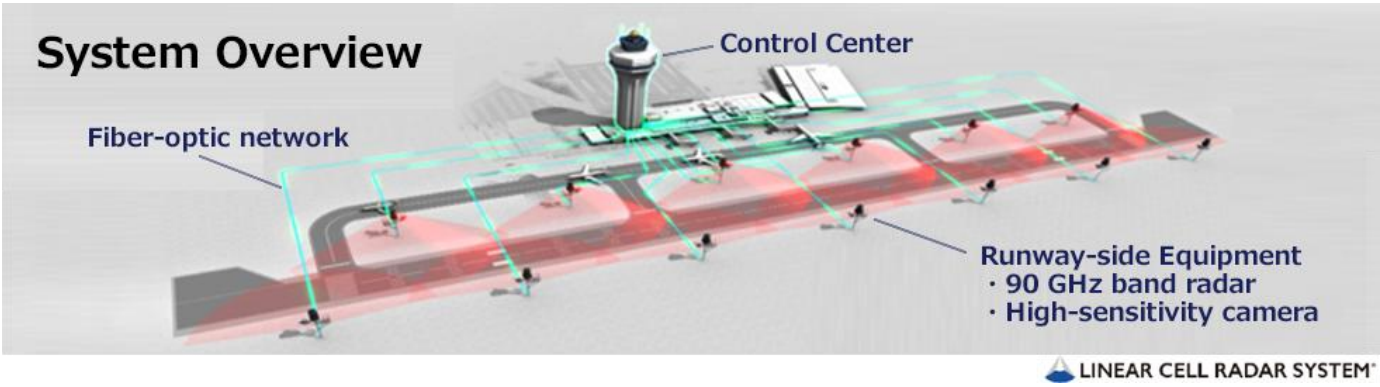
LINEAR CELL RADAR SYSTEM®

KOKUSAI DENKI

Foreign Object Debris Detection System

Runway Foreign Object Debris (FOD) Detection Systems (FODDS) are required to detect small metallic and non-metallic FOD items on active runways. Millimeter-wave radar in the 92–100 GHz band is attractive because the wavelength is on the order of 3mm and the contiguous 8 GHz allocation enables fine range resolution.

In this system, multiple 90 GHz band radars and high-sensitivity cameras are deployed along the runway. Each unit is connected to the control center via optical fiber cables. Radars and cameras are installed to achieve the optimum detection area by considering the structure of the airport surface.
Detection information from each radar and camera is managed at the control center, where the entire runway can be monitored.



Features

- **Superior Detection Capability**
  Detects various objects as small as a few centimeters using 90 GHz radar and high-sensitivity cameras.
- **Improved Runway Safety**
  Enhances safety through rapid detection of runway objects.
- **Improved Operational Efficiency**
  Reduces runway closure time through automatic object detection and notification.
- **Reduced Environmental Impact**
  Lowers fuel consumption and CO2 emissions by reducing runway closure time.

