U1

VCC3.3V
C1 100nF
20 VDD
19 VSS
GND

VCC3.3V
R3 10K
R4 MCLR 100R
C2 100nF
GND

PIC24F16KA101-I/SO

Left pins		Right pins
	PGC2/AN0/VREF+/CN2/RA0	AN0
	PGD2/AN1/VREF-/CN3/RA1	AN1
	OSCI/CLKI/AN4/C1INB/C2IND/CN30/RA2	AN2
	OSCO/CLKO/AN5/C1INA/C2INC/CN29/RA3	GPIO5
	PGC3/SOSCO/T1CK/U2CTS/CN0/RA4	GPIO2
	MCLR/VPP/RA5	MCLR
	OC1/IC1/C2OUT/INT2/CTED1/CN8/RA6	RF IRQ
	PGD1/AN2/C1IND/C2INB/U2TX/CN4/RB0	AN2/PGD1
	PGC1/AN3/C1INC/C2INA/U2RX/U2BCLK/CN5/RB1	GPIO4/PGC1
	U1RX/U1BCLK/CN6/RB2	GPIO3
	PGD3/SOSCI/U2RTS/CN1/RB4	GPIO1
	U1TX/INT0/CN23/RB7	GPIO0
	U1CTS/SCL1/CN22/RB8	SCL
	U1RTS/SDA1/CN21/RB9	SDA
	AN12/HLVDIN/SCK1/CTED2/CN14/RB12	SCK
	AN11/SDO1/CTPLS/CN13/RB13	MOSI
	AN10/CVREF/RTCC/SDI1/OCFA/C1OUT/INT1/CN12/RB14	MISO
	REFO/SSI/T2CK/T3CK/CN11/RB15	RF SS

VCC3.3V
R1 10k
U2 KB817D-B
R2 470R
Con1
Stereo_Jack
L R GND
GPIO0
GND

VCC3.3V
P1
MCLR
AN2/PGD1
GPIO4/PGC1
Header 6
GND

VCC3.3V
D2 LED_RED R6 270R
GND
D3 LED_GREEN R10 270R
GPIO2
GND

J2 ANT

VCC3.3V
9 VDD
10 GND
7 GND
ANT
14 RF SS SEL
13 SCK SCK
1 MISO SDO
12 MOSI SDI
11 INT/VDI
6 RES
5 CLK
2 RF IRQ IRQ
4 DCLK/CFIL/FFIT
3 FSK/DATA/FFS
FM - RFM12B
U5
R12 10k
GND

VCC3.3V
R5 10k SW1
AN2
DIPSW4
R7 10k
R8 10k
R9 10k
R11 10k
GND

J1
2.xmm
D1 VCC_13V
DIODE_big A K
GND

P2
Header 2

VCC_13V
U3
OUT1 GND
VCC OUT2
VCC VREF
GPIO3 FIN RIN GPIO5
BD6221
GND
VCC_13V

VCC3.3V
C3 100nF
U4
1 VCC
2 GND OUT 3
A3122EUA
R13 820R AN0
GND

VCC_13V
K D4 DIODE_big
RL1
S7001E12W
A
P3
Header 3

GPIO1 R14 470R G T1 Si2306
R15 10k
S
GND

VCC3.3V
C6 100nF
U7
1 VCC
2 GND OUT 3
A3122EUA
R16 820R AN1
GND

U6
VIN
VOUT
GND
LD1117xx
C5 10uF C4 100nF GND
VCC_13V
C8 10uF C7 100nF VCC3.3V
GND

Title			
Size A4	Number		Revision
Date:	2014.06.20.	Sheet of	
File:	E:\pcbdesigns\..\radioslave.SchDoc	Drawn By:	

