```
DDDDDDDDDDDD     RRRRRRRRRRRR        IIIIIIIII     VVV         VVV  EEEEEEEEEEEEEEE  RRRRRRRRRRRR
DDDDDDDDDDDD     RRRRRRRRRRRR        IIIIIIIII     VVV         VVV  EEEEEEEEEEEEEEE  RRRRRRRRRRRR
DDDDDDDDDDDD     RRRRRRRRRRRR        IIIIIIIII     VVV         VVV  EEEEEEEEEEEEEEE  RRRRRRRRRRRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRR          RRR       III       VVV         VVV  EEE              RRR          RRR
DDD          DDD RRRRRRRRRRRR           III       VVV         VVV  EEEEEEEEEEE      RRRRRRRRRRRR
DDD          DDD RRRRRRRRRRRR           III       VVV         VVV  EEEEEEEEEEE      RRRRRRRRRRRR
DDD          DDD RRRRRRRRRRRR           III       VVV         VVV  EEEEEEEEEEE      RRRRRRRRRRRR
DDD          DDD RRR   RRR              III       VVV         VVV  EEE              RRR   RRR
DDD          DDD RRR   RRR              III       VVV         VVV  EEE              RRR   RRR
DDD          DDD RRR   RRR              III       VVV         VVV  EEE              RRR   RRR
DDD          DDD RRR      RRR           III          VVV   VVV     EEE              RRR      RRR
DDD          DDD RRR      RRR           III          VVV   VVV     EEE              RRR      RRR
DDD          DDD RRR      RRR           III          VVV   VVV     EEE              RRR      RRR
DDDDDDDDDDDD     RRR         RRR     IIIIIIIII          VVV       EEEEEEEEEEEEEEE  RRR         RRR
DDDDDDDDDDDD     RRR         RRR     IIIIIIIII          VVV       EEEEEEEEEEEEEEE  RRR         RRR
DDDDDDDDDDDD     RRR         RRR     IIIIIIIII          VVV       EEEEEEEEEEEEEEE  RRR         RRR
```

```
**FILE**ID**XGDEF
```

```
XX       XX    GGGGGGGG  DDDDDDDD    EEEEEEEEEE  FFFFFFFFFF
XX       XX    GGGGGGGG  DDDDDDDD    EEEEEEEEEE  FFFFFFFFFF
XX       XX  GG          DD      DD  EE          FF
XX       XX  GG          DD      DD  EE          FF
  XX   XX    GG          DD      DD  EE          FF
  XX   XX    GG          DD      DD  EE          FF
    XX       GG          DD      DD  EEEEEEEE    FFFFFFFF
    XX       GG          DD      DD  EEEEEEEE    FFFFFFFF
  XX   XX    GG  GGGGGG  DD      DD  EE          FF
  XX   XX    GG  GGGGGG  DD      DD  EE          FF
XX       XX  GG      GG  DD      DD  EE          FF              ....
XX       XX  GG      GG  DD      DD  EE          FF              ....
XX       XX    GGGGGG    DDDDDDDD    EEEEEEEEEE  FF              ....
XX       XX    GGGGGG    DDDDDDDD    EEEEEEEEEE  FF              ....
```

```
MM       MM  DDDDDDDD    LL
MM       MM  DDDDDDDD    LL
MMMM   MMMM  DD      DD  LL
MMMMM MMMMM  DD      DD  LL
MM  MMM  MM  DD      DD  LL
MM  MMM  MM  DD      DD  LL
MM       MM  DD      DD  LL
MM       MM  DD      DD  LL
MM       MM  DD      DD  LL
MM       MM  DD      DD  LL
MM       MM  DD      DD  LL
MM       MM  DDDDDDDD    LLLLLLLLLL
MM       MM  DDDDDDDD    LLLLLLLLLL
```

```
; XGDEF.MDL - System definitions for the XGDRIVER not included in LIB.MLB
;
; Version:      'V04-000'
;
;****************************************************************************
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;*                                                                          *
;****************************************************************************
;+
; Facility VAX/VMS System Macro Library
;
; ABSTRACT:
;
;       This file contains the MDL file for the XGDRIVER for those definitions
;       not included in LIB.MLB.
;--
;
; AUTHOR:  M. M. Dumont          CREATION DATE: 1-Apr-1981
;
; Modified by:
;
;       MMD0309         Meg Dumont,     16-Jul-1984  15:43
;               Remove XGDEF to make it part of LIB.MLB.
;
;       MMD0208         Meg Dumont,     8-Dec-1983  13:02
;               Add some comments
;
;       MMD0001 M. M. Dumont                    13-Oct-1982
;
;       Add definitions for LAPB and DDCMP protocols.
