							Farnell			TME GB	SP/EUR ratio:	1,26189
ty	Part name	Package	Reference designator	Board name	Qty	Code	Unit price	Total	Code	Unit price	Total	Combined
	Arduino Due header 1x8- pin, Ethernet header	THT	ADCL, ADCH, Comm, PWML, PWMH, X18			1022256	0,084	£0,50	ZL201-08G	0,074	0,44 €	0,445
	DF01S	SMD; SDIP-4	B1	AUX PS	1	1470959	0,572	£0,57	DF01S	0,159	0,16€	0,159
	100n	1206	C1, C2, C3	Power board		2497072	0,035	£0,21	C1206C104K5RAC	0,013	0,08 €	0,080
	1u	1206, 100V	C10	Power board		2320876	0,270	£0,54	GRM31CR72A105KA01L	0,123	0,25€	0,246
	100n	Not installed (optional)	C100, C101, C102, C103, C104	AUX PS	5				-			
	470n/100V	1812	C105, C110	Arduino Shield	2	1828961	0,676	£1,35	CL43B474KCHNNNE	0,133	0,27 €	0,265
	10n	1206	C106, C109, C111, C113	Arduino Shield		1759350	0,034	£0,14	CL31B103KBCNNNC	0,012	0,05 €	0,047
	UPW1J150MED	SMD; Ø6.3x5.8mm	C107, C112	Arduino Shield	2	2326151	0,222	£0,44	UWT1H220MCL6GS	0,088	0,18€	0,176
	10u	1206	C108, C126	Arduino Shield		1759445	0,057	£0,11	CSMD10U1206X	0,060	0,12€	0,120
	100n	0805	C11, C15, C19, C26, C29, C36, C41	Power board		1759167	0,007	£0,09	CL21B104KBCNNNC	0,006	0,09 €	0,085
	100n	0603	C114, C115, C116, C117, C118, C119, C122, C123, C124, C125, C127, C129, C130, C137, C138, C139, C140, C141, C142, C143, C144, C148, C150, C151, C152, C154, C157, C152, C152, C154, C157, C152, C154, C157, C152, C154, C157, C152, C154, C157, C152,	Arduino Shield		1759016	0,006	£0,17	CL10B104KO8NNNC	0,006	0,16 €	0,161
2	10u	1210	C12, C20	Power board	4	1828859	0,494	£1,98	GRM32DF51H106ZA01L	0,180	0,72 €	0,720
	47u	SMD; Ø5x5.8mm	C120	Power board		9695664	0,191	£0,38	EEEFK1C470UR	0,190	0,38 €	0,380
	10u	SMD; Ø5 x 5.8mm	C121	Arduino Shield		1850112	0,206	£0,21	EEEFK1V100R	0,200	0,20€	0,200
	EECS5R5H105	THT	C128	Arduino Shield		9697497	2,780	£2,78	EECS5R5H105	2,190	2,19€	2,190
	1u	1206, 50V	C13, C14	Power board		2496997	0,031	£0,12	CC1206ZRY5V9105	0,011	0,04 €	0,043
	22n	0805	C130	Arduino Shield		1759252	0,012	£0,01	CL21B223KBANNNC	0,009	0,01€	0,009
	22n	0805	C131	Arduino Shield		1759252	0,012	£0,01	CL21B223KBANNNC	0,009	0,01€	0,009
	18p	0805	C132, C136	Arduino Shield		2320820	0,019	£0,04	CL21C180JBANNNC	0,010	0,02 €	0,021
	6n8	0603	C133, C135	Arduino Shield		1759100	0,010	£0,02	CL10B682JB8NNNC	0,004	0,01€	0,008
	10n	0805	C134, C147, C155, C156	Arduino Shield		1759246	0,011	£0,05	CL31B103KBCNNNC	0,012	0,05€	0,046
	10u	1206, Tantalum	C145	Arduino Shield	1	1457413	0,181	£0,18	T491A106K010AT	0,084	0,08€	0,084
	4u7	1206, Tantalum	C146	Arduino Shield	1	1457428	0,159	£0,16	T491A475K006AT	0,073	0,07 €	0,073
	47n	0805	C149, C153	Arduino Shield	2	2496983	0,011	£0,02	CC0805KRX7R9473	0,008	0,02€	0,016
	EEEFK1J470P	SMD; Ø8x10.2mm	C16	Power board	2	9696032	0,489	£0,98	EEEFK1J470P	0,458	0,92 €	0,917
	330p	0805	C17, C32	Power board		1759212	0,030	£0,12	CL21C331JBANNNC	0,014	0,05€	0,054
	EEEFK1J101P	SMD; Ø10 x 10.2mm	C18	Power board	2	9696040	0,481	£0,96	EEEFK1J101P	0,380	0,76 €	0,760
	120p	0805	C21, C49	Power board		1414667	0,029	£0,11	CL21C121JBANNNP	0,008	0,03 €	0,030
	4n7	0805	C22	Power board	2	2496786	0,004	£0,01	CL21B472KBANNNC	0,006	0,01€	0,009
	470p	0805	C23	Power board	2	2496859	0,005	£0,01	CL21B471KBANNNC	0,007	0,01€	0,013
	2u2	0805	C24, C35, C37, C38	Power board	8	2320829	0,153	£1,22	CL21B225KAFNNNG	0,027	0,22€	0,220
	330n	0805	C25, C31	Power board	4	1759174	0,051	£0,20	CL21B334KOCNNNC	0,017	0,07€	0,067
	47u	SMD, Ø6.3 x 5.8mm	C27, C34	Power board	4	9695850	0,218	£0,87	EEEFK1V470P	0,162	0,65 €	0,649
	22n	0805	C28	Power board	2	1759252	0,012	£0,02	CL21B223KBANNNC	0,009	0,02€	0,017
	2u2/100V	1210, 100V	C30	Power board	2	1793832	0,247	£0,49	CL32B225KCJSNNE	0,132	0,26 €	0,265
