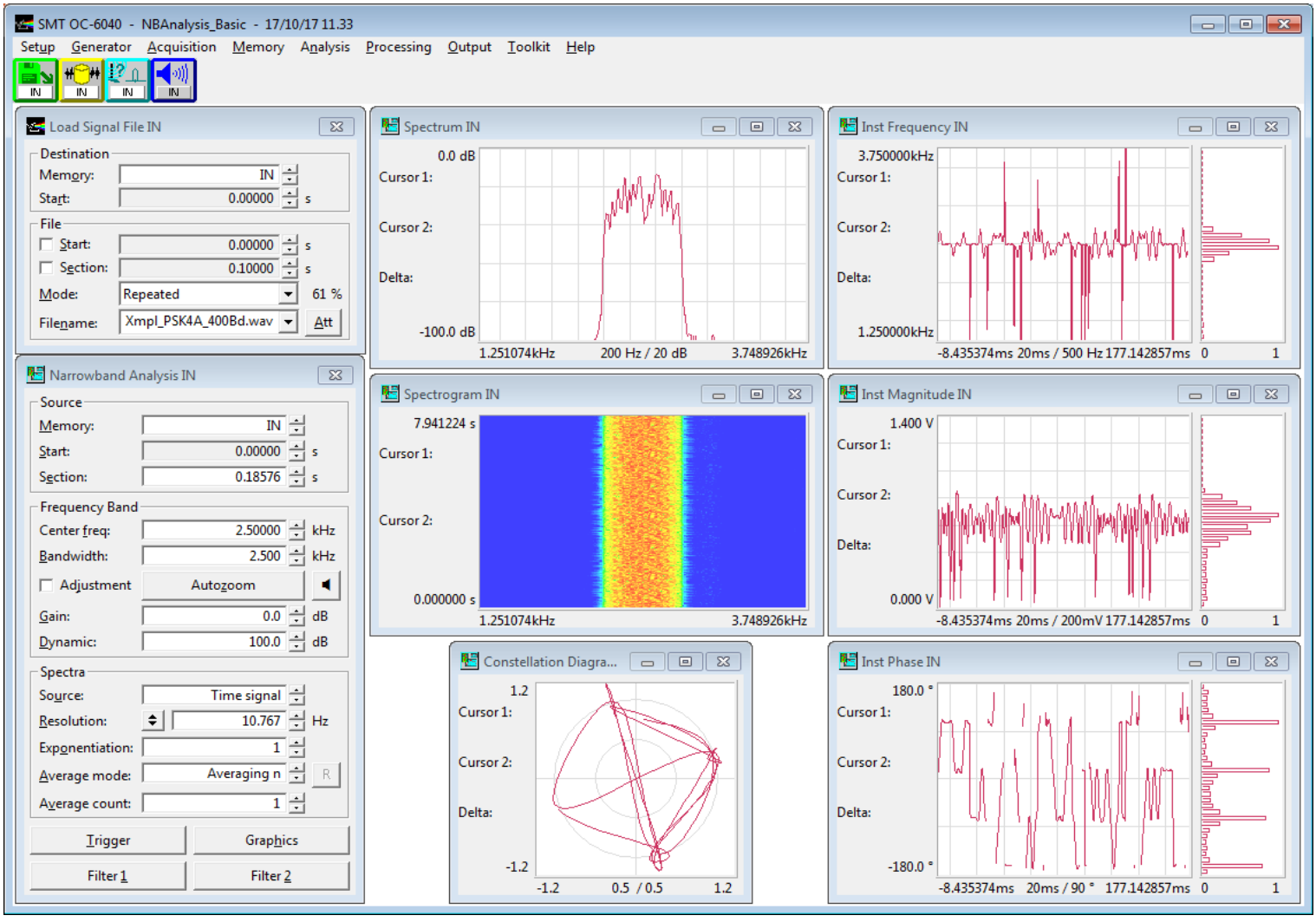
OC-6040

SIGNAL ANALYSER WITH COMPREHENSIVE DECODER SUITE



WHY RADIO SIGNAL ANALYSIS

In modern radio surveillance systems, the detected signals are automatically processed for the complete wideband in HF and VUHF. Even with a large variety of demodulators and decoders, sometimes unknown or unidentified (UI) signals remain unprocessed.

