

PRIMARE



**T21 Tuner
Service Manual**

1. Circuit Diagrams

2. Technical Specifications

Note, Primare T30 is Similar.

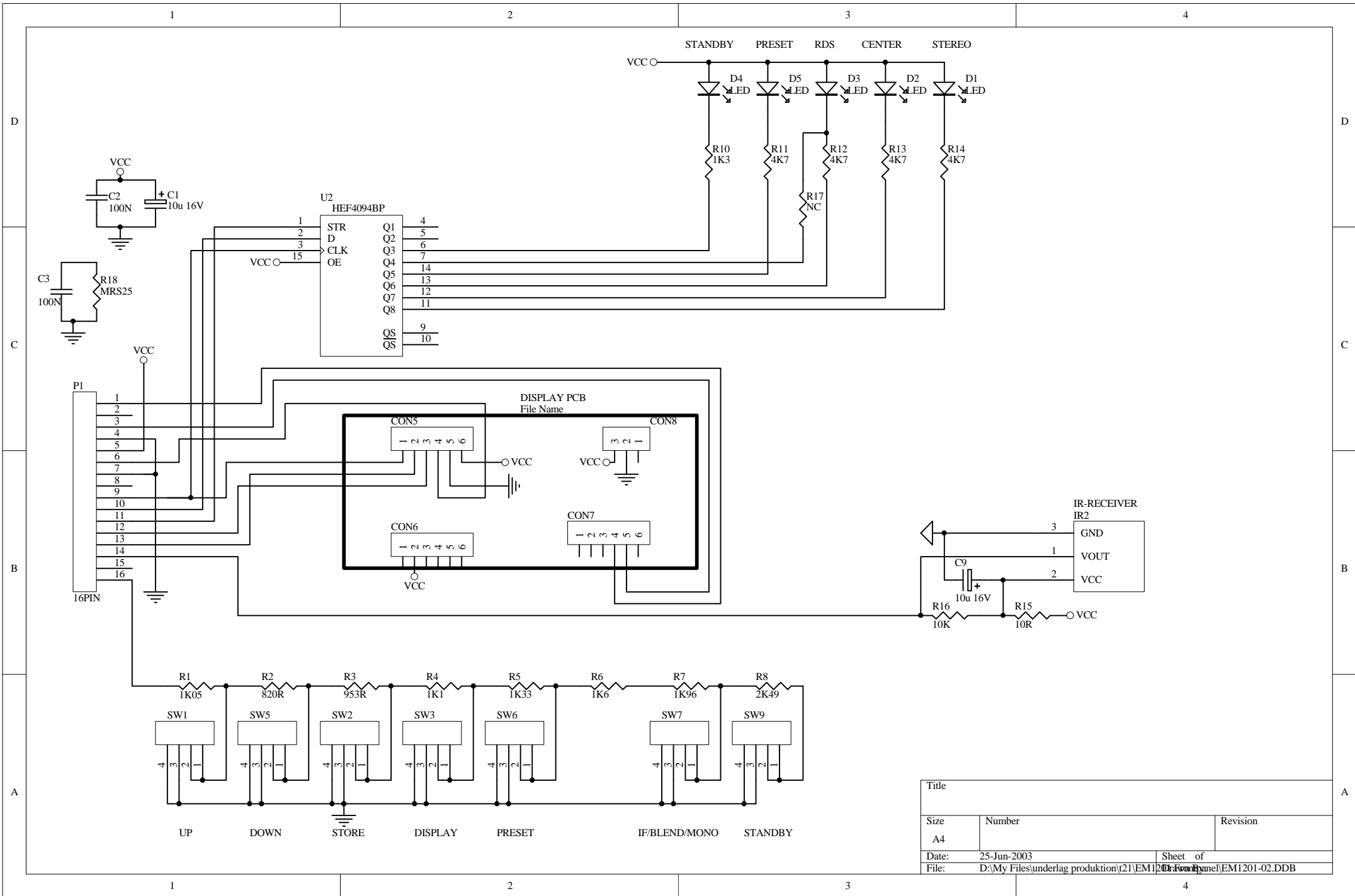
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