	10n	0805	C33, C44, C52, C57, C79, C83	Power board	12	1759246	0,011	£0,14	CL31B103KBCNNNC	0,012	0,14 €	0,139
,	3n3	0805	C39, C70, C71, C76, C77	Power board	10	2496782	0,004	£0,04	CL21B332KBANNNC	0,007	0,07 €	0,044
	2m2	Not installed	C4, C5	Power board	4	-			-			
	1n	0805	C40, C46, C50, C62, C63, C94	Power board	12	2407340	0,010	£0,12	CL21B102KCANNNC	0,007	0,08 €	0,078
	4u7	1206, Tantalum	C42	Power board	2	1457428	0,159	£0,32	T491A475K006AT	0,073	0,15€	0,145
	470n	1812, 100V	C43	Power board	2	1828961	0,484	£0,97	CL43B474KCHNNNE	0,133	0,27 €	0,265
)	47p	0805	C45, C51	Power board	4	1414692	0,017	£0,07	CC0805JRNPO9470	0,009	0,04 €	0,037
3	2n2	0805	C47, C48, C80	Power board	6	1759235	0,016	£0,10	CL21B222KBANNND	0,007	0,04 €	0,039
4	100n	0603	C53, C54, C55, C59, C60, C61, C64, C68, C69, C72, C74, C78, C81, C82	Power board	28	1759016	0,006	£0,17	CL10B104KO8NNNC	0,006	0,17 €	0,167
5	1u	0805	C56, C58, C67, C73, C75	Power board	10	2320827	0,064	£0,64	CL21B105KAFNNNG	0,011	0,11 €	0,113
	4u7	1210, 100V	C6, C7, C8	Power board		2211140	0,214	£1,28		·		1,620
	10u	1206	C65	Power board		1759445	0,057	£0,11	CSMD10U1206X	0,060	0,12€	0,120
	10u	1206, Tantalum	C66	Power board		1457413	0,181	£0,36	T491A106K010AT	0,084	0,17€	0,168
	6n8 (X1)	THT	C84	AUX PS		2478385	0,236	£0,24	MKP-Y2-6N8	0,152	0,15 €	0,152
	47n/400V	THT	C85	AUX PS		2468839	0,630	£0,63	MKP4-47N/400	0,185	0,18€	0,185
)	22n	0805	C86, C90	AUX PS		1759252	0,012	£0,02	CL21B223KBANNNC	0,009	0,02 €	0,017

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3 4u7	1210, 25V	C87, C92, C93	AUX PS	3	1907365	0,267	£0,80	CL32A475KAULNNE	0,121	0,36 €	0,364 €
1 1mF/25V	THT	C88	AUX PS		1800654	0,368	£0,37	RD1E108M10020BB	0,168	0,17 €	0,168 €
1 330p	0805	C89	AUX PS	1	1759212	0,030	£0,03	CL21C331JBANNNC	0,014	0,01 €	0,014 €
1 470n	0805	C9	Power board		2496985	0,388	£0,78	CC0805ZRY5V9474	0,012	0,02 €	0,024 €
1 100n	0805	C91	AUX PS	1	. 1759167	0,007	£0,01	CL21B104KBCNNNC	0,006	0,01 €	0,006 €
1 3n9	0805	C95	AUX PS		1759240	0,030	£0,03	CL21B392KBANNNC	0,009	0,01 €	0,009€
1 180p	0805	C96	AUX PS	1	. 1759207	0,011	£0,01	CL10C181JB8NNNC	0,006	0,01 €	0,006 €
1 10u	SMD; Ø5 x 5.8mm	C97	AUX PS		1850112	0,206	£0,21	EEEFK1V100R	0,200	0,20 €	0,200€
1 100u	SMD; Ø6.3 x 7.7mm	C98	AUX PS		1539501	0,305	£0,31	EEEFPV101XAP	0,350	0,35 €	0,350 €
1 47n	0805	C99	AUX PS		2496983	0,011	£0,01	CC0805KRX7R9473	0,008	0,01 €	0,008 €
4 STPS15H100	Not installed	D1, D2, D3, D4	Power board		-			-			
1 DFLS1100-7	SOD-323	D19	AUX PS		1713889	0,632	£0,63	-			0,798€
1 SKL16	SOD-323	D20	AUX PS		. 1299282	0,186	£0,19	SKL16	0,010	0,01€	0,010€
1 BAS316	SOD-323	D21	AUX PS		8734275	0,140	£0,14	BAS316	0,020	0,02 €	0,020 €
5 BAS316	SOD-323	D22, D23, D24, D26, D27	Arduino Shield	5	8734275	0,140	£0,70	BAS316	0,020	0,10 €	0,101€
1 SMBJ5.0A-TR	DIODEDO214AA	D25	Arduino Shield	1			£0,00			0,00 €	0,000€
1 BAT54S	BAT54S	D27	Arduino Shield	1			£0,00			0,00 €	0,000€
1 SKL16	SOD-323	D28	Arduino Shield		. 1299282	0,186	£0,19	SKL16	0,010	0,01 €	0,010€
1 STPS15H100	TO-252	D5	Power board	2	2344052	0,549	£1,10	-			1,386 €
9 BAS316	SOD-323	D6, D11, D12, D13, D14, D15, D16, D17, D18	Power board	18	<b>8</b> 8734275	0,140	£2,52	BAS316	0,020	0,36 €	0,365€
2 DFLS1100-7	SOD-323	D7, D10	Power board	4	1713889	0,632	£2,53	-			3,190 €
2 SKL16	SOD-323	D8, D9	Power board		1299282	0,186	£0,74	SKL16	0,010	0,04 €	0,040 €
1 2743019447	1806	FB1	Power board		1463461	0,132	£0,26	BLM41PG600SN1L	0,148	0,30 €	0,164 €
3 60R@100MHz	0603	FB2, FB3, FB4	Power board		1635704	0,033	£0,20	LCBA-600	0,027	0,16€	0,164 €
1 60R@100MHz	0603	FB5	AUX PS		1635704	0,033	£0,03	LCBA-600	0,027	0,03€	0,027€
2 60R@100MHz	Not installed (optional)	FB6, FB7	AUX PS			-,	, , , , ,	-	.,.	-,	.,.
