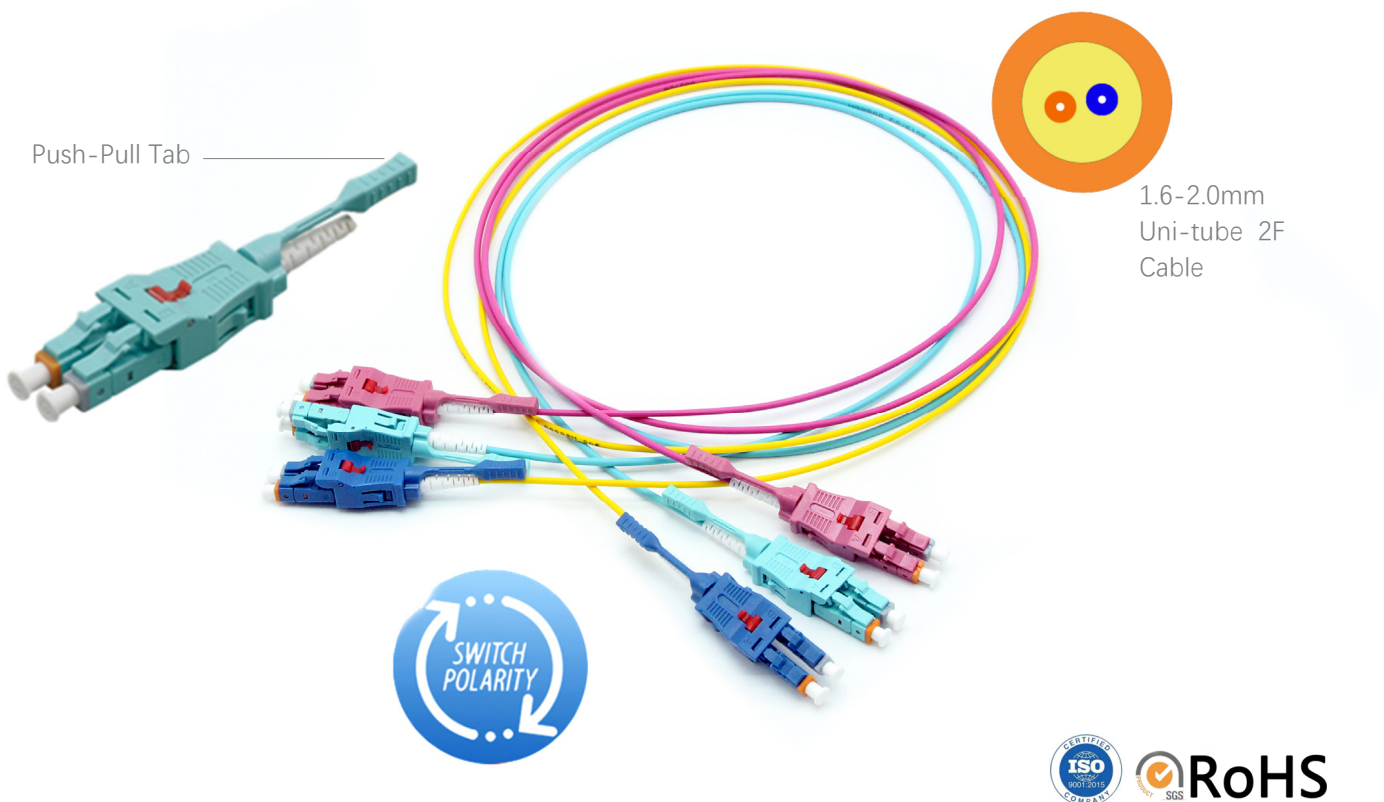


DATA SHEET

Polarity Switchable Uniboot LC-LC Duplex with Push-Pull Tab patch cable V1

Designed for high-density fiber patching in data centers, LAN, WAN etc. which need space saving.