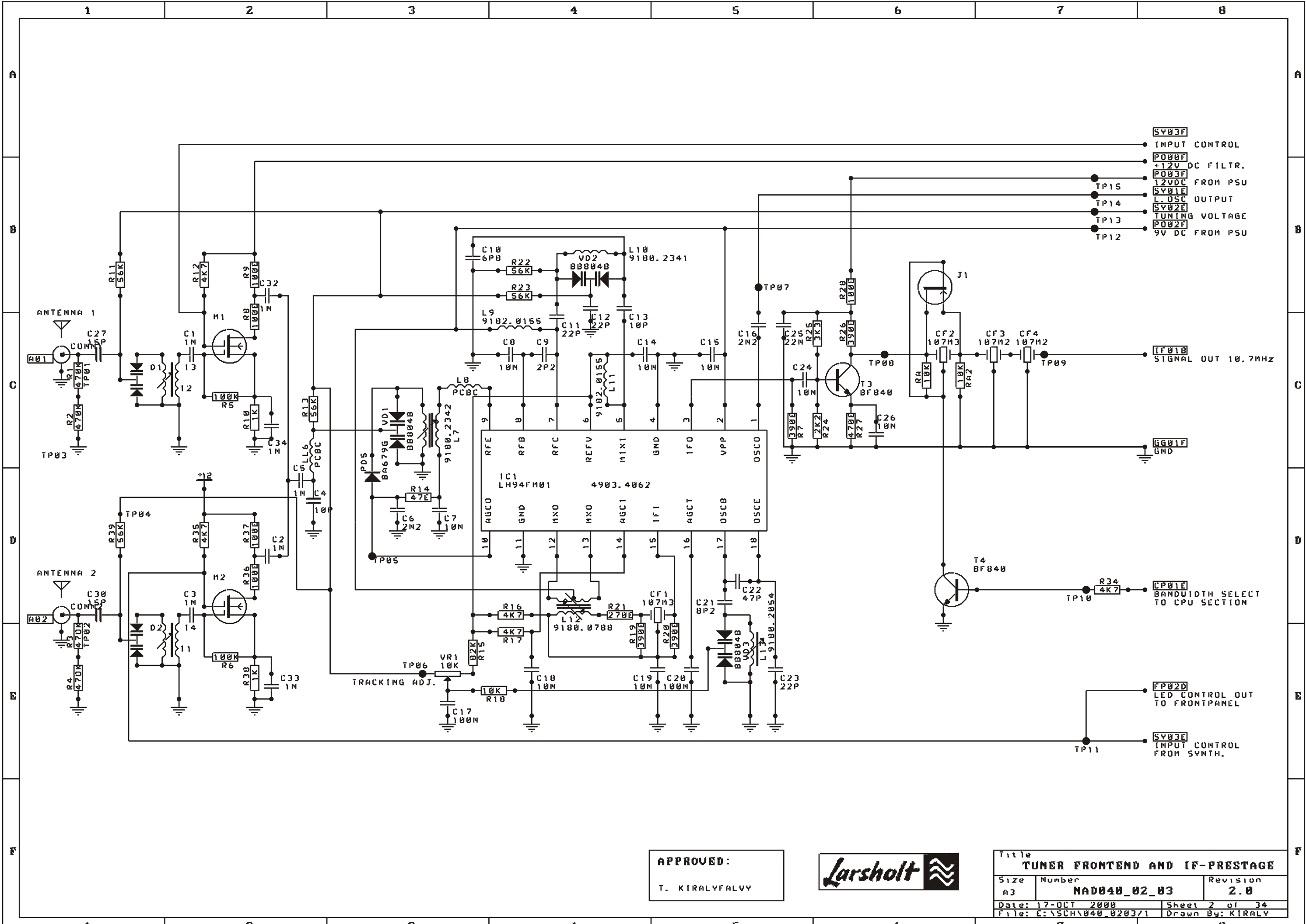
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Title		
Size	Number	Revision
A4		
Date:	25-Jun-2003	Sheet of
File:	D:\My Files\underslag produktion\t21\EM1201\panel\EM1201-02.DDB	



