

MMA SPACE SOLAR ARRAYS

Unrivaled Performance

MMA's Solar Arrays are designed for high-performance missions. Optimizable for all spacecrafts, platforms, and space environments, MMA's solar arrays can be produced at scale, using flight qualified materials, processes and mechanisms. With a 100% deployment success rate on myriad missions, our arrays come in a variety of flight-proven architectures, are scalable, customizable, and lead the industry in reliability and power per unit volume performance metrics.

ABOUT MMA SPACE

Founded in 2007, we are an entrepreneurial small business that is both well established and inherently innovative. Privately owned, we are beholden only to our customers and ourselves. Our culture is creative, agile and responsive. Our technologies are flight proven and constantly improving.

With over a decade of flight heritage and a 100% deployment success rate, we deliver innovative solutions that are highly capable and reliable. From DARPA to startups, our customer know they will get custom, quality, creative solutions designed, built and delivered at scale.

Stows on a CubeSat



330W per wing



MADE IN THE USA



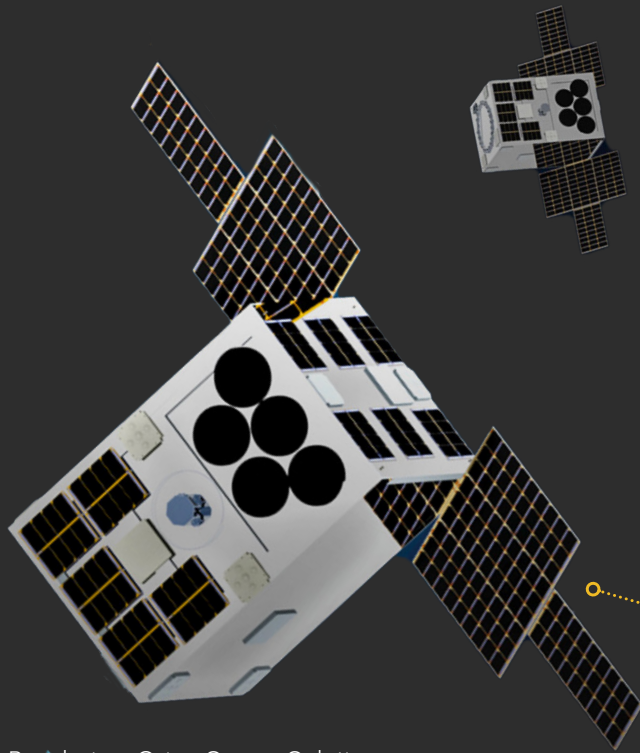
2023
Northrop Grumman
Strategic Supplier Excellence
Award Winner



2016
Tibbetts Award Winner



CubeSat Solar Arrays



MMA's High Watts per Kilogram "HaWK" solar Arrays are the most powerful, reliable, customizable solar arrays on the market. With a very broad range of existing, flight heritage configurations, our HaWKs are flexible enough for any power requirements, space environment, or mission need.

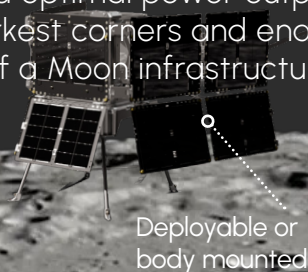
From 36W to 330 W, HaWKs have flown on a variety of platforms from MicroSats to SmallSats, and are in VLEO, LEO, GEO, on CisLunar orbit, heliocentric, and even did a Mars flyby. They have been instrumental in supporting wide-ranging space power needs for critical defense, exploration and commercial missions.

+16U stowed volume

Rendering: Orion Space Solutions,
an Arcfield Company

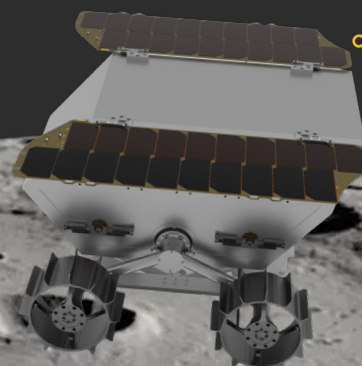
CisLunar Solar Arrays

Headed to the Moons' surface are highly customized solar arrays designed for Lunar rovers and other Lunar surface experimentation and infrastructure. Not only are these deployable and nondeployable wings shaped to the design of the instrument or rover, but they are optimized for the harsh environment of the Moon's regolith covered surface. Deployable and/or body mounted arrays are designed, manufactured and tested to ensure survivability and optimal power output as they explore the darkest corners and enable critical development of a Moon infrastructure.



