



ELECTROPORCELAINS DIVISION
BENGALURU – 560012, INDIA
Purchase Specification
Group : Photovoltaic Module

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REV. 01 | JOB NO.-STD.

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Passive UHF RFID Label for PV Modules

1. **ITEM:** Passive UHF RFID Tags along with White Polyester Label for Solar PV Modules.
2. **PURPOSE:** For storing PV Module data in it & fixing it on to the PV module as per MNRE guidelines for traceability. The module Sl. No., Power output shall be printed on the Polyester label by BHEL and storing of module data into RFID tag shall be carried out by BHEL. The RFID tag, label and adhesive shall be suitable for sustaining outdoor environment.
3. **SCOPE OF SUPPLY:** Supply of blank RFID tag along with polyester white label for writing the required PV module data into each tag as per JNNSM and printing the Module Sl. No. and Power output on the white polyester label.
4. **RFID LABEL DETAILS:**

4.1	RFID Chip (Integrated Circuit) & Antenna	ALN-9640 or equivalent using IC's of Make Alien Higgs-3 / NXP G2iM / IMPINJ Monza 4QT only
4.2	Mode of Operation	Passive
4.3	Device Type	Gen 2 UHF - compliant
4.4	Air Interface Protocol	EPC Global Gen 2 IEC / ISO 18000-6C compliant
4.5	Operating Frequency	840 – 960 MHz
4.6	Antennas	Copper / Aluminum (with PET laminate)
4.7	Memory	512 Bits for user
4.8	Data retention	25 Year minimum
4.9	Operating Temperature	-40°C to +85°C
4.10	RFID Label Size	(95 – 100) mm x (25 – 30) mm

5. **FORM FACTOR:** Wet Inlay along with polyester label for thermal printable with high performance boundaries with peel off paper in roll form for affixing the Label on the PV Module back sheet.
6. Make of RFID Chip & Model of RFID Antenna to be clearly mentioned in his offer.
7. Ten number sample of RFID Tag to be provided along with Techno-commercial offer. Accepted sample form reference for bulk material acceptance.
8. The RFID Label shall be compatible for writing data as per JNNSM guidelines with fixed RFID printer-cum-writer station using the software interfaced with the PV Module tester. The written tag shall also be read by a portable RFID reader at the site.

Note: Any deviation from the above spec. shall be clearly brought out by the supplier in their offer.

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