- 5V03F INPUT CONTROL
- P000F +12V DC FILTR.
- 12VDC FROM PSU
- 5V01E L OSC OUTPUT
- 5V02E TUNING VOLTAGE
- P002F 9V DC FROM PSU

TP09 SIGNAL OUT 10.7MHz

GG01F GND

TP10 BANDWIDTH SELECT TO CPU SECTION

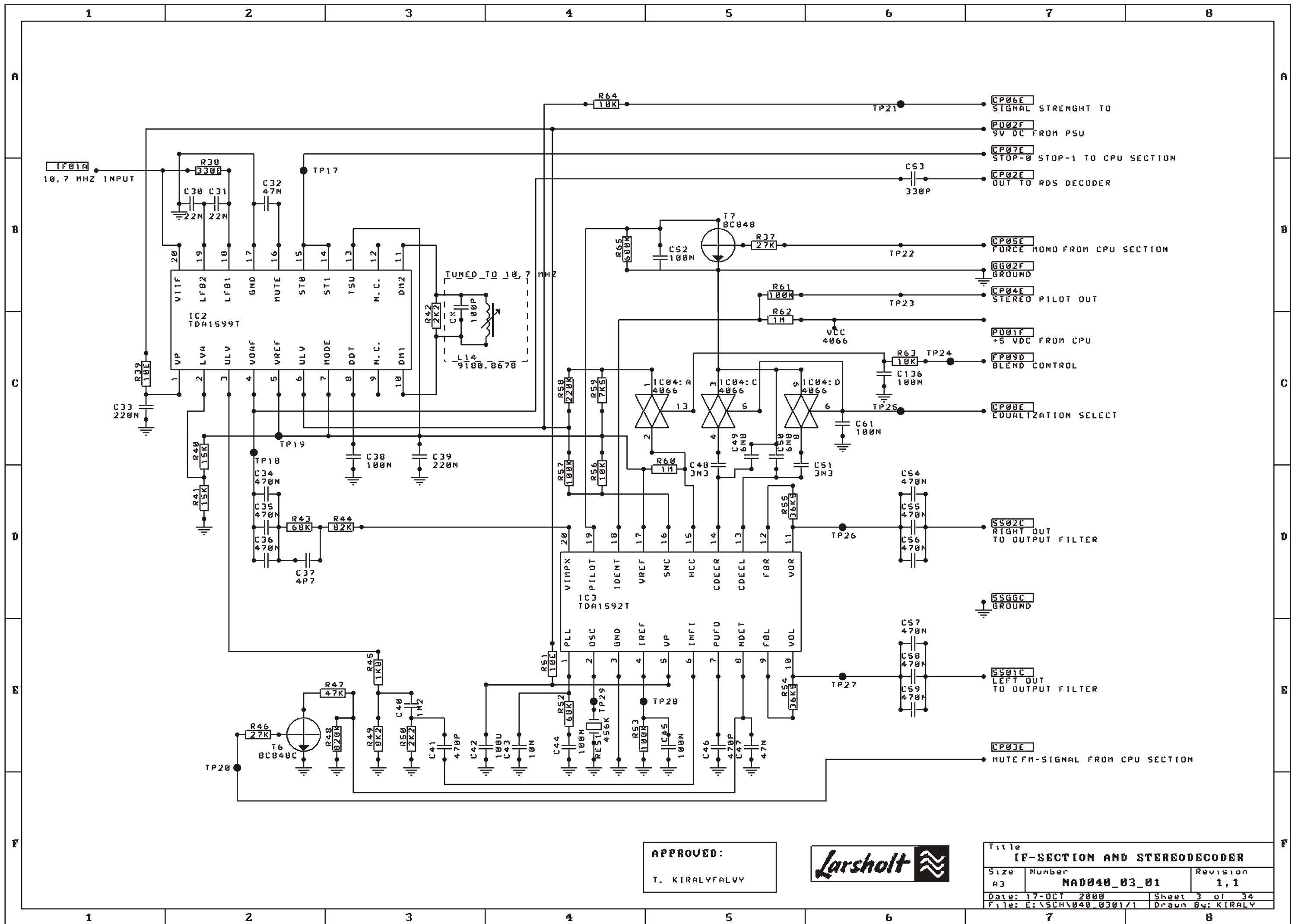
FP02D LED CONTROL OUT TO FRONTPANEL

TP11 INPUT CONTROL FROM SYNTH.

