

BANC3 is leading the way in the design and development of extremely wide bandwidth RF receiver systems with our new TrueSignalDetect product line. Our novel receiver systems leverage parallel channel architectures that ensure 100% probability of intercept over instantaneous RF bandwidths up to 18 GHz. Each channel in the system is processed with BANC3's Hybrid Digital Receiver, providing a Real Time Spectrum Analyzer (RTSA) and a Digital Instantaneous Frequency Measurement (DIFM) receiver to provide both spectral and pulse descriptor word (PDW) data continuously to measure all RF events even in today's most challenging RF environments. The systems include miniature integrated RF front ends, high-speed fiber optic interfaces, and ruggedized assemblies that facilitate deployment in constrained size, weight, and power environments. Standard network interfaces simplify integration with other systems and our client-server software applications provide intuitive, content rich analysis of the RF signal environment.

The TrueSignalDetect real-time processing provides automatic signal detection. The RTSA/DIFM data streams are processed and reduced in real-time and transferred to the software application for signal tracking and data display. User programmable alarms allow signals to be classified in frequency and amplitude with audio/visual alerts issued upon threat signal recognition. Automated modulation recognition for AM, FM, and PM signals ensures today's complex waveforms can be correctly segregated. Detailed log files for signals and system diagnostic data are collected and stored continuously to support post mission analysis.

The **TrueSignalDetect** team at BANC3 works diligently to improve and expand our understanding of today's RF spectrum monitoring requirements and we are committed to working with the RF spectrum user community to provide high quality and cost-effective solutions that exceed their expectations. Our modular architecture can be customized and configured to satisfy a wide variety of missions and scales to fit your budget. When high probability of intercept in complex RF environments is your mission, BANC3 has a system to meet your requirements.



## **Specifications**

Model No. Frequency Range Sensitivity Dynamic Range Pulse Width Range PRI Range Signal Modulation Flags Simultaneous Signal Flags RF Input Ext 10 MHz Ref Input Data Output ADC Receiver Types Receiver Data

Signal Analysis App

TSD-1000 1.0 – 4.4 GHz -55 dBm (w/o pre-amp) 60 dB 50 ns - CW 100 ns – 100 ms AMOP, FMOP, PMOP PoP, PoCW, SSD SMA(F), +20 dBm max SMA(F), +20 dBm max **RJ45** Ethernet 14-bit, 3 GSPS **RTSA/DIFM** Max Spectrum Average Spectrum **PDW Groups** Signal Track List Spectrum Waterfall Spectrum Analyzer Spectrograph Programmable Alarms

Diagnostics



TrueSignalDetect analysis software application



Model No. TSD-1000 covers 1.0 – 4.4 GHz instantaneously