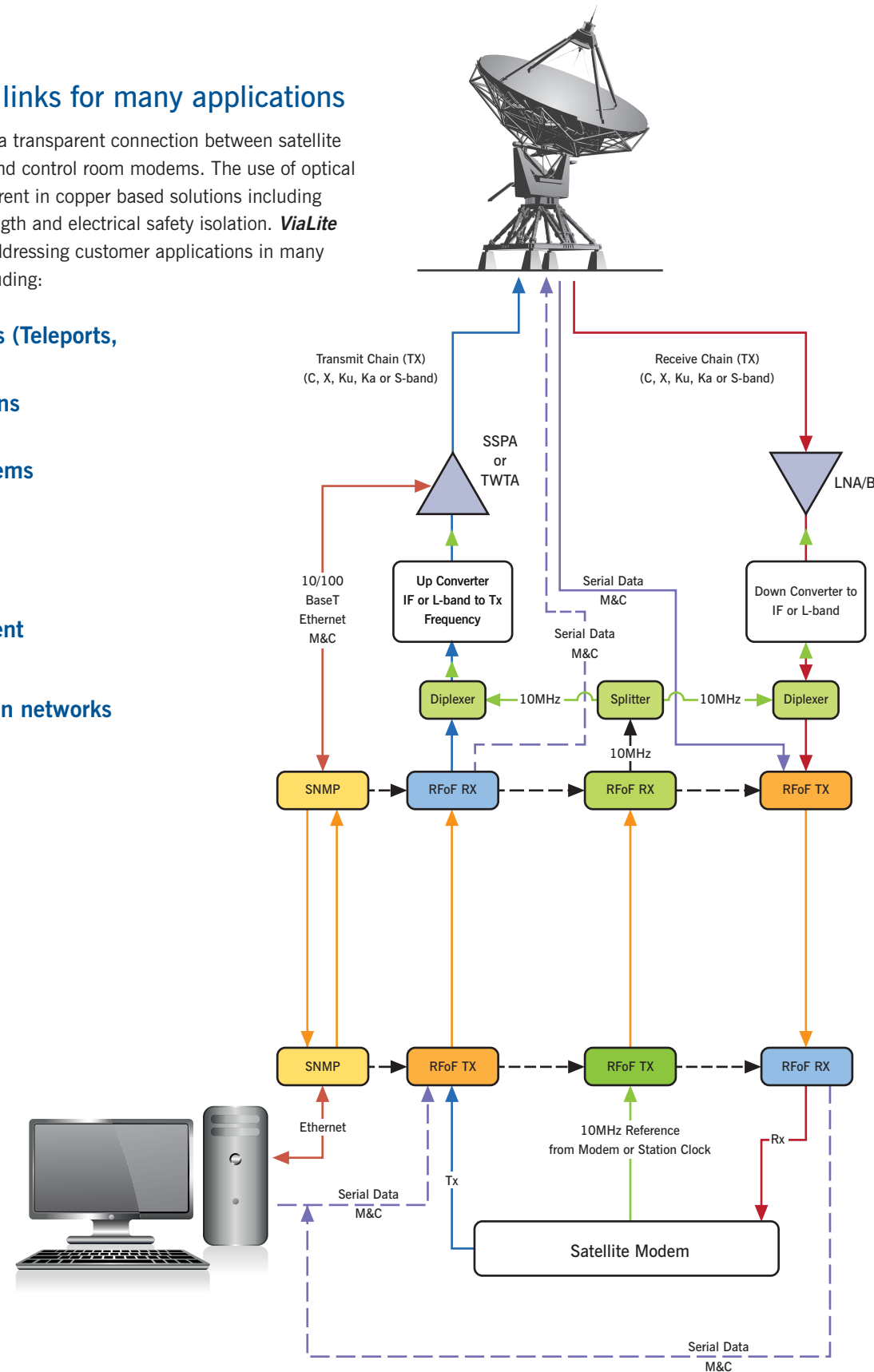


# Versatile fiber optic links for many applications

**ViaLite** fiber optic links create a transparent connection between satellite antenna up/down-converters and control room modems. The use of optical fiber overcomes problems inherent in copper based solutions including electrical interference, path length and electrical safety isolation. **ViaLite** has a proven track record in addressing customer applications in many satcom market segments, including:

- Fixed Satellite Stations (Teleports, Earth Stations)
- Mobile Satellite Stations (SNG, Military, Land)
- Broadband VSAT systems
- Broadcast centers
- Marine
- Oil & Gas Platforms
- OEM Satcom Equipment
- TVRO
- Military communication networks



# ViaLite in Satellite Communication



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# RF over fiber technology

In teleports and satellite ground stations, RF over fiber links are a superior alternative to copper coax for the inter-facility links needed to transport RF between the antennas and control rooms.

- Longer distances - links up to 600km
- Lightning protection
- Secure medium - cannot be tapped
- High dynamic range
- Simple to use (no extensive product training required)
- LNA/LNB power feeds
- LAN extensions
- Equipment control
- Reference signals

*In many locations site expansion has pushed conventional copper coax to its operational limit, resulting in signal attenuation, signal degradation and the requirement for costly amplifiers.*

## Any signal format

Direct intensity modulation means the RF signal is transferred between the electrical to the optical domain without frequency conversion or digitization. This results in very low noise and low distortion and means that almost any modulation format can be supported.

- Exceptionally low phase noise performance - suitable for narrowband schemes
- Used for uplinks and downlinks
- The **ViaLite** L-band link covers 700-2450MHz
- IF band covers 70/140MHz

## Redundancy

**ViaLite** switch and splitter modules mean a system can be fitted with full redundancy if required.

All **ViaLiteHD** 19" racks are fitted with dual power supplies to ensure reliability of power.

## Link Distances

- Standard links for 10km
- Long haul links for up to 600km

## Multiplexing

To minimise fiber count **ViaLite** CWDM and DWDM technology allows multiple signals to be transported over a single fiber.



**ViaLite** ODE range of weatherproof outdoor enclosures

## Blind Mate

The optional blind mate connectivity of **ViaLite** rack equipment means the optical and electrical interface is integrated into the rack. This means RF modules can be removed and replaced in seconds without the need for any wiring changes. Moreover, the **ViaLiteHD** SNMP module can automatically ensure a replacement card mirrors the settings of its predecessor to make for fast and easy hot-swapping.

## Monitor and Control

**ViaLite** SNMP module allows monitor and control of all module parameters via a web browser.

## Gain management

**ViaLite** allows three methods of gain control:

- AGC (Automatic Gain Control)
- Software control (user controls the gain of each module via SNMP)
- Hardware control – DIP switches on each module are used to determine gain settings

## Wide Dynamic Range

Industry leading dynamic range means **ViaLite** links offer superb performance over a wide range of input signal levels without the need for time-consuming setup procedures.



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