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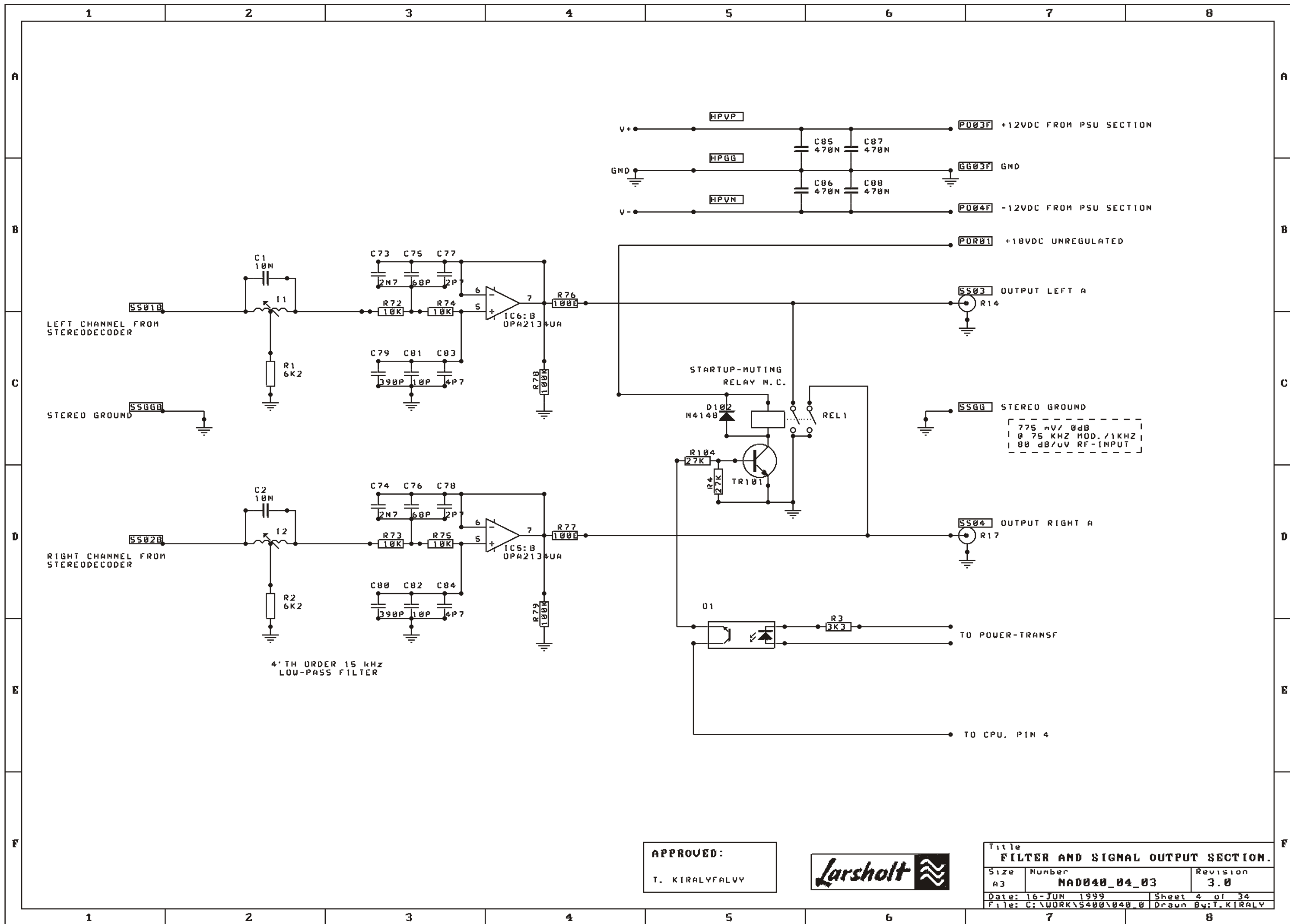
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Size A3	Number NAD040_02_03	Revision 2.0
Date: 17-OCT 2000	Sheet 2 of 34	
File: E:\SCH\040_0203\1	Drawn By: KIRALY	