OMC INDUSTRY CO.LIMITED

2018|En version1.0



Polarity Switchable Uni-boot LC-LC Duplex with Push/Pull Tab patch cable V1

Description


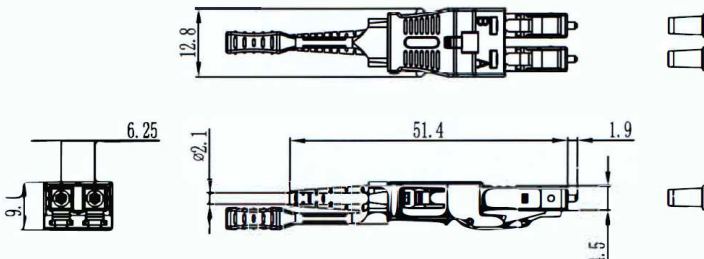
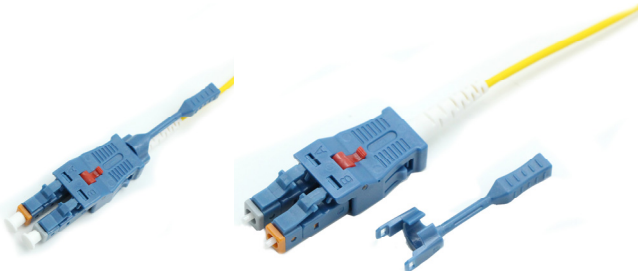

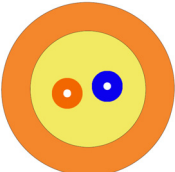
The **Polarity Switchable uniboot LC connector With Push/Pull Tab** is a **Chinese independent intellectual property rights connector**. It has a unique design that allows to switch polarity without using any tooling. The **Push/Pull Tab** is very easy to grab to Insert and pull out from LC adapter. **One more Great design is that the tap can be removed after insertion**. Makes the installation Job become easy and high efficient.

The **Uni-boot LC patch cable** utilizes a special "round duplex" cable that allows duplex transmission within a single 2mm cable ,cable materials including LSZH, Plenum and Riser.

Our **Polarity Switchable uniboot LC fiber patch cable** reduces cable management space by up to 68% compared to standard patch cables. It reduces cable management space comparing to standard patch cables. As a result of these features our uniboot patch cable offers improved airflow and visibility of equipment within a high density network environment.

OMC's LC Uniboot cable assemblies offer the best solution for high-density applications, data centers, interconnect and cross connector, private networks and premise installations.

Products Materials

| | |
|---|--|
|  | <p>Polarity Switchable uniboot LC connector with Chinese independent intellectual property rights. Meet and Compatible with many International Standard LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.</p> |
|  |  |
|  | <p>Perfect match with Standard LC ferrule, No need to develop special LC ferrule flange, Save cost High quality SM Ceramic ferrule, Good concentricity<0.5um High quality MM Ceramic ferrule, Good concentricity<4.0um</p> |
|  | <p>G652D,G657A1,G657A2/B2,G657B3,OM1,OM2, OM3, OM4, OM5 Fibers 1.6-2.0mm OD cable; PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials</p> |

Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC61300-3-35
- YD/T1272.1-2003
- RoHS, ISO9001 Compliant

Features

- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

Application

- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network



Polarity Switchable Uni-boot LC-LC Duplex with Push/Pull Tab patch cable V1

Optical specification:

| | | | |
|------------------------|---|-----------------------|--|
| Fiber Connector | Push/Pull Tab Uniboot to LC Push/Pull Tab LC Uniboot | Fiber Type | SM:Yellow/Blue/White; OM1&OM2: Orange; OM3:Aqua; OM4:Aqua/Violet/ Magenta |
| Cable OD&Jacket | 1.6mm/1.7mm,/1.8mm/2.0 mm PVC/LSZH | Fiber Counts | 2 Fibers |
| Insertion Loss | $\leq 0.3\text{dB}$ (IEC Grade C) $\leq 0.12\text{dB}$ (IEC Grade B) | Return Loss | SM UPC $\geq 50\text{dB}(\text{min})$ SM APC $\geq 60\text{dB}(\text{min})$ MM PC $\geq 35\text{dB}(\text{min})$ |
| Pull-out Force | 100N | Durability | 500 Cycles |
| AB Polarity Switchable | Available | Operating Temperature | -40 to + 85°C |

