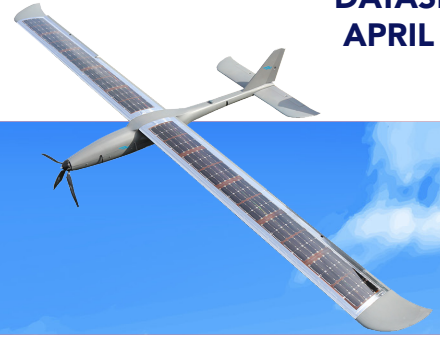


**Providing the UAV Industry with  
Highest Specific Power Solutions Available**



## Solar Power Products for UAVs

High Performance Solar Cell Technologies



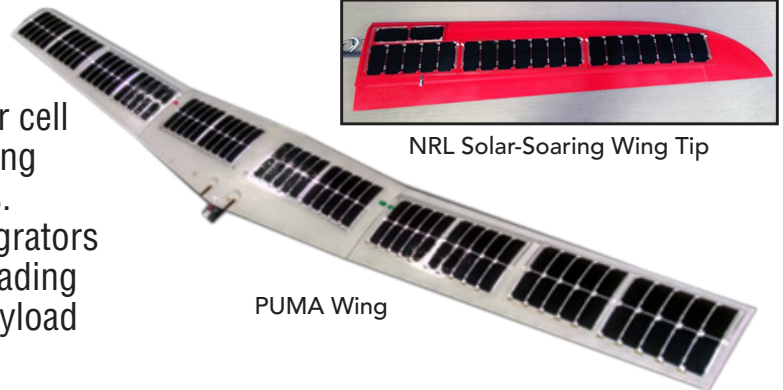
Silent Falcon Test Flight

### UAV-TJ Solar Cell 32% Average Efficiency

*Our UAV-TJ delivers the highest volume production power density than any other solar cell supplier*

#### FEATURES & CHARACTERISTICS

SolAero Technologies, the world leader in high efficiency, highly reliable, and resilient space solar cell technology and manufacturing capability, is offering lightweight solar cell sheet technologies for UAVs. Our proven mission technologies offers UAS integrators mission enabling electrical power performance leading to significant increased endurance and greater payload mass.

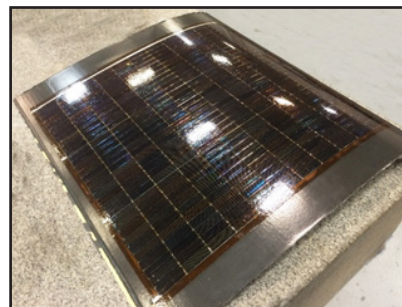


NRL Solar-Soaring Wing Tip

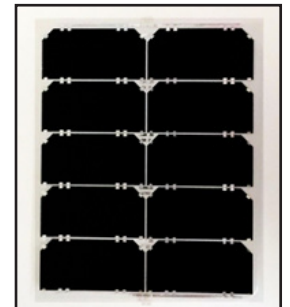
PUMA Wing

#### PRODUCT TYPES

- Laminated sheets to specified voltages
- Integration of laminated sheets on UAV wings
- Integrated (co-cured) PV sheets on composite wings/structures



Co-Cured Sheets on Composite Wings



Solar UAV-TJ Laminated Sheets

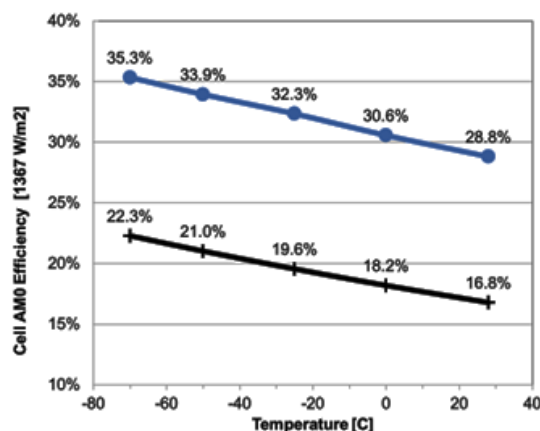
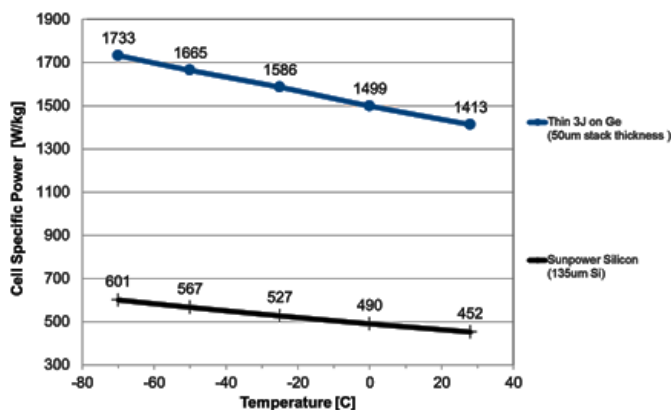
# Solar Power Products for UAVs

## High Performance Solar Cell Technologies

Our UAV-TJ Sheets are customizable to any UAV application

Configuration	AM0 @ 28°C			AM1.5G @ 28°C			Cell Thickness (µm)
	Efficiency	W/m <sup>2</sup>	W/kg	Efficiency	W/m <sup>2</sup>	W/kg	
Bare Cell	29.0	397	1424	32.0	320	1148	50
Bare Cell	29.0	397	905	32.0	320	730	80
Bare Cell	29.0	397	524	32.0	320	422	140
Top Lamination	29.0	397	1152	32.0	320	929	50
Top Lamination	29.0	397	787	32.0	320	635	80
Top Lamination	29.0	397	482	32.0	320	389	140
Full Encapsulation	29.0	397	967	32.0	320	780	50
Full Encapsulation	29.0	397	696	32.0	320	562	80
Full Encapsulation	29.0	397	446	32.0	320	360	140

UAV-TJ Solar Cells have improved efficiency at high altitude temperatures



### SolAero UAV-TJ Cell Performance

Performance	SolAero UAV-TJ	SunPower n-type monocrystalline
AM15G efficiency 28°C	32.5% (tuned for AM15G)	22.0%
AM0 efficiency 28°C (1367 W/m <sup>2</sup> )	29.0%	16.8%
Cell Thickness	50 µm	135 µm
Metal Thickness	1 + 5 µm Ag	50 µm Cu/interdigitated
Cell Mass	280 g/m <sup>2</sup>	507 g/m <sup>2</sup>
AM0 Power 28°C	394 W/m <sup>2</sup>	229 W/m <sup>2</sup>
AM0 Specific Power 28°C	1470 W/kg	452 W/kg (2.21 g/W)

