Monitor aus MX300-45 (intel 486-25)

```
:
        Firmware - D533(i486)      Version  2.2      91/01/18  ***************

        List of available Help pages

        sy?             Symbols used in commands
        TS?             Teleservice commands
        SI?             SINIX commands for boot- and kernel-location
        u? [1,2,..]     Utilities [1st, 2nd, ...] page
        t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
        io?             IO system commands
: sy?
        Symbols

        @                       =   address in hex
        #                       =   number contextdependent
        ~                       =   condition- & command-dependent s.t?
        L                       =   length in bytes
        C                       =   hex-character
        (...)                   =   (unit,offset in [s]#)(memory-@,length-#)
                                    s# offset in sectors ,# offset in K-Bytes
         ATTENTION! The unit number is now interpreted as a hex number!
         (f.e. FL0 is now 20 not 32 anymore).
:
```

```
        (f.e. FL0 is now 20 not 32 anymore).

:
        Firmware - D533(i486)      Version  2.2      91/01/18  ***************

        List of available Help pages

        sy?             Symbols used in commands
        TS?             Teleservice commands
        SI?             SINIX commands for boot- and kernel-location
        u? [1,2,..]     Utilities [1st, 2nd, ...] page
        t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
        io?             IO system commands
: TS?
        Teleservice

        TS?                         this help
        TSe [d]                     TS enable [with default param, set WFC]
        TSd [d]                     TS disable [clear WFC]
        TSl                         TS interfacelines states (break with DEL)
        TSp[?] [i1 i2 i3]           TS parameters [info,help] [ind1 ind2 ind3]
        TShs[?] [string]            TS handshake signals [info,help] [param]
        TSf[?] [string]             TS condition flags [info,help] [param]
        res[e,d]                    Reset with BREAK [enable,disable]
: _
```

```
        TSl                     TS interfacelines states (break with DEL)
        TSp[?] [i1 i2 i3]       TS parameters [info,help] [ind1 ind2 ind3]
        TShs[?] [string]        TS handshake signals [info,help] [param]
        TSf[?] [string]         TS condition flags [info,help] [param]
        res[e,d]                Reset with BREAK [enable,disable]
: TSp?

Possible interface parameters. Use 3 indices for selection
 (Default for the 3rd parameter is 0 - 1 stop bit).

   index_1 = 0     300 bit/s    index_2 = 0   7 bit/char     odd  Parity
   index_1 = 1     600 bit/s    index_2 = 1   7 bit/char     even Parity
   index_1 = 2    1200 bit/s    index_2 = 2   7 bit/char     no   Parity
   index_1 = 3    2400 bit/s    index_2 = 3   8 bit/char     odd  Parity
   index_1 = 4    4800 bit/s    index_2 = 4   8 bit/char     even Parity
   index_1 = 5    9600 bit/s    index_2 = 5   8 bit/char     no   Parity
   index_1 = 6   19200 bit/s
   index_1 = 7   38400 bit/s

   index_3 = 0   1 stop bit     index_3 = 1   2 stop bits

Teleservice Parameters in use:
        1200 bit/s  8 Bit/Char  no Parity  1 stop bit(s)
:
```

```
        sy?             Symbols used in commands
        TS?             Teleservice commands
        SI?             SINIX commands for boot- and kernel-location
        u? [1,2,..]     Utilities [1st, 2nd, ...] page
        t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
        io?             IO system commands
: t
TS?
        Teleservice

        TS?                         this help
        TSe [d]                     TS enable [with default param, set WFC]
        TSd [d]                     TS disable [clear WFC]
        TSl                         TS interfacelines states (break with DEL)
        TSp[?] [i1 i2 i3]           TS parameters [info,help] [ind1 ind2 ind3]
        TShs[?] [string]            TS handshake signals [info,help] [param]
        TSf[?] [string]             TS condition flags [info,help] [param]
        res[e,d]                    Reset with BREAK [enable,disable]
: TShs?
V24 Handshake Lines used: S1/S2/S4/M1/M2/M5

Possible V24 Handshake Lines: S1/S2/S4/M3/M4/M1/M2/M5
The CCITT equivalents in same order: 108/105/111/125/112/107/106/109
: _
```

```
        TShs[?] [string]        TS handshake signals [info,help] [param]
        TSf[?] [string]         TS condition flags [info,help] [param]
        res[e,d]                Reset with BREAK [enable,disable]
: TShs?
