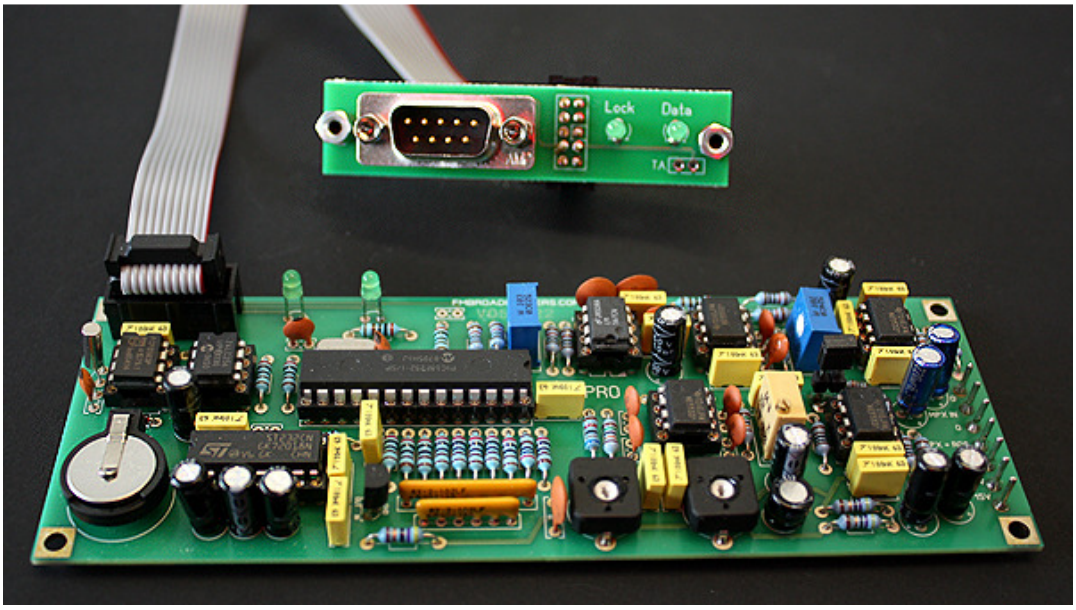
RDS ENCODER PRO

RDS Pro encoder meets requirements of most radio stations. Fully digital concept and uniquely effective design ensures high reliability, excellent signal characteristics and gives the user many advanced features. Includes scrolling, advanced weekly scheduling, EON, ASCII terminal and remote control and much more! Supported by familiar broadcast automation systems. A ready to build-in connection board is included.



Dimension (L x W x H): 146 x 52 x 20mm & 72 x 16 x 25mm (connection board)

(The picture is a mere example; it does not bind the provided product)

Features:

- Fully dynamic stand-alone RDS encoder based on RDS32 chip.
- Excellent spectral purity, direct digital RDS signal synthesis, over sampled & RDS filtering though low noise precision op-amp filters.
- RS-232 control interface based on set of simple ASCII commands; OS independent, no driver required, especial for developers and experimental natures
- Control software includes powerful Windows GUI application and HTML based system; remote control capability
- Firmware updates for free
- Addressing feature - independent or common control of up to 255 units in a network
- Amazing text features .
- Advanced weekly scheduling
- External TA switch
- Switchable MPX loopthrough
- Internal real-time clock incl. backup battery, showing real-time also as PS
- No special 19 kHz input needed - pilot tone carefully recovered from MPX signal
- Digital 57 kHz phase locked loop - rock stable RDS subcarrier in all cases, the PLL will never lock to a pilot frequency outside the functional range!
- Extra led's for PLL & RDS rate & manual TA switch connection on connection board.

