



## CASE STUDY

### Utility™, Inc. launches EOS Intelligent Body Camera Technology

with Mobile Mark's MaxFin MXFG702 Multi-Band Antenna.

#### THE CUSTOMER

**Utility™, Inc.**, headquartered in Decatur, Georgia, is an innovative technology company creating groundbreaking digital systems for frontline professionals that depend on speed, accuracy, and transparency in their work.

EOS, ROCKET, HELIOS, POLARIS, PULSAR, and TITAN, by Utility™, are independent solutions integrated together to create a State-of-the-Art surveillance and evidence management system that is lightyears ahead of its competition. Its unique comprehensive digital data system provides law enforcement officers, first responders, and other frontline professionals with an intuitive platform for effective capturing, managing, and sharing of live audio and video data so that frontline professionals can focus on doing what they do best. The intelligent **body camera** technology, EOS by Utility™, operates in unison with in-vehicle wireless communication and **in-car video** system ROCKET by Utility™. By automatically capturing audio, video, and GPS positioning data then transmitting, as it unfolds in real-time to the data storage center, POLARIS by Utility™, via Mobile Mark's MaxFin MXFG702. Working in unison with TITAN by Utility™, these integrated systems are essential for frontline professionals' safety and fast-crime resolution.

#### THE CHALLENGES

- High-Speed data throughput with redundancy for mission critical performance
- Must be able to operate under a wide range of extreme weather conditions
- Durable housing suitable for frontline professionals and can stand the test of time

A State-of-the-Art surveillance system demands a rugged and high-performance antenna that is designed to tolerate a wide range of weather conditions, from extreme heat, ice buildup, and strong wind, yet be ready to perform high-speed data throughput with redundancy, providing confidence to the end-user with reliable performance, safety and security when they need it most. Frontline professionals depend on these always-on systems to perform at their best to maintain their safety and the safety of the community.

#### THE ANTENNA

## MXFG702

MaxFin Multiband Antenna  
(2x Cellular, 4x WiFi, 1x GNSS)





## THE ANTENNA MANUFACTURER

Mobile Mark, Inc. designs and manufactures mobile, infrastructure and device antennas for wireless applications from 30 MHz – 7.2 GHz. During customer's development process, Mobile Mark's engineers are available for consultation with RF technical expertise to ensure that the customer's wireless system is utilizing the antenna performance to its fullest potential.

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## THE SOLUTIONS

- Redundant 4G/LTE and WiFi antennas compatible with all U.S. cellular carriers
- All LTE, WiFi, and GPS antenna elements in one housing package
- Heavy-duty package that can withstand harsh environment and the rugged of emergency usage

The MXFG702 multi-band antenna is designed with Multiple-Input Multiple-Output (MIMO) for wireless 4G/LTE, WiFi, and GPS technologies, where broadband frequency and redundancy are vital for always-on high-speed data throughput. The MXFG702 antenna elements are protected by a rugged housing made from tough ASA (Acrylonitrile Styrene Acrylate) composite material. ASA is ideal for the outdoor environment where it can withstand high impact, extreme weather conditions, and is UV resistant to maintain consistent color over time. The MXFG702 antenna is surface mounted on vehicles with a milled, metal stud for strength, durability, and secured by metal locknut and gasket to ensure proper sealing for water ingress protection (IP69K – highest level of dust and water ingress protection). An important security feature of the MXFG702 antenna is that its installation and removal can only be accessed from the inside of the vehicle to safeguard against tampering from unauthorized personnel.

## THE ANTENNA

- MXFG702 7-cable multi-band 2x2 MIMO 4G/LTE (694-960 MHz, 1710-3700 MHz), 4x4 MIMO WiFi 2.4/5 (2.4-2.5 & 4.9-6.0 MHz), GPS/GNSS (1575 & 1602 MHz), IP69K rated
- Measurements: 7.5" Length x 2.25" Width x 2.5" Height with one recommended drilled hole 7/8" diameter for all 7 cables

Mobile Mark's MXFG702 antenna is designed with efficiency, longevity, and toughness in mind for Cellular, WiFi, and GPS applications where performance and reliability are uncompromised. Its 2x2 MIMO Cellular and 4x4 MIMO WiFi provide high-speed data transmission with redundancy to ensure seamless operation for end users. With in-house electrical testing facilities, including an in-house anechoic chamber, Mobile Mark's engineers tested and verified the antenna's RF characteristics per specifications. Their in-house mechanical testing capability ensured that the antenna meets the rigorous Shock & Vibration testing standards.

By Cham Phoy, Product Management