

# InsideGNSS

GPS GALILEO GLONASS BEIDOU

ON THE COVER

## 40 How Effective Are Signal Quality Monitoring Techniques

for GNSS Multipath Detections?

Ali Pirsiavash, Ali Broumandan and Gérard Lachapelle

An analytical discussion on the sensitivity and effectiveness of signal quality monitoring (SQM) techniques for multipath detection and mitigation, including narrow and high resolution tracking strategies under BPSK(1) and BOC(1,1) modulations as the base signaling schemes used for GPS and Galileo.



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TECHNICAL ARTICLES

## 48 Spectral Transparent Adhesive

A Solution to the Next Generation Satellite Navigation Signals

Zheng Yao, Junjie Ma, Jiayi Zhang and Mingquan Lu

From the reality of GNSS design one can find that the growing expanded applications of GNSS and the refined services prompt the new generation systems to broadcast more signals with more complicated structure. In this article the authors take a close look at how we can enable future development by implementing excellent signal designs with higher adaptability and flexibility.



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A Demonstration of the  
Galileo E5b Signal  
Marion Aubault-Roudier, Denis  
Laurichesse, Hanaa Al Bitar, Mathieu  
Raimondi, Pierre Lesage, Arnault Sfeir,  
Michael Klein, Matthieu Sihrener and  
Nicolas Ramponi

This study assesses the opportunity for an L5 SoL service existing together with a non-SoL service on the E5 repeaters of SES GEO satellites, by using two different Navigation Land Earth Stations: the first is used to generate the L1-L5 SoL signals, and the second independently generates the E5b signal.

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Michael Ritter discusses multi-constellation GNSS  
and the importance of being a staunch advocate of  
Galileo.



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