

```

10 REM*****
20 REM*
30 REM* SMFP2 DEMO PROGRAM USER #1/2 *
40 REM* ----- *
50 REM* ORIGINATOR: BAYRHUBER TBF *
60 REM* MODIFIED : VENZIN MANETSCH *
70 REM* DATE : 10.MAI.1986/MK III
80 REM*
90 REM*****
100 Y1$="SMFP2"
110 R=1:GOSUB 9000
120 R=6:Y=2:GOSUB9000 :REM FM
130 R=7:Y=3.5:GOSUB9000 :REM MAX.MOD.
140 Y1=2:Y=0:R=20:GOSUB9000
150 Y1=3:Y=0:R=20:GOSUB9000
160 Y1=4:Y=0:R=20:GOSUB9000
170 REM*****
180 REM*
190 REM* S E N D E R *
200 REM* ===== *
210 REM*
220 REM*****
230 :
240 GOSUB 3320
250 PRINT "G"
260 PRINT:PRINT:PRINT
270 PRINT"GERAETEDATEN"
280 PRINT"-----" 39
290 PRINT:PRINT:PRINT:PRINT
300 INPUT"BETRIEBSSPANNUNG IN VOLT =";B
310 Y3=2:Y1=(B-0.1):Y2=(B+0.1):R=35:GOSUB 9000
320 PRINT
330 R=35:GOSUB 9000
340 IF Y<Y1 THEN 310
350 IF Y>Y2 THEN 310
360 PRINT"BETRIEBSSPANNUNG = "TAB(25) Y "VOLT"
370 PRINT
380 INPUT"ANZAHL KANAELE ";K$
390 IF ASC(K$)> 47 THEN 400
400 IF ASC(K$)< 58 THEN 430
7- 410 POKE 198,0:POKE 197,130:POKE 196,560 AND 255
420 GOTO 380
430 K=ASC(K$)-48:IF K<1 THEN GOTO 380
440 Y1=2:Y=1:R=20:GOSUB9000
450 FOR L=1 TO K STEP 1
460 PRINT"G"
470 PRINT:PRINT:PRINT
480 PRINT"SENDERTEST"
490 PRINT"-----" 39
500 PRINT:PRINT:PRINT:PRINT
510 PRINT
520 PRINT
530 INPUT"EINSTELLEN KANAL ";K$(L)
540 IF ASC(K$(L))> 47 THEN 550
550 IF ASC(K$(L))< 58 THEN 580
7- 560 POKE 198,0:POKE 197,129 :POKE 196,480 AND 255
570 GOTO 530
580 PRINT: K(L)=ASC(K$(L))-48
590 PRINT
600 R=41:GOSUB9000:IF Y>0.1THEN GOTO 640
610 R=40:GOSUB 9000
620 Y$="SENDER HOCHTASTEN "
630 R=07:GOSUB9000
640 R=54:YE=2:GOSUB9000
650 IFY<.4THEN680

```

```

640 R=34:TE=Z:GOSUB9000
650 IFY<.4THEN680
660 PRINT"MESSUNG TX FREQUENZ = ";Y;" MHZ"
670 X(6)=INT(200*Y+.5)/200
680 PRINT"EINGABE NOMINAL TX FREQUENZ: ";
690 PRINTX(6);
700 PRINT"Ø"CHR$(13)TAB(29)
710 INPUTX(6)
720 S(L)=X(6)
730 PRINT
740 PRINT"SIMPLEX ODER DUPLEX (S/D): ";
750 PRINT" S";:PRINT"Ø"CHR$(13)TAB(30);:INPUTD$
760 IFD$="D"THEN790
770 IFD$="S"THEN840
780 GOTO740
790 PRINT
800 PRINT"DUPLEX ABSTAND (RX-TX)IN MHZ : ";
810 PRINTX(4);:PRINT"Ø"CHR$(13)TAB(30);:INPUTX(4)
820 X(1)=X(6)+X(4)
830 F(L)=X(1):GOTO 870
840 X(4)=0:X(1)=X(6)
850 F(L)=X(6)
860 R(L)=X(6)
870 R=41:GOSUB 9000
880 P(L)=Y
890 IF P(L)>.009 THEN 950
900 PRINT
910 PRINT
920 PRINT
930 Y$=" K E I N E L E I S T U N G "
940 R=87:GOSUB 9000
950 A(L)=INT(Y)
960 R=36:GOSUB 9000
970 PRINT:A(L)=Y
980 PRINT"SENDERSTROM " ,Y;"AMP"
990 HOLD 1000
