

**SA Roach 2 Enclosure Bill of Materials**  
To be used in conjunction with manufacturing pack

Item No.	Item	Description	Quantity	Manufacturer	Recommended Supplier	Supplier Part Number	Manufacturer Part number	Specifications
ROACH 2 in 1U Chassis								
1	Enclosure	1U Aluminum 19" rack mountable enclosure	1	AllFab	Digicom		SA ROACH 2 Enclosure	<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture</a>
2	Blank Back Panel	SFPP/CX4 Interchangeable back panels	2	AllFab	Digicom			<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture</a>
3	Front Face/Panel	Front mounting face/panel for enclosure	1	AllFab	Digicom			<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture</a>
4	Power Supply	200W, six output, Switch Mode DC supply	1	iStar/XEAL	Digicom		TC-1U20FX2	<a href="http://www.istarusa.com/xeal/products.php?model=TC-1U20FX2#_UnuUvrmh8E">www.istarusa.com/xeal/products.php?model=TC-1U20FX2#_UnuUvrmh8E</a>
5	Power Filter	General purpose, IEC inlet filter	1	Schaffner			FN9222-3-06	<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture</a>
6	Power Cable Interface	IEC 60320-1 C13 female connector with 200mm cable	1	In SA (Otto Marketing)	In SA (Otto Marketing)	OCT100038	OCT100038	
7	ROACH 2 PCB	FPGA ROACH 2 PCB	1	Digicom	Digicom			
8	LED Status Indicator	LED ROACH 2 Status PCB	1	Digicom	Digicom			<a href="https://github.com/ska-sa/roach2_hardware/tree/master/REV%202/ROACH2_LEDSTATUS_PCB/Release/REV0/A">https://github.com/ska-sa/roach2_hardware/tree/master/REV%202/ROACH2_LEDSTATUS_PCB/Release/REV0/A</a>
9	Power Switch	Panel Mount Pushbutton Switch	1	EAO Secme	RS Components	RS comp 174-4098	EOZ 07.17502.21	
	- with cable	0.22mm, 7 strand copper, 100mm long						
	- with plug	2.54mm, crimp housing, 2 way	1	Harwin	RS Components	RS comp 681-2812	M20-1060200	<a href="http://www.harwin.com/M20-118/M20-1060200-product.html">http://www.harwin.com/M20-118/M20-1060200-product.html</a>
	- terminal	0.22 crimp terminal	2	Harwin	RS Components	RS comp 681-2878	M20-1180042	<a href="http://www.harwin.com/M20-118/M20-1180042-product.html">http://www.harwin.com/M20-118/M20-1180042-product.html</a>
10	Reset Switch	Panel Mount Pushbutton Switch	1	EAO Secme	RS Components	RS comp 174-4098	EOZ 07.17502.21	
	- with cable	0.22mm, 7 strand copper, 100mm long						
	- with plug	2.54mm, crimp housing, 2 way	1	Harwin	RS Components	RS comp 681-2812	M20-1060200	<a href="http://www.harwin.com/M20-118/M20-1060200-product.html">http://www.harwin.com/M20-118/M20-1060200-product.html</a>
	- terminal	0.22 crimp terminal	2	Harwin	RS Components	RS comp 681-2878	M20-1180042	<a href="http://www.harwin.com/M20-118/M20-1180042-product.html">http://www.harwin.com/M20-118/M20-1180042-product.html</a>
11	Fan	38 x 38 x 28, Cooling Fan	3	SanAce	RS Components	RS comp 471-446	9GV0312G301	<a href="http://db.sanyodenki.co.jp/product_db_e/coolingfan/tcfan/dc_fan_detail.php?master_id=1701">http://db.sanyodenki.co.jp/product_db_e/coolingfan/tcfan/dc_fan_detail.php?master_id=1701</a>
	- with plug and terminal							
12	Fansink	42.5x42.5 Fansink	1	Radian Heatsinks	Digicom	SKA002-A1	SKA002-A1	<a href="http://www.radianheatsinks.com/">http://www.radianheatsinks.com/</a>
							Data Sheet:	<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture/supporting_documentation/SKA002-A1">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture/supporting_documentation/SKA002-A1</a>
