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## **FOR IMMEDIATE RELEASE**

### **SyntheSys Research Introduces BitAlyzer1000 at ITC 2000: Real Time Bit Error Analysis at 1 Gigabit Per Second**

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**Menlo Park, Calif.—October 23, 2000**—SyntheSys Research, Inc., the industry leader in advanced digital analysis test and measurement equipment, today announced the release of the BitAlyzer®1000 bit error analyzer, which analyzes error rates in real time at 1 gigabit per second (Gbit/s). The BitAlyzer 1000 is the latest system in the BitAlyzer product family, and successor to the industry-standard BitAlyzer622.

The announcement was made during the ITC 2000 conference. SyntheSys Research will be in booth 400 at the Town & Country Hotel.

The new system's greater speed enables electronic designers and technicians to keep pace with ever-increasing digital channel speeds and can be used for design debug, product certification and monitoring digital channels.

BitAlyzer systems are high-rate, easy-to-use bit error analysis systems providing multiple simultaneous perspectives of a digital channel's errors. Their patented analysis capabilities provide insight into the nature of errors, and are used to examine the effectiveness of various FEC and interleaving approaches without requiring additional hardware.

"As digital channel speeds increase in all technologies," said Tom Waschura, Principal Engineer, "the need for faster, flexible channel analysis is more pressing. By almost doubling the speed of our BitAlyzer 622, we believe we have brought the power of BitAlyzer error analysis to the developers of cutting-edge technologies, such as wireless communications, fiber optics, video and magnetic data storage."

Existing 622 systems can be upgraded to a BitAlyzer1000 model.

#### **BitAlyzer systems – an in-depth look**

BitAlyzer systems are used for a broad array of applications

- Manufacturing QA
- Communications channel R&D
- Digital instrumentation recorder R&D
- EDAC architecture analysis and experimentation
- Disk drive R&D
- Head/media evaluation
- Read/write channel design
- Media evaluation and certification

BitAlyzers are composed of a pseudo-random or optional user-defined pattern generator, an internal clock synthesizer, and a patented error location and logging receiver. Their unique error location analysis studies the exact bit location of errors in the data stream to show error relationships and correlations.

Error location analysis includes separating user-defined bit errors from burst errors and showing each error measurement separately, allowing the display of the distribution of error occurrences by their length. Intervals between errors are monitored to show if certain intervals may occur more frequently than others—indicating a systematic error.

Exact bit error locations are used to prepare a histogram of the number of occurrences of errors at individual positions within repeating user-defined periods. These periods can be defined by an externally applied Marker input allowing for perfect correlation to application-dependent sectoring or packetization. Errors are further analyzed on the boundaries of user-defined periods allowing traditional CCITT G.821 and G.826 measurements as well as a histogram of the number of occurrences of periods with varying numbers of errors in them.

Other forms of BitAlyzer error location analysis include directly displaying the autocorrelation of error position, which clearly identifies systematic error phenomena where one error will predict the presence of a future error.

For users not requiring 1-Gbit/sec performance, the BitAlyzer622, BitAlyzer400 and BitAlyzer25 provide most of the same analysis capabilities at lower prices.

#### **About SyntheSys Research, Inc.**

SyntheSys Research, Inc., supplies advanced digital channel error analysis instruments to the communications, recording and digital video industries. A privately held California corporation founded in 1989, the company's mission is to develop new, advanced test instruments in high-speed electronics, highly integrated microprocessors, and software. SyntheSys' patented BitAlyzer® analyzers study the location of errors in a data stream in addition to counting errors, providing more detailed information for engineers to discover the source of errors. Major global clients owning SyntheSys products include ABC (US), Allied Signal, Boeing, CBS, CNN, Fujitsu, Harris, HBO, Hitachi, Hughes, IBM, Lucent, NASA, National Semiconductors, NEC, Nortel, Samsung, Sony, Tektronix, TRW, US Air Force and the US Navy. For further information, call (650) 364-1853 or see the company website at [www.synthesysresearch.com](http://www.synthesysresearch.com).

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