



## INTRODUCING MHC<sup>®</sup>-T3

### COMPACT CONNECTOR FOR FIBER OPTIC OR HYBRID APPLICATIONS

OCC's new patent-pending MHC-T3 is the next generation in compact, high-density, fiber optic connectors. Utilizing environmentally protected MT ferrule technology, the MHC-T3 can deliver up to 48 fibers in a smaller footprint than traditional cylindrical connectors. Coupled with OCC's proven hermaphroditic platform, MHC-T3 can effectively reduce installation times and ensure superior, optical performance. With its variety of options and robust features, OCC's MHC-T3 delivers high-speed communications critical for today's ever-increasing bandwidth requirements.



#### MHC-T3 APPLICATIONS

- > Network professional equipment (i.e. audio, data, or DMX)
- > Digital HD video transmissions using fiber optic media
- > Future-proof installations designed to eliminate bandwidth limitations
- > Noise and EMI protection on audio or video (LED wall) applications
- > Deployable broadcast systems
- > Remote monitoring sites
- > Robotic arms and devices
- > Industrial monitoring
- > Distributed antenna systems (DAS)
- > RF over fiber optic
- > FTTA and small cell
- > Military applications
- > Mining applications

### WHEN CONSIDERING A RELIABLE SOLUTION FOR HIGH-CHANNEL COUNT COMMUNICATIONS, OCC'S MHC-T3 CAN PROVIDE:

- » **INSTALLATIONS THAT ARE SIMPLIFIED—REDUCING TIME, EFFORT, AND COSTS.** By utilizing proven MT technology, termination of 12, 24, and 48 fibers with one connection drastically reduces installation times and the costs associated with those terminations. OCC's hermaphroditic design easily allows MHC-T3 connectors to be mated regardless of gender and offers seamless point-to-point connections. In addition, features such as an integrated pulling-eye that assists with difficult cable pulls make the MHC-T3 an ideal choice to ensure easy installations.
- » **ROBUST CONSTRUCTION THAT PROVIDES RELIABLE OPTICAL PERFORMANCE AND TRUSTED ENVIRONMENTAL AND MECHANICAL CAPABILITIES.** The MHC-T3's all-metal shell construction ensures that connections can withstand wide temperature ranges and provide extreme impact resistance. An IP-68 rating reinforces the robust nature of the MHC-T3 and keeps connector endfaces well protected against dirt, dust, and water. Additionally, when paired with OCC's optimized cables, the MHC-T3 provides a reliable solution for any harsh environment application.
- » **A VARIETY OF OPTIONS TO MEET ANY APPLICATION.** The MHC-T3 provides greater flexibility when configuring communication systems. Available in single-mode angled polished, the MHC-T3 can be provisioned in various hermaphroditic plug and receptacle options. Standard MHC-T3 plugs and receptacles are a black anodized aluminum, however, they are also available with alternative plating and base materials to match the application, including nickel-tyeflon, marine brass, and stainless steel.

## FEATURES & BENEFITS



MHC-T3 receptacles can accommodate up to 48 fibers. The robust metal shell construction and strain relief enables MHC-T3 to survive harsh environments.



A secure, threaded, mating interface allows for quick and easy connections that are ideal for deployable applications or permanent installations. Hermaphroditic connectivity enables plugs to be mated with receptacles or other plug-to-plug segments in a daisy-chain series without compromising polarity.



Pull strength exceeds 300 lb. tensile load when utilizing OCC's Optimized Distribution or Breakout style cables.

