



Electronic Broadcast Equipment

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RDS 4500 Kit

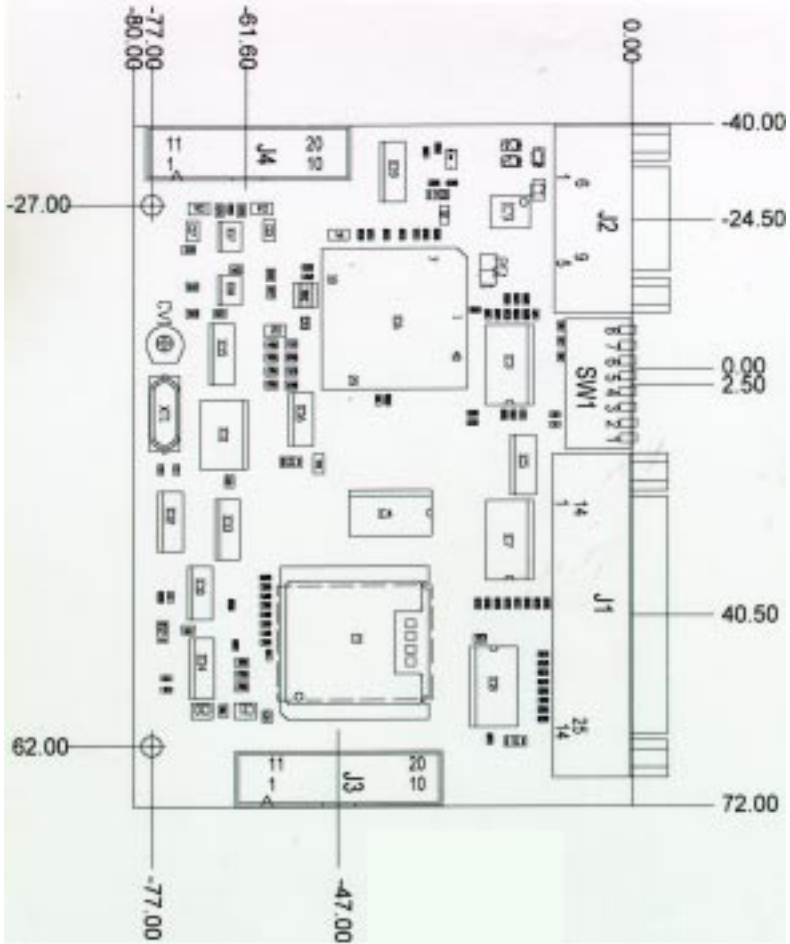
3001101200

V.1,01

By Roberto Paganelli 11-07-2000



Components / Mechanical Layout





Electronic Broadcast Equipment

J1 = 8 I/O Remote control logic 5V CMOS J2 = RS232

J3 = Connector for I/O+PWS

J4 = Connector for Coder MPX Kit Expansion

J1 8 I/O Remote control logic 5V CMOS

PIN	FUNCTION	I/O TYPE	ON	OFF	FIG.
17	RDS OFF	IN	GND	OPEN/+5V	2
4	TA EON4	IN	GND	OPEN/+5V	2
16	TA EON3	IN	GND	OPEN/+5V	2
3	TA EON2	IN	GND	OPEN/+5V	2
15	TA EON1	IN	GND	OPEN/+5V	2
2	TA EON0	IN	GND	OPEN/+5V	2
14	TA	IN	GND	OPEN/+5V	2
1	MS	IN	GND	OPEN/+5V	2
22	RDS OFF	OUT	+5V	GND	3
10	TA EON4	OUT	+5V	GND	3
23	TA EON3	OUT	+5V	GND	3
11	TA EON2	OUT	+5V	GND	3
24	TA EON1	OUT	+5V	GND	3
12	TA EON0	OUT	+5V	GND	3
25	TA	OUT	+5V	GND	3
13	MS	OUT	+5V	GND	3
5-9	NOT USED				
6-7- 8- 19-20-21	GND				

