

V-Series Software Modem

A fully DIFI-standard-compliant Software Modem.



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Our cloud-based Software Modem is the ideal solution for your global ground station networks, whether on-premises, or completely cloud-based.

The V-series software modem seamlessly receive or transmit digitized RF signals from/to our Digital Converters DBDC & DBUC.

V-series software modems are fully compliant with DIFI standard to receive/transmit digitized RF signals from/to DBDC/DBUC.

The fully software defined DVB-S2X demodulator is running on general-purpose hardware, which could replace a dedicated hardware demodulator.

Based on existing implementations and partially new designs, the dedicated exploitation of hardware-specific elements is expected in order to achieve bandwidths of 36 MHz and beyond, matching the application-specific requirements.

The logo for VIRTUAL GROUND STATION consists of a red graphic element at the top, which is a downward-pointing chevron or arrow shape. Below this graphic, the words "VIRTUAL" and "GROUND STATION" are stacked in a bold, black, sans-serif font.

Key Features

- Virtualized software modems with capabilities of WORK Microwave's A-series modems (AX/AT/AR-60/62) that supports wide range waveforms and symbol rates.
- Compliance with DVB-S2/S2X, CCSDS and ECSS standards
- Minimum 36 Msps symbol rate (higher symbol rates are optional)
- Minimum 36 MHz bandwidth support (larger bandwidths are optional)
- Support CCM, VCM and ACM
- Support Time Slicing (Annex-M ETSI EN 302 307-1)
- Full processing chain from digitized IQ samples to decoded BBFRAMEs over IP
- Web GUI, SNMP for remote control and automation purposes
- Support DIFI standard as RF over IP & cloud
- Modular design for future extension to different waveforms
- Can be customized fastly (as software based)
- Replaces dedicated hardware modems, brings modem as service model for multi-operational efficiency
- Without replacement of hardware, implementing new features and options (Multistream, multi-channel, high symbol rates)
- Designed for local and cloud deployment
- Running on CPU and/or GPU on consumer hardware platforms
- Lossless transport for IP networks with QoS (Quality of Service) and enough bandwidth.