1 60R@100MHz	0603	FB8	Arduino Shield		1635704	0,033	£0,03	LCBA-600	0,027	0,03 €	0,027€
2 S1751-46R	Not installed (optional)	GND, SW	Power board			-,	,,,,,,	-	.,.	.,	-,-
1 LTC3864	MSOP-12	IC1	Power board		2293128	3,580	£7,16	-			9,035€
1 REF5025	SOIC-8	IC10	Power board		1439622	2,740	£5,48	-			6,915€
1 DAC8552	SOP-8	IC11	Power board		1329584	5,950	£11,90	-			15,016 €
1 ADG465SOT-23	SOT-23	IC12	Power board		2376952	0,677	£1,35	-			1,709 €
1 TS5A9411DCKT	SC-70	IC13	Power board		1755582	0,501	£1,00	-			1,264 €
1 ADS1120	TSSOP-16	IC14	Power board		2402249	6,430	£12,86	-			16,228 €
1 LP339D	SOIC-14	IC15	Power board		9589686	0,318	£0,64	LP339D	0,278	0,56€	0,556 €
1 LM25575	HTSSOP-16	IC16	AUX PS		1564783	3,220	£3,22	-	0,2.0	-,	4,063 €
1 MC7812	TO-252	IC17	AUX PS		2342561	0,289	£0,29	MC7812BDTRKG	0,191	0,19€	0,191 €
1 TPD4E002DRLR	Not installed (optional)	IC18	AUX PS			2,222		-	-,	-,	5,.5.
1 TPD2E001DZDR	Not installed (optional)	IC19	AUX PS		-			_			
1 MC79L05	SOIC-8	IC2	Power board		2323583	0,249	£0,50	MC79L05ACD	0,161	0,32 €	0,321 €
1 ADUM3160BRWZ	Not installed (optional)	IC20	AUX PS			0,2 .0	20,00	-	0,202	0,02 0	0,02.
1 TLC5925IDBQR	SSOP-24	IC21	Arduino Shield		1694438	0,894	£0,89	_			1,128 €
2 Si8641EC-B-IS1	SOIC-16	IC22, IC26	Arduino Shield		2423294	2,870	£5,74	-			7,243 €
2 SI8651EC-B-IS1	SOIC-16	IC23, IC24	Arduino Shield		2423323	2,220	£4,44	-			5,603 €
1 LD1117ADT33TR	TO-252	IC25	Arduino Shield		1087169	0,458	£0,46	LD1117ADT33	0,506	0,51 €	0,506 €
1 PCA21125	TSSOP-14	IC27	Arduino Shield		2400445	1,220	£1,22	-	0,000	0,01	1,540 €
1 AT25256B	SOIC-8	IC28	Arduino Shield		1841577	0,757	£0,76	25AA256-I/SN	1,090	1,09€	0,955 €
1 W5500	LQFP-48	IC29	Arduino Shield			0,737	20,10	W5500	2,660	2,66 €	2,660 €
1 MC78L05	SOIC-8	IC3	Power board		9593845	0,252	£0.50	MC78L05ABDG	0,165	0,33 €	0,330 €
1 BC857BS	SOT-363	IC30	Arduino Shield		1653608	0,108		BC857BS	0,027	0,03 €	0,027 €
1 TLC555	SOIC-8	IC31	Arduino Shield		. 9589880	0,194		TLC555CD	0,250	0,05 €	0,027 €
1 SN74LVC2G08DCTR	SSOP-8	IC32	Arduino Shield		1470871	0,314	£0,13		5,250	0,20	0,243 €
1 TPS3705-33D	SOIC-8	IC32	Arduino Shield		2296066	1,540	£1,54				1,943 €
1 SN74LV1T34DBVR	SOT-23	IC34	Arduino Shield		2499914	0,242	£0,24				0,305€
1 SN74LVC2G02DCTR	SSOP-8	IC34	Arduino Shield		. 1236358	0,337		SN74LVC2G02DCTR	0,024	0,02 €	0,303 €
1 LM5574	TSSOP-16	IC4	Power board		2323534	2,880		LM5574MT	4,330	8,66 €	7,268 €
1 LP2951SO8	SOIC-8	IC5	Power board		1755066	0,579		LP2951CM/NOPB	0,457	0,91 €	0,913 €
2 TL072D	SOIC-8	IC6, IC7	Power board		1467663	0,121		TL072CD	0,457	0,91 €	0,913 €
Z ILUIZD	3010-0	100, 101	ו טאיפו טטמוט	4	1407003	0,121	20,40	ILUIZOD	0,109	0,00 €	0,011 €

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1 OP27GSZ	SOIC-8	IC8	Power board	2	9426124	2,310	£4,62	OP27GSZ	1,450	2,90 €	2,900 €
1 MCP23S08-E/	SO SOIC-18	IC9	Power board	2	1332092	0,763	£1,53	MCP23S08-E/SO	0,960	1,92 €	1,920 €
2 BS-244DSM-R	Not installed	J1, J4	Arduino Shield	2	_			-			
1 BS-244DSM-G		J2	Arduino Shield		-			-			
2 BS-244DSM-B		J3, J5	Arduino Shield		-			_			
		JP1, JP2				0.010	£0,04	SMD0805-0R	0,059	0,24 €	0,050€
	0805		Power board		9233750	0,010	£0,04	SMD0805-0R	0,059	0,24 €	0,050 €
1 826926-2	Not installed (optional)	JP3	Arduino Shield	1				-			
4 0R-JUMPA	0805	JP4, JP5, JP6, JP7	Arduino Shield		9233750	0,010	£0,04	SMD0805-0R	0,059	0,24 €	0,050 €
2 RT424005	THT	K_PAR, K_SER	Arduino Shield	2	9950168	2,510	£5,02	RT424005	1,730	3,46 €	3,460 €
2 G6K-2F-5DC	SMD, relay	K_S1, K_S2	Arduino Shield	2	4446185	2,810	£5,62	G6K-2F-5DC	2,440	4,88 €	4,880 €
1 SK 145/37,5	THT	KK1	AUX PS	1	4621414	1,600	£1,60	-			2,019€
1 RN114-4/02	Not installed	L1	Power board	2	-			-			
1 470u	SMD; 7.3mm x 7.3mm	L10	AUX PS		2455059	0,871	£0,87	DE0704-470	0,219	0,22€	0,219€