J2 RS232 DTE

PIN	FUNCTION	I/O TYPE	INTERNALLY CONNECTED
1	NOT USED		
2	RX	OUT	
3	TX	IN	
4	DTR		DSR
5	GND		
6	DSR		DTR
7	RTS		CTS
8	CTS		RTS
9	NOT USED		



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J3 I/O + Power Supply Module Expansion

PIN	FUNCTION	I/O TYPE	LEVEL	ON	OFF	CONS.	FIG.
12	RDS OFF	OUT		GND	+5V		1
1	RESERVED	OUT		GND	+5V		1
2	LOW BATTERY	OUT		+5V	GND		4
3	EXTERNAL PILOT SYNC.	OUT		+5V	GND		5
11	RDS SIGNAL	OUT	0dB				
13	PILOT	IN	5Vpp (Square wave)				
5-15	+12V					10mA	
4-14	-12V					10mA	
6-7-16-17	+5V					15mA	
8-9-10-18-19-20	GND						

J4 Coder MPX Module Expansion

PIN	FUNCTION	I/O TYPE	LEVEL	ON	OFF	CONS.	FIG.
11	RDS OFF/LOW BATT.	OUT		+5V	GND		5
1	RDS SIGNAL	OUT	0dB				
2	PILOT	IN	5Vpp (Square wave)				
5-15	+12V					10mA	
4-14	-12V					10mA	
6-7-16-17	+5V					15mA	
8-9-10-18-19-20	GND						
3-12-13	NOT USED						



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Preset dip

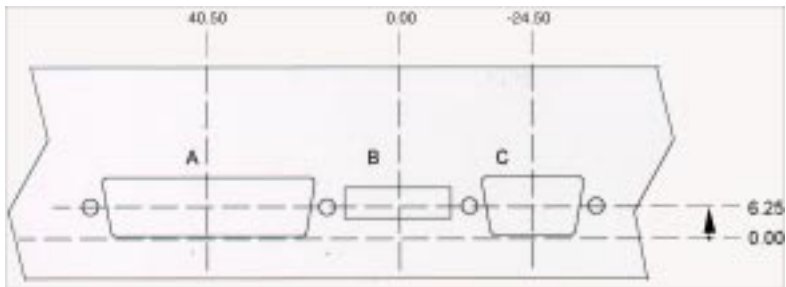
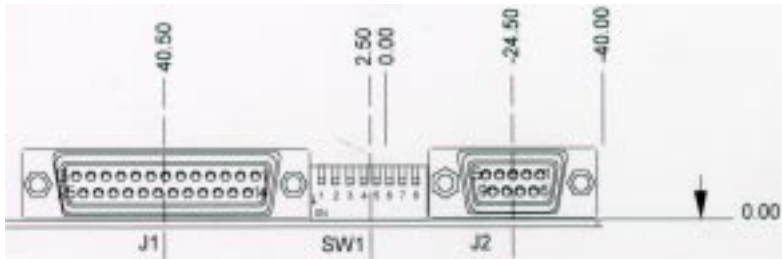
	Dip 1 - 2	Dip 3	Dip 4	Dip 5	Dip 6	Dip 7	Dip 8
↑	See Baud Rate Table	Reserved	TA bistable	RDS ON	REMOTE ON	Reserved	Reserved
↓	See Baud Rate Table	Reserved	TA monostable	RDS OFF	REMOTE OFF	Reserved	Reserved

Baud Rate dip

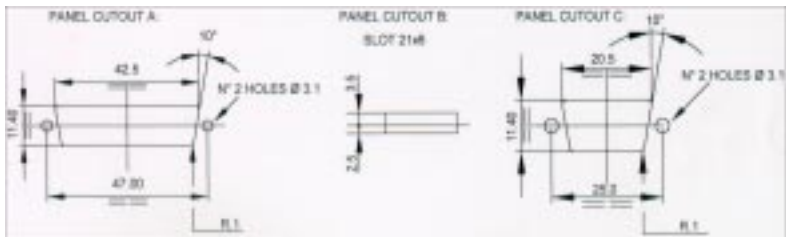
	Dip 1	Dip 2
2400	↓	↓
4800	↑	↓
9600	↓	↑
19200	↑	↑