RDS services directly supported

- **PI** Program Identification
- **M/S** Music/Speech
- **PS** Program Service
- **PIN** Program-Item Number
- **PTY** Program Type
- **ECC** Extended Country Code
- **TP** Traffic Program
- **RT** Radiotext
- **AF** Alternative Frequencies
- **TDC** Transparent Data Channels
- **TA** Traffic Announcement
- **IH** In House Applications
- **PTYN** Program Type Name
- **ODA** Open Data Applications
- **DI** Decoder Identification
- **CT** Clock-Time and Date
- **EON** Enhanced Other Networks information
- **LIC** Language Identification Code

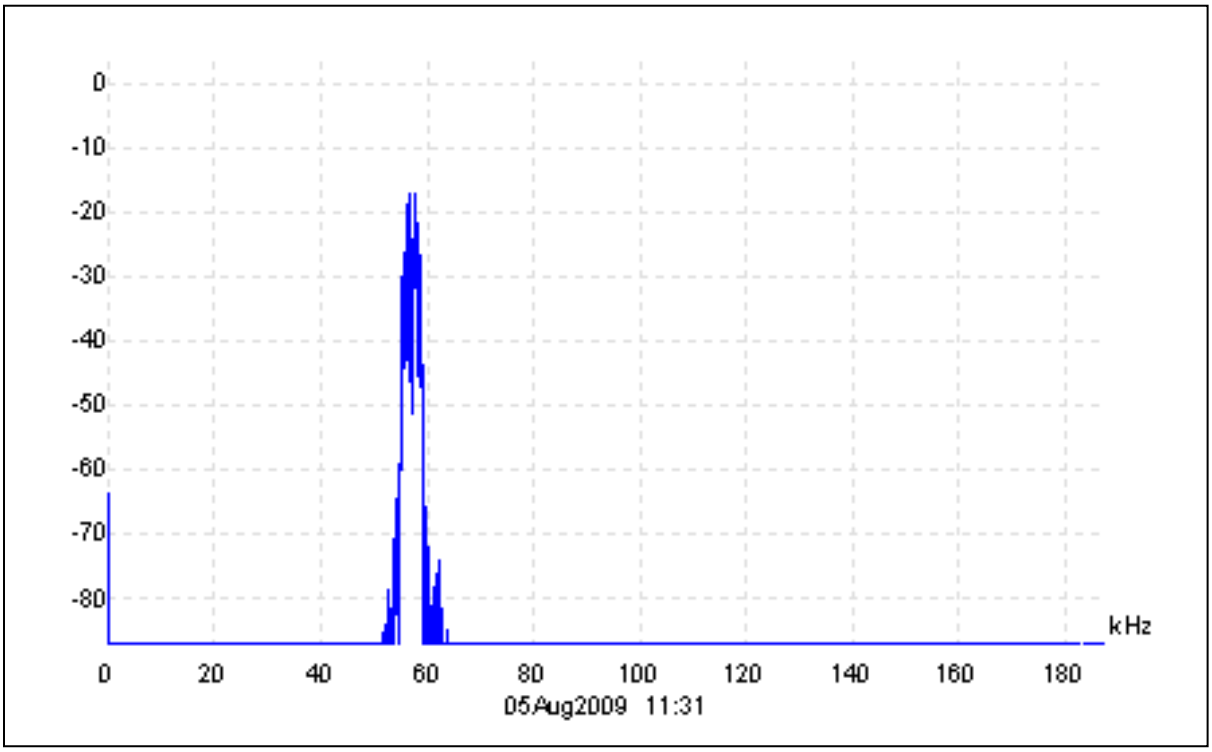
Total text capacity:

- 25 kb - Equivalent to more than 3200 PS. Send text messages without any space limitations!
- 100 text messages up to 255 characters each sent as RT, dynamic/scrolling PS or both. Manual or automatic switching.
- Four modes for dynamic/scrolling PS transmission at selectable speed, incl. word alignment and one-by-one character scrolling.