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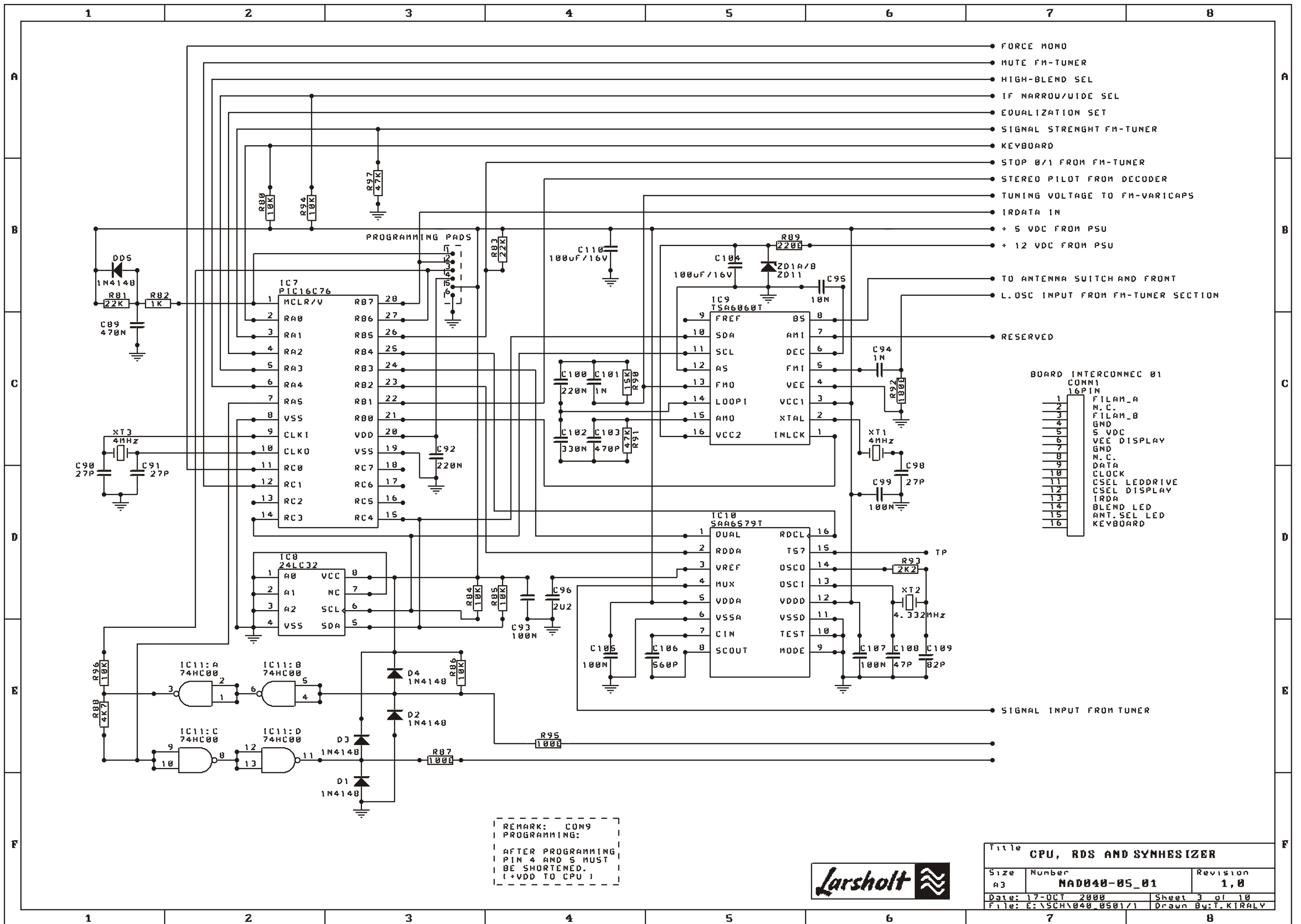
Title IF-SECTION AND STEREODECODER		
Size A3	Number NAD040_03_01	Revision 1, 1
Date: 17-OCT 2000	Sheet 3 of 34	
File: E:\SCH\040_0301/1	Drawn By: KIRALY	



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Title FILTER AND SIGNAL OUTPUT SECTION.		
Size A3	Number NAD040_04_03	Revision 3.0
Date: 16-JUN 1999	Sheet 4 of 34	
File: C:\WORK\5400\040_0	Drawn By: T. KIRALVY	



- FORCE MONO
- MUTE FM-TUNER
- HIGH-BLEND SEL
- IF NARROW/WIDE SEL
- EQUALIZATION SET
- SIGNAL STRENGTH FM-TUNER
- KEYBOARD
- STOP 0/1 FROM FM-TUNER
- STEREO PILOT FROM DECODER
- TUNING VOLTAGE TO FM-VARICAPS
- IRDATA IN
- + 5 VDC FROM PSU
- + 12 VDC FROM PSU
- TO ANTENNA SWITCH AND FRONT
- L.OSC INPUT FROM FM-TUNER SECTION
- RESERVED