1000 IF L=K THEN GOTO 1020
1010 NEXT L
1020 PRINT
1030 INPUT"5-TON MODULATIONEN Y/N";T$
1040 IF T$="Y" THEN GOTO 1070
1050 IF T$="N" THEN GOTO 1380
1060 GOTO 1030
1070 PRINT
1080 INPUT"ANZAHL 5-TON MODULATIONEN";M
1090 GOSUB 3120
1100 Y1=2:Y=0:R=20:GOSUB9000
1110 PRINT
1120 Y$="Z":R=19:GOSUB9000
1130 FOR L=1 TO M
1140 Y=0:R=17:GOSUB 9000
1150 R=43:GOSUB 9000
1160 Y$="00000000":R=33:GOSUB 9000
1170 PRINT
1180 Y$="NUMMER EINSTELLEN "
1190 R=87:GOSUB9000
1200 Y1=4:Y=1:R=20:GOSUB9000
1210 HOLD 800: Y1=4:Y=0:R=20:GOSUB9000
1220 R=34:GOSUB9000
1230 IF Y$<>" " THEN GOTO1270
1240 Y$="RUF AUSLÖSEN"
1250 R=87:GOSUB 9000
1260 R=34:GOSUB 9000
1270 PRINT
1280 Y$=RIGHT$(Y$,6)
1290 PRINT"DECODIERTE NUMMER ";Y$
1300 N$(L)=Y$
1310 NEXT L
1320 PRINT
1330 PRINT

```

```

1320 PRINT
1330 PRINT
1340 INPUT"DECODIERTE NUMMERN WIDERHOLEN Y/N",A$
1350 IF A$="Y" THEN GOTO 1090
1360 IF A$="N" THEN GOTO 1380
1370 GOTO1340
1380 GOSUB 3120
1390 Y1=4:Y=0:R=20:GOSUB9000
1400 Y1=2:Y=1:R=20:GOSUB9000
1410 FOR L=1 TO K STEP 1
1420 GOSUB 3170
F- 1430 PRINT" I KANAL "K(L); " IMHZI";F(L)TAB(38)" I"
1440 GOSUB 3170
F- 1450 PRINT" IHF LEISTUNG I WI";
1460 PRINTTAB(30)P(L)TAB(38)" I"
1470 GOSUB3170
1480 Y(6)=S(L)
F- 1490 PRINT" IFREQUENZ ABWEICHUNG I HZI";
1500 R=42:GOSUB9000:PRINTTAB(30)INT(Y)TAB(38)" I"
1510 GOSUB3170
F- 1520 PRINT" ISENDERSTROM I AMPI";
1530 PRINTTAB(30)A(L)TAB(38)" I"
1540 PRINT" |-----|"
1550 IF L=K THEN GOTO 1570
1560 NEXT L
1570 GOSUB3170
1580 IFT$="N" THEN GOTO 1660
1590 FOR L=1 TO M
F 1600 PRINT" IDECODIERTER RUF "L;
1610 PRINT TAB(30)N$(L)TAB(38)" I"
1620 GOSUB 3170
1630 NEXT L
1640 PRINT" |-----|"
1650 GOSUB 3170
F 1660 PRINT" IMIKROFON EMPFINDLICH. I MVI";
1670 R=48:Y=100:YA=1:GOSUB9000:PRINTTAB(30)Y TAB(38)" I"
1680 Y=Y*10:IFY>4995THENY=4995
1690 R=17:GOSUB9000
1700 GOSUB3170
F 1710 PRINT" IHUB MAXIMAL IKHZI";
1720 R=43: GOSUB9000:PRINTTAB(30)YTAB(38)" I"
1730 GOSUB3170
F 1740 PRINT" IKLIRR BEI 1 KHZ I %I";
1750 R=48:Y=60:YA=1:GOSUB9000
1760 R=30: GOSUB9000:PRINTTAB(30)YTAB(38)" I"
1770 GOSUB3170
F 1780 PRINT" ISIGNAL/RAUSCH ABSTAND I DBI";
1790 R=53:GOSUB9000
1800 PRINTTAB(30)YTAB(38)" I"
1810 GOSUB 3170
1820 Y1=3:Y=1:R=20:GOSUB9000
1830 PRINT" I"TAB(38)" I"
1840 PRINT" IMODULATIONS FREQUENZ-GANG "TAB(38)" I"
1850 GOSUB 3170
1860 PRINT" I"TAB(38)" I"
1870 R=18:Y=0:GOSUB9000 :REM CCITT OFF
F 1880 Y$=".1,.5,1,1.5,2.7,3,6"
