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COMMUNICATION SEMICONDUCTORS

Digital Radio Mondiale

The future of radio broadcasting

Digital Radio Mondiale - The future of radio broadcasting

Digital Radio Mondiale (DRM) is a digital radio broadcasting standard designed to replace or augment existing analogue AM (Amplitude Modulation) and FM (Frequency Modulation) radio broadcasting. At its core, DRM represents a shift from conventional analogue transmissions to a digital format, promising a paradigm of benefits that extend far beyond mere sound quality.

DRM based broadcasting creates an environment where the crackles and distortions that often mar the clarity of analogue signals are replaced by pristine, uninterrupted audio. This startling advance is realized through advanced digital encoding that ensures a consistent, high-fidelity listening experience. The static-laden frequencies that haunt traditional AM and FM broadcasts become relics of the past, as DRM crafts a soundscape characterized by range, clarity, and precision.

Yet, DRM's impact transcends just audio quality. This digital standard is also efficient, ingeniously optimizing spectrum use to accommodate more channels within the finite radio frequency spectrum. In a world where airwaves are increasingly crowded, this efficiency is a lifeline for broadcasters seeking to expand their offerings without succumbing to the limitations of analogue bandwidth.

With the ability to seamlessly integrate text, data services, and images into broadcasts, DRM transforms the radio into an interactive canvas. Listeners are no longer passive recipients but active participants, engaging with a wealth of supplementary information that enhances their overall experience.

On the global stage, DRM stands as a beacon of standardization. Endorsed by the International Telecommunication Union (ITU), it is a universal language in the radio spectrum. This international recognition facilitates interoperability, ensuring that DRM broadcasts can be received and enjoyed by audiences around the world with compatible receivers.

In a world teeming with emergencies and uncertainties, DRM takes on a role of heightened significance. Equipped with an emergency warning system, it becomes a vital conduit for disseminating crucial information during times of crisis. Its reliability and reach make it an invaluable asset for public safety and disaster response.

As we travel at speed in the digital revolution, DRM emerges not as a mere upgrade but as a catalyst for evolution in the radio landscape. It provides a roadmap for the transition from analogue traditions to digital possibilities, ensuring that the timeless medium of radio remains not only relevant but vibrant and indispensable in our dynamically changing world. In essence, Digital Radio Mondiale is the symphony orchestrating the fusion of tradition and innovation in the ongoing evolution of mass consumer radio broadcasting.

Benefits of Digital Radio Mondiale

Improved Audio Quality

DRM provides superior audio quality compared to traditional analogue broadcasting.

Efficient Spectrum Utilization

DRM optimizes spectrum utilization, allowing more efficient use of radio frequencies.

Multimedia Capabilities

DRM supports not only audio but also data services, text messages, and images.

Global Standard

DRM is an international standard recognized by the International Telecommunication Union (ITU).

Energy Efficient Transmission

DRM offers energy-efficient transmission options, allowing broadcasters to reduce their power consumption whilst still meeting their coverage requirements.

Emergency Warning System

DRM includes features for emergency warning messages, enhancing its role in providing timely and critical information during emergencies or disasters.

Transition from Analogue

DRM provides a pathway for broadcasters to transition from analogue to digital broadcasting, bringing about the benefits of digital technology without the need to abandon existing broadcasting infrastructure.

DRM1000 - The world's most versatile DRM receiver module

What is the DRM1000?

The DRM1000 Broadcast Receiver Module is a complete 'antenna-to-speaker' solution providing a fast, low cost and low power means of achieving high-performance reception AM, FM, and DRM across LF,MF,HF and VHF (Bands I and II).

The DRM1000 Broadcast Receiver Module

The DRM1000 Broadcast Receiver Module is a joint development by CML Micro and Cambridge Consultants. The module software supports a simple user interface comprising a small, low-cost display and multiple pushbuttons, and support is also provided for an external microcontroller, via a serial interface.

- Core component to implement a full DRM-capable broadcast receiver covering all bands.
- Antenna-to-speaker solution including simple portable radio UI without a 'host.'
- Serial port control for more complex devices using a 'host' to facilitate an advanced UI, and display of data services (Journaline); or for embedding DRM reception in a range of advanced consumer products
- Low power, small size and low cost
- Tuning from 150kHz to 108MHz and supporting AM/FM/DRM broadcasts
- All DRM modes and codecs included.
- A pre-engineered building block to allow local manufacturers to flourish in their 'home' markets.

Key Features

- Pre-programmed, ready-to-use module
- High performance
- Easily integrated into a wide range of products
- Covers broadcast bands from 150kHz to 108MHz
- Direct support for ferrite and telescopic antennas
- 1W amplifier for loudspeaker
- I2S digital and analogue line outputs
- Low-power consumption, powered from a 3V battery
- Low-cost
- Receives Digital Radio Mondiale on all bands
- Receives AM and FM
- Supports DRM Consortium Minimum Receiver Requirements
- Includes license for all software and essential IPR

Key Applications

- Battery-powered broadcast radio
- Smartphone receiver accessory
- Portable music players
- In-car entertainment

CML Micro
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The first-choice semiconductor partner to technology innovators, together transforming how the world communicates

CML Micro is a world leader in the design, development and supply of mixed-signal, RF and microwave semiconductors for global communications markets.