Deployable or
body mounted

Rigorous release
and deployment
mechanisms

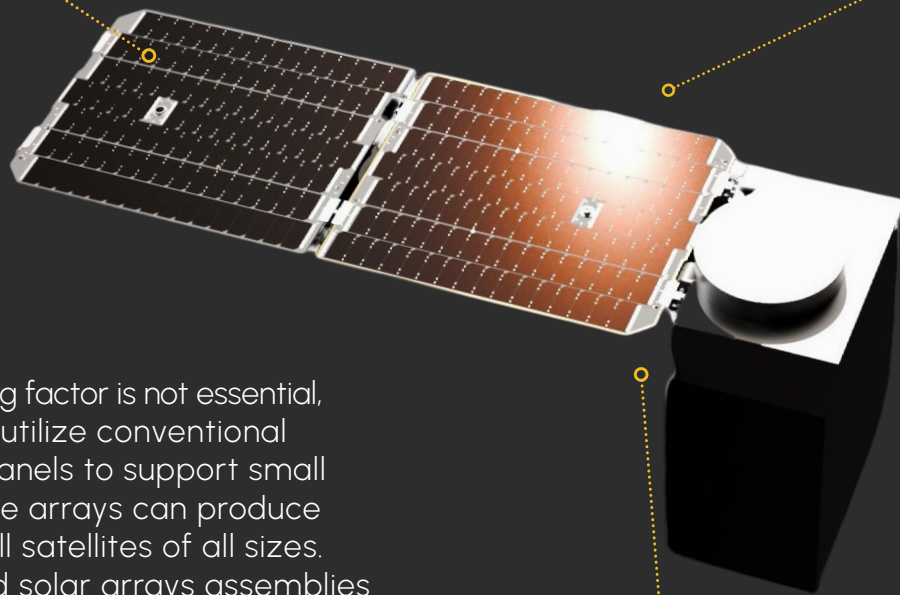


Ultra-lightweight
composite panels

SmallSat Solar Arrays

Modular design allows power adjustment by panel or by string

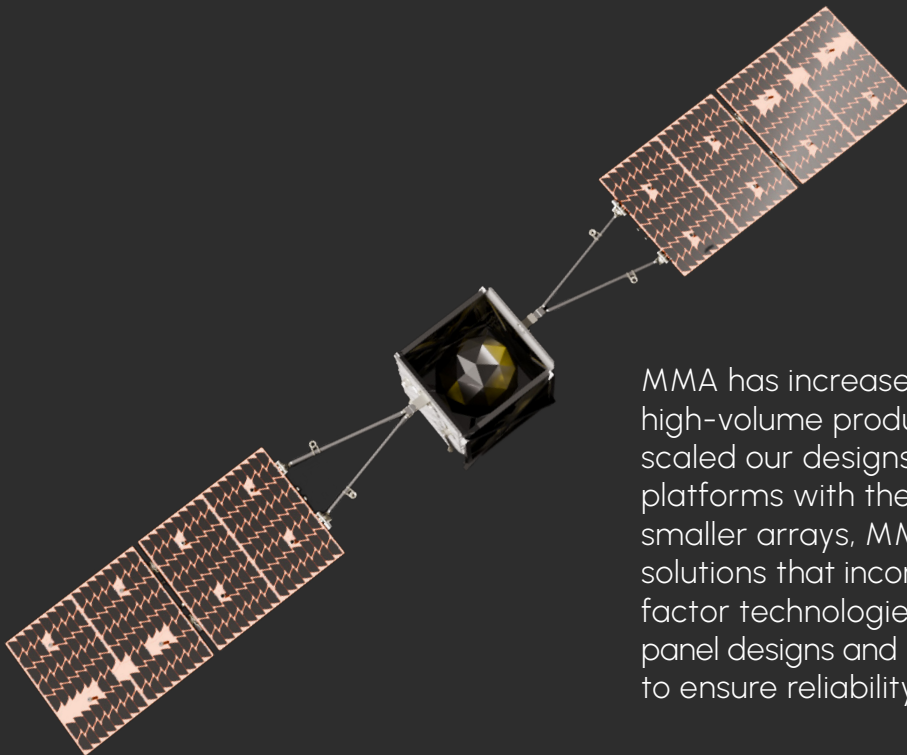
225 Watts / wing



Fits on a standard ESPA payload volume

For missions where packing factor is not essential, MMA offers arrays that utilize conventional honeycomb sandwich panels to support small satellite platforms. These arrays can produce up to a kilowatt for small satellites of all sizes. MMA delivers integrated solar arrays assemblies that incorporate restate/release mechanisms, deployment mechanisms, and solar array drives and associated control electronics as required.

