REAL TIME SUBSEA OPTICAL TESTING

- OPTI-plus OTDR – 60KM+
- Multiple FO cores simultaneously or singular
- Single Mode and Multi Mode
- Light and dark fibres
- Live Surface data
- Multiple Frequency
- Budget Line loss, attenuation, multiple events
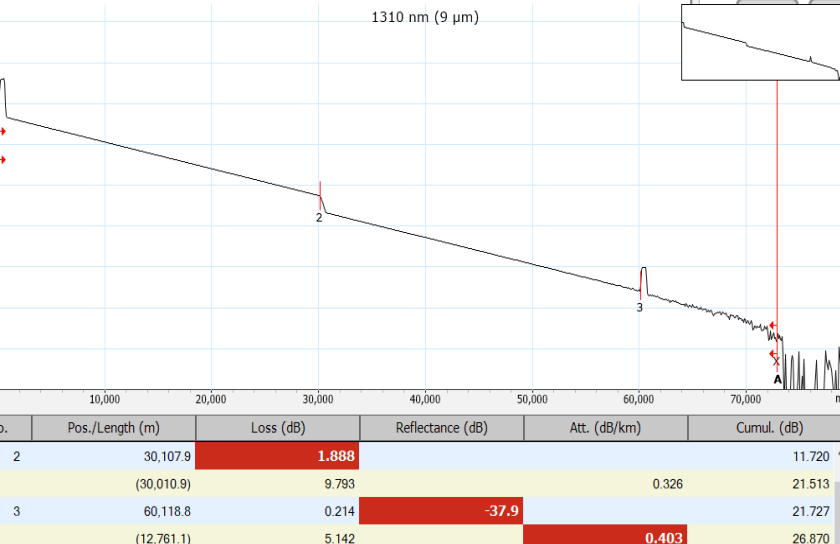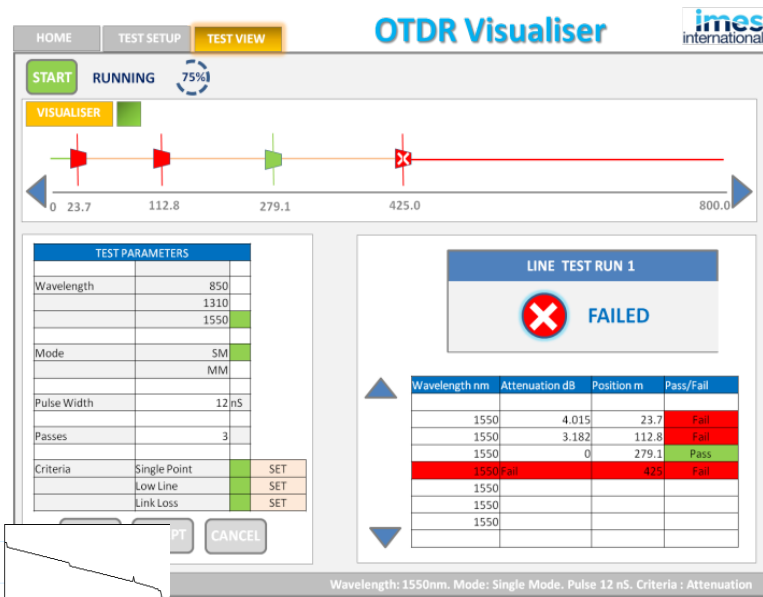- Intuitive Interface and error reporting
- Live OTDR Trace

ROV Deployed Surface Controlled Live Data Feed

IMES
Pryme Group

Map of Fibre Line shows all events & positions;