1890 R=49:GOSUB9000
1900 FORN=1TOY9
1910 PRINT" I @ "X(20+N)TAB(9)"KHZ I DBI"TAB(30)Y(N)TAB(38)" I"
1920 GOSUB 3170
1930 NEXT
1940 PRINT" |-----|"
1950 Y1=2:Y=0:R=20:GOSUB9000
1960 REM Y1$="SMFP2"
1970 REM R=1:GOSUB9000
1980 Y$="EMPFAENGER TEST = R : AUSDRUCK = H": R=87:GOSUB9000
1990 IF Y1$="H"THEN1990
2000 IF Y1$="R"THEN2020
2010 GOTO1980

```

```

2000 IF Y1#="R"THEN2020
2010 GOTO1980
2020 REM R= 6:Y=2 :GOSUB 9000
2030 REM R= 7:Y=4.5:GOSUB 9000
2040 R= 9:Y=10 :GOSUB 9000
2050 R=12:Y= 2 :GOSUB 9000
2060 R=18:Y=0 :GOSUB 9000
2070 PRINT"C"
2080 KEM K#Z:K(1)=3:K(1)=172.5Z3:K(2)=172.5Z3
2090 REM*****
2100 REM* *
2110 REM* E M P F A E N G E R *
2120 REM* ===== *
2130 REM* *
2140 REM*****
2150 M=K
2160 FORL=1TO M
2170 PRINT"C"
2180 PRINT:PRINT:PRINT
2190 PRINT"EMPFAENGERTEST"
2200 PRINT"-----"
2210 PRINT:PRINT:PRINT:PRINT
2220 PRINT"KANAL "K(L):" EINSTELLEN"
2230 GETK#
2240 IF K#="" THEN 2230
2250 PRINT:X(1)=R(L)
2251 Y1=4:Y=1:R=20:GOSUB9000
2252 HOLD 100
2253 Y1=4:Y=0:R=20:GOSUB9000
2260 R=62:GOSUB9000
2270 Y#="EMPFAENGER EIN / SQUELCH AUS"
2280 R=87:GOSUB9000
2290 R=41:GOSUB9000:IFY>0THEN2360
2300 K=0
2310 IFK=3THEN2710
2320 R=28:GOSUB9000
2330 Y#="LAUTSTAERKE EINSTELN AUF 1000-3000 MV"
2340 Y1=1000:Y2=3000:R=86:GOSUB9000
2350 IFY3=1THENK=K+1:GOTO2410
2360 GOTO2400
2370 PRINT"C"
2380 Y#="CHECK RECEIVER AUDIO OUTPUT":R=87:GOSUB9000
2390 K=0:Y3=2:GOTO2430
2400 R=10:Y=0:GOSUB9000
2410 R=28:GOSUB9000:Y1=Y
2420 R=10:Y=1:GOSUB9000
2430 IFY1<100THENY#="RAUSCHSPERRE AUS":GOTO2370
2440 PRINT"KANAL "K(L)TAB(25) R(L)TAB(35)"MHZ"
2450 PRINT
7 2460 INPUT"CCITT FILTER EIN Y/N ";A#
2470 IF A#="N" THEN 2490
2480 R=18:Y=1:GOSUB9000
2490 PRINT
7 2500 PRINT"EMPF.BEI 20 DB SINAD"TAB(25);
2510 Y=20:R=67:GOSUB 9000
2520 PRINT Y TAB(35)"UV":E(L)=Y
2530 PRINT
7 2540 PRINT"S/R ABSTAND BEI 1UV RF"TAB(25);
2550 Y=1:R=9:GOSUB9000
2560 Y=100:R=64:GOSUB 9000
2570 PRINT Y TAB(35)"DB" :S(L)=Y
2580 PRINT
7 2590 PRINT"KLIRR BEI 1 KHZ"TAB(25);
2600 Y=3.5:R=12:GOSUB9000
2610 R=30:GOSUB9000
2620 PRINT Y TAB(35)"%" :D(L)=Y
2630 HOLD5000
2640 R=18:Y=0:GOSUB9000
2650 NEXT L

```





```
10253 Y5$="AA,BI,":GOSUB16010:RETURN
10254 Y5$="AB,BJ,":GOSUB16010:RETURN
10255 Y5$="AC,BK,":GOSUB16010:RETURN
10300 Y1$="MAX,MOD,":REM***** 7
10301 IFY>100THENGOTO14950
10302 X(8)=Y:RETURN
10350 Y1$="GEN,RF--SETTING":REM***** 8
10351 IFY<.40RY>1000THENGOTO14950
