

Green Proposal

In 2025, total 7 of the proposals involved green process designs and have passed internal patent review meetings. The green process proposal is to increase the proportion of automated and unmanned facility operations by reducing work hours, lowering labor costs, or improving efficiency to achieve energy and carbon savings in the process. The Company further encourages employees to submit relevant design proposals to participate in R&D competitions, enabling them to obtain enhanced incentives and secure intellectual property rights more effectively. Please refer to the following table for details:

Facility	Green Proposal	Proposal Benefit	Green Product Design Aspects
Zhangjiang	A specialized copper pillar design for module packaging structures	● Copper-based eco-friendly lead pins increase solder joint area by over 200%, improving thermal and drop resistance while enabling direct sidewall exposure without additional processing.	● Safety ● Resource-efficient
	A broadband dual-polarized dielectric antenna design for millimeter-wave applications	● Supports dual polarization with a 24-43.5 GHz bandwidth, meeting 5G mmWave multi-band requirements. ● Simplified structure using molding and vacuum sputtering, reducing heavy metal wastewater by over 80% compared to electroplating. ● Axial radiation enables improved thermal dissipation, reducing cooling power from 1.5W to 1.0W. ● Manufacturing steps reduced by 20%~30%, lowering carbon emissions by approximately 12 g CO₂e per unit. ● Detachable modular design enhances recyclability, achieving over 85% material recovery.	● Low-carbon ● Resource-efficient
Kunshan	A dual dam encapsulation barrier fabrication method for module packaging structures	● Copper and eco-friendly plastic materials are adopted to reduce stress on key chips and connectors, thereby lowering failure rates during module assembly.	● Safety ● Resource-efficient
	A placement method for 3D passive components	● 3D Surface Mount Technology (SMT) stacking technology is applied to utilize vertical space above passive components, achieving over 40% reduction in module size.	● Resource-efficient
	An electronic structure design with high aspect ratio and flexible layout, including its interconnection interface and manufacturing method	● Halogen-free materials are used to replace air dielectric areas with rubber (Vacuum Pad E, VPE) filling, improving SiP thermal performance and reducing power consumption.	● Safety ● Low-carbon
	A high-density, flexible interconnection interface enhancing thermal and electrical performance, with its semiconductor packaging structure and manufacturing method	● With halogen-free materials, SiP I/O pitch is reduced from 0.4 mm to 0.2 mm within the same footprint, further minimizing design area requirements. ● Copper pillar structures are utilized to enhance thermal conductivity, improving heat dissipation and reducing power consumption.	● Safety ● Low-carbon ● Resource-efficient
Nantou	An integrated communication interface architecture for one to many test cards and its applications	● Halogen-free materials and logic control reduce components and wiring, optimizing circuit design. ● Modular, detachable design lowers hardware costs while improving stability and energy efficiency. ● Fast switching between control boards accelerates testing and reduces energy consumption. ● Scalable modular architecture enables multi-channel testing with lower standby energy use.	● Safety ● Low-carbon