

AbstractWireless Positioning System Without Using A Reference

A system is proposed for wirelessly locating an object using existing features
5 within a static environment, such as walls, as the references for determining the
position of the system. An antenna 16 attached to the object transmits RF
signals which are reflected by the surroundings. During a training mode, the
reflected signals are used to train a neural network 22, 43 to map the position of
10 the object to the characteristics of the reflected signals. During a working
mode, the trained neural network is to identify the position of the object based
on reflected signals in working mode. Optionally, the reflected signals may be
subject to a clustering process before input to the neural network.

[Fig 1(b)]

15



162162



G00002