

PRESS RELEASE

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STARWAVES DRM SoftRadio App upgrades mobile devices to receive undistorted DRM Digital Radio anytime and anywhere

Horgen/Switzerland, Erlangen/Germany: Starwaves, a developer and distributor of receiver technologies centered around the digital broadcast standard DRM (Digital Radio Mondiale), joined forces with Fraunhofer IIS, a leading supplier in the field of broadcast encoder and receiver components for DRM, to develop an Android app that allows DRM reception on mobile devices. Starwaves enables Android phones and tablets to receive entertainment, text information, and emergency warnings via DRM Digital Radio – without costly data plans, independent from cell phone network availability, and based on innovative Fraunhofer technology.

Digital Radio Mondiale (DRM) is the digital successor standard to the classic AM and FM radio services. In many parts of the world, terrestrial digital radio broadcasts are already an important and trusted source of entertainment and information. They do not require monthly payments and work reliably even if there are no cell networks available. Radio reception with mobile phones and tablets combines the mobility and flexibility of these devices with the benefits of free-to-air radio services.

Starwaves has been active in the field of DRM radio receivers for many years. The “STARWAVES DRM SoftRadio” app was developed in close cooperation with Fraunhofer IIS. Its goal is to ensure easy access to innovative DRM radio services for everybody. It is available from now in the Google and Amazon Android app stores. The app provides listeners with access to all the essential features of the DRM digital radio standard, across all transmission bands from DRM on long wave to FM band and VHF band-III.

Fraunhofer IIS is a significant co-developer of core digital radio technologies. This includes the innovative xHE-AAC audio codec, which provides high audio quality at lowest data rates, as well as the Journaline application, which gives radio listeners access to news, the latest sports updates, local weather forecasts, travel tips, and even radio schooling services without requiring internet access.

The app also supports many more DRM features such as the Emergency Warning Functionality (EWF), image slideshows, station logos, and service descriptions including

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Unicode support for worldwide application. To provide all these services, the app only requires a standard off-the-shelf SDR RF dongle that is attached to the device's USB port.

"We are proud to launch the world's first low-cost full-featured DRM digital radio reception solution for mobile devices, developed in close partnership with Fraunhofer IIS. Now everybody can easily upgrade their existing mobile phone and tablet to enjoy DRM digital radio with its undistorted audio quality and advanced features including Journaline," says Johannes von Weysenhoff, founder of Starwaves.

In order to meet the needs of everyday radio listeners and to clearly separate this app from the engineering-driven approaches of the past, usability was a primary development objective from day one. With only a few clicks on the clutter-free interface, users select their preferred radio service, navigate through the clearly structured menus, and gain instant access to the various advanced information services that DRM provides. By supporting multiple user interface languages, the app ensures optimized usability in many countries around the globe.

About STARWAVES

Founded in 2005 in Bad Münden, Lower Saxony/Germany, Starwaves had set its focus on the development and distribution of receiver technologies around the digital broadcast standard DRM (Digital Radio Mondiale). As far back as 2003 after both organizations, the DRM Consortium and the WorldDAB Forum, had expressed their appeal to the industry at IFA in Berlin to develop and produce multi-standard receivers compatible with both their systems, Starwaves developed its model "STARWAVES Prelude", the world's first DRM-DAB receiver and presented it at CeBIT 2004 in Hanover. In 2006 Starwaves was again in the headlines with the "Carbox": It was the world's first automotive DRM-DAB receiver which then was produced in volumes and enjoyed by lots of listeners worldwide – including many DXers thanks to its excellent analogue Short-Wave capabilities as well.

Since 2008 Starwaves moved its focus to Africa where it developed and tested an innovative approach of broadcasting community television in the L-Band with DVB-T2 in cooperation with ICASA – another world premiere. After DRM was chosen the national standard in India in 2012 Starwaves relocated its headquarters to Switzerland and started developing a new generation of DRM receivers.

Starwaves also initiated Africa's first DRM trial in the FM Band in Johannesburg/South Africa and completed it with local and international partners. The trial report contains valuable discoveries regarding the feasibility of DRM for community radio which guided the South African government to adopt DRM in the FM Band for community radio and secured the report becoming an internationally recognized piece of standard literature, recently endorsed by ITU. Today, Starwaves offers various DRM receivers and broadcast solutions for consumers and the professional broadcasting industry.

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For more information, contact sales@starwaves.com or visit www.starwaves.com/de/starwaves-drm-softradio

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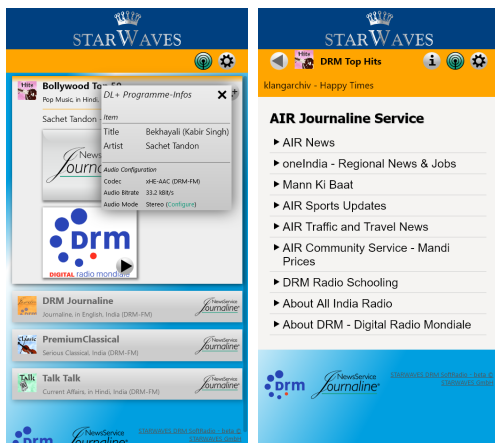
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STARWAVES DRM SoftRadio App logo © Starwaves



One small USB radio dongle transforms ordinary Android smartphones and tablets into mobile DRM receivers. © Starwaves



The STARWAVES DRM Softradio App impresses with user-centric design. © Starwaves

About Fraunhofer IIS

The Audio and Media Technologies division of the Fraunhofer Institute for Integrated Circuits IIS has been an authority in its field for more than 30 years, starting with the creation of mp3 and co-development of AAC and HE-AAC. Today, almost all consumer electronic devices, computers and mobile phones are equipped with Fraunhofer's media technologies. The fourth generation of Fraunhofer audio codecs, along with the latest signal processing solutions, stands for impressive audio experiences and is tailored to specific fields of application: xHE-AAC for DRM digital radio and Internet streaming with very low bitrates, dynamic bitrate adaptation and loudness support; MPEG-H for immersive and interactive sound in UHD TV; and EVS for Hi-Fi quality calls in LTE and 5G networks.

Fraunhofer IIS is also a leading supplier in the field of broadcast encoder and receiver components for the open digital radio standards DRM (Digital Radio Mondiale) and DAB, with Fraunhofer's ContentServer head-end technology in worldwide operation and empowering a wide range of transmission equipment.

Fraunhofer IIS, based in Erlangen, Germany, is one of 75 institutes and research units of Fraunhofer-Gesellschaft, Europe's largest application-oriented research organization.

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