



First and Only American Company to Develop and Manufacture 5G in the United States

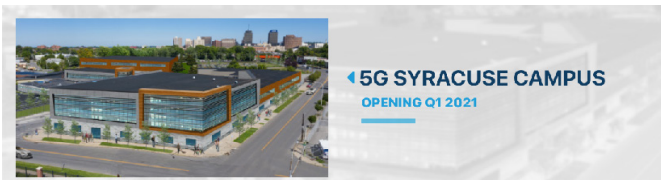
- 5G-ready, software based networks operating at scale today
- JMA solutions support critical communications to millions daily

A True Domestic 5G Company

JMA is the first and only U.S.-based, U.S.-owned provider of both radio access network (RAN) and 5G solutions. This means the company designs, develops, and manufactures its 5G and RAN products in the U.S. – at facilities in New York, Virginia, Illinois and Texas. Today, JMA gear can be found on tens of thousands of cell towers across the United States, in wireless carrier networks throughout the U.S. and Europe, in entertainment venues and transportation hubs worldwide, and in major sports stadiums. JMA technology is deployed in over 1,000 high-capacity indoor environments supporting the communications needs of millions of people every day. JMA is building the wireless networking solutions of the future – today – and doing it here in the United States.

Born in the U.S.A.

We trace our roots back three generations to the company started in the late 1940s, in the Syracuse garage of our CEO's grandfather, which grew to become a leading equipment developer and manufacturer for the cable, wired broadband and wireless telecom industries. Founded in 2012, JMA has steadily expanded its offerings from 5G-ready connectors and antennas to in-building cellular networks and the world's first software-based RAN – the radio system 'intelligence' that provides the key interface from mobile devices to a core network and the internet. Today, JMA has almost 1,000 employees and is growing at an exponential rate.



Innovation is a Core Philosophy

It is central to JMA's business philosophy that we focus on areas where we can add value through innovation. The U.S. is not typically associated with low-cost production, but innovation levels the playing field. JMA's X-RAN, the world's first 100% software-based wireless platform, illustrates this perfectly. Legacy RAN providers rely on proprietary and expensive hardware-based systems. Attempts to reduce costs have opened U.S. and allied countries' networks to the security risks of cheaper solutions from companies subsidized by the Chinese government. X-RAN is the first and only fully-operational, fully-virtualized, carrier-grade RAN solution in the world, and it is a U.S. product. Many others have attempted to develop a virtualized RAN – only JMA has succeeded.

Virtualization, expressed simply, means replacing expensive, proprietary hardware with software running on commercial off-the-shelf servers. This reduces deployment costs, increases compatibility with other manufacturers' components, reduces supply chain risk and forms the backbone of software-upgradeable (including to 5G) 'future proof' networks. This dramatic shift in wireless network architecture means that, with X-RAN, the U.S. is once again at the forefront of wireless technology advancement – while also being economically competitive. Today, X-RAN is operating in the networks of Tier 1 European carriers, going live in private networks across the United States for sports, entertainment and industrial enterprises, and in testing with U.S. carriers. Virtualization is the future of wireless networking, and JMA has already done it.



Commitment to American Manufacturing and R&D

A core value for JMA has always been to maintain and expand our U.S. R&D and manufacturing capabilities. To augment current manufacturing in New York and Texas, the company is adding additional R&D and manufacturing jobs at its new 5G campus, located in a Syracuse, NY Opportunity Zone. This new facility is slated to open in the Spring of 2021 and will be the principal manufacturing site for



5G Private Wireless

JMA's Iota 5G mmWave radios – the first of their kind – as well as our CellHub system for 5G private wireless networks.

We are at the beginning of the revolutionary transition to a 5G world, where wireless telecom is moving far beyond voice, data and video – to a fully-connected society where micro-industrial networks make factories, warehouses and electrical grids smarter, more efficient, and safer. 5G connectivity will make fully self-driving vehicles a reality, and our military will increasingly rely on 5G wireless networks for command and control of logistics, warfighters and weapons systems.

5G mmWave



Competing on a global stage

JMA already has some of its 5G-ready virtualized solutions operating in the networks of European carriers, including Wind, Iliad, TIM (Telecom Italia) and Vodafone, as well as private wireless networks in the U.S. First deployed in 2018 with multiple carriers covering the metropolitan center of Bologna, Italy, XRAN has since been deployed in some of the largest stadiums in Italy – San Siro in Milan and Stadio Olimpico in Rome, each seating 70,000-80,000 people – as well as Dacia Arena in Udine. XRAN is also live at the massive Campovolo outdoor concert venue in Modena (capacity 100,000), the Apple iOS development center in Naples and large events throughout Italy via a multi-carrier mobile macro site.

In the U.S., XRAN is the engine behind CBRS private networks including Angel Stadium in Anaheim, California, the American Dream shopping and entertainment complex in the Meadowlands of New Jersey and a Switch PRIME data center, along with many others currently in development. In addition to undergoing lab testing with two Tier 1 U.S. carriers, XRAN also recently completed lab testing with Japanese carrier SoftBank, further expanding JMA's global reach.

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