

ABSTRACT

4D UWB RADAR INSPECTION METHOD AND SYSTEM

5 The present invention provides a method and a system for inspecting an object by
Ultra Wide Band (UMB) radar technology. A radar transceiving, data processing and
controlling unit is coupled to an antenna array which directs emitted radar signal towards
the object and receives reflected radar signal from the object to determine an initial
location of the object in a 3D coordinate system, to obtain a first 3D profile of the object in
10 the 3D coordinate system at a first instant and a second 3D profile of the object in the 3D
coordinate system at a second instant to generate a 4D profile of the object. The first and
second 3D profiles in the 4D profile are compared to determine a variance of the object
from the first instant to the second instant.

15 (Fig. 4)