;
```

```
;+
;
; LAPB - Data structure for the buffer allocated when the xgdriver is
;        running in LAPB mode.
;
;-

        $STRUCT LAPB
        F       HDR,L,3                 ; 3 longwords for the buffer header
        L       HDRLEN                  ; The header length
        F       ,L,1                    ; reserved
;
; Please note that the following field is necessary because the XMTER
; in the XGDRIVER expects this field to be there. It is only useful
; however when the driver is running DDCMP mode.
;
        F       XQCNT,B                 ; Count of messages queued
        F       ,B,1                    ; Reserved
        L       ERRSTRT                 ; Start of the error counters
        F       DEITYP,W                ; Data errors inbound
        F       DEIBC,W                 ; Data error inbound bit counter
        V       <M
                IHCRC,,M                ; Inbound header CRC error
                IDCRC,,M                ; Inbound data CRC error
                >
        F       DEI,B                   ; Data error inbound counter
        L       ERREND                  ; End of the error counters
        F       ,B,1                    ; reserved
        F       ,L,2                    ; reserved
;
; The following fields must appear in this place in the LAPB buffer. The reason
; is that the xgdriver expects to transmit all IO's from a given queue. The
; queue it expects to use is at this offset in the DDCMP definitions. There
; is an ASSUME statement which will break in the driver if this is not the
; case. Also remember that DDCMP has two transmit queus, one for control
; messages and one for data messages.
;
        F       XMTQ,Q                  ; List head for the XMTQ
        F       CLEANQ,Q                ; List head for the CLEAN queue
        F       BLANK,Q                 ; End of LAPB XMT QUEUES
        L       LENGTH
        E
```

```
;+
; BISYNC- Data structure for the buffer allocated when the xgdriver is
;       running in BISYNC mode.
;-

        $STRUCT BISYNC
        F       HDR,L,3                 ; 3 longwords for the buffer header
        L       HDRLEN                  ; the header length
        F       RCV_INDEX,W             ; Current index into RCV buffer
        F       STATUS,W                ; Status word
        V       <M
                RCV_COMPLETE,,,M        ; Receive completed posted to user
                TIMER_RUNNING,,,M       ; TQE is running
                >
;
; See explanation in LAPB
;
        F       XQCNT,B                 ; Count of messages xmted
        F       DROP_RCV,W              ; Count of RCVs dropped to large for buff
        F       ,B,1                    ; resvered
        F       INIT_STATE_INFO,Q       ; Initial state information
        F       RCV_BUFFER,A            ; Device RCV buffer address

; The following fields must appear in this place in the BISYNC buffer. For
; partly the same reason as LAPB except that we can not queue messages to the
; same queues. The reason we can not use the same queues is that BISYNC
; can run in HALF duplex mode. In order to be consistent with half
; duplex mode for DDCMP both modes must queue the messages to the same
; queue, the ddcmp XMTQ and the bisync XMTQ are made the same queue.

F       BLANK,Q                 ; spare queue (ddcmp ctlq and lapb xmtq)
F       CLEANQ,Q                ; Bisync CLEANQ
F       XMTQ,Q                  ; Bisync XMTQ
F       TQE,L,15                ; Buffer for TQE
L       LENGTH
E
```

XWDRIVER
MAP

RTTDRIVER
MAP

XADRIVER
MAP

TMDRIVER
MAP

XFDRIVER
MAP

TUDRIVER
MAP

XIDRIVER
MAP

MBXDRIVER
MAP

PUDRIVER
MAP

PADRIVER
MAP

XEDRIVER
MAP

XQDRIVER
MAP

DDCMPDEF
MDL

XGDEF
MDL

TPDRIVER
MAP

XDDRIVER
MAP

TSDRIVER
MAP

XGDRIVER
MAP

XMDRIVER
MAP

DUTUMAC
MAR

NODRIVER
MAP