ELECTRICAL SPECIFICATIONS	min	typ	max	
Powersupply	+/- 10	+/-15	+/-16	Volt DC
Powersupply with DCDC1515 module	+ 9	+12	+18	Volt DC
Supply current		+/- 80	+/- 100	mA DC
Supply current with DCDC1515 module	130(15V)	150(12V)	200 (9V)	mA DC
MPX input	unbalanced			
MPX input impedance	-	1	-	K ohm
MPX input level		0	+6	dBu

RDS output impedance		1		K Ohm
RDS output level without MPX (adjustable)	-50		0	dBu
RDS injection into MPX @ 0dBu	-60		-15	dB
RDS/RBDS signal	CENELEC EN50067			
RDS signal bandwidth		+/-2.4		Khz
TA switching	multimode software or external switch			
Internal clock inaccuracy	max. +/- 0.01 %			
Clock reference	pilot tone or internal generator			
19 kHz pilot PLL lock bandwidth	software switchable +/- 5 Hz or +/- 2 Hz			
Pilot tone level for PLL to lock	150	200	300	mv p-p
Phase shift adjust	0-180 degrees in 9.5 degrees steps			
Dataconnector on connection board	RS-232 (DTE, 9 pins), bidirectional			
Dataconnector option on request	USB to RS232 Converter			

ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Unit
V_S	Powersupply	+/-16	V dc
I_S	Supply Current	+/-150	mA dc
T_{stg}	Storage Temperature Range	0 / +60	℃
T_C	Operating Temperature	50	℃

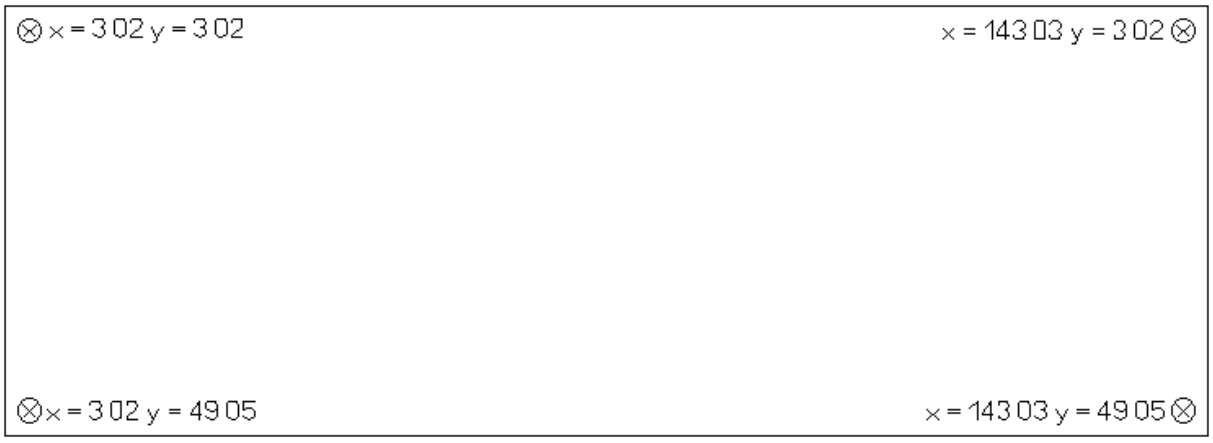


RDS Spectrum output without MPX input.

Drillplan RDS encoder

PCB size 146 x 52mm, drill holes M3 , 0x0 is on left top side.
Dimensions in mm, drill centre on values calculated from 0x0
Tolerance +/- 0.5mm