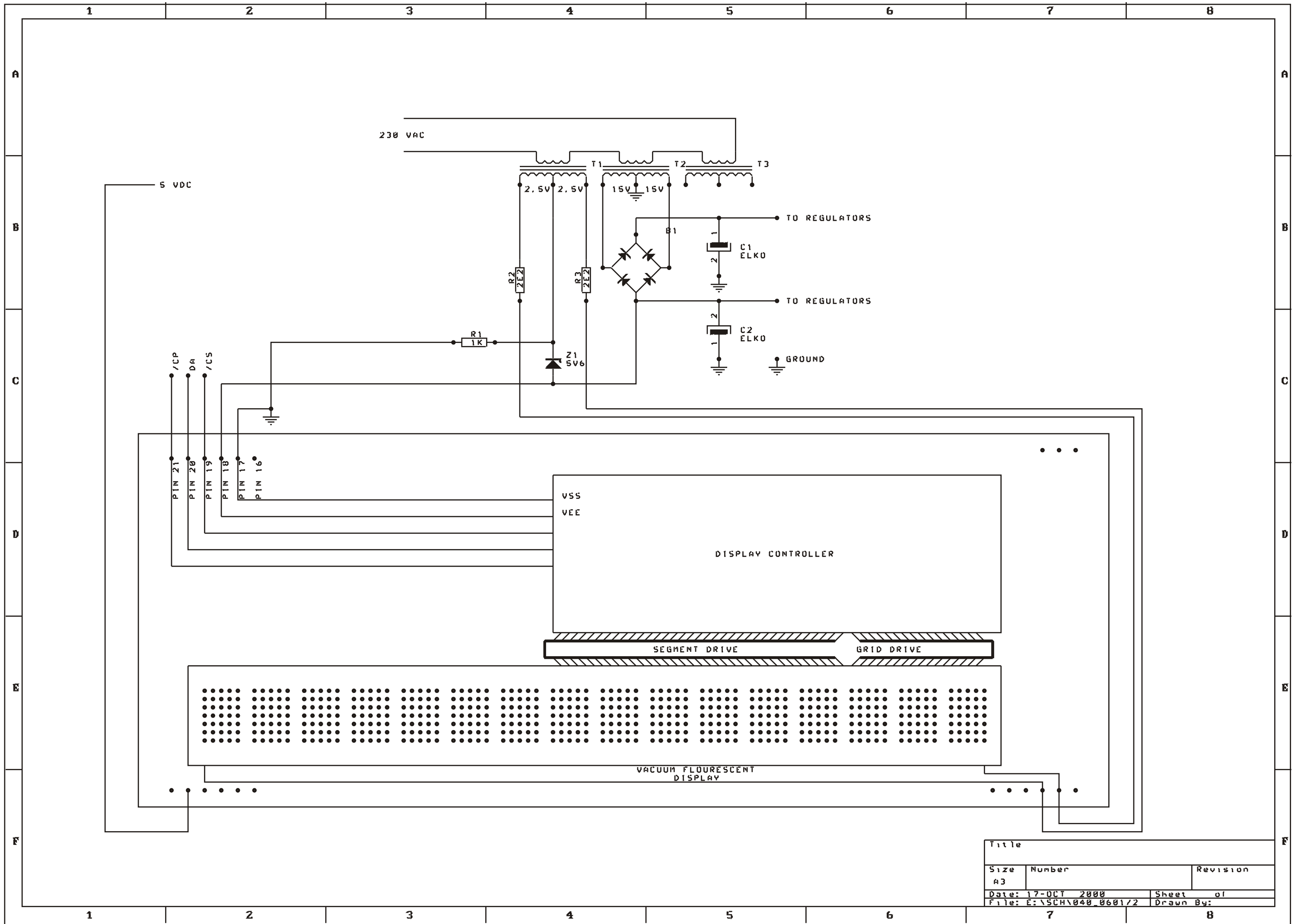
BOARD INTERCONNECT 01
CONN1
16PIN

1	FILAM_A
2	N.C.
3	FILAM_B
4	GND
5	5 VDC
6	VEE DISPLAY
7	GND
8	N.C.
9	DATA
10	CLOCK
11	CSEL LEDDRIVE
12	CSEL DISPLAY
13	IRDA
14	BLEND LED
15	ANT. SEL LED
16	KEYBOARD