These signals can be manually analysed by signal specialists using technical analysis software. OC-6040 supports this task with over 200 different transmission methods for demodulation and decoding.

In addition, a high amount of different visualisation means is included in OC-6040 to support the analyst in his work.

OC-6040 is a purely software based product and can be used on standard computers.

BENEFITS

- Powerful tool for signal analysis in both HF and VUHF
- Comprehensive demodulation and decoding technology available
- Decoding/handling of 2nd layer protocols (post-processing)
- Customer-owned demodulators and decoders can be easily integrated
- Visualisation of signals in manifold displays
- Configuration and settings for special applications
- Identification of unknown signals (UI)
- Automated signal classification (transmission mode classification).

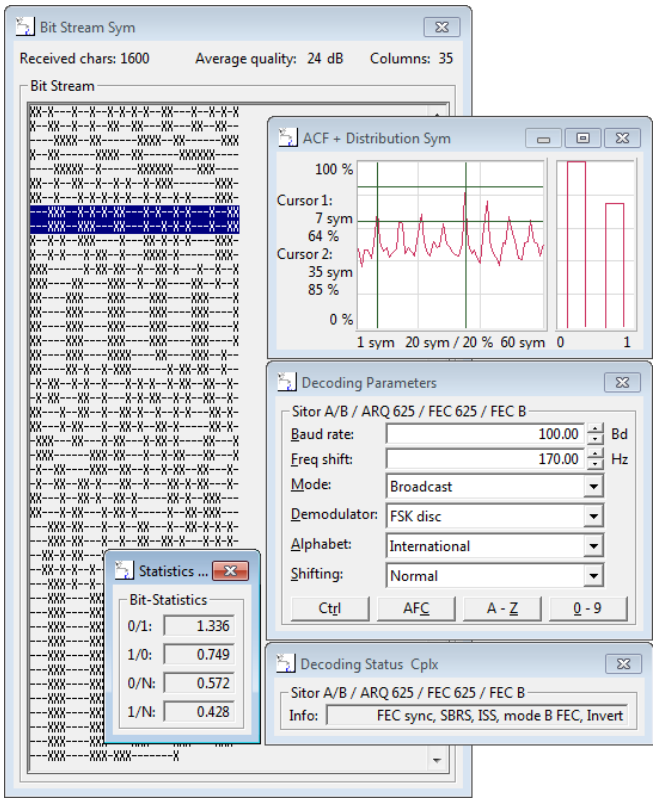
APPLICATIONS

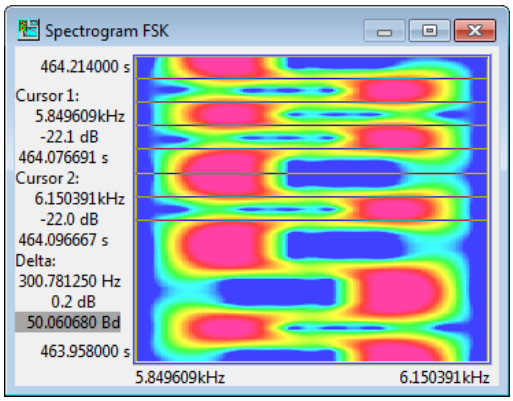
- Interactive analysis of UI (unidentified) signals
- Interactive analysis of new modulation and coding types
- Interactive analysis of standard transmission modes

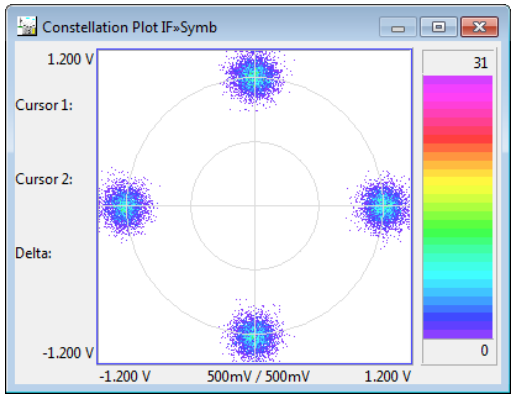
OC-6040 can be used as a supplement to automated radio surveillance by interactive workplace support.

