

PNEV5180B V2.0

Arrangement: Gregor Vrhovnik (16.10.2015)

Component	Label	Value	Manufacturer	Footprint	Ref Des	Quantity
connector Micro USB-B	629105136821 10104111-0001LF	Micro-B	Wuerth Elektronik FCI	SMD (Micro-B)	J103	1
connector Mini USB-B	0548190572 5075BMR-05-SM-CR	Mini-B	Molex Neltron	SMD (Mini-B)	J102	1
quartz crystal	7M-27.120MEEQ-T Q027120032M10a	27.12MHz	TXC CORPORATION SMI	4-SMD (3,2 x 2,5mm)	XT300	1
quartz crystal	NX5032GA-12.000000MHZ	12MHz	NDK	2-SMD	XT200	1
IC – reader	PN5180		NXP	HVQFN40	IC300	1
IC – uP	LPC1769FBD100		NXP	100-LQFP	IC200	1
IC – REG (LDO)	LT1129CST-5 LT1129IST-5	5V / 0,7A	Linear Technology	SOT-223-3	IC100	1
IC – REG (LDO)	LM3940IMP-3.3	3.3V / 1A	National Semiconductor	SOT-223-3	IC101	1
IC – Reset	MAX811TEUS+T MIC811TUY ADM811TARTZ		Maxim Micrel Analog Devices	SOT-143B	IC201	1
inductor – ferrite bead	BLM18PG181SN1	180R at 100MHz; 1,5A	Murata	INDC0603	L101, L102	2
inductor	LQW2BHN22NJ03L	22nH	Murata	INDC0805	L300	1
inductor	PM1812-R10K-RC CM453232-R10MLCT	100nH	Bourns	INDC1812	L100	1
inductor	36502AR47JTDG	470nH / 220mA	TE Connectivity	INDC0805	L301, L302	2
connector – PWR JACK	PJ-202A	2,1 x 5,5mm	CUI Inc.	THT	J100	1
transistor NPN	BC817	45V/0.5A	NXP	SOT-23	T300, T301, T302	3
transistor PNP	BC807	45V/0.5A	NXP	SOT-23	T100	1
diode (bridge)	CDBHM240L	40V/2A	Comchip Technology	4-SMD (MBS-2)	D100	1
diode - ESD	IP4220CZ6		NXP	SOT-457	D101	1
button (switch)	DTSM-32S-B		Multicomp	SMD	SW201, SW300	2
pinheader – JTAG	20021121-00010C4LF FTS-105-01-L-DV	2x5 PIN (M)	FCI Samtec	SMD (R=1,27mm)	J200	1

connector pinheader		1x2 PIN (M) R=2,54	Neltron	THT	J300	1
connector pinheader		1x3 PIN (M) R=2,54	Neltron	THT	J101, J303	2
LED	KP-1608ID	RED	Kingbright	SMD – 0603	LD100, LD201	2
LED	KP-1608SGD	GREEN	Kingbright	SMD – 0603	LD203, LD302	2
LED	KPG-1608SEKC-T	ORANGE	Kingbright	SMD – 0603	LD200, LD300	2
LED	KP-1608QBC-D	BLUE	Kingbright	SMD – 0603	LD202, LD301	2
cap. tantalum		10uF/16V		CASE-A	C101, C102	2
cap. tantalum		33uF/10V		CASE-B	C105, C106	2
cap. tantalum		100uF/10V		CASE-B	C300	1
capacitor		100nF		CAPC0402	C205, C206, C207, C208, C209, C210, C211, C212, C213, C325, C329, C330	12
capacitor		15pF		CAPC0603	C201, C202, C203, C204, C323, C324	6
capacitor		100nF		CAPC0603	C100, C103, C104, C107, C110, C200, C214, C301, C303, C304, C309, C326, C328, C332	14
capacitor		470nF		CAPC0603	C319	1
capacitor		1uF		CAPC0603	C108, C109, C327	3
capacitor		4.7uF		CAPC0603	C331	1
capacitor		6.8uF		CAPC0603	C302	1
capacitor		15pF NP0		CAPC0805	C307, C320	2
capacitor		18pF NP0		CAPC0805	C308, C318	2
capacitor		33pF NP0		CAPC0805	C311, C315	2
capacitor		82pF NP0		CAPC0805	C305, C313, C317, C322	4
capacitor		120pF NP0		CAPC0805	C312, C316	2
capacitor		220pF NP0		CAPC0805	C310, C314	2
capacitor		1nF NP0		CAPC0805	C306, C321	2
resistor		0R		RESC0402	R239, R240, R241, R242	4
resistor		0R		RESC0603	R100, R101, R218, R229, R231, R319, R320, R325, R326, R327	10
resistor		33R		RESC0603	R215, R217	2
resistor		330R		RESC0603	R226, R306	2
resistor		1k		RESC0603	R206, R210, R212, R221, R222, R223, R300, R301, R303, R304, R307	11
resistor		1k5		RESC0603	R103, R105, R213, R214, R227, R228	6
resistor		2k2		RESC0603	R102	1

resistor		2k7		RESC0603	R207, R312	2
resistor		3k3		RESC0603	R208, R220	2
resistor		4k7		RESC0603	R302, R305, R308	3
resistor		10k		RESC0603	R104, R200, R201, R202, R203, R204, R205, R209, R219, R224, R225, R230	12
resistor		0R		RESC0805	R233, R235	2
resistor		2R2 1%		RESC0805	R311, R313, R314, R315	4
resistor		4k7 1%		RESC0805	R310, R316	2
Do Not Place (DNP):						
IC – I2C EEPROM	CAT24C128 DNP		ON Semiconductor	8-SOIC	IC202	1
button (switch)	DTSM-32S-B DNP		Multicomp	SMD	SW200	1
connector pinheader		1x2 PIN (M) R=2,54	Neltron	THT	J304	1
connector pinheader		1x3 PIN (M) R=2,54	Neltron	THT	J201	1
connector pinheader		1x6 PIN (M) R=2,54	Neltron	THT	J302	1
connector pinheader		1x8 PIN (M) R=2,54	Neltron	THT	J301	1
resistor		TBD DNP		RESC0603	R211, R321, R322, R323, R324, R328	6
resistor		0R DNP		RESC0603	R216, R238, R318	3
resistor		10k DNP		RESC0603	R236, R237	2
resistor		TBD DNP		RESC0805	R309, R317	2
resistor		0R DNP		RESC0805	R232, R234	2