



CRYSTAL™

CONTROL

> RESILIENT. RELIABLE. RESPONSIVE.

DISCOVER™
SIGNAL VERIFICATION
& SMART ROUTING



Discover™ Signal Verification & Smart Routing

Every day, billions of dollars of content flow through satellite and cable systems that rely on Crystal technology. Crystal thrives in this split-second, round-the-clock environment of news alerts, live events, program content, and commercial messages.

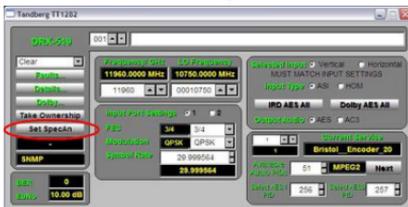
Quickly accessing inbound feeds, identifying core problems and simplifying the toolset available to network operators is the key to success in this nonstop setting where Crystal's Discover™ contribution solution was born and proven by industry leaders including ESPN, CNN, and ABC Network contribution operations.

➤ SATELLITE CONTRIBUTION

Discover saves valuable seconds accessing time-critical content contribution by providing high-powered analysis tools to the operator. With one click, spectrum and transport stream analyzers are auto-routed and configured for rapid resolution of problems in acquiring satellite contribution feeds.

With Discover, your operations:

- Proceed more smoothly.
- Move forward with confidence.
- Reduce operator tension when time is critical.
- Increase content flow without additional operator burden.



The operator uses the **Set SpecAn** button to access Discover.

➤ DISCOVER HOW IT WORKS

If the satellite receiver cannot lock onto a feed, your operator can immediately:

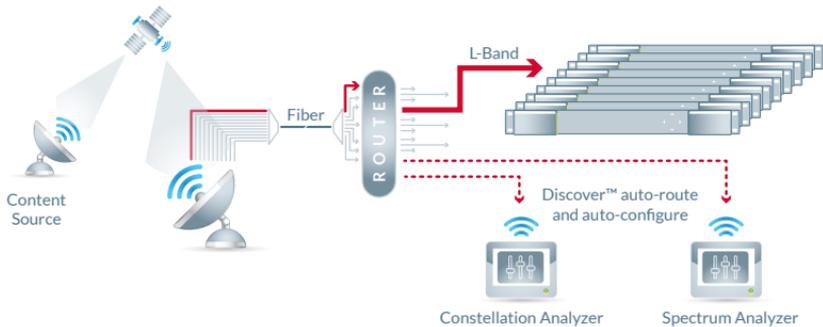
- Command an upstream RF router to route the feed to a spectrum analyzer; and
- Automatically tune the analyzer to the frequency the operator attempted to tune the receiver to.

➤ DISCOVER™ PLUS: CARRIER CONSTELLATION

What if your operator determines that the carrier is up but still can't lock on the feed? Using the Discover™ Constellation button on a receiver screen he can:

- Command an upstream RF router to route the feed to a constellation analyzer; and
- Automatically tune the analyzer to the same frequency of the receiver.

➤ DISCOVER™ SOLUTION ARCHITECTURE



Your operator is now armed with the information needed to take the appropriate action. Contact Crystal today to convert your network's information into actionable knowledge. Crystal's device-agnostic approach allows for visibility across your entire video-content landscape.

➤ HARDWARE OPTIONS AND INFORMATION

Crystal supports both current and legacy hardware regardless of the communication protocol used by the manufacturer. SNMP, RS232, RS422, RS475, GPIB, XML, SOAP and more are seamlessly managed by Crystal: Simplifying Complex Networks.

Supported Spectrum Analyzers: Crystal supports most spectrum analyzers including Agilent, Keystone, Hewlett-Packard, Avcom, LP Technologies, Rigel, Rohde & Schwarz, Keysight, Tektronix, and SED.

Routers: Crystal supports most router models including those made by ETL, Evertz, Harris, Leitch, PESA, and Quintech.

Video Receiver/Analyzer: Contact Crystal for pricing for their 1 RU Video Receiver/Analyzer for rapid carrier analysis. This solution quickly delivers modulation parameters, full PMT, all PID, and available services.



Crystal architects solutions for optimization and creates delivery mechanisms that ensure quality control. Crystal know-how and technology is the solution to connect complex, mission-critical environments on a global scale.



> CONTRIBUTION

Everyone's a content creator now—and effectively managing a myriad of incoming feeds is imperative for competitive success. From media companies and sports leagues to enterprises and individuals, contributors produce a flood of content that demands rapid and precise configuration, analysis, tagging, routing, storage, and access.



> PLAY OUT

Crystal takes the time to understand your unique needs and create an IT-based play out solution that seamlessly integrates the workflow across your network. This approach allows you to take advantage of the industry evolution towards delivering both linear and non-linear content to consumers.



> DISTRIBUTION

In a world of steadily growing content complexity, content distribution needs to remain agile, dependable, and flexible. Crystal is the leader in simplifying the flow of content across your network.



> OPERATIONAL RESILIENCY

The more complex multi-format content distribution evolves, the more opportunities for transmission interruptions. Crystal works with you to create a plan and build systems that anticipate and prepare for these eventualities before they happen.



> BUSINESS INTELLIGENCE

Building on knowledge of how your network is constructed and architected to run, Crystal puts all the information you care about in one place. This knowledge helps you understand how content is flowing across your network and determine how to maximize your investment.



Founded in 1986, Crystal designs and delivers network monitoring and management solutions that improve operational efficiency, analyze errors, and enhance system resiliency, particularly for businesses that deal with complex and dispersed distribution pathways. Every day, program and advertising content worth billions of dollars flows through equipment managed by Crystal for leading media, enterprise, and satellite customers – including Fox, CNN, Disney, and Intelsat. Crystal, a privately held company, is headquartered in Greater Atlanta, GA. For more information, please visit crystalcc.com.