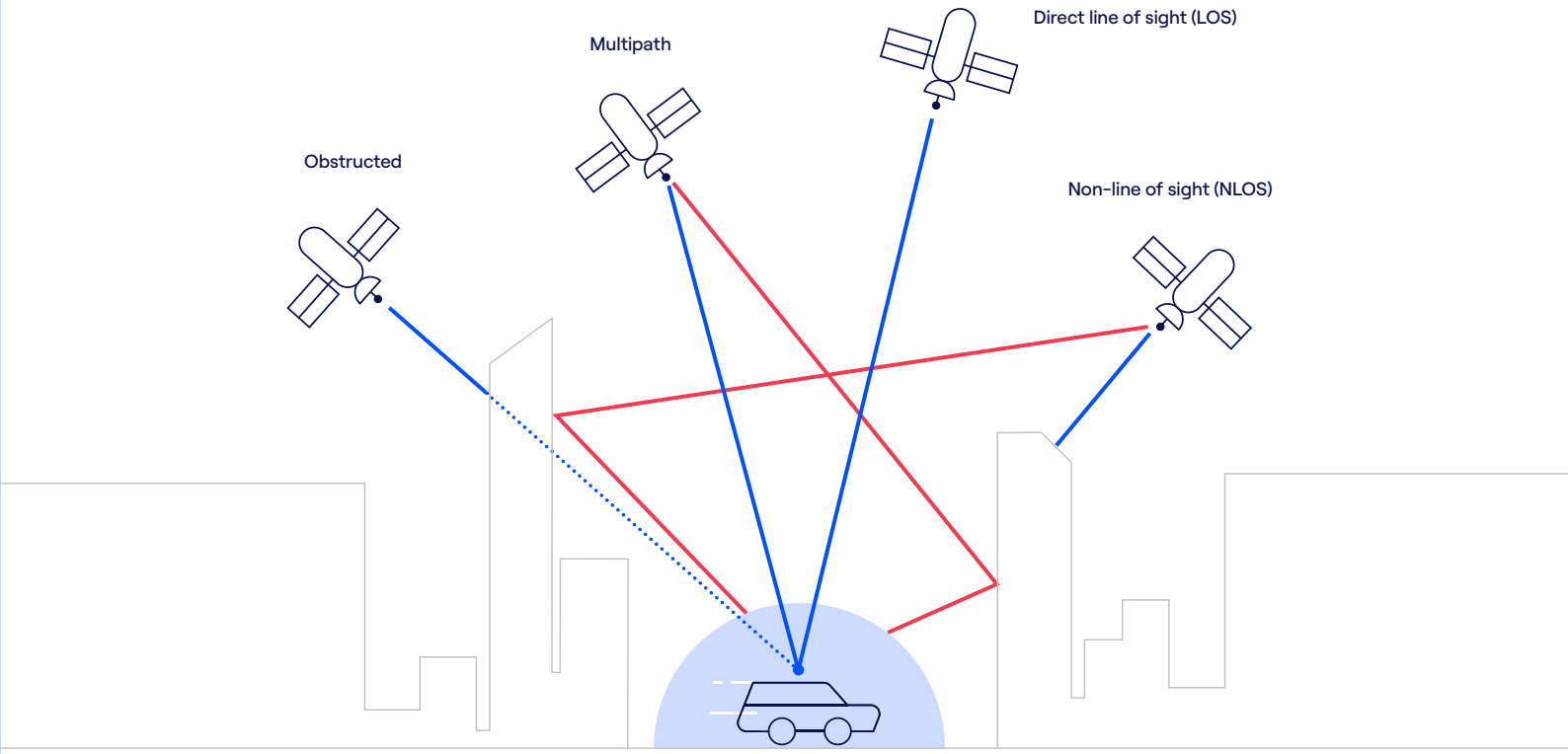
- Transforms standard GNSS receivers – directly from the chip – into smart, directional antennas.
- Identifies and rejects reflected or misleading signals, locking on to the true LoS signal.
- Enables unmatched GNSS reliability, even in the toughest of signal environments where traditional solutions fail.

This enables automotive manufacturers to enhance V2X capabilities, expand ADAS operations into more roads and advance vehicle autonomy with confidence.