V24 Handshake Lines used: S1/S2/S4/M1/M2/M5

Possible V24 Handshake Lines: S1/S2/S4/M3/M4/M1/M2/M5
The CCITT equivalents in same order: 108/105/111/125/112/107/106/109
:
        Firmware - D533(i486)       Version  2.2      91/01/18  ***************

        List of available Help pages

        sy?             Symbols used in commands
        TS?             Teleservice commands
        SI?             SINIX commands for boot- and kernel-location
        u? [1,2,..]     Utilities [1st, 2nd, ...] page
        t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
        io?             IO system commands
: TSf?
Teleservice Flags set: tse/S4

Possible Teleservice Flagnames: tsa/tse/wfc/pwd/S4
:
```

```
        sy?             Symbols used in commands
        TS?             Teleservice commands
        SI?             SINIX commands for boot- and kernel-location
        u? [1,2,..]     Utilities [1st, 2nd, ...] page
        t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
        io?             IO system commands
: SI?

        SINIX commands

        bootloc string          define Systemboot location
        bootdr drivetype        define Systemboot drive
        bootloc?                print the defined location and the
                                location the firmware booted from
        sinixloc string         define the kernel location
        sinixloc?               print the defined kernel location
        SI?                     this help

        valid drivetypes:
        0: 5 1/4" DD-Floppy, Omti       1: 5 1/4" DD-Floppy
        2: 5 1/4" SD/DD-Floppy          3: 3 1/2" ND-Floppy
        4: 5 1/4" HD-Floppy             5: 3 1/2" HD-Floppy
        6: Harddisk (ESDI)              7: Harddisk (ST506)
        8: Streamer (QIC)               9: invalid
:
```

```
bootloc string          define Systemboot location
bootdr drivetype        define Systemboot drive
bootloc?                print the defined location and the
                        location the firmware booted from

sinixloc string         define the kernel location
sinixloc?               print the defined kernel location
SI?                     this help

valid drivetypes:
0: 5 1/4" DD-Floppy, Omti       1: 5 1/4" DD-Floppy
2: 5 1/4" SD/DD-Floppy          3: 3 1/2" ND-Floppy
4: 5 1/4" HD-Floppy             5: 3 1/2" HD-Floppy
6: Harddisk (ESDI)              7: Harddisk (ST506)
8: Streamer (QIC)               9: invalid
: bootloc?
Systemboot location:
 ;K2
 Drive: invalid

Systemboot booted from:

 Drive: Harddisk (ESDI)
: _
```

```
: u?
      Utilities

      [l,,r,w](...)[(...)]    load, load-start, read, write dsk,fl,str
      D(...)                  Display dataoffset in x.out-file
      ;                       cat commands
      <END>                   return(1)
      K?[#]                   display[startnumber]
      K#                      start command with index #
      ai                      display icu registers
      ci [m,s] [0,1] #        change icu reg [master, slave] [addr] value
      in[e,d]                 interrupts [enable,disable]
      cm[b,w,d] @ #           change memory [byte,word,double] addr data
      D [@,K#] [#]            display string [addr,comm] [stringcount]
      d @ L                   display memory
      d[b,w,d]~ @ L           display memory, endless. LOOP must be set
      f[b,w,d]~ @ @ C         fill memory. With LOOP set, endless.
      s[=,s,m][,,b,w,d] @ @ L string[~comp,seek,move][byte,word,double]
      smb [K#,@] [K#,@] L     string move with command strings
      P                       printer on/off
      kb[g,i]                 keyboard at 97801 [german,international]
      dt @                    transfer data in 'intel hex' format to address
                              via DUART chan 1. Parameters see iop?

: _
```

```
f[b,w,d]~ @ @ C          fill memory. With LOOP set, endless.
s[=,s,m][,,b,w,d] @ @ L  string[~comp,seek,move][byte,word,double]
smb [K#,@] [K#,@] L      string move with command strings
P                        printer on/off
kb[g,i]                  keyboard at 97801 [german,international]
dt @                     transfer data in 'intel hex' format to address
                         via DUART chan 1. Parameters see iop?

: K?