Pull_U(5V) Pull_D GND

NC

COM

NO

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1 2 3 4

P1

Diapro kft

RADIOSLAVE v1

P2

NC

COM

NO

P2

D2

R6

U6

C4

C7

C8   C5

U3

J1

D1

R15

R14

T1

RL1

D4

Pull_U(5V)   Pull_D   GND

NC

P3

COM

NO

R2

U2

Con1

C2

R3

R1

R4

R12

C1

U1

U5

D3

R10

R7

J2

SW1

R8

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1 2 3 4

R9

R11

P1

R5

C6 R16 C3 R13

Diapro kft

RADIOSLAVE v1

U7   U4
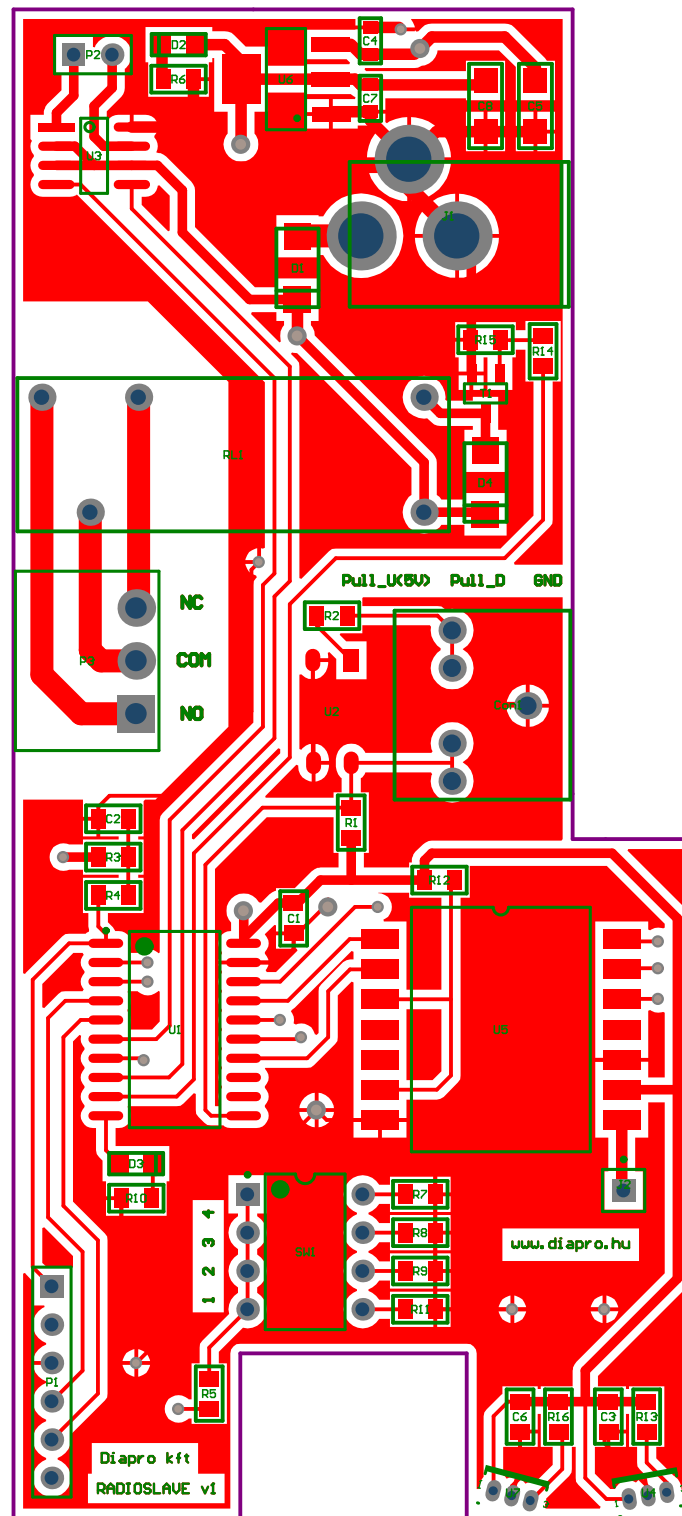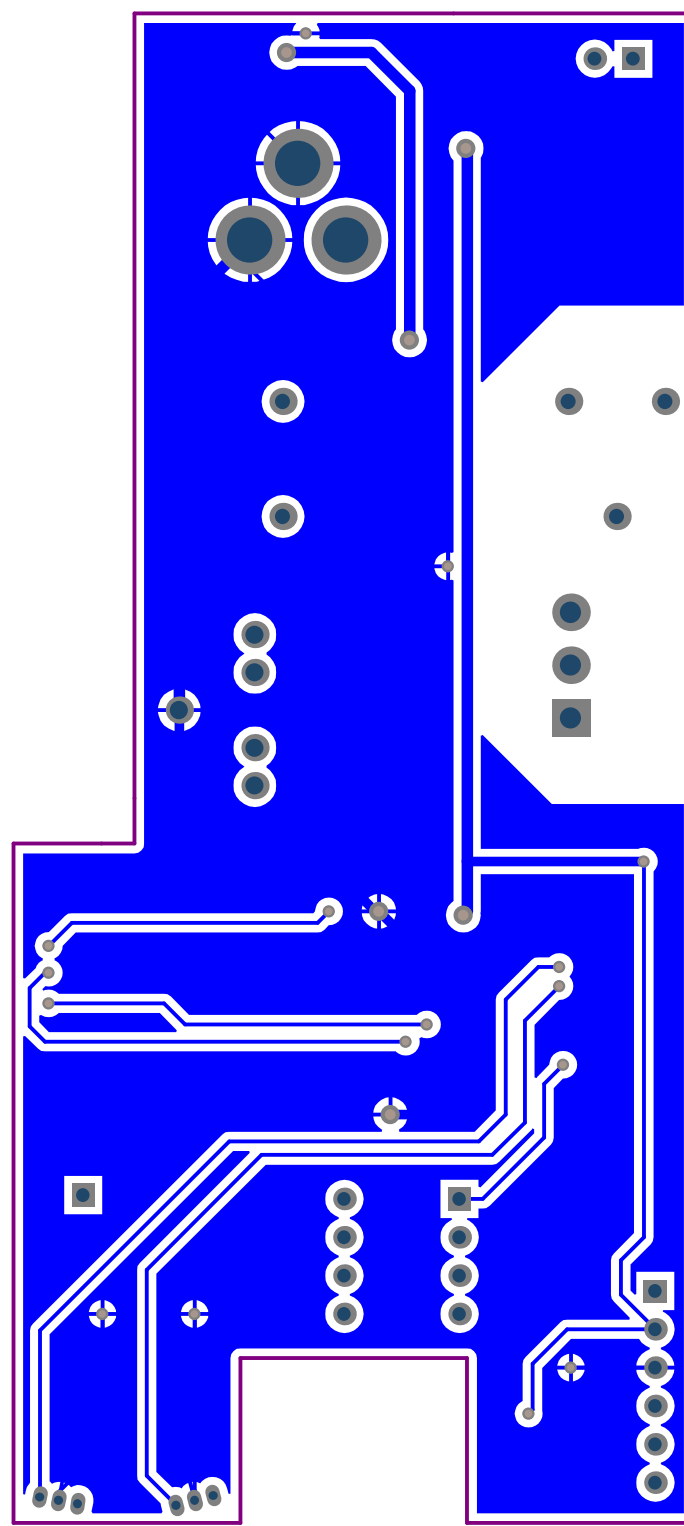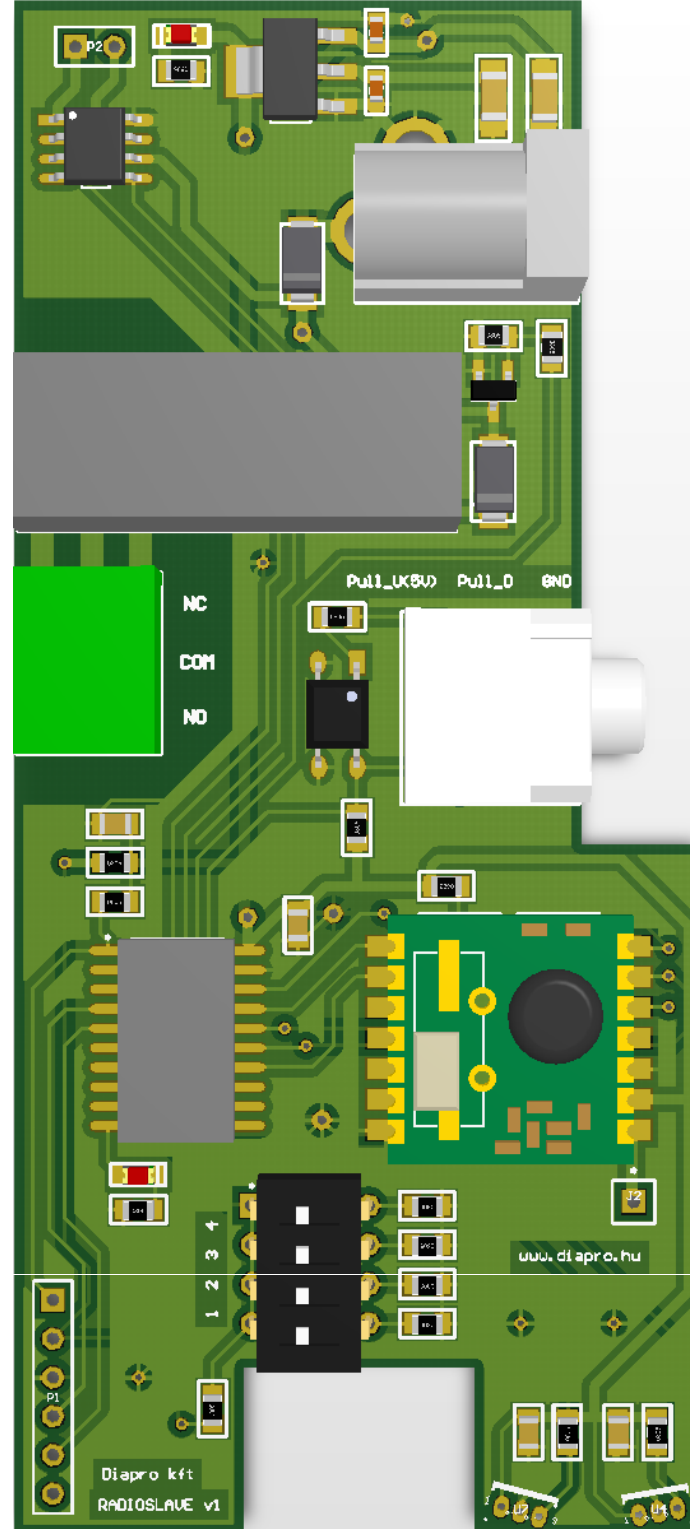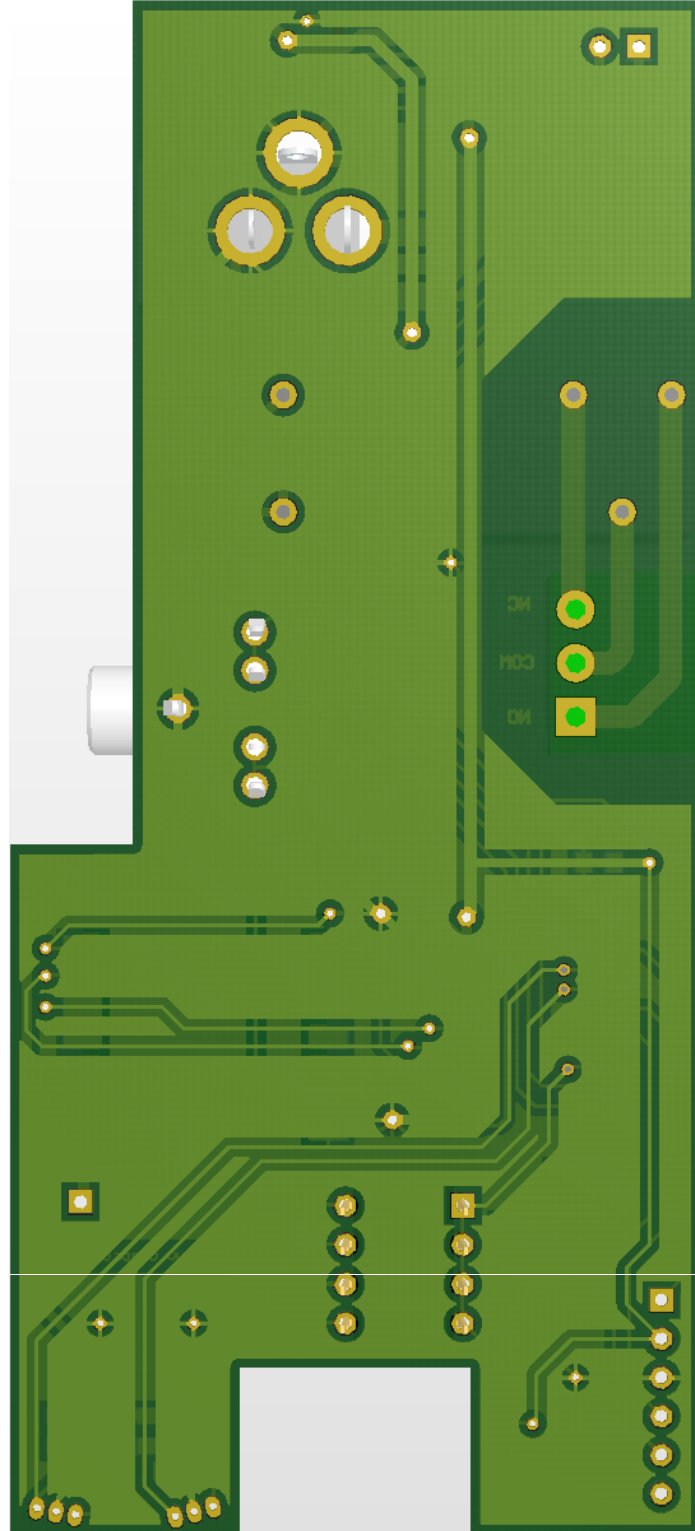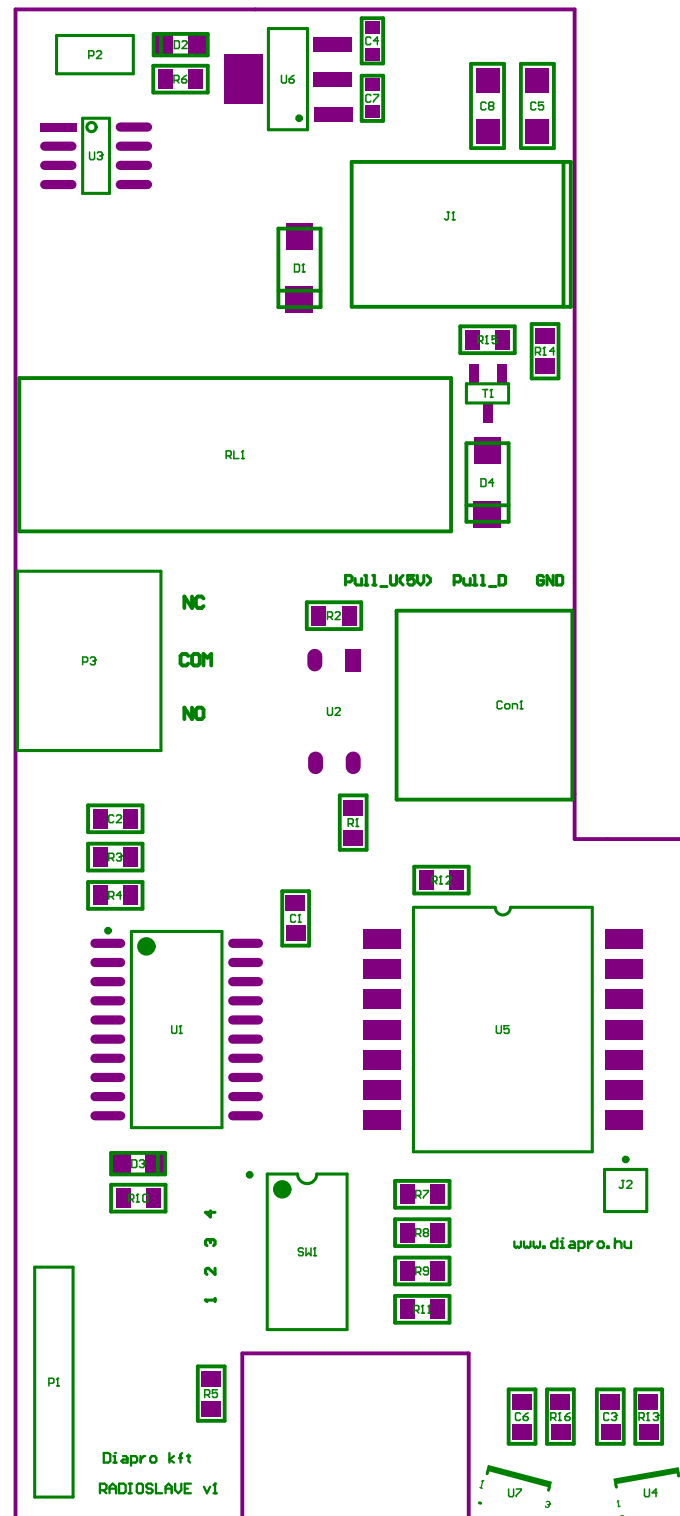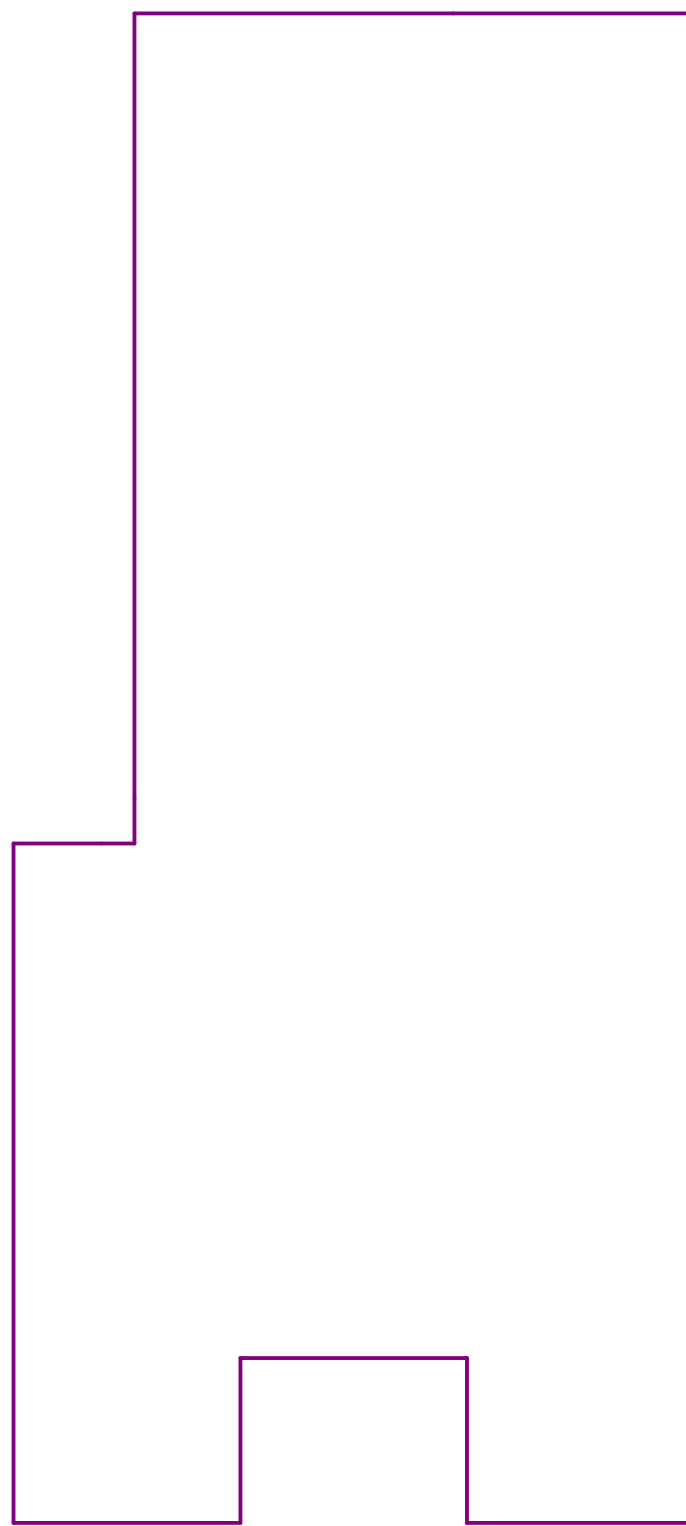
Comment	Description	Designator	Footprint	LibRef	Order info	Quantity	T qés
