

## **DRMCore: the cost effective OEM modulator for high performance DRM transmitters**



### Introduction

**DRMCore** is a new product belonging to the CHORUS DRM product line of DIGIDIA. It is the most integrated and cost effective DRM modulator/exciter addressing the OEM market.

**DRMCore** is a very high performance Digital Radio Mondiale modulator/exciter, especially designed for Broadcast transmitter manufacturers. Although very low-priced and compact sized, **DRMCore** includes all the technical features and performances of a high-end product.

### Key Features

- DRM modulator/exciter compliant with ES 201 980
- FAC, SDC and MSC Management
- All A, B, C and D modes
- All standard QAM modes (MSC 64 or 16 and SDC 16 or 4)
- Hierarchical symmetrical / Hierarchical mixed constellations and mapping
- Short and long interleaving process
- 4.5/5/9/10/18 and 20kHz channel bandwidths
- From 1/4 to 8/9 – Equal / Unequal coding rate (EEP/UEP)
- MFN and SFN operations (integrated GPS receiver for SFN)
- AM/DRM Multi Channel Simulcast supported (with or without Spectral Shaping)
- Dynamic Reconfiguration supported
- Very high performance modulation (MER, Stability...)
- Integrated digital pre-corrector
- Digital I/Q, Amplitude/Carrier or direct RF output possibilities
- Flexible RF output from 148,5kHz to 27MHz
- RS232 interface for control and easy integration in the transmitter
- Compact size for ease OEM integration including a compact package with very low thermal resistor
- Single +12/-12V supply voltage

## Specifications

- MDI input
  - One MDI input compliant with TS 102 820 and TS 102 821
  - Ethernet 10/100 Base-T – RJ45 connector
- AM input
  - One AM analog audio input and one AM digital input
  - Two female XLR connectors for the analog audio inputs - 600Ω balanced
  - One female XLR connector for the digital audio input - 110Ω balanced
  - For AM/DRM switching or simulcast applications
- Digital IQ/Carrier Output
  - One digital IQ output with a carrier output signal
  - One male XLR connector for the digital I/Q output - 600Ω balanced
  - One BNC female connector for the carrier signal output - 50Ω
- Amplitude/Carrier Output
  - One amplitude output with a carrier output signal
  - One male XLR connector for amplitude output - 600Ω balanced
  - One BNC female connector for the carrier signal output - 50Ω
- Direct RF Output (additional RF module supplied)
  - One direct lower power RF output with – 0dBm
  - BNC female connector - 50Ω
- Digital Pre-correction
  - Non linear digital pre-correction
  - Amplitude & Phase alignment for digital linear pre-correction
  - Correction tables loaded through control port
- Clock & Synchronization
  - High quality internal clock
  - Integrated GPS receiver for SFN operation
  - One GPS aerial input – TNC 50Ω connector
- Control & Monitoring
  - RS232 basic control port (ASCII protocol)
  - SUBD9 pins connector

## Flexibility

- Minor changes mainly for the connectors on-demand and customized features on-demand (software)
- Control through a high level web server or through XML and monitoring through SNMP (MIB supplied) on-demand

## Ordering Information

~ DRM-COREAC	Amplitude/Carrier outputs OEM Modulator
~ DRM-COREIQ	Digital I/Q outputs OEM Modulator
~ DRM-CORERF	Direct RF output OEM Modulator