PRODUCT BACKGROUND

Saab Sensor Systems Germany introduced the OC-6040 family to the market in 1999. Since then it is in use in more than 60 customer applications in different configurations. OC-6040 is often delivered in conjunction with complementary systems for radio surveillance, direction finding and geo-location.







SYSTEM DETAILS

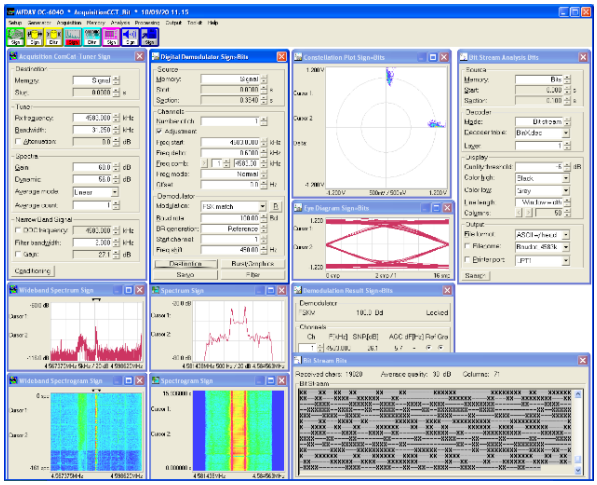
OC-6040 is a purely software based product. Numerous interfaces to receivers and other signal input and output devices are supported. A variety of input and output data formats are supported.

Intuitive installation and user interface allow for an efficient way of working.

To facilitate the configuration and improve the clarity, the functionality is structured in modular groups: signal acquisition and generation, processing, analysis, and signal output. All modules are connected by memory buffers. In this way, nearly any kind of signal processing chain (flows) can be set up just by configuration.

OC-6040 can work as a single or multi-channel system. For the multi-channel system, several narrowband segments can be extracted in parallel.

Configurations can be saved and activated for special signal types and work flows. The example below shows the analysis of a bit-stream for supporting the mark/space distribution, an eye diagram for judging on the demodulation quality, and an ACF (auto-correlation function) for detecting repetitions of symbol sequences. The parameters of the demodulation method are displayed in the digital demodulator window. The bit stream can be observed at the right side on the picture below.



CONFIGURATIONS

OC-6040 is available in four configurations depending on the user requirements:

LITE

Professional decoding of user-**selected transmission modes**.

This configuration allows for basic signal visualisation and listen-in functionality of signals. Optional decoders can be integrated.

STANDARD

Professional decoding of a wide variety of transmission modes and **technical analysis of unknown single carrier** modes.

OC-6040 Standard allows for the analysis and visualisation of radio signals with the respective visualisation display. In addition to the configuration above, a signal generator is included as well as a dedicated set of demodulators and decoders.

PREMIUM

Professional decoding of a wide variety of transmission modes and **technical analysis of unknown single and multi-carrier** modes.

This configuration is designed for expert usage of especially OFDM (orthogonal frequency division multiplex) signals. Additionally this configuration contains the universal digital demodulator including bit stream analysis.

ULTIMATE

Comprehensive package of signal analysis functionality.

The Ultimate configuration provides the same features as Premium. In addition, an automated transmission mode classifier and the analysis of second-layer protocols are included as well as some special features like hopper analysis and speech signal analysis.

Saab Sensor Systems Germany GmbH

Marienbergstr. 96 | 90411 Nuremberg | Germany
+49 911 47725 001
s3g-marketing@saabgroup.com | www.saab.com