

Patent No. 6,931,084  
Petition For *Inter Partes* Review

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SIRIUS XM RADIO INC.,  
Petitioner,

v.

FRAUNHOFER-GESELLSCHAFT ZUR  
FÖRDERUNG DER ANGEWANDTEN  
FORSCHUNG E.V.,  
Patent Owner.

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Case IPR2018-\_\_\_\_\_  
Patent No. 6,931,084

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**PETITION FOR *INTER PARTES***  
**REVIEW OF U.S. PATENT NO. 6,931,084**

**Mail Stop Patent Board**  
Patent Trial and Appeal Board  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Sirius XM Radio Inc. petitions for *inter partes* review under 35 U.S.C. §§ 311–319 and 37 C.F.R. § 42 of Claims 1–3 of Eberlein *et al.*, U.S. Patent No. 6,931,084 (the “1084 Patent”). **Ex. 1001**. The ‘1084 Patent issued on August 16, 2005, to Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (“Fraunhofer” or “Patent Owner”). *Id.* Petitioner asserts that there is a reasonable likelihood that at least one claim is unpatentable and respectfully requests review of, and judgment against, Claims 1–3 of the ‘1084 Patent (the “Challenged Claims”) as unpatentable under 35 U.S.C. § 103.

## I. INTRODUCTION

As described in more detail below, the Challenged Claims describe a technique for modifying and/or correcting signals in a mobile receiver that may have been corrupted during the transmission and reception process. When data is broadcast in a multi-carrier modulated (“MCM”) broadcast system, the data can become corrupted during the process for a number of reasons. **Ex. 1002** (Lyon) ¶¶ 116; 66-70 (citing **Ex. 1013** (Proakis) at pp. 258-269, pp. 272-273 and pp. 702-713). For example, as illustrated below, when there are multiple pathways (“multi-path”) for signals to arrive at a receiver, the receiver observes multiple copies of the same signal. *Id.*

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