

Profile



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 its international strategic partners. The IZT quality management system is ISO 9001:2008 certified.



Rainer Perthold is co-founder and General Manager of the Innovationszentrum für Telekommunikationstechnik GmbH IZT. Previously, he worked as a research scientist for the Fraunhofer Institute for Integrated Circuits. Mr. Perthold and Fraunhofer Gesellschaft jointly founded IZT in 1997 as a commercial development and manufacturing affiliate. Mr. Perthold studied in Erlangen and London. He has a degree in Electrical Engineering (Dipl.-Ing. Elektrotechnik, 1994) from Erlangen University and holds or shares a number of patents in different fields of communication technology.



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RF Signal Generators

IZT S1000



MULTI-CHANNEL SIGNAL GENERATORS

- One device – 31 Virtual Signal Generators of highest RF quality
- Two RF outputs for phase-synchronous diversity and MIMO testing
- For I/Q data, Sirius, XM, HD Radio, AM, FM
- Modulators for Digital Radio and TV Standards
- GNSS Constellation Simulator
- Automated testing for development and production
- Versatile real-time impairment simulation
- Universal ARB function
- 50 MSamples/sec real-time streaming

IZT S1010



IZT COMINT Simulator



REAL-TIME RF ENVIRONMENT SIMULATION SYSTEM

- Test and validation of COMINT and DF systems as well as operator training
- Unique digital signal source platform for simulating time variant, complex and realistic RF signals
- Can be efficiently employed whenever multiple and accurately synchronized RF test signals are required

Product Overview

RF Technology and Advanced Digital Signal Processing

Signal Generators



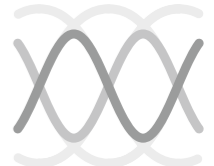
Receivers



Record & Playback



Channel Simulators



Digital Broadcasting



Software



Please visit our website for more information on product variations and technical features
www.izt-labs.de

Product Overview

RF Receivers and Signal Collection Systems

IZT R3000



DIGITAL RECEIVERS

IZT R3000, IZT R3200, IZT R3301, IZT R3410

- Excellent RF performance
- Frequency range 9 kHz – 3 GHz (6 GHz / 18 GHz)
- Real-time bandwidth up to 24 MHz
- Multichannel operation
- Fully remote controllable

IZT R3410



IZT R3600



MULTICHANNEL RECEIVER SYSTEM

- Frequency range 9 kHz - 3 GHz / 6 GHz
- Scalable multi-channel receiver system
- Up to 5 channels with 24 MHz instantaneous bandwidth each
- Suitable for direction finding (DF)
- For fixed and mobile systems

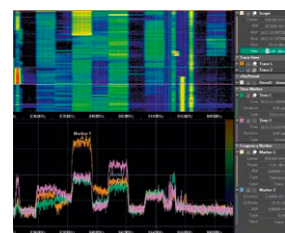
IZT R4000



DIGITAL WIDEBAND RECEIVER

- Signal collection & recording system
- Superior signal quality
- Continuous interception of up to 120 MHz bandwidth
- Real-time signal analyzer
- Spectrum Monitoring

IZT Signal Suite



RADIO MONITORING SOFTWARE

- Sensor configuration & synchronization
- Spectrum & spectrogram display
- IP forwarding of vRx sub-bands via TCP/IP
- Automated frequency selective recording
- Signal analysis & demodulation
- Post-processing of recorded signals from file
- SDK

Channel Simulators

IZT C3040



SATELLITE LINK EMULATOR

- Input and output frequency up to 3 GHz
- Instantaneous bandwidth of 100 MHz
- Simulation of uplink, payload and downlink

IZT C6000



BROADBAND SATELLITE LINK EMULATOR

- Bi-directional wideband solutions for up to 600 MHz bandwidth
- Simulation of complete satellite links including payload, uplink and downlink effects
- Simulation of complex mesh networks
- Real-time change of parameter
- Flexible and scalable architecture

IZT OTA



OVER THE AIR RESEARCH AND TESTING

- MIMO communication systems with integrated antennas (LTE terminals / car industry: integrated antenna modules)
- Wave field synthesis (WFS) with high accuracy (navigation systems / replay of measurements from various environments)
- Time variant spatial channel characteristics
- MIMO with up to 12 inputs and 64 outputs

RF Record & Playback

IZT R3301 / IZT S1000



RF RECORDING AND PLAYBACK SYSTEMS

- Excellent RF performance
- Many hours of continuous record & replay
- Phase-coherent diversity testing
- Real-time impairment simulation
- 25 MHz, 60 MHz or 120 MHz real-time bandwidth

IZT R4010 / IZT S1010



Digital Broadcasting

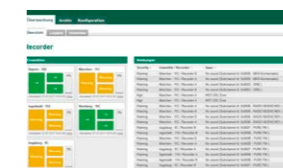
IZT DAB ContentServer & IZT DRM ContentServer



DIGITAL RADIO MULTIPLEXER SYSTEMS

- Multiplexing for DAB / DAB+ or DRM
- Real-time audio encoding
- Data service management

DAB Archive



EDI/ETI MONITORING AND LOGGING SYSTEM

- Real-time monitoring and analysis of DAB ensembles
- Recording of the complete DAB multiplex