10352 Y5$="AC"+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10400 Y1$="GEN,RF--LEVEL":REM***** 9
10401 IFY<.0320RY>1000000THENGOTO14950
10402 IFY>1000THENY=Y/1000:Y3$="AJ":GOTO10404
10403 Y3$="AI"
10404 Y5$=Y3$+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10450 Y1$="GEN,RF ON/OFF":REM*****10
10451 IFY=1THENY5$="E@,":GOSUB16010:RETURN
10452 IFY=0THENY5$="D@,":GOSUB16010:RETURN
10453 GOTO14950
10500 Y1$="RF--LEVEL--VARIATION":REM***11
10501 IFY=1THENY5$="EK,":GOSUB16010:RETURN
10502 IFY=-1THENY5$="DK,":GOSUB16010:RETURN
10503 GOTO14950
10550 Y1$="GEN,MOD,INTERN":REM*****12
10551 IFX(7)<>3THEN10554
10552 IFY>12THEN14950
10553 GOTO10555
10554 IFY>100THEN14950
10555 Y5$="AM"+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10600 Y1$="GEN,MOD,EXTERN":REM*****13
10601 Y5$="EM,":GOSUB16010
10602 IFX(7)<>2THEN10605
10603 IFY>12THEN14950
10604 GOTO10606
10605 IFY>100THEN14950
10606 Y5$="AZ"+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10650 Y1$="MOD,INT,ON/OFF":REM*****14
10651 IFY=1THENY5$="AM,":GOSUB16010:RETURN
10652 IFY=0THENY5$="EM,":GOSUB16010:RETURN
10653 GOTO14950
10700 Y1$="-----":REM*****15
10701 RETURN
10750 Y1$="GEN,AF--SETTING":REM*****16
10751 IFY=0THEN10753
10752 IFY<.0090RY>25THENGOTO14950
10753 Y5$="AQ"+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10800 Y1$="GEN,AF--LEVEL":REM*****17
10801 IFY<.00RY>4995THENGOTO14950
10802 Y5$="AQ"+MID$(STR$(Y),2,8)+",":GOSUB16010:RETURN
10850 Y1$="CCITT ON/OFF":REM*****18
10851 IFY=1THENY5$="EC,":GOSUB16010:RETURN
10852 IFY=0THENY5$="DC,":GOSUB16010:RETURN
10853 GOTO14950
10900 Y1$="TONE MODE DEFIN,":REM*****19
10902 IFY$="Z"THENY5$="B08":GOSUB16010:RETURN
10904 IFY$="C"THENY5$="B09":GOSUB16010:RETURN
10906 GOTO14950
10908 RETURN
10950 Y1$="CONTR,LINES":REM*****20
10951 IFY1>90RY1<1THENGOTO14950
10952 Y5$="EF"+RIGHT$(STR$(Y1),1)+RIGHT$(STR$(Y),1)+",":GOSUB16010:RETURN
11000 Y1$="BCD--LINES":REM*****21
11001 IFLEN(Y$)<10RLEN(Y$)>4THENGOTO14950
11002 IFLEFT$(Y$,1)=" "THENY$=RIGHT$(Y$,LEN(Y$)-1):GOTO11002
11003 Y5$="EA"+RIGHT$("00"+Y$,3)+",":GOSUB16010:RETURN
11050 Y1$="CHANNEL--SELECT":REM*****22
11051 X(1)=X(1)+X(3)*(Y-X(2))/1000:X(2)=Y:X(6)=X(1)-X(4)
11052 Y$=STR$(Y):GOTO11000
11100 Y1$="NGPU CURRENT--LIMIT":REM***23
11101 IFY<.00RY>9.99THENGOTO14950
```

```
11050 Y1$="CHANNEL-SELECT"; REM*****22
11051 X(1)=X(1)+X(3)*(Y-X(2))/1000; X(2)=Y; X(6)=X(1)-X(4)
11052 Y$=STR$(Y); GOTO11000
