Press Release

IZT

Detecting and Classifying Signals with IZT Signal Suite

Innovative Radio Monitoring and Intelligence Solutions

IZT Modulation Recognition (ModRec) is an innovative software feature of IZT Signal Suite for signal analysis. This new IZT Signal Suite option recognizes various modulation schemes and can be easily upgraded with future technologies. The processing time overhead of the IZT Signal Suite option will maintain its real-time operating objectives with the increased number of supported modulation schemes.
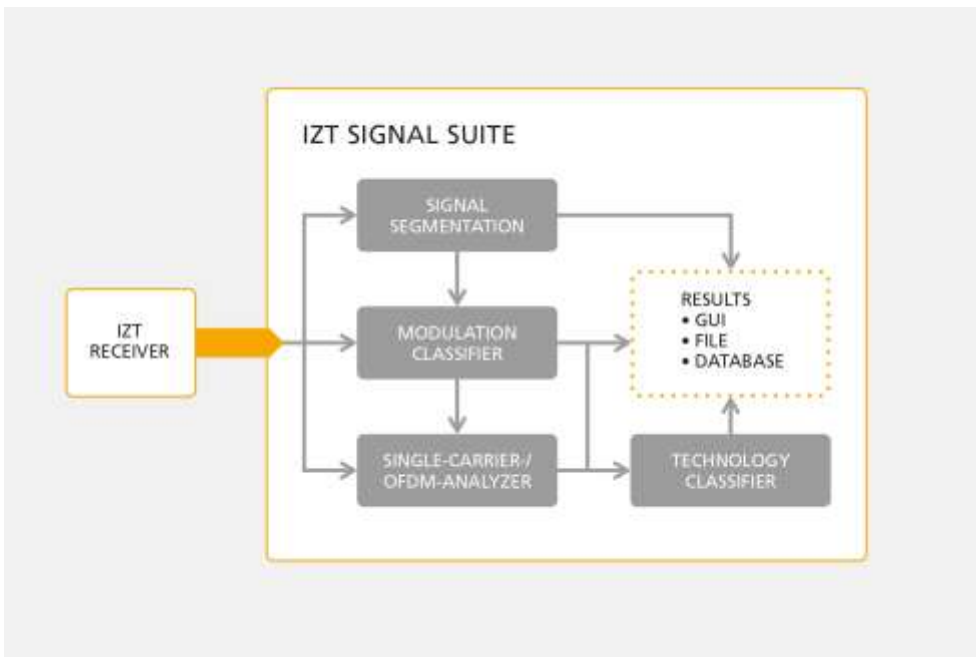
Signal segmentation with IZT Signal Suite, which means dividing the broadband spectrum up into individual signals, can be done either manually by the user or automatically by the software. The IZT Signal Suite modulation recognition function is useful in a number of communications satellite monitoring (CSM) applications such as automated monitoring of satellite transponders, verifying the correct usage of terrestrial bands, characterizing the RF environment, and identifying unauthorized signals in certain frequency bands.

About IZT

The Innovationszentrum für Telekommunikationstechnik GmbH IZT is a spin-off of the Fraunhofer-Gesellschaft, Germany's leading institution for applied research. Founded in 1997 in Erlangen, the company emanated from the Fraunhofer Institute for Integrated Circuits (IIS). The Innovationszentrum für Telekommunikationstechnik GmbH IZT specializes in the most advanced digital signal processing and field programmable gate array (FPGA) designs in combination with high frequency and microwave technology.
The product portfolio includes equipment for signal generation, receivers for signal monitoring and recording, transmitters for digital broadcast, digital radio systems and channel simulators. IZT offers powerful platforms and customized solutions for high signal bandwidth and real-time signal processing applications. The product and project business is managed from the principal office located in Erlangen/Germany. IZT distributes its products worldwide together with international strategic partners. The IZT quality management system is ISO 9001:2015 certified.
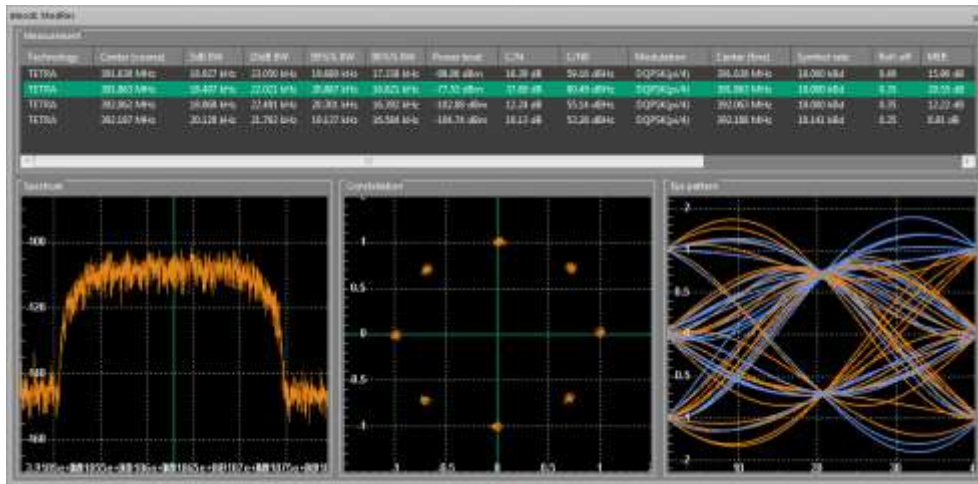
In radio monitoring and intelligence there is a demand for sophisticated signal analysis techniques in order to detect, classify or demodulate radio signals. To achieve this goal, IZT ModRec provides powerful signal analysis for detecting and classifying known and unknown signals. The software perfectly interacts with IZT digital wideband receivers IZT R4000, IZT R4010, IZT R3301 and the whole IZT R3000 receiver family.

IZT Modulation Recognition block diagram

IZT R3410 RF Recorder setup showing modulation recognition results

Modulation analyzer results with constellation and eye diagram