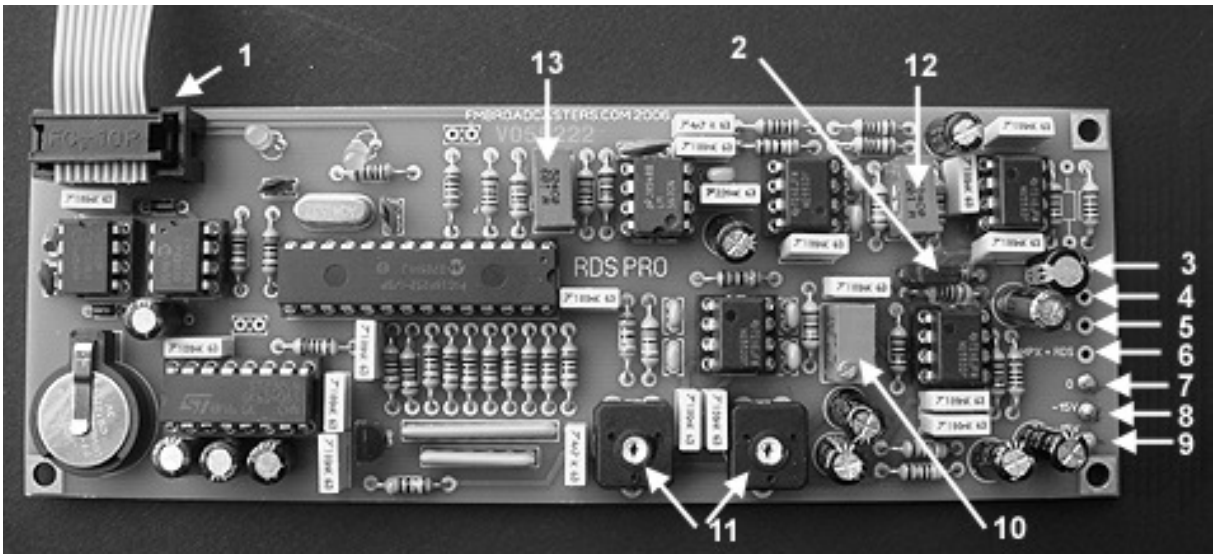
A full size drill plan is provided with your encoder



MOUNTING/HARDWARE RDS encoder

With every encoder you will receive 4 hexagonal 5mm M3 spacers and M3 nuts. We advise you to use these spacers and build the encoder in a metal or aluminium enclosure/box. If you are also using the DCC1515 pcb, place this in the same enclosure/box. With the supplied drill plan you can drill the holes exact on the spot.. Use an 3.5mm metal drill.

Connections & settings



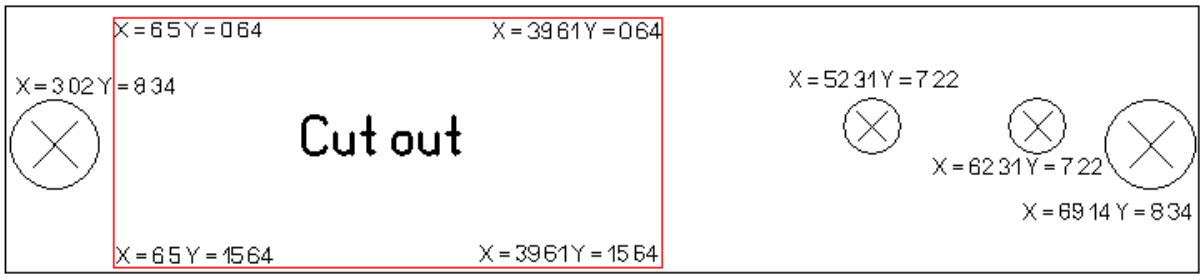
Connections and settings explained

1. Data connector to connection board
2. Short this connection pins for MPX loop through, open is 19 KHz input only for RDS synchro. Otherwise PLL is filtering 19 KHz from MPX signal.
3. GND
4. MPX or 19Khz pilot input
5. GND
6. RDS output (including MPX when you use MPX loop through)
7. GND or 0 Volt
8. – 15 V DC
9. + 15 V DC
10. RDS output level
11. 57 KHz RDS filters, do not adjust!
12. 19 KHz filter, do not adjust!
13. 19Khz PLL, only adjust when led is not turned on when you put MPX or 19Khz on the MPX / 19Khz input.. Minimum 19 KHz level is 150mv pp.

