

Audio & RDS Equipments

> *digital stereo & RDS coder systems*

SDC3010



TRDS3010 front view

Features

- > **PRIMARY APPLICATION:** is a high-performance digital stereo encoder and RDS. The use of digital technology based on DSP, allows to reach an excellent quality/price ratio in addition to the functions and characteristics of products more expensive. The RDS encoder is designed to support all popular services provided by UECP SPB490 including dynamic services like TMC, TDC, IH, EWS and RT+, and it uses fully digital technology to guarantee a very high quality of modulation and spectral purity.
- > **ADVANCED FEATURES:** It integrates a predictive limiter and AGC for analog and digital L&R inputs; I.T.U. loudness control systems with adjustable level; 4-way rescue changeover with operating times adjustment; RDS carrier cancellation system on MPX input. Moreover, integrates PI code verification and pilot level for MPX input; RDS decoder for selective editing of data in transit. It is equipped with LAN connection with LAN connection with the WEB server, SNMP agent and alarms via e-mail or with the WEB
- server, SNMP agent, alarms via e-mail and audio streaming with audio file storage up to 12 GB.
- > **TECHNICAL FEATURES:** it is fully digital and it uses only high quality components like A/D and D/A converters at 24 bit high dynamic range and numerical processing at 32 bit floating points. Using the WINRDS+ software you can assign station and apparatus codes in order to be able to selectively remote program such as satellite, LAN or Internet. The firmware can be updated via serial port without the necessity of hardware settings and without interruption of service.
- > **INPUT/OUTPUT INTERFACE:** the **SDC3010** integrate an advanced BYPASS system between (MPX or AUX with bandwidth up to 100kHz) input and outputs, that ensure the service also in the event of failures.
- > **HARDWARE FEATURES:** the system housed in lightweight and rugged stainless steel rack cases having the dimension of 1 HE.

Caratteristiche

- > **PRIMARY APPLICATION:** è un codificatore stereo digitale ed RDS ad alte prestazioni. L'utilizzo di tecnologia digitale basata su DSP, permette di raggiungere un eccellente rapporto qualità/prezzo oltre a funzioni e caratteristiche tipiche di prodotti molto più costosi. Il codificatore RDS è progettato per supportare tutti i servizi più diffusi previsti dal protocollo UECP SPB490, compresi i servizi dinamici TMC, TDC, IH, EWS e RT+, ed utilizza tecnologia totalmente digitale in grado di garantire una qualità di modulazione ed una purezza spettrale elevatissime.
- > **ADVANCED FEATURES:** integra un limiter predittivo e AGC per gli ingressi L&R analogici e digitali; sistemi di controllo loudness I.T.U. con livello regolabile; scambiatore di soccorso a 4 vie con regolazione dei tempi di intervento; sistema di cancellazione portante RDS su ingresso MPX. Inoltre integra la verifica del codice PI e livello pilota su MPX; decoder RDS per modifica selettiva dati in transito. È dotato di connessione LAN con WEB server, agent SNMP ed allarmi via e-mail oppure
- con WEB server, agent SNMP, allarmi via e-mail e streaming audio con archiviazione di file audio fino a 12 GB.
- > **TECHNICAL FEATURES:** è completamente digitale ed utilizza esclusivamente componenti di alta qualità come convertitori A/D e D/A a 24 bit ad alta dinamica ed elaborazioni numeriche a 32 bit in virgola mobile. Utilizzando il software WINRDS+ è possibile assegnare dei codici di stazione e di apparato al fine di poter programmare selettivamente in remoto ad esempio via satellite, lan o internet. Il firmware è aggiornabile tramite porta seriale senza la necessità di settaggi hardware e senza interruzione del servizio.
- > **INPUT/OUTPUT INTERFACE:** il **SDC3010** integra un sistema evoluto di BYPASS fra ingresso (MPX o AUX con banda passante fino a 100kHz) e uscite, e garantisce il servizio anche in caso di avarie.
- > **HARDWARE FEATURES:** il sistema è realizzato in un contenitore rack in acciaio inox incredibilmente leggero e robusto in dimensioni di 1 HE.