@003F6708 K0= (20,0)
@003F6710 K1= (0,0)
@003F6716 K2= e
@003F6718 K3= D K4;D K6;K6
@003F6728 K4= Executing service K's
@003F6740 K5= D 80354b01;D K5;K@80354b01
@003F675C K6= r(20,1)(374901,2);D 374b01;K@374b01
@003F6780 K7= D K7;r(0,35)(3ef000,4);D 3ef000;K@3ef000
@003F67AA K8=
@003F67AC K9= D d0000000;K@d0000000;K2
@003F67C8 K10= is(20,0);K2
@003F67D4 K11= is(30,0);K2
@003F67E0 K12= is(0,0);K2
@003F67EC K13=
@003F6830 K14=
:
```

```
sy?              Symbols used in commands
TS?              Teleservice commands
SI?              SINIX commands for boot- and kernel-location
u? [1,2,..]      Utilities [1st, 2nd, ...] page
t? [1,2,..]      Test commands and tools [1st, 2nd, ...] page
io?              IO system commands

: t?

Test tools

tr1 @ @ #                    mem-probe start end step (switch caches off!)
tr2[b,w,d] @ L #            ~memory test, write all, read all
tr3[b,w,d] @ L #            ~memory test, test address for address
tr4 @ #                      RAS/CAS relations bankaddr cycles
ter2 @ L #                   edc ram test, write all read all
ter3 @ L #                   edc ram test, test address for address
tma[3] #                    ~test the mapper memory, [similar to t3]
mb[m,?] [@ @ [@ [#]]]        mb map set. mbstart mbend [phys_start [valid]]
tcl                          testing ram, registers and run of the clock
tic                          testing the icu
x[,?] [#]                    [set,show] cond. switch (0: reset, else: !=)
 0x1  Trigger      0x4  LOCK      0x10  MMU_ST
 0x2  iolock       0x8  LOOP      0x100 no status print

: _
```

```
List of available Help pages

sy?             Symbols used in commands
TS?             Teleservice commands
SI?             SINIX commands for boot- and kernel-location
u? [1,2,..]     Utilities [1st, 2nd, ...] page
t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
io?             IO system commands
: io?
IO system commands

io?                         this help
ioe #                       io enable desc
iod #                       io disable desc
iop[?] # [i1 i2 i3]         io parameters [info,help] desc [ind1 ind2 ind3]
iohs[?] # [string]          io handshake signals [info,help] desc [param]
iol #                       io lines desc (break with DEL)
    valid descriptors:
    0: Console
    2: Printer

coid[?] [#]                 console id [info] [index]
: _
```

```
          valid descriptors:
          0: Console
          2: Printer

       coid[?] [#]              console id [info] [index]
: iop?

Possible interface parameters. Use 3 indices for selection
 (Default for the 3rd parameter is 0 - 1 stop bit).

   index_1 = 0     300 bit/s    index_2 = 0   7 bit/char     odd  Parity
   index_1 = 1     600 bit/s    index_2 = 1   7 bit/char     even Parity
   index_1 = 2    1200 bit/s    index_2 = 2   7 bit/char     no   Parity
   index_1 = 3    2400 bit/s    index_2 = 3   8 bit/char     odd  Parity
   index_1 = 4    4800 bit/s    index_2 = 4   8 bit/char     even Parity
   index_1 = 5    9600 bit/s    index_2 = 5   8 bit/char     no   Parity
   index_1 = 6   19200 bit/s
   index_1 = 7   38400 bit/s

   index_3 = 0   1 stop bit     index_3 = 1   2 stop bits

Parameters in use:
       9600 bit/s  7 Bit/Char  odd Parity  1 stop bit(s)
: _
```

```
SI?             SINIX commands for boot- and kernel-location
u? [1,2,..]     Utilities [1st, 2nd, ...] page
t? [1,2,..]     Test commands and tools [1st, 2nd, ...] page
io?             IO system commands
: io?
IO system commands

io?                         this help
ioe #                       io enable desc
iod #                       io disable desc
iop[?] # [i1 i2 i3]         io parameters [info,help] desc [ind1 ind2 ind3]
iohs[?] # [string]          io handshake signals [info,help] desc [param]
iol #                       io lines desc (break with DEL)
    valid descriptors:
    0: Console
    2: Printer

    coid[?] [#]                 console id [info] [index]
: iohs?
V24 Handshake Lines used: S1/S2/

Possible V24 Handshake Lines: S1/S2/S4/M3/M4/M1/M2/M5
The CCITT equivalents in same order: 108/105/111/125/112/107/106/109
:
```