- Links
- Splices
- Connectors
- Terminations
- Bends and Constrictions
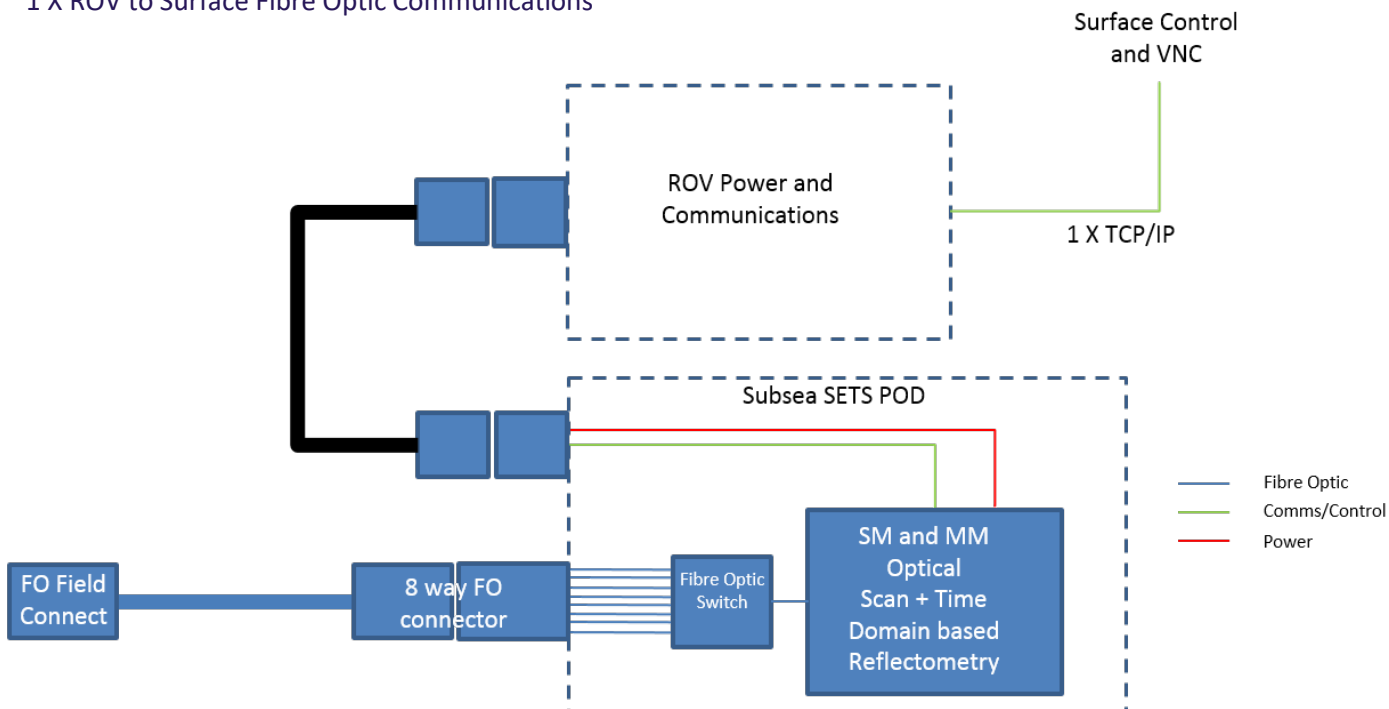
Link Attenuation
Link Optical Return Loss (ORL)

OTDR Visualiser

HOME	TEST SETUP	TEST VIEW

START RUNNING 75%

VISUALISER

0	23.7	112.8	279.1	425.0	800.0

TEST PARAMETERS

Wavelength	850
	1310
	1550
Mode	SM
	MM
Pulse Width	12 nS
Passes	3
Criteria	Single Point	SET
	Low Line	SET
	Link Loss	SET

ACCEPT   CANCEL

LINE TEST RUN 1

❌ FAILED

Wavelength nm	Attenuation dB	Position m	Pass/Fail
1550	4.015	23.7	Fail
1550	3.182	112.8	Fail
1550	0	279.1	Pass
1550 Fail		425	Fail
1550			
1550			
1550			

Wavelength: 1550nm. Mode: Single Mode. Pulse 12 nS. Criteria : Attenuation

1310 nm (9 µm)

Live trace of fibre line;

Point attenuations
Reflections
Link Attenuation
Link Optical Return Loss (ORL)

p.	Pos./Length (m)	Loss (dB)	Reflectance (dB)	Att. (dB/km)	Cumul. (dB)
2	30,107.9	1.888			11.720
	(30,010.9)	9.793		0.326	21.513
3	60,118.8	0.214	-37.9		21.727
	(12,761.1)	5.142		0.403	26.870

OPTIplus Datasheet

Specification

Specification	Rating	Notes
Depth (POD)	3000MSW	
Power (POD)	110VAC 3A	
Communications (POD)	TCP/IP 10/100 VNC RS485/RS422 serial	
Connection	25 Way Burton	POD to ROV
Field Connect	To suite field, max 8 way fibre	Teledyne ODI Hybrid
OTDR Test Distance	0.1 to 60kM (40kM Multimode)	Dependant on line Attenuation
Number of lines	8 Fibre	
Mode	Single Mode/Multi Mode (SM/MM)	
Wavelength	850,1300,1310,1550	Quad capability
Pulse width	Variable, 3-20,000 Nano seconds	
Resolution (distance)	0.04m to 5m samples	User choice
Scan time	Variable	Dependant on cable length and chosen resolution.
Dynamic Range dB	27/29/36/35	
Uncertainty (Distance) m	Variable	(Distance X 0.0025%) + 0.75 + Resolution (distance)
Data	Cable status display, attenuation points, distances, reflections, ORL	Visual line display and textual information
Criteria	Pass and Fail based on Attenuation	Visual Indication
Temp, Operating	-10° to 50°C	-20° to 55°C Storage

Connection Requirement

1 X 110Vac 3A from ROV to OPTIplus pod
1 X ROV to Surface Fibre Optic Communications

OPTIplus Datasheet

Software

- PC Based Software
- Ethernet TCP IP Communications
- Windows 7,8 10
- Full remote test setup and start stop control
- Live (Near Real time) data trend
- IEC standard pass fail criteria (manual client criteria option)
- Visualiser shows visual Map of results and status
- Auto Report generation
- Data Export

OTDR Visualiser

| HOME | TEST SETUP | TEST VIEW |

START RUNNING 75%

VISUALISER

0 23.7   112.8   279.1   425.0   800.0

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		1550
Mode		SM
		MM
Pulse Width		12 nS
Passes		3
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	Link Loss	SET

DEFAULT ACCEPT CANCEL

LINE TEST RUN 1

FAILED

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×	72,880.0	---			26.870

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