11100 Y1$="NGPU CURRENT-LIMIT"; REM***23
11101 IFY<00RY>9.99THENGOTO14950
11102 Y=INT(Y*100); X(11)=10; IFY<100THEN11104
11103 Y5$="00R"+RIGHT$(STR$(Y),LEN(STR$(Y))-1)+"A"; GOTO11107
11104 Y=Y*10; X(11)=1; IFY<100THEN11106
11105 Y5$="01R"+RIGHT$(STR$(Y),LEN(STR$(Y))-1)+"A"; GOTO11107
11106 Y=Y*10; X(11)=0.1; Y5$="02R"+STR$(Y)+"A"
11107 IECOUTNGPU,Y5$; RETURN
11150 Y1$="NGPU VOLTAGE-SET, "; REM****24
11151 IFY<0.10RY>70THENGOTO14950
11152 Y5$="00"+RIGHT$(STR$(INT(Y*10+.5)),LEN(STR$(INT(Y*10+.5)))-1)
11153 Y5$=RIGHT$(Y5$,3)+"V"; IECOUT NGPU,Y5$; RETURN
11154 RETURN
11200 Y1$="-----"; REM*****25
11201 RETURN
11250 Y1$="-----"; REM*****26
11251 RETURN
11300 Y1$="AF-FREQU. MEAS. "; REM*****27
11301 IFY3$="P" THENY3$="AF"; GOTO11312
11304 IFYE<>0 AND YE<>1 THEN YE=0
11306 ONYE+1GOTO11308,11320
11308 Y3$="AP1"
11312 Y5$=Y3$+"; "; GOSUB16010; GOSUB16000
11313 Y=(INT(1000*VAL(MID$(Y5$,3,9))+.5))/1000; IFY3>0THENGOSUB14250
11314 IFY3>0THEN11312
11315 IFLEFT$(Y5$,2)=LEFT$(Y3$,2) THENRETURN
11316 GOTO14950
11320 Y3$="AP.1"
11322 Y5$=Y3$+"; "; GOSUB16010; IFY3>0THENGOSUB14250
11323 GOSUB16000; Y=(INT(100*VAL(MID$(Y5$,3,9))))/1000; IFY3>0THEN11322
11324 IFLEFT$(Y5$,2)=LEFT$(Y3$,2) THENNNRETURN
11325 GOTO14950
11350 Y1$="AF-LEVEL-MEAS. "; REM*****28
11351 Y5$="AX. "; GOSUB16010; IFY3>0THENGOSUB14250
11352 GOSUB16000; Y=(INT(10000*VAL(MID$(Y5$,3,9))))/10; IFY3>0THEN11351
11353 IFLEFT$(Y5$,2)="AX" THENRETURN
11354 GOTO14950
11400 Y1$="DIST. AT 0.3 KHZ"; REM*****29
11402 YE=1; GOSUB11450
11404 RETURN
11450 Y1$="AF DISTORTION"; REM*****30
11451 IFYE=0 THENYE=3
11452 ONYEGOTO11454,11456,11458
11454 YE=0; Y3$="ED"; GOTO11312
11456 IFY3$="A" THEN YE=0; Y3$="EG"; GOTO11312
11457 GOTO14950
11458 YE=0; Y3$="EE"; GOTO11312
11460 GOTO14950
11500 Y1$="RF-PROBE"; REM*****31
11502 ONYEGOTO11504,11520
11504 YE=0; Y5$="FL1"; GOSUB16010; IFY3>0THENGOSUB14250
11506 GOSUB16000; Y=1000*VAL(MID$(Y5$,3,9))
11508 IFY3>0THEN11504
11510 IFLEFT$(Y5$,2)="FL" THENRETURN
11512 GOTO14950
11520 YE=0; Y5$="FL0"; GOSUB16010; IFY3>0THENGOSUB14250
11522 GOSUB16000; Y=VAL(MID$(Y5$,3,9))
11524 IFY3>0THEN11520
11526 IFLEFT$(Y5$,2)="FL" THENRETURN
11528 GOTO14950
11550 Y1$="AF-FREQU. RESPONSE"; REM****32
11551 GOSUB11554; Y=1; GOSUB10750 GOSUB11350; Y(0)=Y
11552 FORY7=1TOY9; Y=X(20+Y7); GOSUB10750; GOSUB11350
11553 Y(Y7)=(INT(200*LOG(Y/Y(0))/LOG(10)))/10; NEXTY7; Y=1; GOTO10750
11554 Y9=1; GOTO11559
11555 FORY=1TOLEN(Y$)
11556 IF MID$(Y$,Y,1)="." THEN11558
```

```
11550 FOR I=1 TO LEN(Y#)
11554 IF MID$(Y#,I,1)="," THEN 11558
11557 NEXT I: RETURN
11558 Y#=RIGHT$(Y#,LEN(Y#)-Y): Y9=Y9+1
11559 X(20+Y9)=VAL(Y#): GOTO 11555
11600 Y1#="TONE SEQ. GEN.": REM*****33
11601 IF LEN(Y#)>8 THEN 14950
11602 Y2#=Y#
11603 IF Y#="1" THEN 11620
11604 Y5#="B07": GOSUB 16010
11605 Y5#="A0"+Y2#: GOSUB 16010
11606 Y5#="B010": GOSUB 16010
11608 Y5#="B06": GOSUB 16010
11610 RETURN
11620 Y#="": GOSUB 11950
11622 Y#="": GOSUB 10750
11626 Y=X(6): GOSUB 10350
11628 Y5#="B0.ZZ0": GOSUB 16010
11630 Y=X(1): GOSUB 10350
11632 Y5#="B0105": GOSUB 16010
11634 Y#=Y2#: GOSUB 11604
11636 GOSUB 12000: IF Y>.1 THEN 11636
11638 GOSUB 11650: Y2#=Y#
11640 Y5#="B0106": GOSUB 16010
11641 GOSUB 13050
11642 Y=1: GOSUB 10750: Y#="": GOSUB 10650
11643 Y=1: GOSUB 10650: GOSUB 10450: GOSUB 11350
11644 Y#=Y2#: RETURN
11650 Y1#="TONE-SEQ. DEC.": REM*****34
11651 Y5#="B011": GOSUB 16010
11652 GOSUB 16000
11654 IF LEFT$(Y5#,2)<>"TD" THEN 14950
11656 Y#(5)=" "
11658 FOR Y1=3 TO 10
11660 Y#(4)=MID$(Y5#,Y1,1)
11662 IF ASC(Y#(4))>57 THEN Y#(4)=CHR$(ASC(Y#(4))+7)
11663 IF Y#(4)="F" THEN Y#(4)=" "
11664 Y#(5)=Y#(5)+Y#(4)
11666 NEXT Y1
11668 Y#=Y#(5)
11690 RETURN
11700 Y1#="DC-VOLT. MEAS.": REM*****35
11701 Y3#="EY": GOTO 11312
11750 Y1#="DC-CURRENT-MEAS.": REM*****36
11751 Y3#="DY": GOTO 11312
11800 Y1#="NGFU CURRENT-MEAS.": REM*****37
11801 GOSUB 11700
11802 Y=X(11)*Y*10: RETURN
11850 Y1#="AF-LEVEL MEAN-VAL.": REM*****38
11851 Y1#=" "
211852 FOR Y2=1 TO Y: Y5#="AX.": GOSUB 16010: GOSUB 16000: Y1=Y1+VAL(MID$(Y5#,3,9))
11853 Y#=(INT(100000*Y1/Y))/100: RETURN
11900 Y1#="UNIV. ADJUSTMENT": REM*****39
11903 Y#="": Y1=Y1/100: Y9#="": Y8=Y6/2
11906 Y=Y6: R=Y4: GOSUB 9000: R=Y2: GOSUB 9000: Y7=Y
11907 IF ABS(Y/Y0-1)<Y1 THEN Y1=Y6: RETURN
11908 IF Y7=Y9 OR Y6=Y8 THEN Y#="YF+1": GOTO 11911
11909 Y5#=(ABS(Y5#))*SGN((Y7-Y9)/(Y6-Y8))
11911 IF Y#="5" THEN Y1=Y6: RETURN
11912 IF Y7>Y0 AND Y9>Y0 THEN 11921
11915 IF Y7<Y0 AND Y9<Y0 THEN 11921
11918 Y5#="Y5/2"
11921 Y8=Y6: Y9=Y7: Y6#=(INT(1E4*(Y8+Y5#*SGN(Y0-Y9))+.5)/1E4): GOTO 11906
11950 Y1#="TRANSMITTER-TEST": REM*****40
11951 Y5#="AT.": GOSUB 16010: RETURN
12000 Y1#="RF POWER": REM*****41
12001 Y3#="AW": GOTO 11312
12050 Y1#="RF FREQU. ERROR": REM*****42
12051 Y5#="AT.": GOSUB 16010: GOSUB 16000