1 7443551331	SMD; 13.2mm x 12.8mm	L2	Power board		2211631	2,560		-	0,220	0,22 0	6,461 €
2 IHLP2020CZE		L3, L4	Power board		1741325	1,080	£4,32				5,451 €
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3 2u2	1210	L5, L6, L7	Power board		2470305	0,205	£1,23	DLJ3015-2.2	0,266	1,60 €	1,552 €
1 2u2	1210	L8	AUX PS		2470305	0,205	£0,21	DLJ3015-2.2	0,266	0,27 €	0,259 €
1 100uH (MSS12		L9	AUX PS	1			£0,00			0,00 €	0,000 €
1 TFT_320QVT	THT; 2x20-pin socket	LCD1	Arduino Shield	1	7992033	2,040	£2,04	ZL262-40DG	0,322	0,32 €	0,322 €
5 HSMH-C170	0805	LED_CC1, LED_CC2, LED_PROG1,	Arduino Shield	5	5790840	0,140	£0,70	HSMH-C170	0,056	0,28 €	0,280 €
		LED_PROG2, LED_SP									
4 HSMY-C170	0805	LED_CV1, LED_CV2, LED_S1, LED_S2	Arduino Shield	4	5790876	0,140	£0,56	HSMY-C170	0,060	0,24 €	0,240 €
2 HSMG-C170	0805	LED O1, LED O2	Arduino Shield	2	5790852	0,150	£0,30	HSMG-C170	0,095	0,19 €	0,190 €
1 HSMR-C170	0805	LED PWR	Arduino Shield		2497350	0,302	£0,30	OSB50805C1E	0,049	0,05 €	0,049€
1 HSMY-C170	0805	LED1	Power board		5790876	0,119	£0,24	HSMY-C170	0,057	0,11 €	0,114 €
1 10K/Beta:3570		NTC1	Power board		1612623	0,264	£0,53	NTCS0805E3103JMT	0,190	0,38 €	0,380 €
1 MOC3052		OK1	AUX PS		2453236	0,810	£0,33	MOC3052SR2VM			0,380 €
	SMD; SDIP-6								0,380	0,38 €	
1 MOC3062	SMD; SDIP-6	OK2	AUX PS		2322554	0,478	£0,48	MOC3062-SMD-I	0,400	0,40 €	0,400 €
1 HCPL-181	SOIC-4	OK3	Arduino Shield		1244525	0,255	£0,26	HCPL-181-000E	0,250	0,25 €	0,250 €
1 SUD19P06-60		Q1	Power board		2101465	1,470	£2,94	-			3,710 €
5 MMBT5551	SOT-23	Q12, Q13, Q16, Q18, Q19	Power board	10	1459109	0,153	£1,53	MMBT5551	0,021	0,21 €	0,208€
1 BSS84P	SOT-23	Q14	Power board	2	1888166	0,099	£0,20	BSS84P	0,033	0,07 €	0,065€
4 MMBT5401	SOT-23	Q2, Q10, Q11, Q17	Power board	8	1459108	0,073	£0,58	MMBT5401	0,021	0,17 €	0,170 €
2 BTA26-600	THT	Q20, Q21	AUX PS		1057286	2,250	£4,50	BTA26-600BRG	2,060	4,12 €	4,120 €
1 IRLL014N	SOT-232	Q22	AUX PS		8651183	0,504	£0,50	IRLL014NPBF	0,198	0,20 €	0,198 €
5 IRLML2246TR		Q23, Q24, Q25, Q26, Q28	Arduino Shield		1888166	0,099	£0,49	IRLML2246TRPBF	0,100	0,50 €	0,500 €
3 2N7002							,				
	SOT-23	Q27, Q29, Q30	Arduino Shield		1713823	0,038	£0,11	2N7002	0,034	0,10 €	0,103 €
2 2N7002	SOT-23	Q3, Q15	Power board		1713823	0,038	£0,15	2N7002	0,034	0,14 €	0,138 €
1 IRFP250N	THT, solder on bottom layer		Power board		8649260	2,910	£5,82	IRFP250NPBF	1,000	2,00 €	2,000 €
1 BC857C	SOT-23	Q5	Power board	2	8734771	0,022	£0,04	BC857C-DIO	0,020	0,04 €	0,040 €
1 BC846C	SOT-23	Q6	Power board	2	2453325	0,199	£0,40	BC846C-DIO	0,002	0,00 €	0,004 €
2 BCP56-16.115	SOT-223	Q7, Q9	Power board	4	1081258	0,122	£0,49	BCP56-16T1G	0.099	0,40 €	0,396 €
1 IRFR5410	TO-252	Q8	Power board	2	2468040	0,846	£1,69	IRFR5410PBF	0,550	1,10 €	1,100 €
1 12K	Not installed	R1	Power board	2		· ·	•	-	,		1
1 15R/7W	THT	R102	AUX PS		1687978	0,327	£0,33	-			0,413€
	2512		AUX PS				£0,33		0,042	0,08€	0,413 €
		R103, R106			2426593	0,066	,	WF25P-330R-5%			
2 270R	0805	R104, R107	AUX PS		2332064	0,016	£0,03	CRCW0805270RFKTABC	0,008	0,02 €	0,015€
1 150R/2W	2512	R105	AUX PS		2117481	0,317	£0,32	WF25P-150R-5%	0,042	0,04 €	0,042 €
1 15K	0805	R108	AUX PS		2447595	0,002	£0,00	SMD0805-15K-1%	0,008	0,01 €	0,002€
1 2K2	0805	R109	AUX PS	1	9237534	0,009	£0,01	SMD0805-2K2-1%	0,008	0,01 €	0,008 €
4 100K	0805	R11, R14, R73, R75	Power board	8	1887334	0,017	£0,14	SMD0805-100K-1%	0,008	0,07 €	0,066 €
1 10R	1206	R110	AUX PS	1	9236643	0,012	£0,01	CRCW120610R0FKTABC	0,014	0,01 €	0,014 €
1 5K6 1%	0805	R111	AUX PS		2447693	0,002	£0,00	SMD0805-5K6-1%	0,008	0,01€	0,002€
1 18K	0805	R112	AUX PS		9332723	0,002	£0,00	CRCW080518K0FKTABC	0,012	0,01 €	0,002 €
1 20K	0805	R113	AUX PS		2447603	0,002	£0,00	SMD0805-20K-1%	0,008	0,01 €	0,002 €
								SMD0805-20R-1% SMD0805-1K8-1%			