Mechanical Layout



Panel cut out





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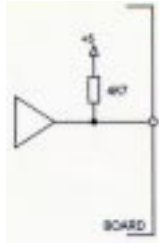


FIG.1

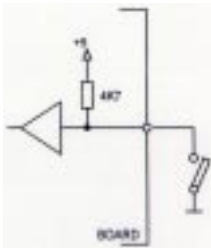


FIG.2

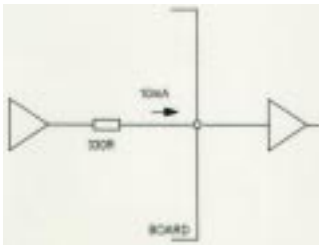
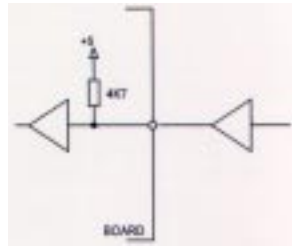


FIG.3

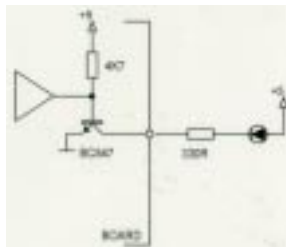
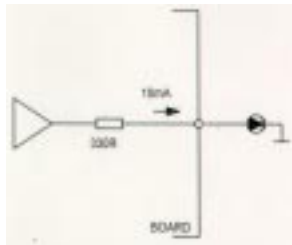


FIG.4

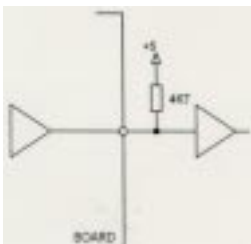
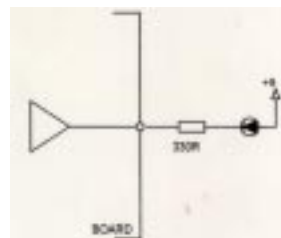


FIG.5





TECHNICAL DATA

RDS GENERATOR

RDS signal:	Standard specification EBU Doc. Tech. 3244-E and Cenelec PrEn 50067
Coding:	Differential and Biphasic
Modulation	DSB-suppressed carrier
Frequency	57 KHz
Bandwidth	± 2.4 KHz
RDS injection into MPX signal	- infinite ÷ - 16 dB
RDS output level	0 dBu
Output Impedance	100 ohm (max load 5 Kohm)
Connector	DIN 41617 Headers
Pilot Reference Input	5Vpp sq. wave TTL
Connector	DIN 41617 Headers



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DATA SYNCHRONIZATION

Terminal Interface:	RS232-C at rear, asynchronous
Data Input	Full duplex
Format	Selectable
Transmission	Speed 2400 ÷ 19600 baud
Connector	9 contact subminiature Cannon female
RDS Data management	Microprocessor controlled 128 Kbyte Non volatile memory RAM data 10 years retention.

