- *Ingress protection ratings up to IP66*
- *NEMA Approved*
- *Suitable for use in harsh environments*
- *Integrated dual redundant power supplies.*
- *Interfaces with SNMP systems for remote monitoring*
- *External heart beat indicator*
- *Integrated diagnostics options*
- *CE Approved*
- *Ability to Integrate existing customer equipment*
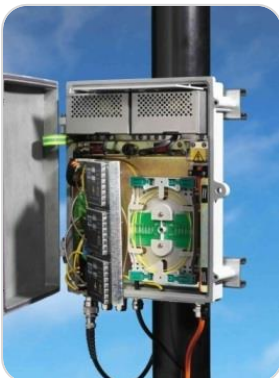- *19" rack or OEM module format options*

Flexible Range of Outdoor Enclosures

With ingress protection ratings of up to IP66, the *ViaLite* suite of outdoor enclosures provides a cost-effective solution for housing RF and data communications over fibre in environmentally harsh conditions. *ViaLite* enclosures can be used to house RF over fibre equipment outdoors together with existing customer equipment such as LNA/LNB & BUC power supplies and monitor/control equipment, therefore avoiding the need to construct a bespoke outbuilding

- Free-standing, wall or pole mounted
- Available for *ViaLite* and *ViaLiteHD*
- Wide range of fibre and electrical connectivity options including waterproof and pre-terminated
- Connections can be permanent for fixed installations, or connectorised for rapid field deployment.
- Dual redundant, hot-swappable power supplies to maximise reliability in critical systems

ODE-A (up to 3 Channels)

The three-channel ODE-A is an 295mm x 212mm x 74mm aluminium enclosure with an ingress protection rating of IP65. These enclosures are typically installed on roof-tops or at antenna hubs where RF and serial digital services are transmitted over optical fibre to a remote equipment room. This compact unit houses up to three *ViaLite* OEM modules plus a fibre management tray (if required) and dual redundant power supplies.

Where customer installed antennas are used the ODE-A provides standard 5V or 12V LNA/LNB 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.

Pole-mounted ODE-A
showing fibre splice tray

CE

Due to our policy of continuing product development, these specifications are subject to change and improvement without notice.

ODE-B (up to 6 Channels)

The ODE-B is a 600mm x 600mm x 220mm steel enclosure with an ingress protection rating of IP66. Designed to supporting the need for service equipment to be housed as close to the antenna as possible, this unit can accommodate up to eight *ViaLite* OEM fibre optic modules plus multiple ancillary modules and customer equipment such as dual power supplies , RF switching and bias-T's. The ODE-B is a versatile enclosure widely used in installations such teleports, earth stations and in the marine industry.

ODE-B at a SatCom facility

ODE-B – with five modules plus integrated power & RF switching

Using the *ViaLite* ODE-B to integrate Passive Optical Network (PON) components such as optical splitters, tap-couplers and Optical Add/Drop Multiplexers (OADMs), it is possible to distribute services over a number of remote sites in 'star' or 'chain' type networks. The ODE-B is typically used together with *ViaLite* 19" rack based equipment installed in control rooms. Together these form a complete optical subsystem for communication links.

ODE-C (up to 32 *ViaLite* Classic Channels / up to 104 *VialiteHD* channels)

The ODE-C is a 610mm x 600mm x 640mm environmentally sealed enclosure with an ingress protection rating of IP55 in a swing-frame case which enables access to the front and rear of the rack equipment, even when the enclosure is wall mounted. This unit can accommodate up to 104 channels when using *ViaLiteHD* and can also host third party rack equipment[1]

Network Operators and Service Providers rely on the ODE-C to centrally house *ViaLite* Fibre Optic 19" rack equipment at outdoor sites such as metro locations or service tunnels.

Connectivity at the rear of the ODE-C

ODE-D and ODE-D+ (up to 67 *ViaLite* Classic Channels / up to 214 *VialiteHD* channels[2])

Air-conditioned ODE-D+ enclosure

The *ViaLite* ODE-D series of free-standing, outdoor steel cabinets provide 25U of 19" rack space with an ingress protection rating of IP55 to house RF over fibre and customer equipment. The external dimensions are 1550 x 850 x 725mm. The ODE-D+ incorporates air conditioning. The enclosure design provides easy access to the installed equipment via the front, rear and also the top.

With such a large amount of rack space the *ViaLite* ODE-D series of outside enclosures can be used to integrate an extensive amount of customer equipment[1] therefore providing a cost effective alternative to the construction of a costly outbuilding.