Geometric Specification(if Customer requested)

| Items | | Parameter | |
|------------------------|----|-----------|-------------|
| Polishing | | PC | APC |
| ROC | LC | 7~ 25 | 5 ~ 12 |
| Apex Offset | | ≤ 50 | |
| Fiber Spherical Height | | ± 100 | |
| Angle | | ± 0.5 | 8 ± 0.5 |

Polishing Method



UPC (Ultra-Polished connector)



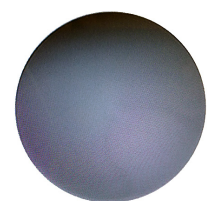
APC (8 degree Polished connector)

End-face Quality (SM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|-------------------------|-----------|---------|-------------------------|
| A: Core | 0 to 25 | None | None | IEC 61300-3 -35:2015 |
| B: Cladding | 25 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |



SM UPC



SM APC

End-face Quality (MM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|-------------------------|-----------|---------|-------------------------|
| A: Core | 0 to 65 | None | None | IEC 61300-3 -35:2015 |
| B: Cladding | 65 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |



MM PC



Polarity Switchable Uni-boot LC-LC Duplex with Push/Pull Tab patch cable V1

Length Tolerance

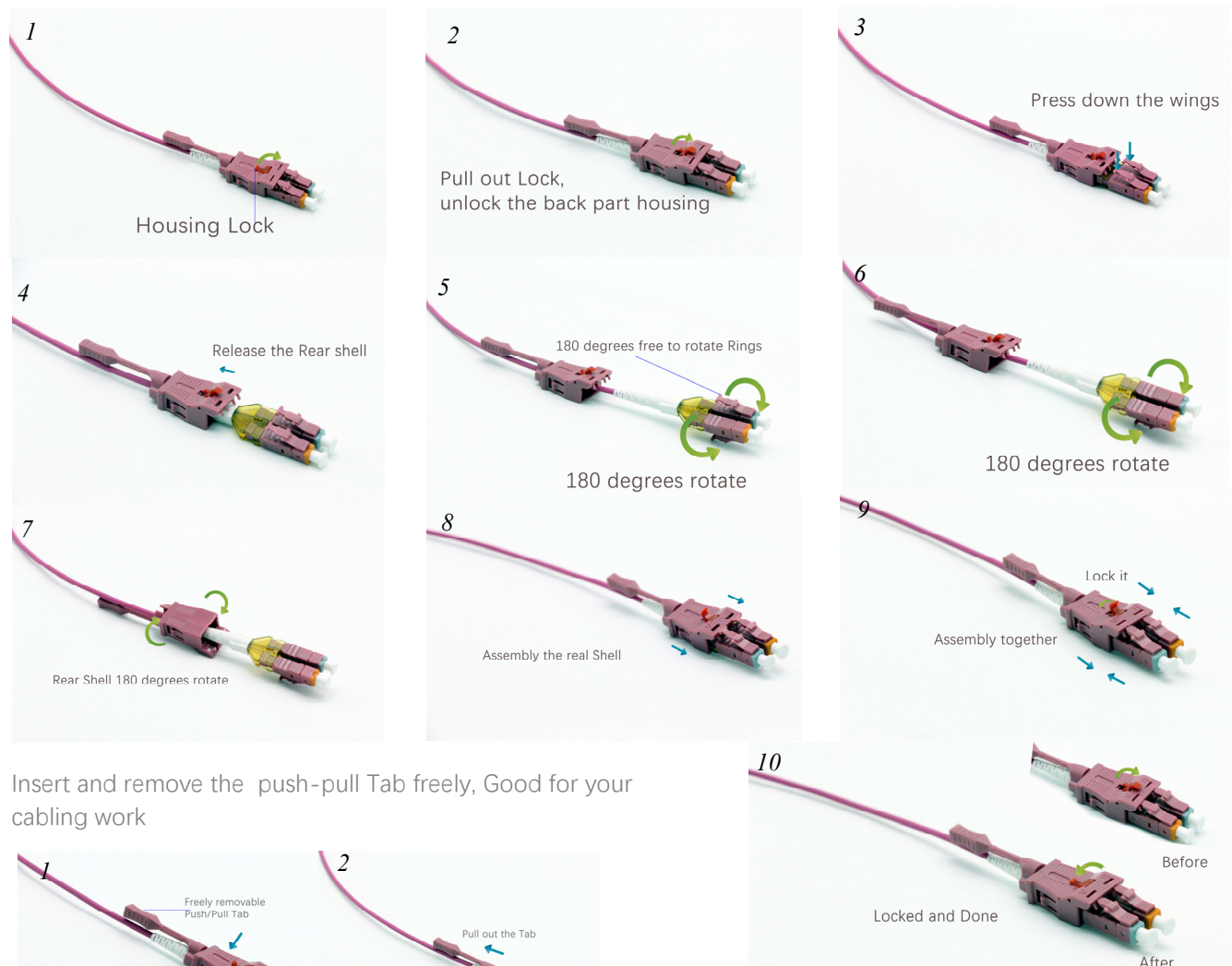


| Overall Length(L)(m) | length of tolerance(cm) |
|----------------------|-------------------------|
| $0 < L < 1$ | $+5/-0$ |
| $1 < L < 10$ | $+10/-0$ |
| $10 < L < 40$ | $+15/-0$ |
| $40 < L$ | $+0.5\% \times L/-0$ |

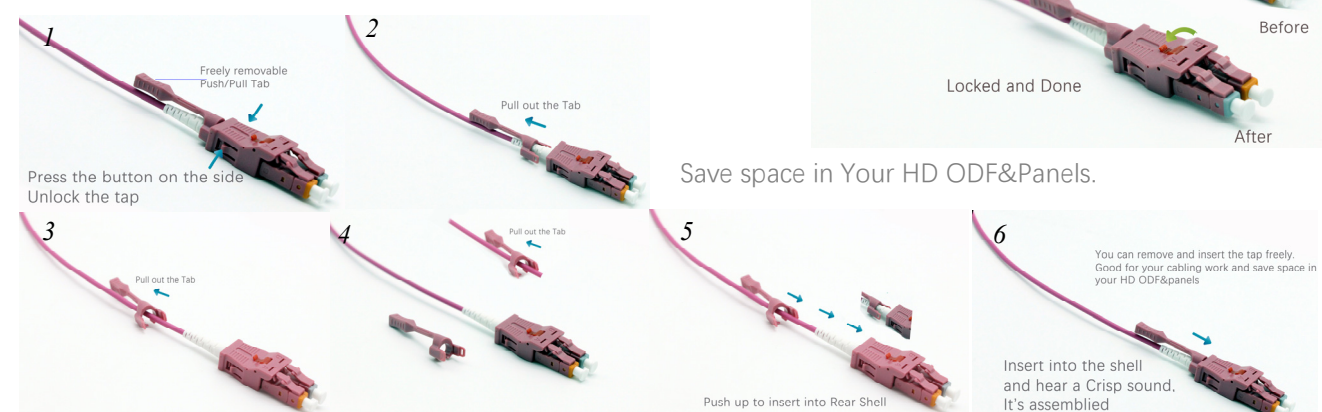
Product Highlights

Switchable + Uniboot LC Push-Pull tab patch Cable

The duplex LC connector for 2.0mm round cable, which allows the polarity to be switched from A-B to A-A



Insert and remove the push-pull Tab freely, Good for your cabling work



Save space in Your HD ODF&Panels.



