

ETSI TR 102 495-5 V1.2.1 (2011-02)

Technical Report

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
System Reference Document;
Short Range Devices (SRD);
Technical characteristics for SRD equipment using
Ultra Wide Band Sensor technology (UWB);
Part 5: Location tracking applications type 2 operating
in the frequency bands from 3,4 GHz to 4,8 GHz and from 6 GHz to 8,5 GHz
for person and object tracking and industrial applications**

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document is part 5 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); System Reference Document; Short Range Devices (SRD); Technical characteristics for SRD equipment using Ultra Wide Band technology (UWB) as identified below:

- Part 1: "Building material analysis and classification applications operating in the frequency band from 2,2 GHz to 8 GHz";
- Part 2: "Object Discrimination and Characterization (ODC) applications for power tool devices operating in the frequency band from 2,2 GHz to 8,5 GHz";
- Part 3: "Location tracking applications type 1 operating in the frequency band from 6 GHz to 8,5 GHz for indoor, portable and mobile outdoor applications";
- Part 4: "Object Identification for Surveillance applications (OIS) operating in the frequency band from 2,2 GHz to 8,5 GHz";
- Part 5: "Location tracking applications type 2 operating in the frequency bands from 3,4 GHz to 4,8 GHz and from 6 GHz to 8,5 GHz for person and object tracking and industrial applications";**
- Part 6: Void;
- Part 7: "Location tracking and sensor applications for automotive and transportation environments operating in the frequency bands from 3,1 GHz to 4,8 GHz and 6 GHz to 8,5 GHz".

Introduction

The original spectrum request for UWB location tracking applications was covered by part 3 of the present multi-part deliverable. This original request is now being enhanced by the proposals covered in the present document (part 5). Therefore, these additional location tracking devices are called type 2. The performance attributes of type 2 devices is the new frequency range from 3,4 GHz to 4,8 GHz in addition to the 6 GHz to 8,5 GHz frequency range. It is foreseen that individual licensing of operators in the range 3,4 GHz to 4,8 GHz on a site-specific basis will be required.

The total addressable market for type 2 devices is expected to be considerable larger than that under the original request.

UWB location tracking is a viable positioning technology that meets industrial requirements in the following markets:

- 1) Healthcare.
- 2) Workplace/Office.
- 3) Public buildings.