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In the ITER project, the Japanese domestic agency (QST) is procuring several pieces of equipment, including the Diagnostic Rack, which is situated in the lower port extending from the ITER vacuum vessel. This Diagnostic Rack incorporates various lower port plasma diagnostics and radiation shielding. Due to the radiation environment, there is a necessity to connect and disconnect the electrical connector, which supplies power to the diagnostic instruments, using a dedicated remote-operated robot, the Divertor Remote Handling System (DRHS). Consequently, the development of a dedicated Remote Handling Electrical Connector (RHEC) compatible with remote operation is underway.

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