Polarity Switchable Uni-boot LC-LC Duplex with Push/Pull Tab patch cable V1

Packaging

This easily taken and well-protected fiber patch cable package has been labelled and marked by OMC as de-fault .Standard carton size : 34*22*15 cm; 44*34*24 cm ; 54*39*34 cm . Which carton to be used depends on goods Qty . Packing can be customized.



1, Self-seal PE Bag



2 Bubble Bag



3, Paper Carton



4, fumig-free Pallet

- OME service** {
1. Cable color, printing word, material of cable jacket, connector's color
 2. OEM Label, Identify ring, cable's label, box, shipping marks
 3. Different quality Level.

How to Choose The Right Fiber Optic Cable Type?

| Designation | Fiber Dia. (μm) | Type | Fast Ethernet 100BASE-FX | 1 Gigabit Ethernet 1000BASE-SX | 1 Gigabit Ethernet 1000BASE-LX | 10Gbps Ethernet 10GBASE | 40Gbps Ethernet 40GBASE SR4 | 100Gbps Ethernet 100GBASE SR4 |
|----------------------|--------------------|------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------------------|--------------------------------------|--|
| OM1 | 62.5/125 | Multi-mode | 2000 Meters | 275 Meters | 550 Meters | 33 Meters | Not supported | Not supported |
| OM2 | 50/125 | Multi-mode | 2000 Meters | 550 Meters | 550 Meters | 82 Meters | Not supported | Not supported |
| OM3(Laser Optimized) | 50/125 | Multi-mode | 2000 Meters | 550 Meters | 550 Meters | 300 Meters | 100 Meters (SR4) | 100 Meters (SR4) |
| OM4(Laser Optimized) | 50/125 | Multi-mode | 2000 Meters | 550 Meters | 550 Meters | 400 Meters | 150 Meters (SR4) | 150 Meters (SR4) |
| Singlemode | 9/125 | Single- | 2000 Meters | 5km at | 5km at | 10km at | N/A | N/A |

PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.
3. For OM4 patch cable it is 4700 MHz.km while for OM3 it is 2000 MHz.km.



Transmission Distance Comparison

| Data Rate | Interface Type | Fiber Mode | Wavelength | Maximum Distance |
|-----------|----------------|------------|------------|------------------|
| 1G | 1000BASE-LX | OM5 | 850nm | 550m |
| | | OM4 | 1300nm | 550m |
| | | OM3 | 1300nm | 550m |
| | | OM2 | 1300nm | 550m |
| | | OM1 | 1300nm | 550m |
| | | SMF | 1310nm | 10km |
| | 1000BASE-SX | OM4 | 850nm | 550m |
| | | OM3 | 850nm | 550m |
| | | OM2 | 850nm | 550m |
| | | OM1 | 850nm | 275m |
| 10G | 10GBASE-SR | OM4 | 850nm | 400m |
| | | OM3 | 850nm | 300m |
| | | OM2 | 850nm | 82m |
| | | OM1 | 850nm | 33m |
| | 10GBASE-LRM | OM5 | 850nm | 220m |
| | | OM3 | 1300nm | 220m |
| | | OM2 | 1300nm | 220m |
| | | OM1 | 1300nm | 220m |
| | 10GBASE-LR | SMF | 1310nm | 10km |
| | 10GBASE-ER | SMF | 1550nm | 30-40km |
| | 10GBASE-ZR | SMF | 1550nm | 80-100km |
| 40G | 40G-BIDI | OM5 | 850nm | 200m |
| | | OM4 | 850nm | 150m |
| | | OM3 | 850nm | 100m |
| | 40GBASE-SR4 | OM5 | 850nm | 150m |
| | | OM4 | 850nm | 150m |
| | | OM3 | 850nm | 100m |
| | 40G-SWDM4 | OM5 | 850nm | 440m |
| | | OM4 | 850nm | 350m |
| | | OM3 | 850nm | 240m |
| | 40GBASE-LR4 | SMF | 1310nm | 10km |