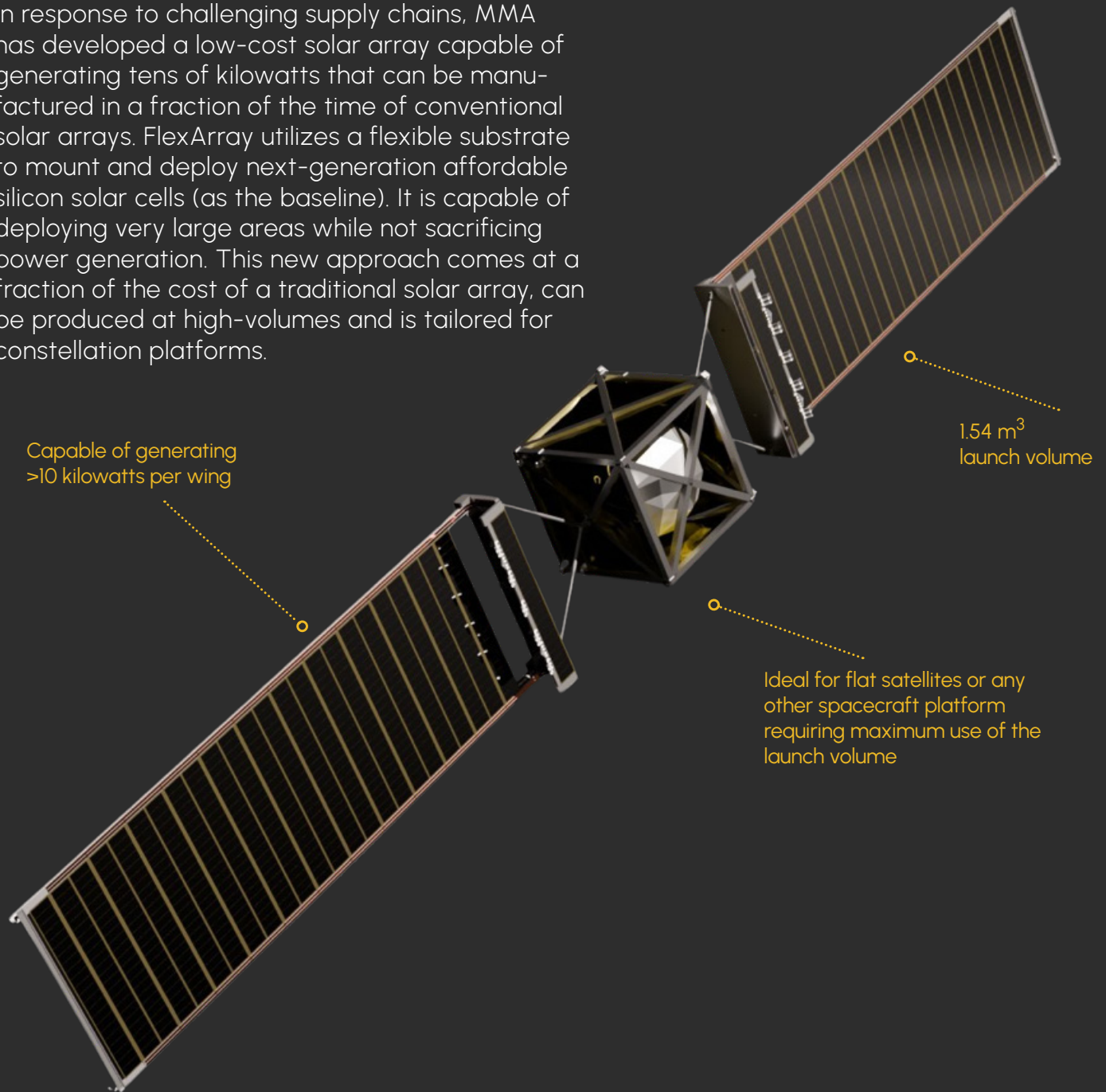
KiloWatt+ Solar Arrays



MMA has increased our production capacity for high-volume production on tight schedules, and scaled our designs to support larger satellite platforms with the power they require. Like our smaller arrays, MMA delivers fully integrated solutions that incorporate many of our high packing factor technologies, as well as conventional rigid panel designs and leverage flight proven subsystems to ensure reliability.

FlexArray

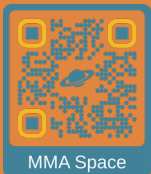
In response to challenging supply chains, MMA has developed a low-cost solar array capable of generating tens of kilowatts that can be manufactured in a fraction of the time of conventional solar arrays. FlexArray utilizes a flexible substrate to mount and deploy next-generation affordable silicon solar cells (as the baseline). It is capable of deploying very large areas while not sacrificing power generation. This new approach comes at a fraction of the cost of a traditional solar array, can be produced at high-volumes and is tailored for constellation platforms.



Capable of generating
>10 kilowatts per wing

1.54 m³
launch volume

Ideal for flat satellites or any
other spacecraft platform
requiring maximum use of the
launch volume



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