Drill plan RDS connection board

PCB size 72 x 16mm, drill all holes 3.5mm, 0x0 is on left top side.
Dimensions in mm, drill centre on values calculated from 0x0
Tolerance +/- 0.5mm

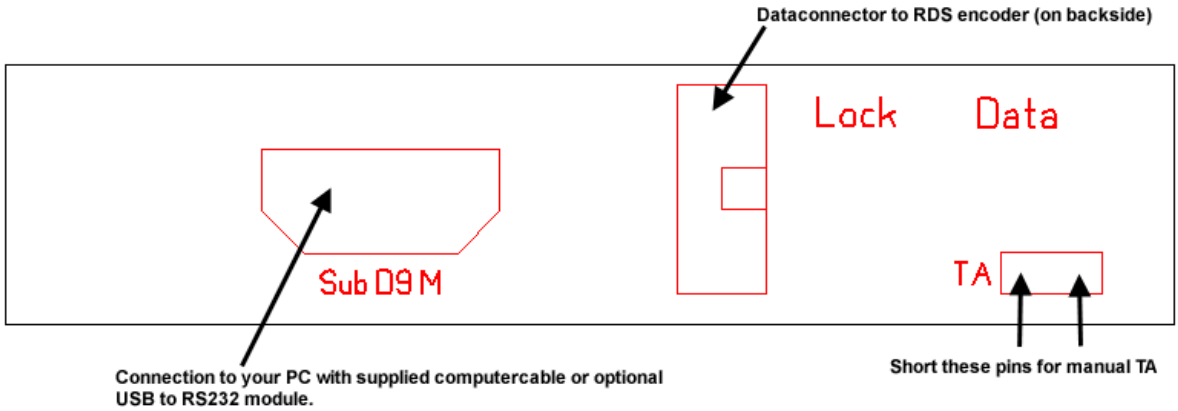
A full size drill plan is provided with your RDS encoder



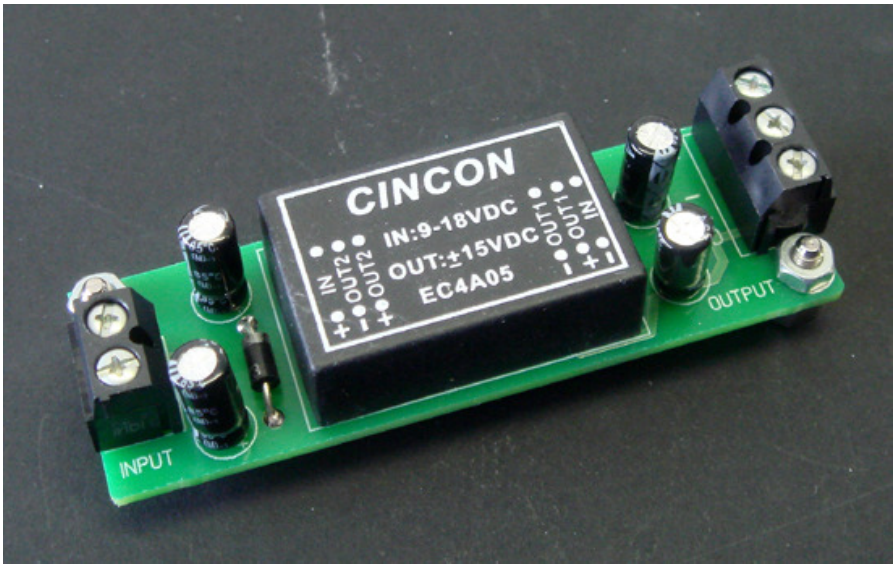
MOUNTING/HARDWARE RDS encoder

With this connection board you will receive 2 hexagonal 5mm M3 spacers and M3 nuts. We advice you to use these spacers. If you do not have the possibility to use an CNC machine to cut out the D plug in your enclosure, drill 4 holes inside the corners of the cut out area and use a fretsaw for best result. All drill holes incl. the Led are 3.5mm.

Connections connection board



Options



DCDC1515 Module

This module converts 9-18 Volt DC to +15/-15/0 volts required for RDS pro module. See our website for more information.

USB to RS232 module

This module is required for “new” computers without the com sub D connection port. Almost all new computers / laptops will need this option. When you buy one in combination with RDS Pro encoder, you will pay only a handling fee.

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