

**in**

<b>COLLABORATORS</b>
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	TITLE :  in		
ACTION	NAME	DATE	SIGNATURE
WRITTEN BY		May 28, 2025	

<b>REVISION HISTORY</b>
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NUMBER	DATE	DESCRIPTION	NAME

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# Chapter 1

## in

### 1.1 ModuleInformation

```
ShowModule v1.10 (c) 1992 $#%!
now showing: "hardware/cia.m"
NOTE: don't use this output in your code, use the module instead.
```

```
(----) OBJECT cia
(  0)   ciapra:CHAR
(  1)   pad0a:CHAR
(  2)   pad0b[254]:ARRAY OF CHAR
(256)   ciaprb:CHAR
(257)   pad1a:CHAR
(258)   pad1b[254]:ARRAY OF CHAR
(512)   ciaddra:CHAR
(513)   pad2a:CHAR
(514)   pad2b[254]:ARRAY OF CHAR
(768)   ciaddrb:CHAR
(769)   pad3a:CHAR
(770)   pad3b[254]:ARRAY OF CHAR
(1024)  ciatalo:CHAR
(1025)  pad4a:CHAR
(1026)  pad4b[254]:ARRAY OF CHAR
(1280)  ciatahi:CHAR
(1281)  pad5a:CHAR
(1282)  pad5b[254]:ARRAY OF CHAR
(1536)  ciatblo:CHAR
(1537)  pad6a:CHAR
(1538)  pad6b[254]:ARRAY OF CHAR
(1792)  ciatbhi:CHAR
(1793)  pad7a:CHAR
(1794)  pad7b[254]:ARRAY OF CHAR
(2048)  ciatodlow:CHAR
(2049)  pad8a:CHAR
(2050)  pad8b[254]:ARRAY OF CHAR
(2304)  ciatodmid:CHAR
(2305)  pad9a:CHAR
(2306)  pad9b[254]:ARRAY OF CHAR
(2560)  ciatodhi:CHAR
(2561)  pad10a:CHAR
(2562)  pad10b[254]:ARRAY OF CHAR
```

```
(2816)  unusedreg:CHAR
(2817)  pad11a:CHAR
(2818)  pad11b[254]:ARRAY OF CHAR
(3072)  ciasdr:CHAR
(3073)  pad12a:CHAR
(3074)  pad12b[254]:ARRAY OF CHAR
(3328)  ciaicr:CHAR
(3329)  pad13a:CHAR
(3330)  pad13b[254]:ARRAY OF CHAR
(3584)  ciacra:CHAR
(3585)  pad14a:CHAR
(3586)  pad14b[254]:ARRAY OF CHAR
(3840)  ciacrb:CHAR
(----) ENDOBJECT      /* SIZEOF=3842 */
```

```
CONST CIAF_COMCD=$20,
      CIAB_COMCD=5,
      CIAICRF_TA=1,
      CIAPRA=0,
      CIAF_DSKRDY=$20,
      CIAB_DSKRDY=5,
      CIAICRF_TB=2,
      CIAPRB=$100,
      CIAF_COMRTS=$40,
      CIAB_COMRTS=6,
      CIAF_COMDTR=$80,
      CIAB_COMDTR=7,
      CIACRBF_LOAD=16,
      CIACRAF_LOAD=16,
      CIACRBB_LOAD=4,
      CIACRAB_LOAD=4,
      CIAF_PRTRSEL=4,
      CIAB_PRTRSEL=2,
      CIACRBF_IN_PHI2=0,
      CIACRBF_START=1,
      CIACRAF_START=1,
      CIACRBB_START=0,
      CIACRAB_START=0,
      CIACRBF_IN_CNT_TA=$60,
      CIACRBF_PBON=2,
      CIACRAF_PBON=2,
      CIACRBB_PBON=1,
      CIACRAB_PBON=1,
      CIACRA=$E00,
      CIACRB=$F00,
      CIAICRF_IR=$80,
      CIAF_PRTRPOUT=2,
      CIAB_PRTRPOUT=1,
      CIAF_DSKSIDE=4,
      CIAB_DSKSIDE=2,
      CIATAHI=$500,
      CIAF_DSKCHANGE=4,
      CIAB_DSKCHANGE=2,
      CIAICRB_SP=3,
      CIAICRB_TA=0,
      CIAICRB_TB=1,
      CIAICRF_FLG=16,
```

```
CIAICRB_FLG=4,
CIATALO=$400,
CIAICR=$D00,
CIAB_ADDR=$BFD000,
CIAA_ADDR=$BFE001,
CIATODMID=$900,
CIATBHI=$700,
CIACRBF_INMODE0=$20,
CIACRBB_INMODE0=5,
CIACRBF_INMODE1=$40,
CIACRBB_INMODE1=6,
CIAICRB_IR=7,
CIAF_DSKTRACK0=16,
CIAB_DSKTRACK0=4,
CIATODLOW=$800,
CIATBLO=$600,
CIASDR=$C00,
CIAF_DSKPROT=8,
CIAB_DSKPROT=3,
CIAF_DSKMOTOR=$80,
CIAF_PRTRBUSY=1,
CIAB_DSKMOTOR=7,
CIAB_PRTRBUSY=0,
CIAF_GAMEPORT0=$40,
CIAB_GAMEPORT0=6,
CIAF_GAMEPORT1=$80,
CIAB_GAMEPORT1=7,
CIADDRA=$200,
CIACRBF_RUNMODE=8,
CIACRBF_OUTMODE=4,
CIACRAF_SPMODE=$40,
CIACRAF_INMODE=$20,
CIACRAF_RUNMODE=8,
CIACRAF_OUTMODE=4,
CIACRBB_RUNMODE=3,
CIACRBB_OUTMODE=2,
CIACRAB_SPMODE=6,
CIACRAB_INMODE=5,
CIACRAB_RUNMODE=3,
CIACRAB_OUTMODE=2,
CIADDRB=$300,
CIACRBF_IN_TA=$40,
CIAF_DSKDIREC=2,
CIAB_DSKDIREC=1,
CIAF_DSKSTEP=1,
CIAB_DSKSTEP=0,
CIAICRF_ALRM=4,
CIAICRB_ALRM=2,
CIACRBF_ALARM=$80,
CIACRBB_ALARM=7,
CIAF_COMCTS=16,
CIAB_COMCTS=4,
CIAICRF_SETCLR=$80,
CIAICRB_SETCLR=7,
CIATODHI=$A00,
CIAF_LED=2,
CIAB_LED=1,
```

```

CIAF_DSKSEL0=8,
CIAB_DSKSEL0=3,
CIAF_DSKSEL1=16,
CIAF_COMDSR=8,
CIAB_DSKSEL1=4,
CIAB_COMDSR=3,
CIAF_DSKSEL2=$20,
CIAB_DSKSEL2=5,
CIAF_DSKSEL3=$40,
CIAB_DSKSEL3=6,
CIAF_OVERLAY=1,
CIAB_OVERLAY=0,
CIACRBF_IN_CNT=$20,
CIACRAF_TODIN=$80,
CIAICRF_SP=8,
CIACRAB_TODIN=7

```