

APPLICATION		REVISION			
NEXTASSEMBLY	USED ON	LTR	DESCRIPTION	DATE	APPROVED
	C65	1	PRELIMINARY RELEASE	1-31-91	<i>J. Porter</i>

1.0 DESCRIPTION

This specification describes the requirements for a programmed array logic device (PAL). The PAL consists of Commodore Part Number 390071-03 with ELMER programming entered into it. ELMER implements various glue functions in the C65. The programmed part shall be Commodore Part Number 390548-01.

2.0 MARKINGS

The PAL shall be marked with the Commodore Part Number and copyright notice as follows: © 1991 CBM.

Commodore P/N	Status	Commodore P/N	Status		
390548-01	Active				

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
 TOLERANCES:
 ANGLES +/- 1 DEGREE
 2 PLACE DECIMALS +/- 0.02
 3 PLACE DECIMALS +/- 0.010

DRAWN <i>A. Young</i>	DATE 1/30/91
SYSTEM ENGR. <i>A. Young</i>	DATE 1/30/91
TEST/ENGR.	DATE

Commodore
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COMP. ENGR. D. Shannon	DATE
CIRCUIT ENGR.	DATE
PROD. ASSUR.	

TITLE: IC, PAL, 16L8B, PROGRAMMED, C65	
SIZE A	DRAWING NUMBER 390548
SCALE	SHEET 1 of 2

3.0 PAL EQUATIONS

Part No. 390548-01;
 Name ELMER2 ; /* C65 ROM control and misc. logic */
 Date 1/5/91;
 Rev 1;
 Designer Paul Lassa;
 Company Commodore;
 Assembly C65;
 Location U11;
 Device p16l8;
 /* Target PAL Device : 16L8-15 (B-Part) */

/* Latest change: UPA2, floppLED not INV. for f011C, PCB 2B */

/* INPUTS */

pin 1 = A5; /* SID register decode */
 pin 2 = A7; /* SID register decode */
 pin 3 = INFLED; /* Floppy LED input */
 pin 4 = PA2; /* port A,bit2 */
 pin 5 = TXD; /* UART transmit */
 pin 6 = RSV1; /* nothing */
 pin 7 = BCPUCLK; /* Buffered CPUCLK */
 pin 8 = !DISK; /* CHIP SELECT for Disk REGS */
 pin 9 = RSV2; /* nothing */
 pin 11 = !SID; /* VIC SID select */

/* OUTPUTS */

pin 12 = !EXTREG; /* CHIP SELECT for RAM EXP. REGS */
 pin 13 = OUTFLED; /* Floppy LED output */
 pin 14 = UPA2; /* USER PORT A,bit2 */
 pin 15 = RSV3; /* nothing */
 pin 16 = RSV4; /* nothing */
 pin 17 = RSV5; /* nothing */
 pin 18 = !SID_L; /* Stereo LEFT SID select */
 pin 19 = !SID_R; /* Stereo RIGHT SID select */

/* EQUATIONS */

OUTFLED = !INFLED; /* (f011C-no) INVERT Floppy LED */

EXTREG = SID & A7; /* temp. in SID space. */
 /* will be: EXTREG = DISK & A5; */

SID_R = SID & !A5 & !A7; /* temp. A7 */

SID_L = SID & A5 & !A7; /* temp. A7 */

UPA2 = PA2 & TXD; /* WIRED-AND for Transmit */

3.1 Checksum

Checksum for Elmer2 = 2A11.

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TITLE:

IC, PAL, 16L8B,
PROGRAMMED, C65

SIZE A	DRAWING NUMBER 390548	REV. 1	SCALE	SHEET 2 OF 2
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