

HW BOM for ITPM

Component	Model	Spec	Unit Price £ (qty thousand)	Quantity per board	Component Design Cost (person weeks)	Manufacture Cost (unit cost per thousand)	Code Compatible	Pin Compatible	Notes: If not PIN compatible, change board; if not CODE compatible - change SW (see other BOM)	Person weeks required for Redesign	System Impact if component changed	Additional comments
CPU1	68k0	8MHz, 16/32, 16MB max RAM	8	1	-	-	y	n	choose one CPU	2	change board	
CPU2	68k8	5Mhz, 8/32, 1MB Max Ram	5.5	1	-	-	y	n	choose one CPU	2	change board	
CPU3	EP7500FE	50Mhz, 4KB cache, int VIDC and IOMD	15	1			n	n	choose one CPU	4	change board	NEW ARCH - need new RAM and GLUE chips
ULA	G1	glue IOP-CPU	5	1	4	-	n	y	Supports all existing BOM options. Same ARCH	2	mod chip	Only if using IO chip NOT currently on BOM or new ARCH
ULA	G2	glue RAM-CPU	5	1	4	-	n	y	changing RAM chip needs G2 redesign - same ARCH	2	mod chip	
ULA	G3	glue DISP-CPU	5	1	4	-	n	y	changing Display chip needs G3 redesign - same ARCH	2	mod chip	
ULA	G4	glue SYSTEM	5	1	4	-	n	y	only change if CPU changed	2	mod chip	G4-1 deployed in prod with 68k8 chip
ULA	GX	glue special, interface XVX and CPU	5	1	5		n	n	designed for XVX and EP75K	3	mod chip	NEW ARCH - special design
ULA	DAC	4 ch. Audio, Synful design	5	1	4		n	n	Designed for use with 7500 and. GX chip	2	mod chip	NEW ARCH - special design
Misc	resistors, caps,	-	0.5	100	-	-	y	y	just add to cost of board	-	-	
INTSND	i8042	mono snd, 2 8-bit ports	1.5	1	-	-	n	y	only one INTSND required	1	change board	treat like IOP
INTSND	YM2149	3 ch snd, env, 2 8-bit ports	2.5	1	-	-	n	y	only one INTSND required	1	change board	treat like IOP
NVRAM	M48T08	8KB RAM, battery backed	25	1			n	y	only 1 required	2	change board	needs GX chip change
ROM	8K	8 KB ROM chip	1.5	1	4	-	n	y	1 or 2 chips depends on config	1	change board	unless SCKT
ROM	16K	16 KB ROM chip	2	1	4	-	n	y	1 or 2 chips depends on config	1	change board	unless SCKT
ROM	32K	32 KB ROM chip	4	1	4	-	n	y	1 or 2 chips depends on config	1	change board	unless SCKT
RAM	32Kb	8/16 bit, 100ns	1.5	4	-	-	y	n	Need 4 chips for 128Kb	2	change G2 & Board	unless SCKT, still needs G2 mods though
RAM	128Kb	8/16 bit, 100ns	2.5	4	-	-	y	n	Need 4 chips for 512Kb,	2	change G2 & Board	unless SCKT, still needs G2 mods though
RAM	256Kb	8/16 bit, 100ns	5	4	-	-	y	n	Need 4 chips for 1M	2	change G2 & Board	unless SCKT, still needs G2 mods though
RAM	512Kb	16 bit, 100ns	10	4	-	-	y	n	Need 4 chips for 2M	2	change G2 & Board	unless SCKT, still needs G2 mods though
RAM	SIMM	4096KB	60	2			y	y	only compatible with existing SIMM based boards	0	SOCKETED	socketed simms can be exchanged, GX is compatible
RAM	SIMM	2048KB	25	2			y	y	only compatible with existing SIMM based boards	0	SOCKETED	socketed simms can be exchanged, GX is compatible
RAM	SIMM	1024KB	15	2			y	y	only compatible with existing SIMM based boards	0	SOCKETED	socketed simms can be exchanged, GX is compatible
BOARD-SLDR	A83	CPU, IOP, G1-4, XXKb RAM SERPORT, INTSND	15	1	8	10	-	-	Only 1 chip of each type required except RAM	-	-	
BOARD-SCKT	A83-S	All ICs have sockets	25	1	8	14	-	-	with sockets			
GPAD-SLDR	G-96	CPU-DAC-GX-GDISP-X MB-RAM - ROM	20	1	6	10			Special board for game console			All components soldered EXCEPT RAM
Pro Expansion	ProEx	CPU-Glue-SCSI - 4xRAM	15	1		12	n	n	Expansion board - component prices from BOM	4	New G if new CPU	All comps socketed - comp costs from BOM
IOP-S	16550 UART	1 ch serial port	5	1	-	-	n	y	Two IOP required - this is Serial	1	change board	unless SCKT
IOP-J	SC100	2ch MPX serial ports	12	1	-	-	n	y	Multiplex:1 prt -> 2 (need cable)	1	change board	replaces SERPRT
IOP-S	J6100	9 pin 1 ch dig port	5	1	-	-	n	y	Two IOP required - this is JyStk	1	change board	unless SCKT
IOP-J	SC150	2ch Joy/mse/keybd connector	15	1	-	-	n	y	Multiplex:1 prt -> 2 (need cable)	1	change board	replaces JYSTCK
IOP-X	SCSI	SCSI interface & terminator	5	1			n	n	Only for Pro Exp board	4	change G chip	new G chip if SCSI chip changes
GDISP	XVX	4k cols, 1024x768, 100Mhz, 1MB VRAM	25	-		-	n	n	Not included in orig Synputer design	3	change board, G3 chip	
AMIDISP	XVZ	64k col, 1280x1024, 100Mhz, 1MB VRAM	55	1			y	y	drop in replacement for XVX chip with bugfix	4	change GX chip	designed for game console and GX chip ONLY
STORAGE	disk	3.5" floppy	7.5	2	-	-	n	n	controlled by G1, only 1 storage opt required	2	change g1	
STORAGE	cartridge	cartridges	5	2	-	-	n	n	controlled by G1, only 1 storage opt required	2	change g1	
STORAGE	mixed	1 of each (cart/ floppy)	12.5	1	-		n	n	controlled by G1, only 1 storage opt required	2	change g1	change to allow both storage devices on one chip
CASE	DESKTOP	int keyboard, 3 ext ports (+ exp)	25	1	10	20			n/a	5	needs new case	
CASE	LUGGABLE	ext keyboard, 4 ext ports (+exp)	35	1	10	20			n/a	5	needs new case	
CASE	CUSTOM	on demand	TBA	1	20	20			n/a	5	needs new case	
KEYB	int	int keyboard for case	5	1			n	n	controlled by G1 needs chip change	1	change chip & board	
KEYB	ext	ext keyboard for system	7.5	1			n	n	controlled by G1 needs chip change	1	change chip & board	