



# Cluster Solution

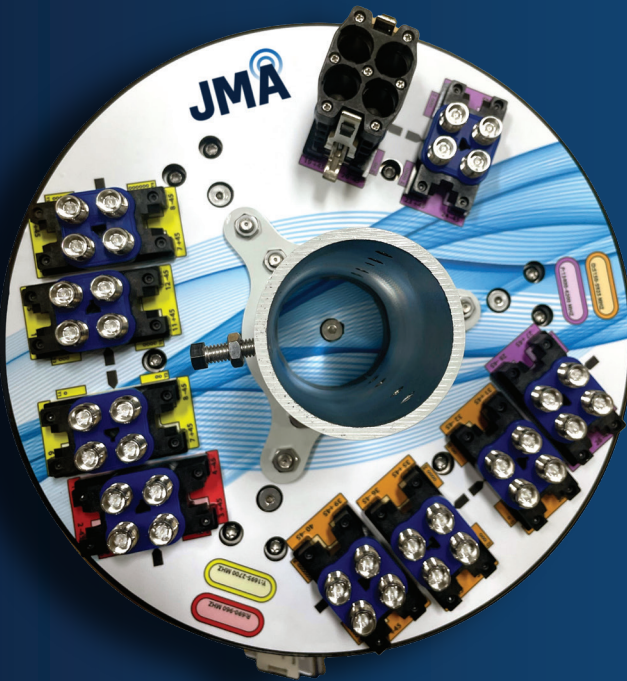
Cell towers today face unprecedented congestion challenges. As network demands increase, mobile operators are transitioning to higher-capacity antennas that support increased frequency bands and higher port count radios within the same physical footprint. This evolution has led to a significant increase in RF port density, with modern antennas featuring substantially more connection points than their predecessors.

The resulting installation scenario presents serious practical challenges. Technicians working at elevation must now manage and connect numerous individual ports in challenging conditions, creating a threefold problem: increased installation time, greater technical complexity, and elevated safety risks for tower personnel. This evolving situation has become a pressing concern for network operators and their deployment partners, who must balance network performance requirements with practical field implementation considerations.

## Introducing JMA's Cluster Jumper Solution

Recognizing the industry shift toward more advanced radio technologies, JMA has developed an innovative multi-port cluster connector solution. This technology directly addresses the practical challenges faced by network operators today. By streamlining the installation process, the solution significantly reduces the time required for deployment, the increased possibility of antenna to radio mis-connection and the associated physical risks for technicians working at height.

Beyond just installation efficiency, JMA's cluster connectors deliver comprehensive improvements across critical performance areas. They effectively eliminate connection mismatching problems, provide full compatibility with advanced radio configurations, and fundamentally transform cable management. All while allowing field-replaceable jumpers, avoiding the need to overhaul installations with point-failures or a change in requirements. This holistic approach allows customers to maximize their tower infrastructure investments while preparing their networks for future expansion.



## Key Features and Benefits

### Simplified Installation

- Reduces jumper installation time by 83%
- 4-port design optimized for modern antenna configurations
- Tool-less installation - connect and disconnect in less than 20 seconds
- Keying feature eliminates mismating, reducing human error during installation
- Positive locking ensures retention in harsh environments
- Integrated waterproof design, eliminating the need for additional sealing
- Field replaceable, individual jumpers
- Compatible with standard 2.2-5 connector interfaces
- Generates savings of 10% of total Small Cell installation costs

## Enhanced Performance

- Operating frequency DC – 6GHz supporting current and future technologies
- Dynamic PIM performance -161 dBc for superior signal integrity
- Individual removal/replacement of jumpers for simplified maintenance
- Field fit compression jumper option available for flexible deployment
- 100% factory tested jumpers for Return Loss and PIM, with testing results available via web portal

## Available Configurations

- 3/8" Superflex Cable jumpers. [Click link for further details.](#)
- 4 port cluster configurations, enabled for partial use
- 3/8" Superflex Cable pigtails. [Click link for further details.](#)
- Field made jumpers. [Click link for further details.](#)

## Conclusion

JMA's Cluster Solution is a response to increasing installation complexity driven by mobile network trends that have increased RF port density at cellular sites. The solution cuts jumper installation time by 80%+ and can save operators 10% of installation costs. Simultaneously, JMA's Cluster Solution reduces human error and integrates waterproofing/harsh environment resilience, without compromising performance, while providing full compatibility with advanced radio configurations today and into the future.



## About JMA Wireless

JMA Wireless is the leading global innovator in mobile wireless connectivity solutions that ensure infrastructure reliability, streamline service operations, and maximize wireless performance. Employing powerful, patented innovations, their solutions portfolio is proven to lower the cost of operations while ensuring lifetime quality levels in equipment and unrivaled performance for coverage and high-speed mobile data.

JMA Wireless solutions cover macro infrastructure, outdoor and indoor distributed antenna systems, small cell solutions, and virtualized RAN software. JMA Wireless corporate headquarters are located in Syracuse, NY, with manufacturing, R&D, and sales operations in over 20 locations worldwide.

**FOR MORE INFORMATION:**

[jmawireless.com](http://jmawireless.com)

### JMA Corporate Headquarters

📍 140 Cortland Ave.

Syracuse, NY 13202

☎ +1 315.431.7100

☎ +1 888.201.6073

✉ [customerservice@jmawireless.com](mailto:customerservice@jmawireless.com)

🌐 [www.jmawireless.com](http://www.jmawireless.com)