

Switchable 32KB (and 16KB) EPROM

This module holds two 32KB ROM images which are selectable with an onboard switch, it can replace standard EPROMS of the type 27(C)256 (and can also replace the 16KB 27(C)128 – see below).

Note: The module was originally intended for Spectrum 128s so please ignore the PCB marking when used in other systems.

Switch set to A:

Switch set to B:

When replacing a 16KB (27(C)128) type EPROM:

Illustrated below is the industry standard pin-outs for 27(C)256 and 27(C)128 type EPROMs. Notice the only difference is pin 27 – on the 27(C)256 it is address line input A14, whereas on the 27(C)128 it is a Programming Enable input “/P”

When used in an application board (ie: not the EPROM programmer) that expects a 16KB EPROM, this pin will usually be pulled up (inactive) to 5V by the PCB circuit. Therefore, the module will still work as long as the 16K ROM images are placed in the upper half of the 32KB page – in practice, the same 16KB image is simply doubled up forming a 32KB ROM, the same data appearing in both upper and lower pages. When used on a unknown circuit a quick continuity check should be made to make sure pin 27 is not floating as this is undesirable for CMOS based chips. (If it is floating, the easiest thing to do is short pin27 to pin28 with a blob of solder.)

32KB EPROM		16KB EPROM	
VPP	1	28	VCC
A12	2	27	A14
A7	3	26	A13
A6	4	25	A8
A5	5	24	A9
A4	6	23	A11
A3	7	22	OE
A2	8	27[C]256	21 A10
A1	9	20	CE
A0	10	19	Q7
Q0	11	18	Q6
Q1	12	17	Q5
Q2	13	16	Q4
VSS	14	15	Q3

Note: Pin 1 [VPP] is used to supplied a high programming voltage by an EPROM programming unit. Application circuits sometimes tie this to 5v, or leave it disconnected – for the ROM module this doesn't matter – there is a onboard pull-up resistor to prevent it floating.