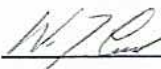


**CERTIFICATE OF CONFORMITY/RELEASE**Certificate: **MARS CTA 02** iss1

This is to certify that the Products/Services listed below are conforming to the requirements of the contract and specifications as shown:

Contract: MARS			
Customer: Monterey Bay Aquatic Research Institute			
Contract ref	Description	Ref/Serial no.	Quantity
N/A	Cable Termination Assembly	29E-HC00-800-AAA / 02	1
Specification & Issue Status: 29D DE00 800 AAA Edition 04			
Concessions/Notes/Deficiencies:			
For Alcatel: Alcatel Submarine Networks Ltd Christchurch Way London SE10 0AG UK		Signature: <u></u> Name: <u>W. J. Connors</u> Date: <u>25/10/04</u>	
For Purchaser (where applicable): The signing of this Release Certificate by the Purchasers does not remove any responsibility from the supplier for the supply of these items or associated equipment in accordance with the contract/specification stated above.		Signature: _____ Name: _____ Date: _____	

CTA Performance Report

Sheet: 1 / 1

System: MARS

Connector Harness no: 10133239 - 2

Issue: 01

Test Box / Loopback Box ref No's: 1033243-1 / 1029909-2

Date: 21/10/04

Housed Unit: 29E-HC00-800-AAA

Customer Identification: 02

ETS Ref.		Result	Unit
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Continuity test

4.4	Live Feed resistance	-0.064	Ohm
4.4	System Ground resistance	0.502	Ohm

Leakage Current Test

4.5.1	HV Leakage (Live Feed +ve)	13	nA
4.5.1	HV Leakage (Live Feed -ve)	-13	nA

Optical Insertion Loss at 1550nm (penetrator to penetrator using loopback test box)

4.3	Bk+Yl (1+2) CTA Loss	-0.14	dB
4.3	Yl+Bk (2+1) CTA Loss	-0.13	dB
4.3	Rd+Bn (3+4) CTA Loss	0.16	dB
4.3	Bn+Rd (4+3) CTA Loss	0.15	dB
4.3	Bl+Or (5+6) CTA Loss	0.20	dB
4.3	Or+Bl (6+5) CTA Loss	0.20	dB
4.3	Gn+Pk (7+8) CTA Loss	0.07	dB
4.3	Pk+Gn (8+7) CTA Loss	0.11	dB

Mechanical Tests

4.6.1	Gland sub assembly electrical/pressure test	Pass	Pass/Fail
4.6.2	ODI penetrator O-seal integrity pressure test	Pass	Pass/Fail
4.6.3	Main bulkhead O-seal integrity pressure test	Pass	Pass/Fail

FOR QC:

DATE:

25/10/04



SUBMARINE NETWORKS

FOR QA:

DATE:

25/10/04

Connector Harness Acceptance Report

Sheet: 1 / 1

System: MARS

Connector Harness no: 10133239 - 2

Issue: 01

Test Box / Loopback Box ref No's:

1033243-1 / 1029909-2

Date: 21/10/04

Housed Unit: 29E-HC00-800-AAA

Customer Identification: 02

ETS Ref.		Result	Unit
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Continuity test

4.1.1	Live Feed resistance	0.77	Ohm
4.1.1	System Ground resistance	0.80	Ohm

Leakage Current Test

4.1.2	HV Leakage (Live Feed)	25	nA
4.1.2	HV Leakage (System Gnd)	17	nA

Optical Insertion Loss at 1550nm (penetrator to penetrator using loopback test box)

4.2.1	Bk-Yl (1-2)	0.44	dB
4.2.1	Yl-Bk (2-1)	0.40	dB
4.2.1	Rd-Bn (3-4)	0.17	dB
4.2.1	Bn-Rd (4-3)	0.16	dB
4.2.1	Bl-Or (5-6)	0.13	dB
4.2.1	Or-Bl (6-5)	0.16	dB
4.2.1	Gn-Pk (7-8)	0.25	dB
4.2.1	Pk-Gn (8-7)	0.29	dB

FOR QC:



DATE:

25/10/04



SUBMARINE NETWORKS

FOR QA:



