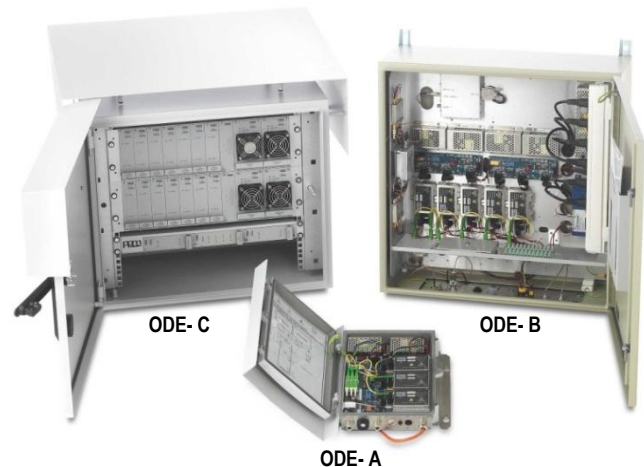


Outdoor Enclosures

- **Compatible with all ViaLite RF & Data OEM or Plug-in Modules**
- **IP rated and NEMA Approved**
- **Highly reliable and suitable for use in harsh environments**
- **Highly integrated design based on modular configuration**
- **Dual redundant power supplies**
- **All modules are hot swappable in the field without service interruption**
- **Wide range of RF and Serial Digital services supported**
- **LNA/LNB & BUC voltage feeds and 10MHz Sync feed**
- **Interfaces with M&C systems for remote monitoring**
- **External heart beat indicator**
- **On board diagnostics card or module**
- **SNMP Network Control Module Compatible**
- **CE Approved**

Flexible Range of Enclosures

The **ViaLite** suite of Outdoor Enclosures (ODE) provides a cost-effective transmission solution for RF and data communications over fiber in environmentally harsh conditions. **ViaLite** ODE's can be wall or pole mounted, with a range of connectivity options. Power supply feed and fiber optic cable connection can be permanent for fixed installations, or connectorized for rapid field deployment. To maximise reliability in critical systems, dual redundant hot-swappable power supplies can be fitted.



ODE-A (3 Channels)

The three-channel ODE-A is a very compact enclosure installed on roof-tops or at antenna hubs, where dual or redundant off-air native RF and serial digital services are transmitted over optical fiber from the receiving antenna to the remote equipment room. Typical antenna remoting sites also benefit from the electrical isolation offered by optical fiber, safeguarding the main indoor equipment against lightning strike. Where customer installed antennas are used the ODE-A provides standard 5V or 12V LNA feeds. VSAT installations utilise the ODE-A for circumstances where the two-way antenna is remote from the receiver. At secure and sensitive signal intelligence (SIGINT) sites, **ViaLite** ODE's safe-guard against NEMP strikes and TEMPEST / eavesdropping.

ODE-B (6-8 Channels)

Operation of antenna hubs at Earth Stations, Teleports or in marine installations requires a range of expensive service support equipment to be housed as close to the antenna as possible. To reduce this overhead, the six channel ODE-B was designed to allow **ViaLite** fiber optic modules and customer specified peripheral equipment to be integrated within the enclosure, which can then be mounted on or near the antenna.



The **ViaLite** ODE-B is used by the Marine industry in TVRO systems on-board various vessels to deliver a fiber subsystem that interfaces with a quattro LNB and below deck rack equipment, as well as providing M&C over fiber and an LNB switching capability of 13V / 18V.

Within the SatCom Industry the ODE-B has produced significant levels of integration and cost reduction in the development of a new Earth Station to support the rollout of infrastructure for the emerging Galileo GPS global network. In cases where Service Providers or Satellite Operators wish to distribute services over a number of remote sites in 'star' or 'chain' type networks it is possible to achieve this using the **ViaLite** ODE-B to integrate Passive Optical Network (PON) components such as optical splitters, tap-couplers and OADMs. Where fiber access is limited, or services are delivered over leased fiber, economies of scale can be achieved by using the **ViaLite** optical multiplexing platforms of WDM or CWDM.

The ODE-B has also been deployed in Earth Stations where it has been commissioned together with **ViaLite** 19" rack based equipment in control rooms. Together these form a complete optical subsystem for the SatCom up/down links, 10MHz reference signals for BUC and LNB synchronisation, and BUC and LNB voltage feeds.

ODE-C (30 Channels with *ViaLite* Classic chassis, 90 channels using *ViaLiteHD* chassis)

Network Operators and Service Providers rely on the ODE-C to centrally house **ViaLite** Fiber Optic 19" rack equipment at outdoor sites such as metro locations or service tunnels. This environmentally sealed enclosure is a swing-frame case, enabling effective service access to the front and rear of the rack equipment, even when the enclosure is wall mounted. The ODE-C can also host other third party rack equipment.

Installation Examples



On the left the ODE-A is shown pole-mounted with an OEM mounting plate swung open to reveal fiber splice tray.

In the example on the right electrical and optical connectivity is found to the rear of the swing-frame ODE-C. Racks and Modules are loaded at the front.



An *in-situ* ODE-B is shown on the left at a SatCom facility. The installation is achieved in a small footprint that includes other outdoor equipment next to the antenna that requires fiber optic services. Shown on the right is a close up of another ODE-B example where the base plate has five of the six OEM slots populated with L-band and serial data modules. In addition customer specified BUC & LNB power supplies and RF switching has been integrated.



