Abstracts

Millimeter-Wave Imaging Using Neural Networks for Object Recognition

K.-I. Watabe, K. Shimizu, K. Mizuno and M. Yoneyama. "Millimeter-Wave Imaging Using Neural Networks for Object Recognition." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 1135-1138.

An active-mode mm-wave (60 GHz) imaging system with Yagi antenna has been developed. The optics for the system was designed with the ray tracing method to reduce aberration. A signal processing using a neural network has been successfully introduced to recognize objects distorted with coherent mm-wave illumination. With 10 x 10 sampling points the recognition rale of 98 % has been obtained for the objects of 10 alphabetical letters and the 5 teaching trials.

❑ Return to main document.