1 1K8 1% 1 100R	0805	R114	AUX PS		2447595	0,002	£0,00		0,008	0,01 €	0,002€
	0805	R115	AUX PS		1099793	0,024	£0,02	RC0805FR-07100R	0,007	0,01 €	0,007 €
1 47K	0805	R116	AUX PS	1	2447664	0,002	£0,00	RC0805FR-0747K	0,007	0,01 €	0,003€

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1 1K	0805	R117	AUX PS		1099800	0,024	£0,02	RC0805FR-071K	0,007	0,01 €	0,007 €
1 5K6	0805	R118	AUX PS		2447693	0,002	£0,00	RC0805FR-075K6	0,007	0,01 €	0,003 €
1 10K	0805	R119	AUX PS	1	9237755	0,009	£0,01	RC0805FR-0710K	0,006	0,01 €	0,006 €
1 324K	0805	R12	Power board	2	2303817	0,014	£0,03	RC0805FR-07330K	0,008	0,02 €	0,017€
2 22R	Not installed (optional)	R120, R121	AUX PS	2	-			-			
8 4K7	0805	R122, R123, R127, R129, R132, R133, R156, R158	Arduino Shield	8	9333266	0,012	£0,10	RC0805FR-074K7	0,007	0,06 €	0,055€
2 1R	0805	R124, R128	Arduino Shield	2	2141629	0,016	£0,03	RC0805FR-071R	0,008	0,02 €	0,017€
3 100K	0805	R125, R131, R142	Arduino Shield	3	1887334	0,017	£0,05	SMD0805-100K-1%	0,008	0,02 €	0,025€
3 1K5	0805	R126, R147, R148	Arduino Shield	3	9332600	0,016	£0,05	RC0805FR-071K5	0,007	0,02 €	0,021 €
1 0R	Not installed	R13	Power board	2	-			-			
4 180R	0805	R130, R143, R144, R146	Arduino Shield	4	2447583	0,005	£0,02	SMD0805-180R-1%	0,008	0,03 €	0,025€
4 49R9	0805	R134, R136, R137, R138	Arduino Shield	4	2141727	0,016	£0,06	RC0805FR-0749R9	0,007	0,03 €	0,028 €
5 10K	0805	R135, R141, R145, R157, R159	Arduino Shield		9237755	0,009	£0,05	RC0805FR-0710K	0,006	0,03 €	0,030 €
1 10R	0805	R139	Arduino Shield		2380677	0,111	£0,11	RC0805FR-0710R	0,007	0,01€	0,007€
1 12K4	0805	R140	Arduino Shield		2141850	0,010	£0,01	-			0,013€
2 30K	0805	R149, R150	Arduino Shield		9334327	0,009	£0,02	SMD0805-30K-1%	0,008	0,02 €	0,017€
1 4K32	0805	R15	Power board		2303617	0,014	£0,03	SMD0805-4K32-1%	0,008	0,02 €	0,016 €
1 100R	0805	R151	Arduino Shield		1099793	0,024	£0,02	RC0805FR-07100R	0,007	0,01 €	0,007 €
1 OR	0805	R152	Arduino Shield		9233750	0,010	£0,01	SMD0805-0R	0,059	0,06 €	0,013 €
1 10K	1206	R153	Arduino Shield		2331878	0,041	£0,04	HP06-10K1%	0,016	0,02 €	0,016 €
2 1K	0805	R154, R155	Arduino Shield		1099800	0,024	£0,05	RC0805FR-071K	0,007	0,01 €	0,014 €
1 39K	0805	R16	Power board		9237828	0,014	£0,03	RC0805FR-0739K	0,007	0,01 €	0,014 €
2 1K8	0805	R17, R53	Power board		9237526	0,014	£0,06	SMD0805-1K8-1%	0,007	0,01 €	0,014 €
1 30K	0805	R19	Power board		9334327	0,009	£0,02	SMD0805-30K-1%	0,008	0,03 €	0,033 €
1 R010/2W	2512, 2W	R2	Power board		1435947	0,390	£0,78	WW25RR010FTL	0,189	0,02 €	0,378 €
1 390R	0805	R20	Power board		2447645	0,009	£0,78	CRCW0805390RFKTABC	0,012	0,38 €	0,378 €
	0805	R22			2447603		£0,02			0,02 €	0,022 €
1 20K 2 51K	0805	R23, R48	Power board Power board		9334653	0,002		SMD0805-20K-1%	0,008 0,006	0,02 €	0,004 €
						0,011	£0,04	RC0805FR-0751K			
2 12K	0805	R24, R99	Power board		1469865	0,019	\$0,03	RC0805FR-0712K	0,007	0,03 €	0,028€
1 4K7	0805	R25	Power board		9333266	0,012	£0,02	RC0805FR-074K7	0,007	0,01 €	0,014 €
1 3K9	0805	R26	Power board		9333169	0,016	£0,03	RC0805FR-073K9	0,007	0,01 €	0,014 €
1 R080/3W	2512	R28	Power board		1435951	0,524	£1,05	-	0.040	0.00.0	1,322 €
1 2R2/2W	2512	R29	Power board		1376975	0,353	£0,71	WF25P-2R2-5%	0,042	0,08 €	0,084 €
3 OR	0805	R3, R21, R54	Power board		9233750	0,010	£0,06	SMD0805-0R	0,059	0,36 €	0,076 €
6 2K2	0805	R30, R32, R33, R62, R65, R91	Power board		9237534	0,009	£0,10	SMD0805-2K2-1%	0,008	0,10 €	0,098 €
1 16K	0805	R34	Power board		9332677	0,016	£0,03	SMD0805-16K-1%	0,008	0,02 €	0,016 €
2 2K	0805	R35, R59	Power board		2447622	0,009	£0,03	RC0805FR-072K	0,007	0,03 €	0,027 €
9 220R	0805	R36, R37, R40, R45, R55, R76, R77, R79, R80	Power board		1099795	0,010	£0,18	RC0805FR-07220R	0,007	0,13 €	0,126€
2 470R	0805	R38, R50	Power board		1099798	0,012	£0,05	RC0805FR-07470R	0,007	0,03 €	0,028 €