100nF	Capacitor	C1, C2, C3, C6	FP_0805_CAP_060	Cap	TODO	4	10%
100nF	Capacitor	C4, C7	FP_0603_CAP_080	Cap	TODO	2	10%
10uF	Capacitor	C5, C8	FP_1206_CAP_085	Cap	82-07-81	2	20% X7R
Stereo_Jack	Stereo_Jack	Con1	STEREO_JACK	Stereo_Jack		1	
DIODE_big		D1, D4	FP_SMA DO214AC	DIODE_big		2	
LED_RED	Typical LED	D2	FP_0805_LED_R ED	LED_R		1	
LED_GREEN	Typical LED	D3	FP_0805_LED_R ED	LED_G		1	
2.xmm	2.xmm DC HEBA25 TÁPFESZÜLTSÉ G ALJZAT ZÁRT, NYÁKBA 90°	J1	FP_DC_TAP_ANY A	DC_TAP_ANYA		1	
ANT	Socket	J2	PIN1	Socket		1	
Header 6	Header, 6-Pin	P1	HDR1X6	Header 6		1	
Header 2	Header, 2-Pin	P2	HDR1X2	Header 2		1	
Header 3	Header, 3-Pin	P3	SORKAPOCS 3 P RM3.81	Header 3		1	
10k	Resistor	R1, R3, R5, R7, R8, R9, R11, R12, R15	FP_0805_RES	Res3	TODO	9	5%
470R	Resistor	R2, R14	FP_0805_RES	Res3	TODO	2	5%
100R	Resistor	R4	FP_0805_RES	Res3	TODO	1	5%