Transmission Distance Comparison

| Data Rate | Interface Type | Fiber Mode | Wavelength | Maximum Distance |
|-----------|----------------|------------|------------|------------------|
| 100G | 100GBASE-SR4 | OM5 | 850nm | 100m |
| | | OM4 | 850nm | 100m |
| | | OM3 | 850nm | 70m |
| | 100G-SWDM4 | OM5 | 850nm | 150m |
| | | OM4 | 850nm | 100m |
| | | OM3 | 850nm | 75m |
| | 100GBASE-SR10 | OM4 | 850nm | 125m |
| | | OM3 | 850nm | 100m |
| | 100GBASE-LR4 | SMF | 1310nm | 10km |
| | 100GBASE-ER4 | SMF | 1310nm | 40km |



Polarity Switchable Uni-boot LC-LC Duplex with Push/Pull Tab patch cable V1

Order Instruction

| Patch cord | Quality level | Fiber Mode | Connector A | Connector B | Cable Size | Out jacket | Cable color | Length |
|------------|---|---------------------|---|---|-------------|------------|-------------|--------|
| A | R1-Standard Quality, No Geometric request | 1-G652D | A-Uniboot LC UPC V1 Connector | A-Uniboot LC UPC V1 Connector | 0- 1.7/18mm | H-LSZH | A - Blue | 1=1m |
| | | 2-G657A1 | B-Uniboot LCUPC V2 Connector | B-Uniboot LCUPC V2 Connector | 1- 2.0mm | C-PVC | B- Orange | 2=2m |
| | | 3-G657A2/B2 | C-Polarity Switchable Uniboot LC UPC Push-Pull Tab Connector V1 | C-Polarity Switchable Uniboot LC UPC Push-Pull Tab Connector V1 | 2- 3.0mm | R-OFNR | C- Green | |
| | R2-Standard Quality,,Geometric passed request | 4-G657B3 | D-Uniboot LC UPC Pull Tab Connector V1 | D-Uniboot LC UPC Pull Tab Connector V1 | 3 - 3.5mm | P-OFNP | D- Brown | |
| | | 5-BIF OM1 | E-Polarity Switchable Uniboot LC UPC Pull Tab Connector V2 | E-Polarity Switchable Uniboot LC UPC Pull Tab Connector V2 | | | E- Grey | |
| | | 6-BIF OM2 | F-Polarity Switchable uniboot LC UPC with flat Clip Connector | F-Polarity Switchable uniboot LC UPC with flat Clip Connector | | | F-White | |
| | R3 -IEC Grade B Quality No Geometric request | 7-BIF OM3 | 1-Uniboot LC APC V1 Connector | 1-Uniboot LC APC V1 Connector | | | G-Red | |
| | | 8-BIF OM4 | 2-Uniboot LCAPC V2 Connector | 2-Uniboot LCAPC V2 Connector | | | H-Black | |
| | | 9-BIF OM5 | 3-Uniboot LC APC Push-Pull Tab Connector V1 | 3-Uniboot LC APC Push-Pull Tab Connector V1 | | | I-Yellow | |
| | | 1-Coring G652D | 4-Polarity Switchable Uniboot LC APC Pull Tab Connector V1 | 4-Polarity Switchable Uniboot LC APC Pull Tab Connector V1 | | | J-Purple | |
| | | 2-Coring G657A1 | 5-Polarity Switchable Uniboot LC APC Pull Tab Connector V2 | 5-Polarity Switchable Uniboot LC APC Pull Tab Connector V2 | | | K-Pink | |
| | | 3- Coring G657A2/B2 | 6-Polairty Switchable uniboot LC APC with flat Clip Connector | 6-Polairty Switchable uniboot LC APC with flat Clip Connector | | | L-Aqua | |
| | | 4-Coring G657B3 | | | | | M- Magenta | |
| | | 5-Coring OM1 | | | | | | |
| | | 6-Coring OM2 | | | | | | |
| | | 7-Coring OM3 | | | | | | |
| | | 8-Coring OM4 | | | | | | |
| | | 9-Coring OM5 | | | | | | |