REMOTE I/O

MS, TA, RDS OFF	Cmos level
Connector	25 contact subminiature cannon female

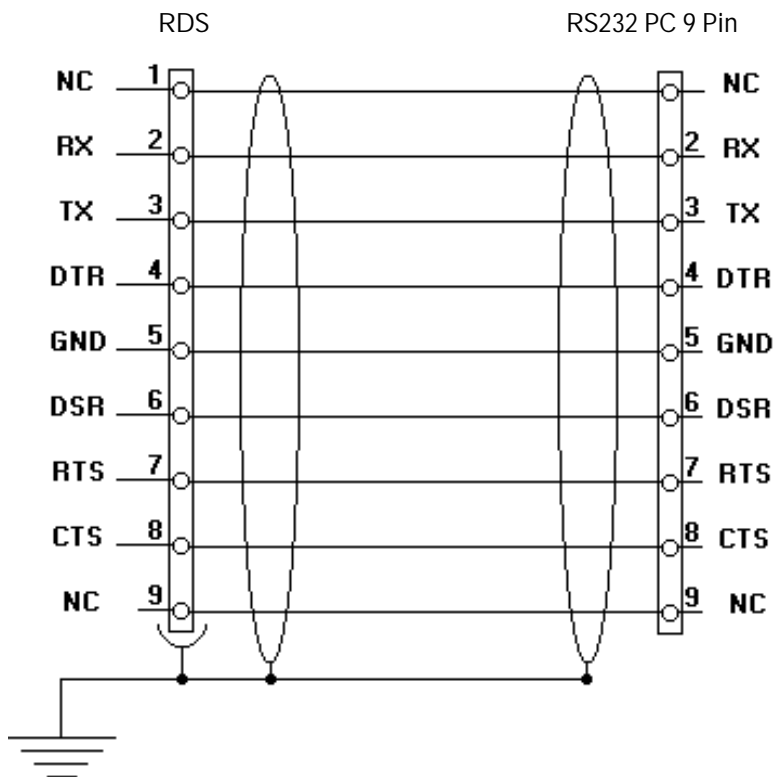
GENERAL DATA

Power requirement	+5 VDC, +/-12 VDC
Consumption	see J3 Table
Dimension (WxHxD)	112 x 86 x 15 mm
Weight	74 g
Operating Temp.	0 ÷ 50° C



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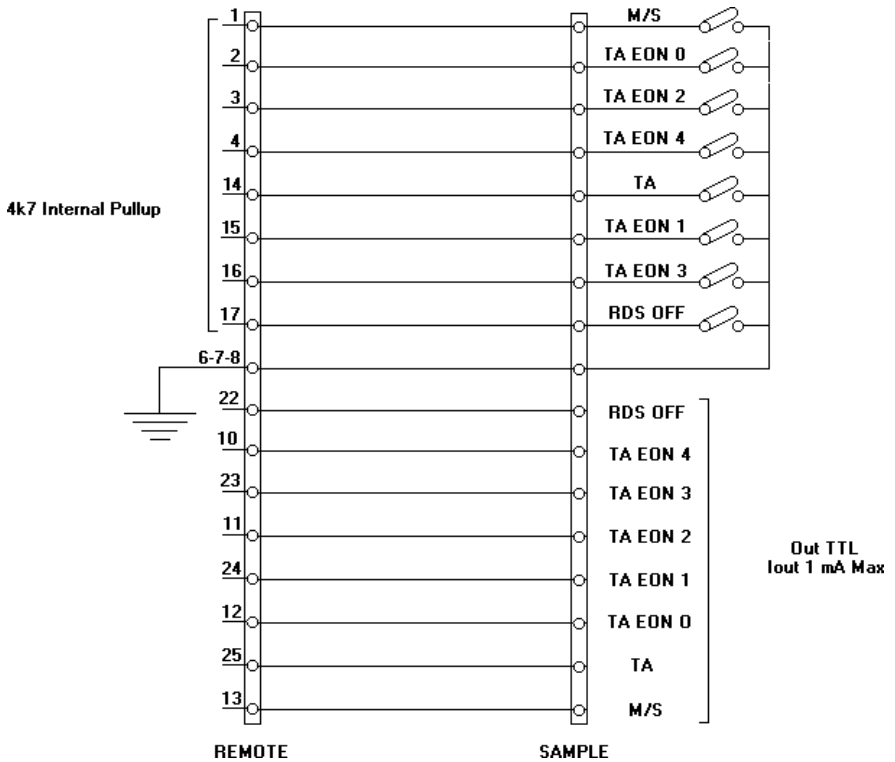
PC Connection - RS232





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8 I/O Remote control logic connection diagram





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Note:

A series of 20 horizontal dotted lines for taking notes.