270R	Resistor	R6, R10	FP_0805_RES	Res3	TODO	2	5%
820R	Resistor	R13, R16	FP_0805_RES	Res3	TODO	2	5%
S7001E12W	S7001E12W 12V morse 230AC/ 10A	RL1	RELAY_MORSE	RELAY_MORSE		1	
DIPSW4		SW1	DIP switch 4 TH	DIPSW4		1	
Si2306		T1	FET_SOT23	NMOS		1	
PIC24F16KA101-I/SO	16-Bit Flash Microcontroller with nanoWatt XLP Technology, 16KB Flash, 1.5KB SRAM, 20-Pin SOIC, Industrial Temperature	U1	SOIC-SO20_N	PIC24F16KA101-I/SO		1	
KB817D-B	KB817D-B (KIN) SOP-4L OPTOCOUPLER TRANS-OUT 300-600% 5kV SOP-4L [84-00-48]	U2	SOP-4	KB817D-B		1	
BD6221	H_bridge	U3	DIGITAL_SOIC8	BD6221		1	
A3122EUA	Hall-Effect Switch for High-Temperature Operation	U4, U7	Allegro_hall sensor	A3122EUA		2	
RFM12B	FM Module	U5	RFM12B-S1	RFM12B		1	
LD1117xx	LD1117xx 3,3V lin	U6	SUPPLY_SOT223	LD1117xx	http:// hu.mouser.c	1	