Accuracy: Up to 4x improvement in latest tests (multipath)

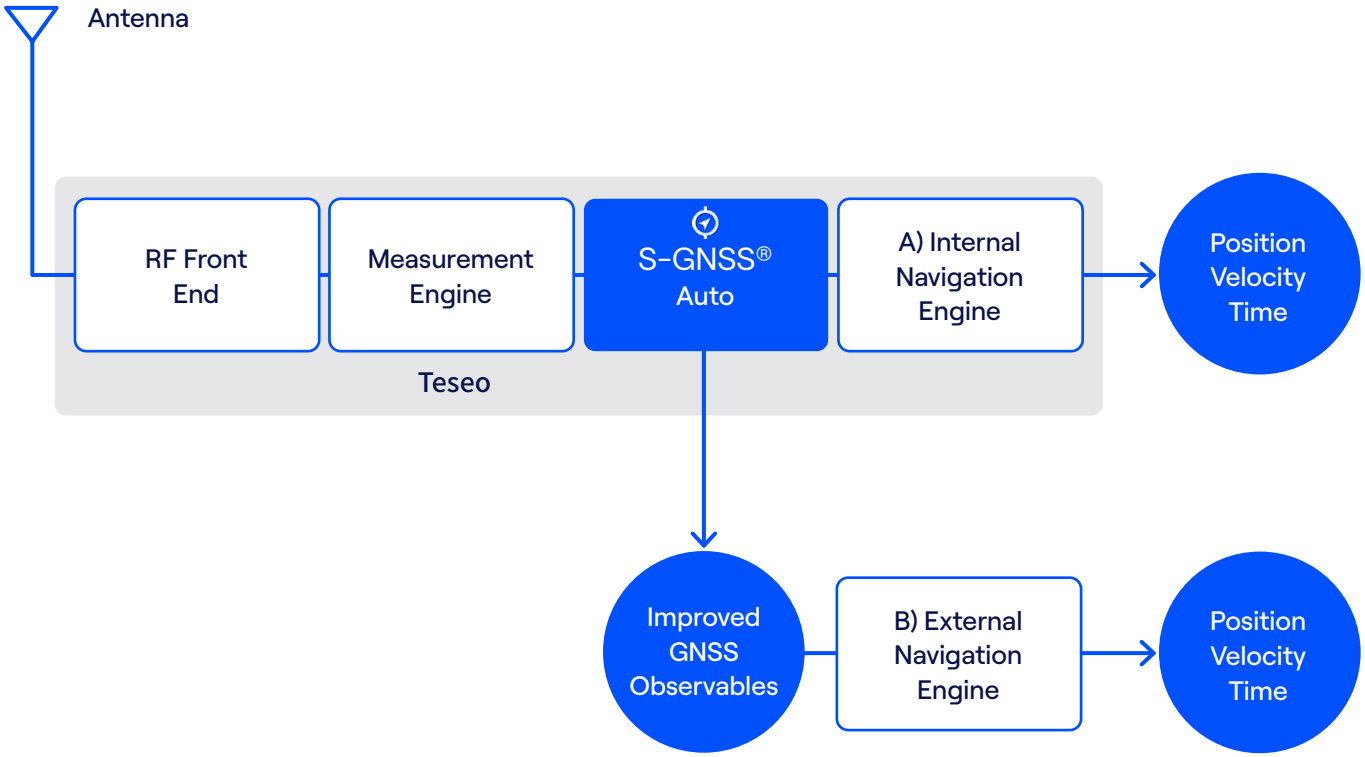
Security: Protects from spoofing attacks

Sensitivity: Boosts sensitivity by 6-10 dB, optimising antenna performance



S-GNSS® boosts LoS signals and ignores all others.

S-GNSS® Auto is a software upgrade to GNSS chips and can be integrated into existing hardware. Working directly from the chip, it enhances the accuracy of GNSS measurements, delivering them to the navigation engine (internal or external).



Powered by FocalPoint's patented Supercorrelation™ technology, S-GNSS® Auto mitigates the degradation in accuracy caused by signal reflections and attenuation. It works by:

- **Boosting line-of-sight signals, improving receiver sensitivity to**
  1. Optimise performance of concealed antennas
  2. Maintain accurate tracking under foliage
- **Attenuating non-line-of-sight signals, helping to**
  1. Mitigate multipath interference
  2. Defend against spoofing attacks

Trusted by industry leaders

"S-GNSS® Auto offers the promise of simplifying the system's engineering effort to achieve consistent accuracy in urban environments."

Curtis Hay, Technical Fellow GNSS, V2X and Maps, General Motors

"By integrating FocalPoint's S-GNSS® Auto software, we enable OEMs to confidently advance automation, while setting a new standard for navigation accuracy and reliability."

Luca Celant, General Manager, Digital Audio and Signal Solutions Division, ST

198
patents

8
awards

300+
combined years of experience in PNT

Want to learn more?
Visit **focalpointpositioning.com**
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Cambridge, CB4 3NP

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