

		<b>Orone-mini-S8 Parts</b>					Partlist exported at 14/04/2013 09:03
Qty	Parts	Value/Part #	Device	RS	Farnell	Future	Comment
0	IC1	STM32F103CB	STM32F103CB	402-273	2215215	STM32F103 CB	LQFP48 STM32F103
1		STM32F303CC		772-4857			LQFP48 STM32F303
1	L1	2512066017Y1 FAIR- RITE	INDUCTOR 1206	466-9603	1612060		Reduce electrical noise into analogue ground, av- 0.08R 1A, 600R@100MHz
4	R1, R2, R3, R4	1k	RESISTOR 1206	740-9117 (5%)	2073877		LED current limit & switch pull-up/down, 10% okay
2	R5, R6	10k	RESISTOR 1206	740-9081 (1%)	2073878		switch pull-up/down, 10% tolerance is okay
1	R7	1.5k	RESISTOR 1206	223-2287 (1%) or 740-9123 (5%)	2073891		USB pull-up resistor
1	C1	100uF/16V	CAP_POL7343	496-3646 or 684-3926	1754094 or 1658709		Main power smoothing capacitor must be able to withstand the external power Vin voltage
1	C2	10uF	CAP 1206	723-6565 or 758-8093 etc.	2113071 or 1828831		Multi-layer Ceramic X7R, 6.3V or higher
1	C3	10nF	CAP 1206	669-8410 or 264-4141 etc	1759350 or 1414713		Multi-layer Ceramic X7R, 6.3V or higher
4	C4, C5, C6, C7	1uF	CAP 1206	648-0733 or 669-8448 etc.	1759436 or 9227865		Multi-layer Ceramic X7R, 6.3V or higher
2	C8, C9	18pF	CAP 1206	698-2841 or 648-0935 (0805)	1650895 or 2218878		Hard to get in 1206, RS 698-2841 is 15pF, or RS 648-0935 (0805 case)
1	XTAL1	5RCA08000123TF80Q3	CRYSTAL 5X3.2	728-8272			8MHz 5x3.2mm 4-pad SMD Crystal
2	BUT, RESET	FSM6JH	TAC_SWITCH PTH 6mm	758-1953 or 758-1957 or 756-1543			
1	LED1	L-2060GD	LED1.8MM-W	228-5427	1142454 or 1045497		1.8MM (T-3/4) Green User LED - e.g. Kingbright, Vishay or generic
1	LED2	L-2060ID or MCL914SRD	LED1.8MM-W	228-5411	1142456 or 1045495		LED 1.8MM (T-3/4) Red Power-On LED - e.g. Kingbright, Vishay or generic
2	D1, D2	PMEG3010ER or PMEG3010EH	DIODE- SCHOTTKY SOD-123W	485-606	1907686		1A 30V or higher Schottky Diode
1	T1	PDTA114ET or MMUN2111LT1G	ES_PNP- DRIVER SOT23-3	484-3441	1907673 or 9556702		PNP 'Digital Transistor' includes
1	REG1	MIC5209-3.3YS	V_REG_LM293 7 SOT223	727-2586	2100322 or 1556725		
1	REG2	MCP1703T-3302E/CB	MCP170X SOT23	669-4907	1439518		
1	ESD1	NUF2042XV6	NUF2042XV6 SOT563			NUF2042XV 6T1G	NUF2042XV6T ESD protection and USB filter
1	FUSE1	1206L050YR (Littelfuse) or nanoSMDC050F/13.2 (TE)	PTCSMD	138-679	1596993 or 1345942		500mA Polyfuse
2	J1, J2	e.g. AW 110/20-T (Assman)	M20	674-2343			2 x 20pin 0.1" Headers. Almost any 0.1" pitch header pins could be used, could also use 0.1" pitch sockets.
1	USB1	USB-Mini-B/AB thru- hole. 56579-0519 or 54819-0519 Molex	USB-MINIB TH-ODRILL	515-2011 or 515-2005	1125347 or 2133828 or 9786465		Thru-hole USB Mini B & AB same footprint
1	J3	Molex KK 22-23-2021 or 22-11-2022 or 22-27-2021	M02POLAR	679-5583 or 679-5515 or 483-8461	1462926 or 1865212 or 9731148		2-pin, polarised, "External power" socket

	<b>F103 costs</b>	<b>F303 Costs</b>		
<b>RS</b>	£5.253	£9.78		
<b>Future</b>	£2.90	£0.113		
<b>Total</b>	£8.16	£9.90		