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Technical specifications

Parameter		SDC3010	Value
GENERALS			
Overall Dimensions	L x H x W		483 x 44 x 280 mm
Weight			4 kg
Operating Temperature			From -10 °C to + 50 °C
Operating Humidity			95% non condensing
A/D & D/A conversion			24 bit (dynamic range 112 dB for A/D and 123 dB for D/A)
DSP elaboration			32 bit, floating point – double ALU -200MHz
Sampling Rate			Analog Inp.47,5KHz–Out.190KHz–Limiter 190KHz–Clipper 760KHz
Preemphasis			0/50/75 microsec.
Clipper & AGC			Right and Left channel, composite MPX input
RDS function	EN50067		PTY,PTYN,TA,TP,MS,DI,PI,PS,AF,PIN,EON,RT,TDC,TMC,EWS,IH,CT, RT+
	Command formats		UECP - SPB490 Ver.7.05
	Frequency		57 KHz ±0,6 Hz (Internal Reference)
	Phase		Adjustable up to 360° in 0.33° steps
/SFN option	Delay		Fixed, adjustable up to 10mS in 50nS steps
	Synchronisation		GPS stability ±200nS
	Pilot tone phase		Adjustable in 0.1-degree increments within a range of ±12 degrees
POWER REQUIREMENTS			
AC Power Input	AC Supply Voltage		115 / 230 VAC ±10%
	Connector		VDE IEC Standard
INPUTS			
Left & Right	Connector		XLR balanced (female), 600 / 10k Ω impedance
	Input level		Adjustable from -12 to +12 dBu in 0.1 dB steps (from 0 to +22 dBu on request)
MPX & AUX	Connector		BNC unbalanced (female), 5k Ω impedance
	Input level		Adjustable from -12 to +12 dBu in 0.1 dB steps (from 0 to +22 dBu on request)
SCA	Bandwith		10Hz – 100kHz +/-0,02dB
	Connector		BNC (female), 10k Ω impedance
AES/EBU	Maximum input level		Adjustable from +8 to +20 dBu in 0.1 dB steps
	Connector		XLR balanced (male), 110 Ω impedance
TOSLINK	Sampling Rate		From 32 to 192 KHz
	Connector		EIAJ optical
OUTPUTS			
1, 2 & 3	Connector		BNC balanced (male)
	Pilot Tone		19 KHz ±0.2 Hz
	Pilot level		Adjustable from -8 to -32 dBu in 0.1 dB steps
	Pilot phase		Adjustable within a ± 12° range in 0.1° steps
	Stereo separation		70 dB, 30 Hz to 15 kHz
S/P DIF	MPX output noise		-94 dBu
	Connector		Cinch – RCA coaxial, 75 Ω impedance
CONNECTORS			
RS232 serial port	Connector		2x DB9 (female) + 1 USB (from 1200 to 115200 Baud 8,N,1)
REMOTE input	Connector		DB9 (male): 3 Input + 3 Output
Ethernet	Connector		RJ45 (female): WEB & SNMP v1.0

All pictures are RVR's property and they are only indicative and not binding. The pictures can be modified without notice. These are general specifications. They show typical values and are subject to change without notice.

CE 99/5/CE Revision: 11/16

Ordering Information

Code -Codice	Description - Descrizione
Versions for SDC3010 – Versioni per SDC3010	
SDC3010	Stereo Multicoder & Radio Data System encoder with MPX by-pass function. Equipped with ethernet telemetry with WEB server, SNMP agent, alarms via e-mail, audio streaming and file audio storage up to 12 GB. <i>Multicoder Stereo & Encoder RDS (Radio Data System) con funzione by-pass per MPX. Dotato di telemetria ethernet con WEB server, agent SNMP, allarmi via e-mail, audio streaming e backup di file audio fino a 12 GB.</i>
Options for SDC3010 – Opzioni per SDC3010	
/SFN-SDC3	Isofrequency, synchronization with external GPS Receiver. <i>Isofrequenza, sincronizzazione con ricevitore GPS esterno.</i>