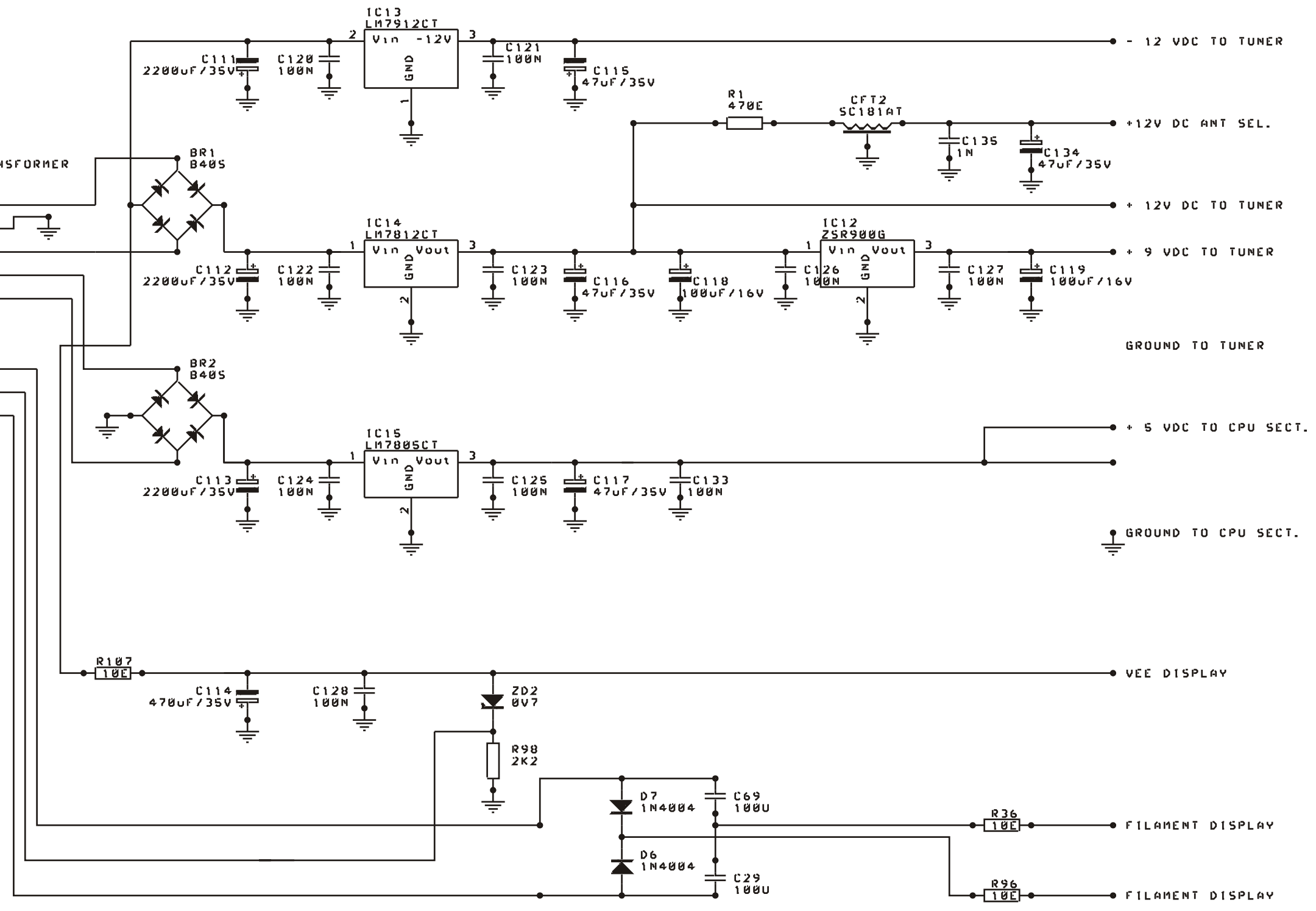
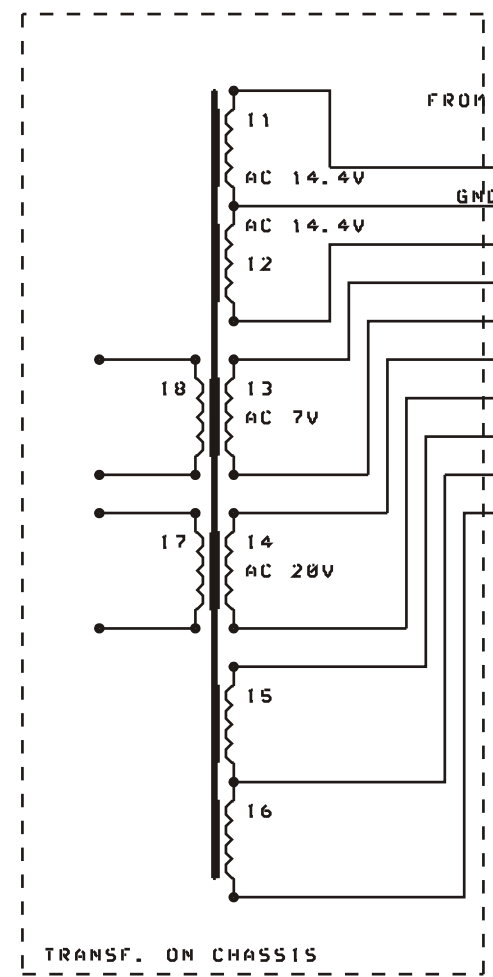
REMARK: CON9
PROGRAMMING:
AFTER PROGRAMMING
PIN 4 AND 5 MUST
BE SHORTENED.
(+VDD TO CPU)