4 1K	0805	R4, R31, R39, R78, R117, R154, R155			1099800	0,024	£0,19	RC0805FR-071K	0,007	0,06 €	0,056 €
2 7K5	0805, 0.1%	R42, R52	Power board		1670239	0,206	£0,82	RN73C2A7K5BTDF	0,493	1,97 €	1,040 €
1 560R	0805	R44	Power board		9333363	0,014	£0,03	RC0805FR-07560R	0,007	0,01 €	0,014 €
2 100K	0805, 0.1%	R46, R56	Power board		1577686	0,197	£0,79	RN73C2A100KBTDF	0,481	1,92 €	0,994 €
2 20K	0805, 0.1%	R47, R57	Power board		1575937	0,058	£0,23	TC0525B2002T1E	0,110	0,44 €	0,293 €
3 100R	0805	R5, R6, R41	Power board		1099793	0,024	£0,14	RC0805FR-07100R	0,007	0,04 €	0,042 €
2 180R	0805, 0.1%	R60, R70	Power board	4	1577596	0,143	£0,57	-			0,722 €
2 3K9	0805, 0.1%	R61, R69	Power board		1575834	0,343	£1,37	-			1,731 €
4 51R	0805, 0.1%	R63, R64, R67, R68	Power board	8	1670210	0,206	£1,65	-			2,080 €
1 R020/2W	2512, 2W	R66	Power board	2	2079436	0,220	£0,44	WW25NR020FTL	0,189	0,38 €	0,378 €
5 47K	0805	R7, R84, R85, R87, R96	Power board		2447664	0,002	£0,02	RC0805FR-0747K	0,007	0,07 €	0,025€
1 11K	0805	R71	Power board		9332456	0,016	£0,03	CRCW080511K0FKTABC	0,008	0,02 €	0,015€
2 10R	1206	R8, R18	Power board	4	9236643	0,012	£0,05	CRCW120610R0FKTABC	0,014	0,05 €	0,055€
1 10R	0805	R81	Power board	2	2380677	0,111	£0,22	RC0805FR-0710R	0,007	0,01 €	0,014 €
2 330R	0805	R83, R97	Power board	4	9333037	0,002	£0,01	RC0805FR-07330RL	0,007	0,03 €	0,008€
2 5K1	0805	R86, R98	Power board		9333320	0,016	£0,06	RC0805FR-075K1	0,007	0,03 €	0,028€
2 750R	0805	R88, R94	Power board		9333525	0,016	£0,06	CRCW0805750RFKTABC	0,012	0,05 €	0,046 €
2 5K6	0805	R89, R100	Power board		2447693	0,002	£0,01	RC0805FR-075K6	0,007	0,03 €	0,010€

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14 10K		0805	R9, R10, R27, R43, R49, R51, R58, R72, R74, R82, R92, R93, R95, R101	Power board	28	9237755	0,009	£0,25	RC0805FR-0710K	0,006	0,17 €	0,169€
1 3K3		0805	R90	Power board	2	9333045	0,002	£0,00	RC0805FR-073K3	0,007	0,01 €	0,004 €
2 4x10K		1206; resistor array	RN1, RN2	Arduino Shield	2	1770137	0,015	£0,03	DR1206-10K-4/8	0,007	0,01 €	0,014 €
1 LD-BZEN	-0903	THT	SG1	Arduino Shield	1	-			LD-BZEN-0903	0,483	0,48 €	0,483 €
1 A101SYC		THT	SW1	Arduino Shield	1	2292959	1,960	£1,96	-	-,	- 1	2,473 €
1 1301.931	•	THT	SW2	Arduino Shield		1217765	0,510	£0,51	1301.9316	0,220	0,22 €	0,220 €
2 Test point		Not installed	TP1, TP2	Power board		-	0,010	20,0.	-	0,220	0,22 0	0,220 0
2 Test point		Not installed	TP3, TP4	Arduino Shield	2				-			
1 SRF0703		SMD; 7.6mm x 7.6mm	TR1	Power board		1852832	0,730	£1,46	_			1,842 €
1 NRF24L0		Not installed (optional)	WIFI	Arduino Shield	1		0,730	۷1,40	-			1,042 €
1 282836-3		Not installed	X1	Power board		-			-			
		Not installed (optional)				-			-			
		· · · · ·	X10	AUX PS			0.717	CO 70		0.000	0.00.0	0.000.0
1 2411-01	C	THT	X11	AUX PS		1177884	0,717	£0,72	2411-01	0,660	0,66 €	0,660 €
1 MC00000		THT, solder on bottom layer!		Arduino Shield		2007972	1,530	£1,53	-			1,931 €
2 TSW-113-		THT	X13, X15	Arduino Shield		2025182	1,640	£3,28	-			4,139 €
1 MC00000		THT, solder on bottom layer!		Arduino Shield		2007971	1,190	£1,19	-			1,502 €
1 91850673		THT	X16	Arduino Shield		1096984	0,745	£0,75	T821-1-10-S1	0,290	0,29 €	0,290 €
1 22-23-202		THT	X17	Arduino Shield		1462926	0,040	£0,04	MX-22-23-2021	0,060	0,06 €	0,050 €
1 22-23-204	11	THT	X19	Arduino Shield	1	1462920	0,130	£0,13	MX-22-23-2041	0,009	0,01 €	0,009€
1 282836-2		Not installed	X2	Power board	2	-					0,00€	0,000 €
1 SSW-105	-02-S-D	Not installed (optional)	X20	Arduino Shield	1	-					0,00€	0,000 €
1 SSW-113	-02-T-D-RA	THT	X3	Power board	2	1805583	4,170	£8,34	ZL263-26DG	0,380	0,76 €	0,759 €
1 282836-5		THT	X4	AUX PS	1	1793678	0,627	£0,63	282836-5	0,770	0,77€	0,770 €
1 91850673		THT	X5	AUX PS		1096984	0,745	£0,75	T821-1-10-S1	0,290	0,29 €	0,290 €
1 22-23-203		THT	X6	AUX PS		1462950	0,616	£0,62	MX-22-23-2031	0,070	0,07 €	0,070 €
	B12S0LOT6C			AUX PS		-	0,010	20,02	LMJ2138812S0LOT6C	2,730	2,73 €	2,730 €
2 826629-8		THT	X8	AUX PS		1022256	0,084	£0,17	ZL201-08G	0,074	0,15 €	0,148 €
1 826629-5		THT	X9	AUX PS		1593416	0,281	£0,17	ZL201-06G ZL201-05G	0,044	0,13 €	0,148 €
						2449395						
1 32,768kH	Z	THT	Y1	Arduino Shield			0,151	£0,15	32.768K-TC38	0,142	0,14 €	0,142€
1 25MHz		SMD, 11.5mm x 4.7mm	Y2	Arduino Shield		2467741	0,206	£0,21	25.00M-SMDHC49S	0,359	0,36 €	0,260 €
2 n.c.		Not installed	ZD1, ZD2	Power board		-						
2 SMAJ18A		DO-214AC	ZD10, ZD11	Arduino Shield		1749305	0,040	£0,08	P4SMAJ18A-DIO	0,105	0,21 €	0,100€
1 BZX384-0		SOD-323	ZD12	Arduino Shield		8735697	0,133	£0,13	BZT52C4V3-DIO	0,019	0,02 €	0,019€
1 See Note		Not installed	ZD3	Power board		-			-			
1 BZX384-0	C15.115	SOD-323	ZD4	Power board	2	8735506	0,133	£0,27	BZX384-C15.115	0,019	0,04 €	0,038 €
1 PDZ6.2B		SOD-323	ZD5	Power board		1757863	0,194	£0,39	PDZ6.2B	0,019	0,04 €	0,037 €
2 P4SMAJ4	I8A	DO-214AC	ZD8, ZD9	Arduino Shield	2	1749310	0,157	£0,31	P4SMAJ48A-DIO	0,102	0,20 €	0,204 €
								192,40 €			70,87 €	181,17 €
	230 V version											
1 CG2-470I	_	THT	SAR1	AUX PS	1	1846854	1,390	£1,39	CG2-470L	1,457	1,46 €	1,457 €
1 TEZ6/D23	30/15V	THT	TR2	AUX PS	1	-			TEZ6/D/12V	2,720	2,72 €	2,720 €
2 S20K250		THT	VAR1, VAR2	AUX PS	2	1004357	0,563	£1,13	SIOV-S20K250	0,537	1,07 €	1,074 €
2 1.5KE400	CA	THT	ZD6, ZD7	AUX PS	2	2341650	0,304	£0,61	1.5KE400CA	0,239	0,48 €	0,478 €
								£3,12			5,73 €	5,73 €
AUX PS 1	L15 V version											
1 2027-23-E	BLF	THT	SAR1	AUX PS	1	1780455	1,393	£1,39	CG2-230L	1,230	1,23 €	1,230 €
1 VPP24-21	LO	THT	TR2	AUX PS	1	-			-			
2 S20K140		THT	VAR1, VAR2	AUX PS	2	1004387	0,742	£1,48	SIOV-S20K140	0,690	1,38 €	1,380 €
2 1.5KE200		THT	ZD6, ZD7	AUX PS		1837117	0,383		1.5KE200CA	0,040	0,08 €	0,080 €
								£3,64		-,-	2,69 €	2,69 €
Optional	AUX PS parts (l	JSB isolator, ethernet and USB	protection)									
5 100n		0603	C100, C101, C102, C103, C104	AUX PS	5	1759016	0,006	£0,03	CL10B104KO8NNNC	0,006	0,03 €	0,030 €
1 TPD4E00	2DRLR		IC18	AUX PS	1	1755329	0,341	£0,34	-			0,430 €
1 TPD2E00			IC19	AUX PS		2335446	0,380	£0,38				0,480 €
1 ADUM316			IC20	AUX PS		1843660	5,160		ADUM3160BRWZ-RL	5,970	5,97 €	5,970 €
					_	20.5000	0,100	20,10	0010001(11/2 1(L	0,010	5,51 0	5,510 €

		Pr	oject source code	at nu	ps://gitnub.com/e	ez-open					
2 60R@100MHz	0603, Ferrite bead 60R	FB6, FB7	AUX PS	2	1635704	0,033	£0,07	LCBA-600	0,027	0,05 €	0,055€
2 22R		R120, R121	AUX PS	2	9332847	0,002	£0,00	RC0805FR-0722R	0,007	0,01 €	0,004 €
1 826629-5	5-pin 0.1" header	X10	AUX PS	1	1593416	0,281	£0,28	ZL201-05G	0,044	0,04 €	0,044 €
							£6,26			6,11 €	7,01 €
AUX PS mechanica	I										
1 MB60251V1-G99	-	12V fan 60x60mm	AUX PS	1	-			MB60251V1-G99	4,090	4,09 €	4,090 €
4 B3X14/BN3320		Screwed spacer sleeve; hexagonal; M3, 14 mm	AUX PS	4	1466812	0,330	£1,32	B3X14/BN3320	0,309	1,24 €	1,238 €
1 Schurter KM00.1105	.11 -	IEC inlet, switch	AUX PS	1	1162776	7,190	£7,19	KM00.1105.11	7,160	7,16 €	7,160 €
1 Schurter 4301.1403	-	2 fuse drawer	AUX PS	1	1162737	2,640	£2,64	4301.1403	1,370	1,37 €	1,370 €
							£11,15			13,86 €	13,86 €
Power module AC in	nput option										
2 2m2	THT	C4, C5	Power board	4	1822562	1,651	£6,60	UVR1H222MHD	1,100	4,40 €	4,400 €
Option #1: UVZ1H22	22MHD THT	C4, C5	Power board	0	-			UVZ1H222MHD	0,973	0,97 €	
Option #2: UVZ1J222	2MHD THT	C4, C5	Power board	0	-			UVZ1J222MHD	1,593	1,59 €	
4 STPS15H100	TO-252	D1, D2, D3, D4	Power board		2344052	0,549	£4,39				5,542€
1 12K	1206	R1	Power board	2	1100220	0,013	£0,03	RC1206JR-0712K	0,006	0,01 €	0,013€
1 282836-2	THT	X2	Power board	2	3089034	0,264	£0,53	282836-2	0,270	0,54 €	0,540 €
1 INDEL TST450/014	-	Transformer: toroidal; 450VA; 230VAC 2x40V; 2x5.62A; 4kg	D; -	1	-			TST450/014	35,900	35,90 €	35,900 €
							£11,55			43,42 €	46,39 €
Power module DC in 3 100n	1206	C1, C2, C3	Power board		2497072	0,035	£0,21	C1206C104K5RAC	0,013	0,08€	0,080€
1 RN114-4-02	THT	L1	Power board		1191484	2,180	£4,36	CAF-3.1-1.2	1,820	3,64 €	3,640 €
1 282836-3	THT	X1	Power board		3089046	0,361	£0,72	282836-3	0,470	0,94 €	0,911 €
1 MEAN WELL LRS-15		Pwr sup.unit: switched-mode; modula 158.4W; 48VDC; 0.48kg			-	0,000		LRS-150-48	18,010	36,02 €	36,020 €
1 TFF-M3X40/DR124	-	Screwed spacer sleeve; M3, 40mm	Power board	2	-	0,000	£5,29	TFF-M3X40/DR124	0,156	0,31 € <b>40,99 €</b>	0,312 € 40,96 €
Power module mec	hanical										
1 RAD-A4463/120	-	Heatsink 70 x 120 mm	Power board		-			RAD-A4463/120	1,340	2,68 €	2,680 €
4 TFM-M3X6/DR213	-	Screwed spacer sleeve; M3; 6 mm	Power board	8	-			TFM-M3X6/DR213	0,089	0,71 €	0,713€
							£0,00			3,39 €	3,39 €
Arduino shield addi	itional parts										
1 Arduino Due rev3 or search for clones		32-bit MCU, 3.3V	Arduino Shield	1	2250861	32,940	£32,94	A000062	36,500	36,50 €	36,500€
eBay, AliExpress, etc 1 TFT_320QVT	). 	Option #1: http://eckstein-shop.de/32 inch-240x320-TFT-with-Touch-panel_:		1							
		Option #2: search on eBay, etc. for 3.2" TFT LCD Display Module + Toucl Panel +SD Reader (before buy check model name, screen site and resolution, total physical dimension 65x95mm, 40-pin connector and controller type SSD1289)					£32 0A			36 FO 6	36 50 6
							£32,94			36,50 €	36,50 €
	enclosure mechanical										
2 BS-244DSM-R	Binding post 4mm, red	J1, J4	Arduino Shield	2	1815818	2,120	£4,24	BS-244DSM-R	1,140	2,28 €	2,280 €

4 00 0440 044 0	D'ad'an and American	10	And the Object	_	4045000	0.470	00.47	DO 044DOM 0	4.440	1.1.1.0	4.440.6
1 BS-244DSM-G	Binding post 4mm, green	J2	Arduino Shield	1	1815820	2,170	£2,17	BS-244DSM-G	1,140	1,14 €	1,140 €
2 BS-244DSM-B	Binding post 4mm, black	J3, J5	Arduino Shield	2	1815819	2,110	£4,22	BS-244DSM-B	1,140	2,28 €	2,280 €
2 NSR-08	-	Plug; female; PIN:8 w/o terminals for Ethernet cable	Arduino Shield	2	-			NSR-08	0,086	0,17 €	0,171 €
1 NSR-05	-	Plug; female; PIN:5 w/o terminals for USB cable	Arduino Shield	1	-			NSR-05	0,026	0,03 €	0,026 €
21 NDR-T	-	Contact; female; 28÷22AWG; NSR/NDR; tinned	Arduino Shield	21	-			NDR-T	0,026	0,55 €	0,554 €
9 TFM-M5X8/DR218	Extend binding post for PCB mounting	Screwed spacer sleeve; M5; 8mm; brass	Arduino Shield	9	-			TFM-M5X8/DR218	0,187	1,68 €	1,681 €
4 DR316/3.2X5	5 mm between TFT display and front panel	Spacer sleeve; 5mm; cylindrical; brass	Arduino Shield	4	1733405	0,065	£0,26	DR316/3.2X5	0,057	0,23 €	0,228€
4 TP-11	11 mm between TFT display and PCB	d Screwed spacer sleeve; hexagonal; polyamide; M3	Arduino Shield	4	2494576	0,238	£0,95	TP-11	0,128	0,51 €	0,512€
4 B3/BN1074		Plastic washer; round; M3	Arduino Shield	4	-			B3/BN1074	0,008	0,03 €	0,032 €
11 PLP2-625	Light pipe for LED	Round; Ø3mm; Front: convex; straight	Arduino Shield	11	2293496	0,362	£3,98	PLP2-625	0,486	5,35 €	5,025€
							£15,82			14,25 €	13,93 €

All prices are net prices (without VAT)

PSU basic parts (2x40V/5A)	181,17€	
Power module DC input parts	40,96 €	
Power module mechanical	3,39 €	
Power module PCB	???	
AUX PS 230V option	5,73 €	
AUX PS mechanical	13,86 €	
AUX PS PCB	???	
Arduino Due (eBay)	12,99€	e.g. http://www.ebay.de/itm/DUE-R3-SAM3X8E-32-bit-ARM-Cortex-M3-Control-Board-Module-USB-Cable-For-Arduino-/301921886011?hash=item464bf25f3b:g:iuUAAOSwjMJXBgBX
TFT_320QVT (eBay)	10,16 €	e.g. http://www.ebay.de/itm/331563289696?_trksid=p2055119.m1438.l2649&ssPageName=STRK%3AMEBIDX%3AIT
Arduino shield and enclosure mechanical	13,93€	
Custom metal enclosure	???	
	282,19 €	

All prices are net prices (without VAT)