DATE:

25/10/04

**CERTIFICATE OF CONFORMITY/RELEASE**Certificate: **MARS CTA 01** iss1

This is to certify that the Products/Services listed below are conforming to the requirements of the contract and specifications as shown:

Contract: MARS			
Customer: Monterey Bay Aquatic Research Institute			
Contract ref	Description	Ref/Serial no.	Quantity
N/A	Cable Termination Assembly	29E-HC00-800-AAA / 01	1
Specification & Issue Status: 29D DE00 800 AAA Edition 04			
Concessions/Notes/Deficiencies:			
For Alcatel: Alcatel Submarine Networks Ltd Christchurch Way London SE10 0AG UK		Signature: <u>W. J. Connor</u> Name: <u>W. J. Connor</u> Date: <u>25/10/04</u>	
For Purchaser (where applicable): The signing of this Release Certificate by the Purchasers does not remove any responsibility from the supplier for the supply of these items or associated equipment in accordance with the contract/specification stated above.		Signature: _____ Name: _____ Date: _____	

CTA Performance Report

Sheet: 1 / 1

System: MARS

Connector Harness no: 10133239 - 1

Issue: 01

Test Box / Loopback Box ref No's:

1033243-1 / 1029909-2

Date: 04/10/04

Housed Unit: 29E-HC00-800-AAA

Customer Identification: 01

ETS Ref.		Result	Unit
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Continuity test

4.4	Live Feed resistance	-0.085	Ohm
4.4	System Ground resistance	0.470	Ohm

Leakage Current Test

4.5.1	HV Leakage (Live Feed +ve)	6	nA
4.5.1	HV Leakage (Live Feed -ve)	-8	nA

Optical Insertion Loss at 1550nm (penetrator to penetrator using loopback test box)

4.3	Bk+Yl (1+2) CTA Loss	-0.13	dB
4.3	Yl+Bk (2+1) CTA Loss	-0.13	dB
4.3	Rd+Bn (3+4) CTA Loss	0.05	dB
4.3	Bn+Rd (4+3) CTA Loss	0.05	dB
4.3	Bl+Or (5+6) CTA Loss	0.00	dB
4.3	Or+Bl (6+5) CTA Loss	0.03	dB
4.3	Gn+Pk (7+8) CTA Loss	-0.07	dB
4.3	Pk+Gn (8+7) CTA Loss	-0.03	dB

Mechanical Tests

4.6.1	Gland sub assembly electrical/pressure test	Pass	Pass/Fail
4.6.2	ODI penetrator O-seal integrity pressure test	Pass	Pass/Fail
4.6.3	Main bulkhead O-seal integrity pressure test	Pass	Pass/Fail

FOR QC:

DATE:

25/10/04



SUBMARINE NETWORKS

FOR QA:

DATE:

25/10/04

Connector Harness Acceptance Report

Sheet: 1 / 1

System: MARS

Connector Harness no: 10133239 - 1

Issue: 01

Test Box / Loopback Box ref No's:

1033243-1 / 1029909-2

Date: 21/10/04

Housed Unit: 29E-HC00-800-AAA

Customer Identification: 01

ETS Ref.		Result	Unit
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Continuity test

4.1.1	Live Feed resistance	0.90	Ohm
4.1.1	System Ground resistance	0.78	Ohm

Leakage Current Test

4.1.2	HV Leakage (Live Feed)	18	nA
4.1.2	HV Leakage (System Gnd)	16	nA

Optical Insertion Loss at 1550nm (penetrator to penetrator using loopback test box)

4.2.1	Bk-Yl (1-2)	0.17	dB
4.2.1	Yl-Bk (2-1)	0.19	dB
4.2.1	Rd-Bn (3-4)	0.58	dB
4.2.1	Bn-Rd (4-3)	0.59	dB
4.2.1	Bl-Or (5-6)	0.21	dB
4.2.1	Or-Bl (6-5)	0.18	dB
4.2.1	Gn-Pk (7-8)	0.14	dB
4.2.1	Pk-Gn (8-7)	0.16	dB

FOR QC:

DATE:



SUBMARINE NETWORKS

FOR QA:

DATE: