P855

SYLCU 1-1

```
                    IDENT   SYLCU1                                                  ASM 02

                * VERSION ~~12-08-74~~ 01/11/74

                *       THIS PROGRAM IS AN ECHOTEST FOR TWO SYLCU'S.
                *       THE OUTGOING LINES OF THE MODEM SHOULD BE CONNECTED
                *       TO THE INGOING LINES.
                *       THE PROGRAM WORKS WITH PROGRAMMED CHANNEL WITH INTERRUPTS.
                *       ONE BUFFER IS TRANSMITTED AND RECEIVED AT THE SAME TIME.
                *       THE DERCO OPTION IS NOT USED IN THIS PROGRAM.
                *          DEVICE ADDRESSES:
                                TRANSMITTING SYLCU : /2D.
                                RECEIVING SYLCU : /2E.
                *    INTERRUPT CONNECTION:
                                TRANSMITTING SYLCU : LEVEL 5 MASKABLE BIT 1.
                                RECEIVING SYLCU    : LEVEL 5 MASKABLE BIT 9.
                * * * * : * * * * * * * * * * * * * * * * *
                * BEFORE THE PROGRAM IS STARTED, A10 SHOULD BE
                * LOADED WITH :
                *       0 : TRANSMIT AND RECEIVE WITHOUT TIME-OUT.
                *       1 : TRANSMIT ONLY WANTED.
                *       2 : RECEIVE ONLY WANTED.
                *       3 : TRANSMIT + RECEIVE WITH TIMEOUT.
                *       4 : START RECEIVING + TRANSMIT CONTINUESLY.
                * * * * * * * * * * * * * * * * * * * * * *


0000            STACK   RES     10                      STACK
                STEND   EQU     *-2
                SYN     EQU     /16
                STX     EQU     /02
                ETX     EQU     /83
                EOT     EQU     /04
                PADF    EQU     /55     PADFIRST        PAD CHARACTERS.
                PADL    EQU     /FF     PADLAST
                CHAR    FORM    8,8
                SYLREC  EQU     /2E
                SYLTRM  EQU     /2D
0014            STATUS  RES     1       ONTVANGER STATUS


0016  87A0      START   LDKL    A15,STEND               FIL STACKPOINTER.
0018  0012  R
001A  0100              LDK     A1,0
001C  4100              WIM     A1                      CLEAR MASK REGISTER.
001E  8220              LDKL    A2,INT                  LOAD INT. CONTROL ADDRESS.
0020  0000  F
0022  8241              ST      A2,/4A
0024  004A
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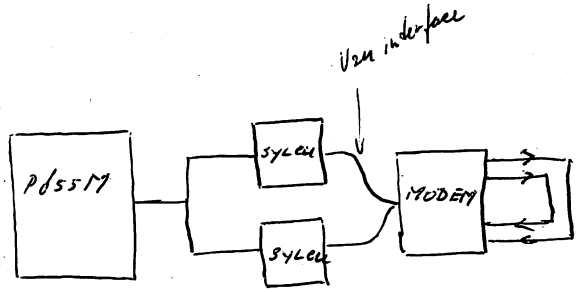


transmitted is: BUFOUT
Received is: BUFIN

```
00047  0026  EAA0          CWK     A10,4           TEST4?
       0028  0004
00048  002A  5400  F       RF(4)   TOG
00049  002C  49AE          TST     A1,SYLREC       TEST IF REC. BUSY
00050  002E  8104          LDR     A1,A1           WITH TEST MODE 4.
00051  0030  5100  F       RF(1)   OUTP
00052  0032  EAA0    TOG   CWK     A10,1
       0034  0001
00053  0036  5000  F       RF(0)   OUTP
00054  0038  8720          LDKL    A7,BUFIN        BUFFER POINTER INPUT
       003A  0000  F
00055  003C  0100          LDK     A1,0
00056  003E  813D    CLEAR STR     A1,A7           CLEAR INPUT BUFFER.
00057  0040  1702          ADK     A7,2
00058  0042  EF20          CWK     A7,BUFOUT
       0044  0000  F
00059  0046  5A0A          RB(2)   CLEAR
00060  0048  8620          LDKL    A6,BUFIN        A6 is pointer voor de input.
       004A  0000  F
00061  004C  03C7          LDK     A3,/C7          ODD PARITY,CRC,INPUT.
00062  004E  43EE          CIO     A3,1,SYLREC
00063  0050  5002          RF(0)   *+4
00064  0052  207F          HLT                     CIO NOT ACCEPTED.
00065  0054  0416          LDK     A4,SYN
00066  0056  446E          OTR     A4,1,SYLREC     OTR SYN
00067  0058  5002          RF(0)   *+4
00068  005A  207F          HLT                     OTR SYN NOT ACCEPTED.
00069  005C  EAA0          CWK     A10,2
       005E  0002
00070  0060  5000  F       RF(0)   TEST
00071  0062  8520    OUTP  LDKL    A5,BUFOUT       BUFFER POINTER OUTPUT.
       0064  0000  F
00072  0066  0347          LDK     A3,/47          GENERATE ODD PARITY, OUTPUT,CRC.
00073  0068  43ED          CIO     A3,1,SYLTRM
00074  006A  5002          RF(0)   *+4
00075  006C  207F          HLT                     CIO NOT ACCEPTED.
00076  006E  EAA0    TEST  CWK     A10,0
       0070  0000
00077  0072  5000  F       RF(0)   TEST0
00078  0074  EAA0          CWK     A10,1
       0076  0001
00079  0078  5000  F       RF(0)   TEST1
00080  007A  EAA0          CWK     A10,2
       007C  0002
00081  007E  5000  F       RF(0)   TEST2
00082  0080  EAA0          CWK     A10,3
       0082  0003
00083  0084  5000  F       RF(0)   TEST3
00084  0086  EAA0          CWK     A10,4
       0088  0004
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00085  008A  5000  F           RF(0)    TEST4
00086  008C  207F              HLT                        A10 HAS NOT BEEN FILLED IN'.
00087  008E  49AD      TEST0   TST      A1,SYLTRM         TRANSMIT + RECEIVE
00088  0090  4AAE              TST      A2,SYLREC         NO TIME-OUT.
00089  0092  A908              ORR      A1,A2
00090  0094  5908              RB(1)    TEST0
00091  0096  8140              LD       A1,STATUS
       0098  0014  R
00092  009A  5906              RB(1)    *-4
00093  009C  5700  F           RF       DELAYN
00094  009E  49AD      TEST1   TST      A1,SYLTRM         TRANSMIT ONLY
00095  00A0  8104              LDR      A1,A1
00096  00A2  5906              RB(1)    TEST1
00097  00A4  5700  F           RF       DELAYN
00098  00A6  4AAE      TEST2   TST      A2,SYLREC         RECEIVE ONLY
00099  00A8  8208              LDR      A2,A2
00100  00AA  5906              RB(1)    TEST2
00101  00AC  8140              LD       A1,STATUS
       00AE  0014  R
00102  00B0  5906              RB(1)    *-4
00103  00B2  5700  F           RF       GOON
00104  00B4  8220      TEST3   LDKL     A2,/FFFF          DELAY CONSTANT'.
       00B6  FFFF
00105  00B8  49AD      AGAINT  TST      A1,SYLTRM         TRANSMIT + RECEIVE
00106  00BA  1100              ADK      A1,0              WITH TIME OUT.
00107  00BC  5000  F           RF(0)    AGAINR-4
00108  00BE  1A01              SUK      A2,1
00109  00C0  5C0A              RB(4)    AGAINT
00110  00C2  207F              HLT                        TRANSMITTER EXCEEDS TIME-OUT VALUE'.
00111  00C4  8220              LDKL     A2,/FFFF          DELAY CONSTANT.
       00C6  FFFF
00112  00C8  49AE      AGAINR  TST      A1,SYLREC
00113  00CA  1100              ADK      A1,0
00114  00CC  5000  F           RF(0)    DELAYN
00115  00CE  1A01              SUK      A2,1
00116  00D0  5C0A              RB(4)    AGAINR
00117  00D2  207F              HLT                        RECEIVER EXCEEDS TIME-OUT VALUE'.
00118  00D4  5FC0              RB       START
00119
00120  00D6  49AD      TEST4   TST      A1,SYLTRM
00121  00D8  8104              LDR      A1,A1
00122  00DA  5906              RB(1)    TEST4
00123  00DC  5FC8              RB       START
00124  00DE  8120      DELAYN  LDKL     A1,/A00           DELAY TIME FOR MODEM'.
       00E0  0A00
00125  00E2  1901      DELAY   SUK      A1,1
00126  00E4  5904              RB(1)    DELAY
00127  00E6  EAA0              CWK      A10,1
       00E8  0001
00128  00EA  58D6              RB(0)    START
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wachte to transm + receiver klaar zijn

wachten tot de carrier wegvalt =2 INACT =2 WST => INT.

SYCEN 1-3

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00129  00EC  8520      GOON    LDKL    A5,CHECK            CHECK RECEIVED DATA.
       00EE  0000  F
00130  00F0  8620              LDKL    A6,BUFIN
       00F2  0000  F
00131  00F4  E238      COMP    LCR     A2,A6               LOAD RECEIVED CHARACTER IN A2.
00132  00F6  227F              ANK     A2,/7F              DELETE PARITY.
00133  00F8  E134              LCR     A1,A5               LOAD TRANSMITTED CHARACTER IN A1.
00134  00FA  217F              ANK     A1,/7F              DELETE PARITY.
00135  00FC  E908              CWR     A1,A2               EQUAL ?
00136  00FE  5002              RF(0)   *+4
00137  0100  207F              HLT                         RECEIVED DATA WAS WRONG.
00138  0102  1501              ADK     A5,1
00139  0104  1601              ADK     A6,1                INCREASE POINTERS.
00140  0106  ED20              CWK     A5,BUFEND-5         LAST CHARACTER?
       0108  0000  F
00141  010A  5A18              RB(2)   COMP
00142  010C  8F20              ABL     START
       010E  0016  R
00143
00144
00145                   *       INTERRUPT ROUTINE FOR BOTH SYLCU'S.
00146
00147
00148  0110  B93F      INT     MSR     2,A15
00149  0112  4900              RIL     A1                  READ INTERRUPT LINES.
00150  0114  3941              SLL     A1,1
00151  0116  5100  F           RF(1)   REC
00152  0118  4AED      TRM     SST     A2,SYLTRM           ASK STATUS.
00153  011A  5400  F           RF(4)   OUTPUT
00154  011C  41AD              CIO     A1,0,SYLTRM         CIO DPC.
00155  011E  5002              RF(0)   *+4
00156  0120  207F              HLT                         CIO DPC NOT ACCEPTED.
00157  0122  0307              LDK     A3,7
00158  0124  A20D              TM      A2,A3
00159  0126  5002              RF(0)   *+4
00160  0128  207F              HLT                         ERROR BIT IS SET IN STATUSWORD OF TRANSM
00161  012A  B93E      RETURN  MLR     2,A15
00162  012C  F03E              RTN     A15
00163  012E  E134      OUTPUT  LCR     A1,A5
00164  0130  412D              OTR     A1,0,SYLTRM         OTR DATA.
00165  0132  5002              RF(0)   *+4
00166  0134  207F              HLT                         OTR DATA NOT ACCEPTED.
00167  0136  1501              ADK     A5,1
00168  0138  ED20              CWK     A5,BUFEND           LAST CHARACTER?
       013A  0000  F
00169  013C  5A14              RB(2)   RETURN
00170  013E  0100              LDK     A1,0
00171  0140  41ED              CIO     A1,1,SYLTRM         CIO HALT.
00172  0142  581A              RB(0)   RETURN
00173  0144  207F              HLT                         CIO HALT NOT ACCEPTED.
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```
00174  0146  4AEE     REC     SST     A2,SYLREC       ASK STATUS
00175  0148  5400  F          RF(4)   INPUT
00176  014A  8241             ST      A2,STATUS
       014C  0014  R
00177  014E  0307             LDK     A3,7
00178  0150  A20D             TM      A2,A3
00179  0152  582A             RB(0)   RETURN
00180  0154  207F             HLT                     ERROR BIT IS SET IN STATUS WORD.
00181  0156  492E     INPUT   INR     A1,0,SYLREC     INR
00182  0158  5002             RF(0)   *+4
00183  015A  207F             HLT                     INR NOT ACCEPTED.
00184  015C  E139             SCR     A1,A6           STORE IN MEMORY.
00185  015E  1601             ADK     A6,1
00186  0160  217F             ANK     A1,/7F          DELETE PARITY BIT
00187  0162  E920             CWK     A1,EOT          LAST INPUT CHARACTER?
       0164  0004
00188  0166  5400  F          RF(4)   OVER
00189  0168  0200             LDK     A2,0
00190  016A  42EE             CIO     A2,1,SYLREC     CIO HALT
00191  016C  5844             RB(0)   RETURN
00192  016E  207F             HLT                     CIO HALT NOT ACCEPTED.
00193  0170  EE20     OVER    CWK     A6,LAST
       0172  0000  F
00194  0174  5A4C             RB(2)   RETURN
00195  0176  207F             HLT                     TOO MANY INPUT REQUESTS
00196  0178  5F50             RB      RETURN
00197
00198
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SYLEN 1-6

```
00199                          EJECT
00200                  * INPUT BUFFER
00201  017A            BUFIN   RES     1           /824D = STX,'M'
00202  017C                    RES     1           /414D = 'AM'
00203  017E                    RES     1           /414D = 'AM'
00204  0180                    RES     1           /414D = 'AM'
00205  0182                    RES     1           /414D = 'AM'
00206  0184                    RES     1           /414D = 'AM'
00207  0186                    RES     1           /4103 = 'A',ETX
00208  0188                    RES     1           /FFFF = PADL,PADL ; /CAC3 = BCC.
00209  018A                    RES     1           /FF84 = PADL,EOT
00210  018C            LAST    RES     1           /FFFF = PADL,PADL
00211  018E                    RES     1           /FFFF = PADL,PADL
00212  0190                    RES     19          SPARE.
00213
00214
00215  01B6  5555      BUFOUT  CHAR    PADF,PADF
00216  01B8  5516              CHAR    PADF,SYN
00217  01BA  5555              CHAR    PADF,PADF
00218  01BC  1616              CHAR    SYN,SYN
00219  01BE  024D      CHECK   CHAR    STX,'M'
00220  01C0  414D              DATA    'AMAMAMAMAM'        10 CHARACTERS.
       01C2  414D
       01C4  414D
       01C6  414D
       01C8  414D
00221  01CA  4183              CHAR    'A',ETX
00222  01CC  FFFF              CHAR    PADL,PADL           BCC OF THIS MESSAGE IS : /CAC3'.  ODD PARITY
00223  01CE  FF04              CHAR    PADL,EOT                                              /2A6E
00224  01D0  FFFF              CHAR    PADL,PADL
00225  01D2  FFFF              CHAR    PADL,PADL
00226                  BUFEND  EQU     *
00227
00228                          END     START
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