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[1] *Dependent on number of **ViaLite** Racks Fitted.*

[2] *The channel capacity specified for the ODE-D series of enclosures is a figure of merit. A typical installation is likely also to include ViaLite support/ancillary modules and customer equipment, consequently reducing the space available for RF equipment.*
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Technical Specifications

	ODE-A Small Enclosure	ODE-B Large Enclosure	ODE-C Swing Frame Enclosure	ODE-D/D+ Free Standing Cabinet
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)	75100 ODE-D+ 75101 ODE-D
Number of RF channels	1 to 3	1 to 6	up to 30 using *ViaLite* Classic up to 90 using *ViaLiteHD*	up to 67 using *ViaLite* Classic up to 214 using *ViaLiteHD*
Physical Specifications				
IP Rating	IP65	IP66	IP55	IP55
External Dimensions (H:W:D)	295mm : 212mm : 74mm	600mm : 600mm : 220mm	610mm : 610mm : 640mm	1550mm: 850mm:725mm
19" Rack Space	N/A	N/A	12U	25U
Weight (enclosure without modules)	2.5 kg	20.5 kg	31.5 kg	159 kg ODE-D 180kg ODE-D+
Material	LM99 Aluminium RAL7035	Steel 1.5mm RAL 7035	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	20N type female weatherproof OR 20N type + lightning protection
Optical Fibre 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	2 x Multicore optical cable to fit PG7 gland (IP68) / Fastline cross site cable
Optical Fibre Connections — Connectorised	LEMO 3K - two single mode channels	LEMO 3K - two (or more) single mode channels	N/A	N/A
Power Supply Connections — Permanent	PG11 (IP68) gland / Fastline	2 x PG11 (IP68) gland / Fastline	PG11 gland (IP68) / Fastline	Provision for two "commando" (blue) IP44 250v 32A connectors
Power Supply Connections — 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 access to front and rear	Full rear access via integrally locked door
Electrical Specifications				
Power Distribution		IEC60320/C13 socket with AC input via ST18	IEC60320/C13 socket with AC input via ST18	IEC60320/C13 socket with AC input via ST18
Supply Voltage Options — 100-264 VAC	✓	✓	✓	✓
Supply Voltage Options — -48 VAC	✓	✓	✓	✓
Supply Voltage Options — 24 VAC	✓	✓	✓	✓
Supply Voltage Options — 12 VAC	✓	✓		
LNA Feed Options — 5V @ 50mA	✓	✓	✓	✓
LNA Feed Options — 12V @ 50mA	✓	✓	✓	✓
	Custom options also available	Custom options also available	Custom options also available	Custom options also available
BUC Supply Voltage Options — 12V to 48V	✓	✓ Custom options also available	✓	✓ Custom 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	PSU voltage rail Digital module alarms Analogue monitors
SNMP (optional)	No	✓	✓	✓
Environmental Specifications				
Operating Temperature Range	-40°C to +60°C	-20°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	-40°C to +70°C
Climate Control	Humidity Ventilator	Humidity Ventilator		Air Conditioning (ODE-D+ only)

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Standard Option Part Numbers

	ODE-A Small Enclosure	ODE-B Large Enclosure	ODA-C Swing Frame Enclosure	ODE-D/D+ Free Standing Cabinet
Heater for cold start	76193 (AC version) / 76146 (DC version)	70022	Custom	75100 (ODE D+) is climate controlled
Solar Shield	70001	70031	70019	Integral to design
Lightning Suppression	70006	70006	Custom	Integral 20 x 51644 (DC-6GHz)
Pole Mount Kit	70004-21 (15-21mm pole dia) 70004-34 (15-21mm pole dia) 70004-48 (15-21mm pole dia) 70004-60 (15-21mm pole dia) 70004-90 (15-21mm pole dia) 70004-115 (15-21mm pole dia) 70004-168 (15-21mm pole dia)	N/A	N/A	N/A
Wall Mount Kit	70002	TBD	Custom	N/A
RF Splitter Compatible	∫	∫	∫	∫
RF Switch Compatible	∫	∫	∫	∫
3 Way RF Splitter Compatible	∫	∫	∫	∫
GPS Antenna	70005	70005	70005	70005
Fastline Cross Site Cable Compatible	∫	∫	∫	∫
Bias T DC Injector for LNB/BUC Power	70021	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	All panels and doors lockable. Plinth is tamperproof
Access	Front	Front	Front / Rear	Front / Rear / Top

Module Options

All *ViaLite* ODE's are supplied with electronics and cabling to interface with the ViaLite modules in your system.

To design and specify your functional ODE choose from the complete range of *ViaLite* service modules such as transmitters, receivers, transceivers, 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 19" rack mount solutions in the ODE-C and ODE-D/D+
- OEM format for use in either the ODE-A or ODE-B.

For specific performance data, please refer to the datasheet for each *ViaLite* module. To see the full range visit www.vialite.com .