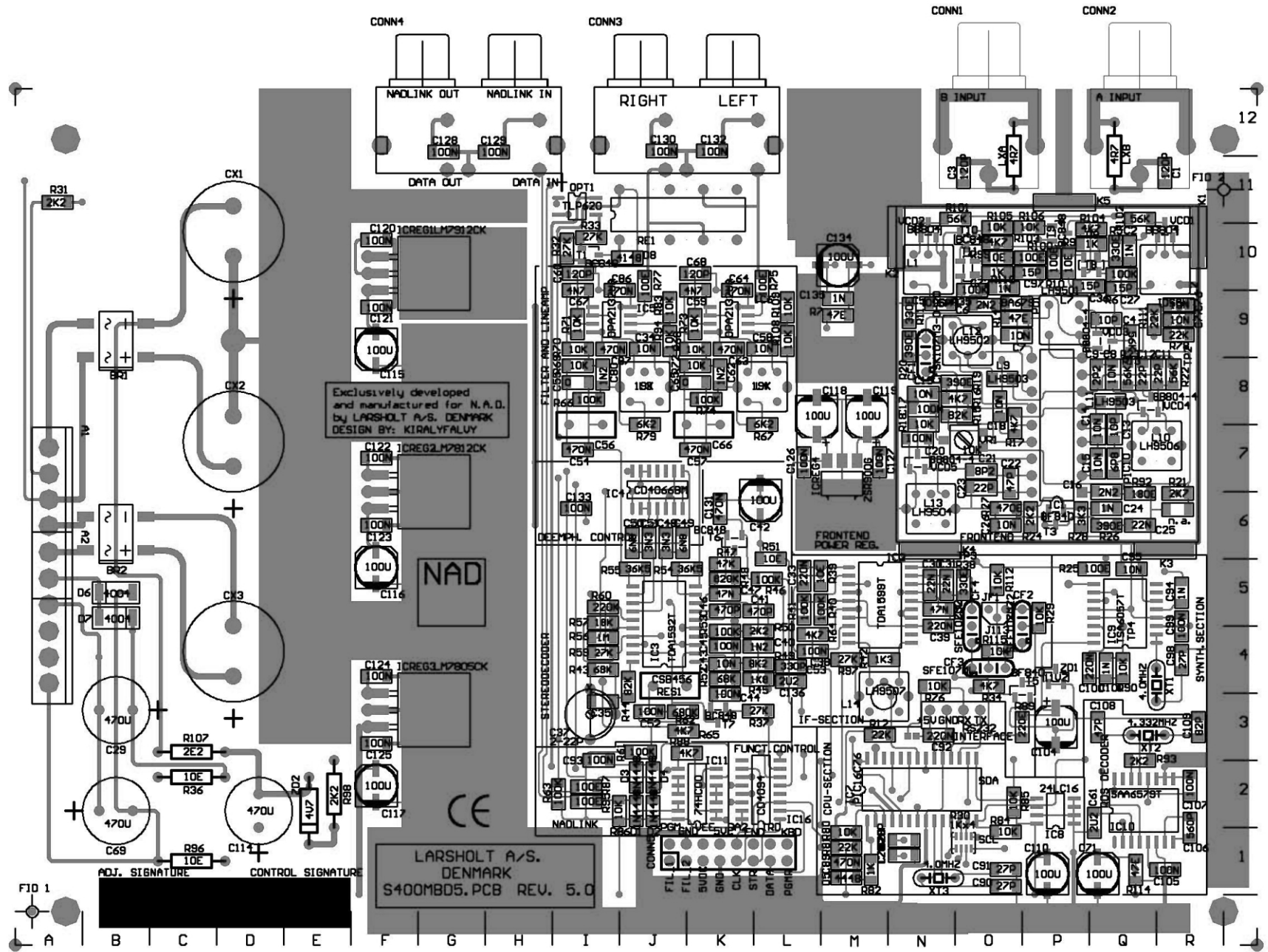
Title CPU, RDS AND SYNTHESIZER		
Size A3	Number NAD040-05_01	Revision 1,0
Date: 17-OCT 2000	Sheet 3 of 10	
File: E:\SCH\040_0501/1	Drawn By: T. KIRALY	



Title		
Size	Number	Revision
A3		
Date:	17-OCT 2000	Sheet of
File:	E:\SCH\040_0601/2	Drawn By:



Title		
POWERSUPPLY AND CONNECTIONS		
Size	Number	Revision
A3	NAD 040_07_02	2,0
Date: 17-OCT 2000	Sheet 7 of 34	
File: E:\SCH\040_0701\1	Drawn By: KIRALY	



Technical Specifications

Tuning range (50 kHz steps): 87,5 - 108,0 MHz

Tuning range Japan (50 kHz steps): 75,5 - 90,5 MHz

Usable Sensivity Mono: 0,9 uV, 75 DIN

Usable Sensivity Stereo: 20 uV, 75 DIN

Capture Ratio: 2,0 dB

Image Rejection Ratio: 100 dB

Signal-to-noise Ratio Mono: 76 dB

Signal-to-noise Ratio Stereo: 70 dB

Alternate Channel Attenuation: 90 dB, IHF

AM Supression Ratio: 50 dB

Subcarrier Product Rejection: 76 dB

Total Harmonic Distortion Mono: 0,05% (Wide)

Total Harmonic Distortion Stereo: 0,15% (Wide)

Frequency Response: 20 Hz - 15 kHz +0,3/-0,8 dB

Stereo Separation: 43 dB at 1 kHz (Wide), 40 dB at 70 Hz - 10 kHz

Power consumption: Stand by < 7W

Output Voltage: 0,775 V

Output Impedance: 600R

Muting Level: 18 dBf, 2,2 uV, 75R

Output Impedance: 75R