# PERFORMANCE AND MECHANICAL SPECS

| PARAMETER                        | SPECIFICATION  | PERFORMANCE                        |
|----------------------------------|----------------|------------------------------------|
| Insertion Loss (UPC) Multimode   | TIA-455-171    | 0.35dB – typical, 0.50dB – max.    |
| Return Loss (UPC) Multimode      | TIA-455-107    | Min. -30dB                         |
| Insertion Loss (APC) Single-mode | TIA-455-171    | 0.35dB – typical, 0.50dB – max.    |
| Return Loss (APC) Single-mode    | TIA-455-107    | Min. -60dB                         |
| Operational Temperature          | TIA-455-5      | -40°C to +85°C                     |
| Storage Temperature              | TIA-455-5      | -40°C to +85°C                     |
| Temperature Humidity Cycling     | TIA-455-5      | -40°C to +71°C at 95% RH, 240 hrs. |
| Dust Test                        | IEC 60529 IP68 | 8 hrs. dust exposure with 20 mbar  |
| Water Submersion                 | IEC 60529 IP68 | 48 hrs. immersion /1 meter water   |
| Cable Retention <sup>1</sup>     | TIA-455-6      | 300 lbs. for 10 minutes            |
| Mating Durability                | TIA-455-21     | 500 cycles                         |
| Impact                           | TIA-455-2      | 8 drops, 2.4 meters                |
| Vibration                        | TIA-455-11     | 10–55Hz, 2 hrs./axis, 3 axis       |
| Mechanical Shock                 | TIA-455-14     | Condition C, 5 shocks/axis         |
| Crush                            | TIA-455-26     | 450 lbs.                           |

NOTES: <sup>1</sup>Tested with OCC's robust HC-Series Deployable and Distribution "EZ-Strip" cable. OCC MT Optimized cables coupled with MHC-T3 connectors allow for cable retrieval and deployment, bending and rotational twisting that is not achievable with standard ribbonized fiber cables.

## FEATURES & BENEFITS



The MHC-T3 can be cleaned using MT ferrule OneClick cleaning tools in conjunction with an OCC-provided fiber optic adapter.



IP-68 rated, IP-68 rating means that internal gaskets and O-rings help protect help protect the MHC-T3 in harsh environments and liquid submersions.



Pulling eye dustcap enables pre-terminated assemblies to be pulled easily through conduit spaces.

# PRODUCT OPTIONS FOR A COMPLETE MHC®-T3 SOLUTION



Plug-to-Plug Cable Assembly on OCC MARS Reel



Harsh Environment Enclosures



MARS® Reel on Tripod

## WHAT TO KNOW WHEN ORDERING

### HOW MANY CHANNELS WILL I NEED?

The MHC-T3 can accommodate up to 48 channel counts.

### DO YOU REQUIRE A PLUG-TO-PLUG ASSEMBLY OR A PLUG-TO-DISCRETE CONNECTOR ASSEMBLY?

OCC has the capabilities to provision both types of assemblies. If you need an MHC-T3 plug-to-plug assembly, simply contact us with the channel counts and the type of environment the assembly will be used. If you require a plug-to-discrete connector assembly, we will need to know what type of discrete connector you want and the type of environment the assembly would be used in. If you have questions about how to order these types of assemblies, give us a call and we can walk you through the process to find the best solution.

### WHAT TYPE OF FIBER DO YOU PREFER AND WHAT LENGTH?

Various cable types are available to meet any application, and OCC can provision any assembly to the specific length that meets your need. Additionally, OCC offers a wide variety of fiber types including 9/125 $\mu$ m, 50/125 $\mu$ m, 62.5/125 $\mu$ m, and more. Please contact your OCC Sales Representative for help in determining the best cable for your application.

### DO I NEED SPECIAL PLATING?

All MHC-T3 configurations are supplied with black anodized aluminum as standard plating. Additional plating and material options are available. For applications that require superior corrosion resistance, material options such as brass or stainless steel are available.

### DO YOU NEED EASY FIELD DEPLOYMENT?

OCC has a variety of options to help with deploying your MHC-T3 cable assemblies including our MARS reels, Integrated Cleaning Kits for MHC-T3, and all the deployable accessories for the MARS Reel. Together we can find the right options for your requirements.



Contact a representative today! **800-622-7711**

#### OCC ROANOKE, VA

Corporate Headquarters and Fiber  
Optic Cable Manufacturing Facility  
5290 Concourse Drive  
Roanoke, VA 24019 USA  
**540.265.0690** or **800.622.7711**

#### OCC DALLAS, TX

Harsh Environment and Specialty  
Connectivity Manufacturing Facility  
1700 Capital Avenue, Suite 150  
Plano, TX 75074 USA  
**972.509.1500** or **877.509.1500**

#### OCC ASHEVILLE, NC

Enterprise Connectivity  
Manufacturing Facility  
33 Superior Way  
Swannanoa, NC 28778 USA  
**828.298.2260** or **800.880.7674**



**VISIT US AT**  
**OCCFIBER.COM**