

SIECAMs® HTS: New high throughput satellite monitoring system launched by Siemens Convergence Creators

Providing a low cost, advanced monitoring capability for the quality of satellite links in spot beams of high throughput satellites

[Vienna, May 22, 2017]: With SIECAMs® HTS Siemens Convergence Creators, a global multi-industry digital transformation solution provider, introduces the latest addition to its SIECAMs®-Suite, the most complete and effective toolbox for satellite operators facing interference today: SIECAMs® HTS is designed to monitor radio frequency (RF) quality of satellite links in spot beams of high throughput satellites.



High Throughput Satellite (HTS) systems represent a new generation of satellite communication. In recent years, several HTS systems have been launched and many more are expected to follow soon. With SIECAMs® HTS, Siemens Convergence Creators now allows satellite and service operators to monitor the signal quality of and mitigate interference occurring in high throughput satellites, considering the unique properties of HTS systems.

Spot beams becoming more common in satellite communication

Compared to conventional satellites, HTS systems have the capacity to deliver considerably higher throughput, achieved by using multiple spot beams. The wide beams used by conventional systems allow larger-scale coverage while spot beams cover more limited and sharply defined service areas. However, spot beams not only have a much higher data transmission rate versus wide beams. As an additional major advantage, several spot beams can reuse the same frequency, in effect multiplying the de facto transmission range. Hence the vastly increased bandwidth of HTS systems at the same time comes at more affordable costs per bit delivered.

To be economically viable, the number of spot beams generated by just one high throughput satellite typically is very high. Accordingly, carrier monitoring systems for supervising the quality of satellite links in specific spot beams also need to be streamlined in terms of cost, size and functionality. Another challenge comes with the spot beam design which can lead to an increase in occurring interference. Therefore spot beam monitoring systems need to enable the operator to manage the higher bandwidth by visualizing possible problems when and where they occur.

HTS satellite link monitoring

SIECAMs® HTS has been developed with the monitoring requirements for the latest generation of high throughput satellites in mind.

It provides a compact, low cost spot beam monitoring solution which is fully integrated in the SIECAMs® product family. Automatically monitoring the quality of spot beam transmissions, SIECAMs® HTS' primary task is to identify and characterize unknown signals. With its outstanding management and visualization techniques it enables operators to keep an overview over an enormous amount of spot beam transmissions and to rapidly identify and pinpoint emerging interference issues. It is designed to be operated with minimal overhead, including personnel and other resources.

With SIECAMS® HTS, satellite operators obtain RF monitoring and a powerful DSP (digital signal processor) in one box. The system not only automatically transfers measurement results to a central database server but also includes a local database which enables continuous monitoring even in case of a network failure.

With its compact design it is also an ideal cost effective monitoring solution for fly aways or mobile remote stations.

Martin Wachutka, Head of Space Business Unit, Siemens Convergence Creators: "High throughput satellites represent a fascinating new way to increase the bandwidth in satellite communication, among other things making possible to flexibly assign a large variety of satellite services to specific areas. In these exciting times, we're happy to unveil SIECAMS® HTS, an essential tool for satellite and service operators responsible for the flawless functioning of their assets. SIECAMS® HTS has been tailored to the unique monitoring requirements of spot beams used by HTS systems and is fully integrated into our widely deployed satellite monitoring and interference localization suite SIECAMS®."

SIECAMS® HTS can be ordered the same way as any other SIECAMS® product. Please contact us at info@siemens-convergence.com for details on pricing and offer requests.

About Siemens Convergence Creators

Engineering a smart digital future.

Siemens Convergence Creators GmbH, headquartered in Vienna, engineers the solutions for its customers' digital transformation, delivering sustainable value and providing opportunities that turn visions into reality.

Among its most important customers are top players in their respective industrial sectors: telecommunications, media (TV, publishing houses), transportation (railways, aircraft manufacturers, airlines and airports), space, public safety (action forces), and energy (wind power, oil and gas).

Siemens Convergence Creators' presence in emerging and mature markets like Central and Eastern Europe, Germany, the U.S., India, and China, together along with its powerful network of partners, offers a strong basis for activities all over the world.

For more information about Siemens Convergence Creators, please visit www.convergence-creators.siemens.com

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