

MODEM COMMISSIONING SOLUTION

Overview

Streamline the modem commissioning process by eliminating the need for hub-side coordination and back-channel communications, making it faster and more cost-effective to deploy remote sites.

ST Engineering iDirect's modem commissioning solution is based on Satmotion developed by Integrasys. The software-based tool allows VSAT installers to autonomously line-up antennas and commission modems saving time and resources.

The software tool maximizes bandwidth efficiency while minimizing interference. Network operators and service providers can accurately point antennas the first time with one simple tool.

Optimized for ST Engineering iDirect modems, the commissioning solution is ideal for large network deployments or networks with itinerant terminals.

ST Engineering iDirect System Configuration

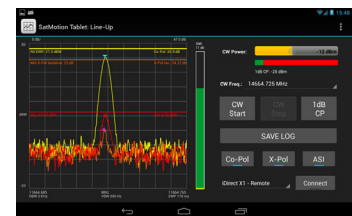
Connected to the hub is a Satmotion server, spectrum analyzer, and L-band switch. Multiple antennas and networks can be connected to

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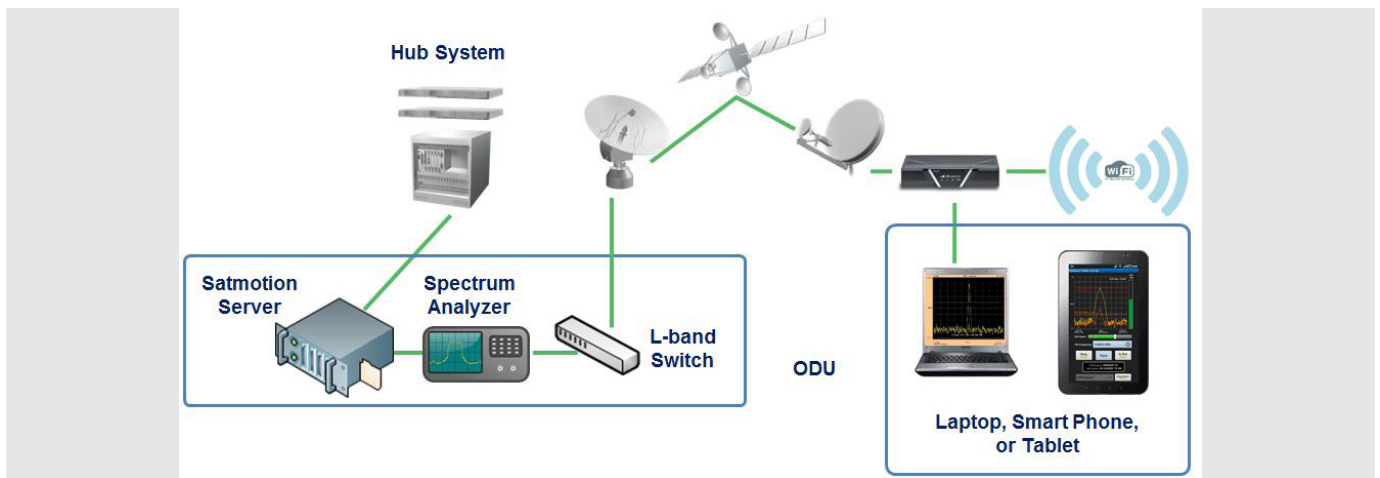


Solution Benefits

- Easy pointing and line-up
- Eliminate back-channel communications
- Reduce labor hours
- Minimize interference
- Intuitive graphical interface
- Software-based tool on handheld device

4 Easy Steps

1. Coarse pointing
2. Fine pointing
3. Cross-pol isolation
4. Automatic 1dB compression test



one L-band switch and one spectrum analyzer. Up to five simultaneous installations are permitted per spectrum analyzer with no limit on the total number of site installations.

On the modem-side, the antenna, BUC, and LNB are connected to a modem, which can be directly connected to a PC with an Ethernet cable or to an Android tablet or smart phone via Wi-Fi. Utilizing ST Engineering iDirect's persistent multicast, installers view data from the hubside spectrum analyzer on their portable device and are guided through the modem commissioning process.

The modem commissioning solution eliminates the need for real-time coordination between the VSAT installer and NOC personnel to line-up the antenna. The solution reduces the number of labor hours required, which can be a significant portion of the overall cost to commission modems. Service providers realize a faster return on investment as the number of commissioned modems increases.

For more information, please contact your Sales Representative at sales@idirect.net.

Step-by-Step Guide

To point the antenna, the VSAT installer sets his location and uses the software loaded on a portable device as a compass to temporarily lineup the antenna using the azimuth and elevation calculations. The actual and max signal-to-noise ratios (SNR) are displayed so the installer can fine point the antenna and acquire a reliable downstream transmission.

Once the line-up is complete, the installer references the software tool to minimize the cross-polarization and maximize the co-polarization by turning the orthomode transducer (OMT).

To minimize the adjacent satellite interference, the installer continues to adjust the OMT.

After the modem is placed in its final location, the VSAT installer initiates the 1dB compression test with a press of a button. The test automatically calculates the saturation point of the BUC, eliminating the manual process of gradually increasing the modem transmit power.

Upon completion, a log file is generated as a record of the installation.