12052 IF LEFT$(Y5#,2)="AF" THEN Y#=(INT(.1*(1E7*(VAL(MID$(Y5#,3,15))-X(6))+5))
```

```
12053 GOTO11750
12100 Y1#="POS. MOD. ":REM*****43
12101 Y3#="BF":GOTO11312
12150 Y1#="NEG. MOD. ":REM*****44
12151 Y3#="BH":GOTO11312
12200 Y1#="-----":REM*****45
12201 RETURN
12250 Y1#="-----":REM*****46
12251 RETURN
12300 Y1#="RESIDUAL-MOD. ":REM*****47
12301 Y=0:GOSUB10800:GOSUB12100:RETURN
12350 Y1#="MOD. SENSITIVITY":REM*****48
12353 Y8=100:Y6=X(8)*Y/100:IFYA=0THENY=1:GOTO12355
12354 Y=YA
12355 GOSUB10750
12356 Y=Y8:GOSUB10800:GOSUB12100:IFABS(Y-Y6)/Y6<.05THEN12362
12359 Y8=Y8*Y6/(Y+.01):GOTO12356
12362 Y=INT(Y8*10)/10:RETURN
12400 Y1#="TX-MOD. FREQU. RESP. ":REM***49
12401 GOSUB11554:Y=20:YA=1:GOSUB12350:GOSUB12100:Y(0)=Y
12402 FDRY7=1TOY9:Y=X(20+Y7):GOSUB10750:GOSUB12100
12403 Y(Y7)=(INT(200*LOG(Y/Y(0))/LOG(10)))/10:NEXTY7:Y=1:GOTO10750
12450 Y1#="-----":REM*****50
12451 RETURN
12500 Y1#="MOD. DISTORTION":REM*****51
12502 IFYE=0THENYE=1:GOTO12510
12505 IFYE=2 AND Y5#<>"A"THEN14950
12510 ONYEGOTO12515,12525,12535
12515 YE=0:YA=.3:GOSUB12350
12520 GOTO11454
12525 YE=0:YA=.5:GOSUB12350
12530 GOTO11456
12535 YE=0:YA=1:GOSUB12350
12540 GOTO11458
12550 Y1#="MOD. DIST. 1 KHZ ":REM*****52
12552 YE=3:GOSUB12500
12554 YE=0:RETURN
12600 Y1#="S/N TRANSM. ":REM*****53
12601 Y5#="BB. ":GOSUB16010:GOSUB16000
12602 IF LEFT$(Y5$,2)="XB" THENY=(INT(10*VAL(MID$(Y5$,3,15))))/10:RETURN
12603 GOTO14950
12650 Y1#="RF FREQU. METER":REM*****54
12651 ONYEGOTO12652,12653
12652 YE=0:Y5#="AF. ":GOSUB16010:GOSUB16000:GOTO12654
12653 YE=0:Y5#="AT. ":GOSUB16010:GOSUB16000
12654 IF LEFT$(Y5$,2)="AF"THENY=VAL(MID$(Y5$,3,15)):RETURN
12655 GOTO14950
12700 Y1#="MOD. FREQU. ":REM*****55
12701 IFYS#="P"THENY3#="BF. ":GOSUB16010:Y3#="AU":GOTO11312
12702 IFYE<>0 AND YE<>1 THEN YE=0
12703 ONYE+1GOTO12708,12720
12708 Y3#="AU1":GOTO11312
12720 Y3#="AU.1":GOTO11322
12750 Y1#="BEAT FREQ. ":REM*****56
12752 Y1=YE:GOSUB12650:YB=SGN(Y-Y0)
12754 Y=Y0:GOSUB10350
12756 ONY1GOTO12758,12760
12758 YE=0:Y4#="AF. ":GOTO12762
12760 YE=0:Y4#="AT. "
12762 Y5#=Y4#+"AV. ":GOSUB16010
12763 Y5#=Y4#+"AV. ":GOSUB16010
12764 GOSUB16000:Y=YB*INT(VAL(MID$(Y5$,3,9)))
12766 IFLEFT$(Y5$,2)="AX"THENRETURN
12768 GOTO14950
12800 Y1#="-----":REM*****57
12801 RETURN
12850 Y1#="ADJ. CHAN. POWER DB":REM*****58
12851 GOSUB12921
12852 ONY9GOTO12853,12854
12853 GOSUB12860
12854 GOSUB12860:GOSUB12860
```

```
12800 Y1$="-----":REM*****57
