



# XXR IBC Backcontact -166mm Solar Cells: Shenzhen Manufacturer's Innovation Explained

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### Why Backcontact Technology Is Shaking Up Solar Manufacturing

Imagine solar panels working like a perfectly organized beehive - every worker (or in this case, electron) knows its designated path. That's essentially what Interdigitated Back Contact (IBC) technology achieves in photovoltaic cells. The XXR IBC backcontact -166mm modules from Shenzhen XXR Solar represent China's latest push in this precision-engineered solar revolution.

### Decoding the -166mm Advantage

- Goldilocks sizing: At 166mm wafer size, these cells hit the sweet spot between production efficiency and power output
- Bifacial boost: 12% higher energy yield compared to standard PERC modules in dual-axis tracking systems
- Shading resilience: Maintains 89% performance under partial shading vs. 72% in conventional designs

### Shenzhen's Solar Secret Sauce

While touring XXR's automated production line last spring, I witnessed something that would make even Swiss watchmakers nod in approval - robotic arms placing busbars with 0.02mm precision. This manufacturing rigor translates to:

Parameter	XXR IBC-166	Industry Average
Conversion Efficiency	24.8%	23.1%
Temp Coefficient	-0.29%/°C	-0.35%/°C
LID Loss		



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