RF Interface and Switching Solutions

Flexible and Reliable Solutions for Ground Stations & Automated Test (ATE) Applications

Overview

CELIS staff has extensive experience in designing ad-hoc RF interface and switching solutions according customer requirements. This is the essence of our skills since no two systems have exactly the same requirements. Some of our solutions are the results of tailored design for our customers.

Our RF interface and switching solutions are typically used in Satellite Ground Stations and Automated and Tests (ATE) applications for signals routing, distribution, amplification, attenuation, monitoring, filtering and frequency translation.

The units can provide additional functionalities by monitoring external signals or alarms and activation of external signals from/to external equipment thanks to the I/O interface. Typical applications are the inhibit and interlock functions normally found in the ground stations.
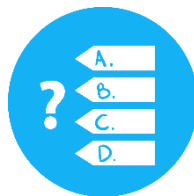
The units support local and remote operation through front panel and remote interface, respectively. In addition, a Web based MMI Interface is available.

Main Benefits

High Quality

High Quality Switching and RF components

Multiple Frequency Ranges

Frequency ranges according to customer requirements

Several Configurations

Custom configurations according to customer requirements

User Friendly

TouchPad GUI for easy operation and Web based MMI

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Key Features

- Custom configuration.
- Optimization of complex test configurations.
- Several frequency ranges available
- High quality RF components
- External signals monitoring and control
- Front panel Graphical User Interface
- Web based MMI
- Audible alarms and enable/disable controls
- Ethernet network interface
- 19-inch Rack mount chassis
- CE certified

CELIS Custom RF Switching Matrix for Satellite Test Applications

Technical Specifications

Technical Parameters	
Frequency Ranges	• Several frequency ranges according to customer requirements
Switches	• Technologies: solid-state, electromechanical • Types: SPDT, multiway, switching modules • Handling of different control interfaces
RF Components	• Dividers, combiners, couplers, splitters • Fix Attenuators, Step Attenuators • Filters • Mixers • Power detectors
Configuration	• Configurations tailored according to customer requirements • Switching, RF components or any combination of them
I/O Interface	• Input: Monitoring of signals or alarms from external devices • Output: Activation of control signals towards external devices • Interlock and inhibit functions supported
Local Monitoring and Control	• TouchPad Graphic User Interface (GUI) • Web based MMI • Audible alarms with enable/disable controls
Remote Monitoring and Control	• ASCII based protocol • Ethernet network interface
Connectors	• Coaxial connectors • Several types depending on frequency range • Impedance: 50 Ω or 75 Ω
Physical and Electrical	• 19-inch rack mount chassis • Height: depending on the configuration (2 RU minimum height) • Depth: 616 mm (including rear connectors) • CE certification

Options

- Engineering, Training & Support Services.

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