PIC24F16KA101-I/SO — U1

VDD 20, VSS 19
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/SS1/T2CK/T3CK/CN11/RB15 — RF SS

VCC3.3V
C1 100nF
GND
R3 10K
R4 100R — MCLR
C2 100nF
GND

D2 LED_RED, R6 270R
D3 LED_GREEN, R10 270R — GPIO2
U4 A3122EUA C3 100nF R13 820R — AN0
U7 A3122EUA C6 100nF R16 820R — AN1

FM - RFM12B U5
VDD 9, GND 10, GND 7
INT/VDI 11, RES 6, CLK 5
DCLK/CFIL/FFIT 4, FSK/DATA/FFS 3
SEL 14, SCK 13, SDO 1, SDI 12, IRQ 2
RF SS, SCK, MISO, MOSI, RF IRQ
R12 10k
J2 ANT

KB817D-B U2
R2 470R
GPIO0
Con1 Stereo_Jack L R GND

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

SW1 DIPSW4
R5 10k
R11 10k, R9 10k, R8 10k, R7 10k
AN2 GND

J1 2.xmm IN
D1 DIODE_big IN_A VCC_13V
P2 Header 2
U3 BD6221
OUT1, GND, VCC, OUT2, VCC, VREF, FIN, RIN
GPIO3, GPIO5
VCC_13V

D4 DIODE_big
RL1 S7001E12W
P3 Header 3
T1 Si2306 R14 470R R15 10k
GPIO1
VCC_13V
GND

J3 2.xmm IN

U6 LD1117xx
VIN 3, VOUT 2, GND 1
C5 10uF, C4 100nF
C8 10uF, C7 100nF
VCC_13V, VCC3.3V
GND

Title
Size A4
Number
Revision -
Date: 2014.06.30.
File: C:\SASA\..\radioslave.SchDoc
Sheet of
Drawn By:

Pull_(X5V) Pull_D GND

NC

COM

NO

J2

1 2 3 4

Diapro kft
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P1

RADIOSLAVE v2

P2
D2
C4
U6
R6
C7
C8
C5
U3
J3
J1
D1
R15
T1
RL1
D4

Pull_U(5V)   Pull_D   GND
NC
R2
COM
P3
Con1
NO
U2
R14
C2
R1
R3
J2
R4
R12
C1
U1
U5
D3
R10
R7 R8 R9 R11
SW1
1 2 3 4

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R5

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P1
C6 R16 C3 R13

RADIOSLAVE v2
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_RED	LED_R		1	
LED_GREEN	Typical LED	D3	FP_0805_LED_RED	LED_G		1	
2.xmm	2.xmm DC HEBA25 TÁPFESZÜLTSÉG ALJZAT ZÁRT, NYÁKBA 90°	J1, J3	FP_DC_TAP_ANYA	DC_TAP_ANYA		2	
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-4L	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	