

PROBLEM: Converting Solar Panel DC into Grid AC

Previously, there were only 3 options:

	Option #1	Option #2	Option #3	Option #4
	String Inverters	Optimizers w/String Inverter	Microinverter	Thee Solar Inverter Box
Can boost or bypass Weakest Cell	X	✓	✓	✓
Individual Panel Monitoring	X	X	✓	✓
Fan Cooled for long life	✓	X/✓	X	✓
Warranty	10 Years	10 Years	25 Years	25 Years
Battery Charging Capability	✓	✓	X	✓
Minimal Sustain Price	\$0.10/watt	\$0.13/watt	\$0.36 to \$0.53/watt	\$0.25/watt
Communicates directly with internet without Separate Communication Device	✓	X	X	✓

OPTION #4: Thee Inverter Box

- Each solar panel plugs into DC-to-AC inverter card via long MC4 cables.
- All Communications & Controls of microinverter were moved to a single PCB card in order to reduce the inverter design to the most basic components



Global micro inverter market size was valued at \$2.4 billion in 2020; projected to reach \$13.5 billion by 2030. We should easily be able to capture at least 10% of US market by 2028 by selling for < \$0.30/watt.

Our customers should be commercial solar installers & DIY, who are trying to save money vs microinverters while trying to get the most out of their solar panels vs optimizers and string inverters.