13	GPIO Loom A	Length 550mm	1					
	- with cable	20way ribbon cable						
	- with connector	20 way IDC bump polarised socket,1A	2	3M	RS Components	RS comp 192-7388	3421-6620	
14	Power/Reset Loom	Length 350mm	1					
	- with cable	14way ribbon cable						
	- with connector	14 way IDC bump polarised socket,1A	2	3M	RS Components	RS comp 192-7366	3385-6614	
15	Rail Kit	Rail kit to mount Roach Enclosure in a 19" rack	1 set	iStarUSA			RP-RAIL-20-1U	<a href="http://www.istarusa.com/istarusa/products.php?model=RP-RAIL-20-1U#_UYugF6x3NaQ">http://www.istarusa.com/istarusa/products.php?model=RP-RAIL-20-1U#_UYugF6x3NaQ</a>
	<b>Mounting Hardware</b>							
16	M3 x 6	POZI head machine screw, 3mm thread, 6mm long, Stainl	16	Boltfast	Boltfast		DIN: 7985	Used to Mount PCB's(9), Power Supply(4), LED PCB(2), Earth connection(1)
17	M3 x 35	POZI head machine screw, 3mm thread, 35mm long, Stain	12	Boltfast	Boltfast		DIN: 7985	Used to mount the cooling Fans
18	M3 Flat Washers	3mm Flat washers, Stainless Steel	12	Boltfast	Boltfast		DIN: 125	Used to mount the cooling Fans
19	M4 x 6	POZI head machine screw, 4mm thread, 6mm long, Stainl	4	Boltfast	Boltfast		DIN: 7985	Used to mount the Rail Kits
20	M3 x 6 CSK	Countersunk, HEX head machine screw, 3mm thread, 6mm	46	Boltfast	Boltfast		DIN: 965	Used to mount the Enclosure Lid(28), 2 Back Panels(6x2=12), Front Face(4) and Power Filter(2)
21	Clear Hole Bracket	L-Shape short bracket to mount PSU	2				tc-1u20fx2_bracket	<a href="https://github.com/ska-sa/roach2_chassis_design/blob/master/roach_2_manufacture/documentation/tc-1u20fx2_bracket.pdf">https://github.com/ska-sa/roach2_chassis_design/blob/master/roach_2_manufacture/documentation/tc-1u20fx2_bracket.pdf</a>
if ADCs included								
22	ADC	Currently katADC	slots for 2					
23	SMA Pigtail	RF interface, SMA jack to SMA plug, 900mm	Up to 8	In SA (Otto Marketing)	In SA (Otto Marketing)	SMA00SMA50R0900		
	- cable, Micro-Coax	50 ohm Semi Rigid Cable, 900mm			Micro-Coax		UT-85C	<a href="http://www.micro-coax.com/pages/products/ProductTypes/CableTypes/Semi-RigidCoaxial/Semi-RigidDetails.asp?ID=UT-085C">http://www.micro-coax.com/pages/products/ProductTypes/CableTypes/Semi-RigidCoaxial/Semi-RigidDetails.asp?ID=UT-085C</a>
	- SMA jack		1	Telegartner	Telegartner		J01151A0061	
	- SMA plug		1	Telegartner	Telegartner		J01150A0121	
	<b>Mounting Hardware</b>							
	M3 x 6	POZI head machine screw, 3mm thread, 6mm long, Stainl	8	Boltfast	Boltfast		DIN: 7985	ADC PCBs(4x2=8),
if SFPP/CX4 Cards Included								
24	SFPP/CX4 Cards	Either 2 SFPP or 2 CX4 or 1 SFPP and 1 CX4 Card	slots for 2	Digicom	Digicom			
25	SFPP/CX4 Back Panels	Either 2 SFPP or 2 CX4 or 1 SFPP and 1 CX4 Back Panels	2	AllFab	Digicom			<a href="https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture">https://github.com/ska-sa/roach2_chassis_design/tree/master/roach_2_manufacture</a>
	<b>Mounting Hardware</b>							
26	M3 x 6	POZI head machine screw, 3mm thread, 6mm long, Stainl	8	Boltfast	Boltfast		DIN: 7985	CX4/SFPP PCBs(4x2=8),
27	M3 11mm Brass Standoff; M3 11mm hex male to female spacer standoff, Brass		8	Harwin Inc	Digi-Key	952-1502-ND	R30-3001102	<a href="http://www.digikey.com/product-detail/en/R30-3001102/952-1502-ND/2264483">http://www.digikey.com/product-detail/en/R30-3001102/952-1502-ND/2264483</a>