Technical Specifications

	ODE-A Small Enclosure	ODE-B Large Enclosure	ODE-C Swing Frame Enclosure
Part Number	75010 (needs OEM modules to be specified separately)	70009 (needs additional 700xx populated chassis plate to be added)	96015 (needs additional standard 19" rack mount equipment to be added)
Number of RF channels	1 to 3	1 to 6	1 to 30 (using ViaLite Classic chassis) 1 to 90 (using ViaLiteHD chassis)
Physical Specifications			
IP Rating	IP65	IP66	IP55
External Dimensions (H:W:D)	295mm : 212mm : 74mm	600mm : 600mm : 220mm	500mm : 600mm : 575mm (Internal space allows 10U of 19" racks)
Weight (enclosure without modules)	2.5 kg	20.5 kg	31.5 kg
Material	LM99 Aluminium RAL7035	Steel 1.5mm RAL 7035	Steel 1.5mm RAL 7035
User Interface			
RF Input / Output Connectors	50Ω N – Type Female, weather proof (options for F –Type, weather proof and LEMO 5 pole OB shell)	6 x 50Ω N – Type Female, weather proof (options for F –Type, weather proof and LEMO 5 pole OB shell and custom options)	Integral 5 way IEC60320 mains distribution with top or bottom cable entry
Optical Fiber Connections			
Permanent	Multicore optical cable to fit PG7 gland (IP68) / Fastline cross site cable	2 x Multicore optical cable to fit PG7 gland (IP68) / Fastline cross site cable	2 x Multicore optical cable to fit PG7 gland (IP68) / Fastline cross site cable
Connectorised	LEMO 3K - two single mode channels	LEMO 3K - two (or more) single mode channels	N/A
Power Supply Connections			
Permanent	PG11 (IP68) gland / Fastline	2 x PG11 (IP68) gland / Fastline	PG11 gland (IP68) / Fastline
Connectorised	LEMO TBD / XLR	LEMO TBD	N/A
User Adjustment Available	Redundancy switch mode (jumper selection) LNA feed mode (jumper selection)	Redundancy switch mode (jumper selection) LNA feed mode (jumper selection)	Swing frame allows easy access to front and rear of 19" chassis to make any adjustments
Electrical Specifications			
Power Distribution		IEC60320/C13 socket with AC input via ST18	IEC60320/C13 socket with AC input via ST18
Supply Voltage Options			
100-264 VAC	/	/	/
-48 VAC	/	/	/
24 VAC	/	/	/
12 VAC	/	/	-
LNA Feed Options			
5V @ 50mA	/	/	/
12V @ 50mA	/	/	/
	Customs options also available	Customs options also available	Customs options also available
BUC Supply Voltage Options			
12V to 48V	/	/	/
		Customs options also available	
Alarm Indications			
Indicator Type	External LED (heart beat indicator)	2 x External LEDs (heart beat indicators)	Module LED indicators in 19" chassis
Channels Monitored	PSU voltage rail Digital module alarms Analogue monitors	PSU voltage rail Digital module alarms Analogue monitors	PSU voltage rail Digital module alarms Analogue monitors
SNMP (optional)	N/A	/	/
Environmental Specifications			
Operating Temperature Range	-40°C to +60°C	-20°C to +60°C	-20°C to +60°C
Storage Temperature Range	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Climate Control	Humidity Ventilator	Humidity Ventilator	

Standard Option Part Numbers

	ODE-A Small Enclosure	ODE-B Large Enclosure	ODA-C Swing Frame Enclosure
Heater for cold start	76193 (AC version) / 76146 (DC version)	70022	Custom
Solar Shield	70001	TBD	70019
Lightning Suppressor	70006	70006	Custom
Pole Mount Kit	70004-21 (15-21mm pole diameter) 70004-34 (15-21mm pole diameter) 70004-48 (15-21mm pole diameter) 70004-60 (15-21mm pole diameter) 70004-90 (15-21mm pole diameter) 70004-115 (15-21mm pole diameter) 70004-168 (15-21mm pole diameter)	N/A	N/A
Wall Mount Kit	70002	TBD	Custom
RF Splitter Compatible	/	/	/
RF Switch Compatible	/	/	/
3 Way RF Splitter Compatible	/	/	/
GPS Antenna	70005	70005	70005
Fastlane Cross Site Cable Compatible	/	/	/
Bias T DC Injector for LNB/BUC Power	70021	70021	70021
Other Features		Lockable Left or right hand hinged door Earthing Kit	Lockable Left or right hand hinged door Earthing Kit AC power distribution

Module Options

All **ViaLite** ODE's are supplied with the necessary electronics and cables to interface with the RF and Data modules that fulfil your system communication needs.

To design and specify your functional ODE chose from the complete range of **ViaLite** service modules such as transmitters, receivers, transceivers (covering numerous RF bandwidths), serial data and Ethernet. Modules that perform splitting and switching functions are also available to help you to design redundancy into your system. The service modules come in two distinctive formats. A plug-in format for standard rack mount solutions in the ODE-C and an OEM format for use in either the ODE-A or ODE-B.

Please refer to the separate specific datasheets for the performance data of the service modules you are interested in using. To see the full range visit www.vialite-usa.com.