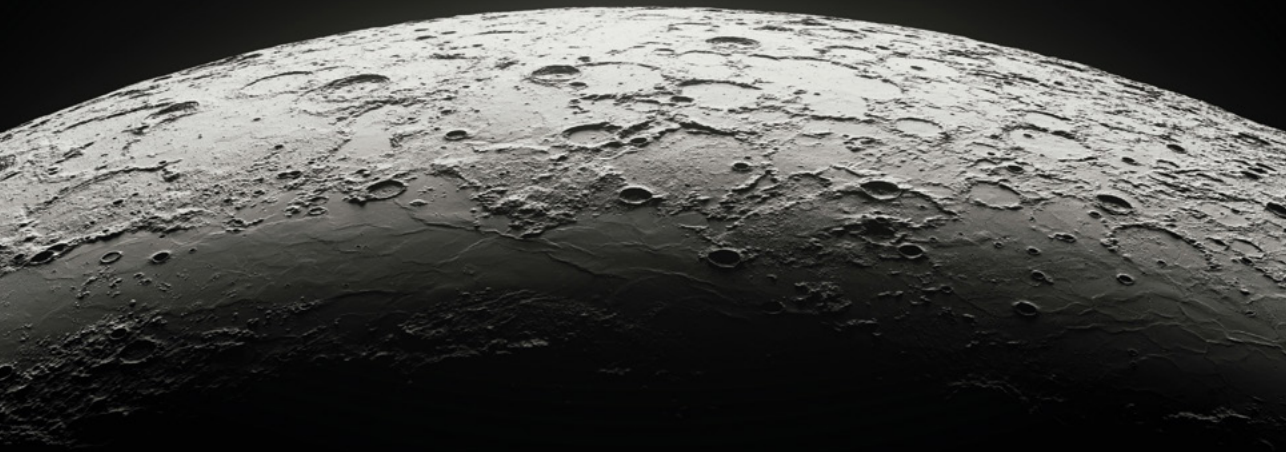


Space infrastructure

Mission-critical endurance



Space infrastructure



IPP's wireless power technology enables reliable, maintenance-free charging in the harshest space environments by eliminating mechanical failure points.

Spacecraft, satellites, and planetary rovers operate in extreme vacuum, radiation, dust, and thermal cycling, where repairs are often impossible. Conventional connectors and moving parts introduce critical failure risks.

IPP replaces mechanical interfaces with fully sealed, contactless charging. With zero moving parts and an ultra-lightweight coil architecture, the technology reduces system mass, increases payload capacity, and delivers dependable performance throughout the mission.

TECHNOLOGY ADVANTAGES

Capable of 10 kW+ of power transfer, supporting multiple C-rate charging, maximising operational readiness and the ability to charge larger ISRU mobile assets.

Elegant physics and MHz frequency allow simple, efficient, rugged design and a high tolerance to coil misalignment – critical for RPO (Rendezvous Proximity Operations) or operations in complex lunar terrain.

Operating at 13.56 MHz minimises efficiency loss (98% efficiency ring to ring). Transmission to nearby metallic components or objects is negligible.

Thin air-cored copper rings (or electroplated 3D printed materials) allow an ultra-low subsystem mass, maximising payload mass for mass constrained spacecraft, landers, and lunar surface platforms.

Power can be transmitted through non-conductive materials, meaning sealed systems are impervious to abrasive regolith.

Bi-directional power and data transfer capability.

To discuss a specific application or mission requirement, contact us.

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