12801 RETURN
12850 Y1$="ADJ.CHAN.POWER DB":REM****58
12851 GOSUB12921
12852 ONY9GOTO12853,12854
12853 GOSUB12860
12854 GOSUB12907:GOSUB12863
12855 Y3$="AN"+Y4$:GOSUB11312:Y2=Y
12856 Y5$="B0118. ":GOSUB16010
12857 ONY9GOTO12859,12858
12858 GOSUB11950:Y=Y2:RETURN
12859 GOSUB11950:Y=60:YA=1:GOSUB12350:Y=Y2:RETURN
12860 Y=60:YA=1,25:GOSUB12350:Y=Y*10
12861 IFY>4995THENY=4995
12862 GOSUB10000:RETURN
12863 Y5$="AD"+MID$(STR$(X(3)),2,8)+" ":GOSUB16010:Y=X(6):GOSUB10350:RE
12900 Y1$="ADJ.CHAN.POWER UW":REM*****59
12901 GOSUB12921
12902 ONY9GOTO12903,12904
12903 GOSUB12860
12904 GOSUB12907:GOSUB12863
12905 Y3$="BZ"+Y4$:GOSUB11312:Y2=Y
12906 GOTO12856
12907 IFY9=1THENRETURN
12908 IFY9=2THENY5$="B0117. ":GOSUB16010
12909 ON((YSZAND03)+1)GOTO12910,12913,12915
12910 IFYE=0THENGOSUB12917
12911 IFYE=1THENGOSUB12919
12912 RETURN
12913 IFYE=1THENGOSUB12919
12914 RETURN
12915 IFYE=0THENGOSUB12917
12916 RETURN
12917 Y5$="B0118.AD10. ":GOSUB16010:Y5$="AN. ":GOSUB16010
12918 YSZ=YSZAND252:YSZ=YSZOR1:Y5$="B0117. ":GOSUB16010:RETURN
12919 Y5$="B0118.AD25. ":GOSUB16010:Y5$="AN. ":GOSUB16010
12920 YSZ=YSZAND252:YSZ=YSZOR2:Y5$="B0117. ":GOSUB16010:RETURN
12921 IFY=1THENY4$=""
12922 IFY=-1THENY4$="-"
12923 IF(X(3)=10ORX(3)=12,50RX(3)=20ORX(3)=25)AND(Y=10RY=-1)THENY9=1:RE
12924 IFYS$<>"P"THENY9=2:RETURN
12925 GOTO14950
12950 Y1$="-----":REM*****60
12951 RETURN
13000 Y1$="-----":REM*****61
13001 RETURN
13050 Y1$="RECEIVER-TEST":REM*****62
13051 Y5$="AR. ":GOSUB16010:Y=X(1):GOTO10350
13100 Y1$="-----":REM*****63
13101 RETURN
13150 Y1$="RX-S/N-MEAS. ":REM*****64
13151 Y=Y*X(8)/100:GOSUB10550
13152 Y=1:GOSUB10750
13153 Y5$="BB. ":GOSUB16010:GOSUB16000
13154 IF LEFT$(Y5$,2)="BB"THENY=(INT(10*VAL(MID$(Y5$,3,9))))/10:RETURN
13155 GOTO14950
13200 Y1$="RX-SINAD-MEAS. ":REM*****65
13210 Y=Y*X(8)/100:GOSUB10550
13212 Y=1:GOSUB10750
13214 Y5$="AS. ":GOSUB16010
13215 GOSUB16000
13216 IF LEFT$(Y5$,2)="AS"THENY=(INT(10*VAL(MID$(Y5$,3,9))))/10:RETURN
13218 GOTO14950
13250 Y1$="RX-SENS. F. S/N":REM*****66
13251 Y7=Y:Y=.6*X(8):GOSUB10550
13252 Y5$="BB"+MID$(STR$(Y7),2,8)+" ":GOSUB16010:GOSUB16000
13253 IFLEFT$(Y5$,2)="BB"THEN13305
13254 GOTO14950
13300 Y1$="RX-SENS. F. SINAD":REM*****67
13301 Y7=Y:Y=.4*X(8):GOSUB10550
```

```
13215 GOSUB16000
13216 IF LEFT$(Y5$,2)="AS"THENY=(INT(10*VAL(MID$(Y5$,3,9)))/10):RETURN
13218 GOTO14950
13250 Y1$="RX-SENS. F. S/N":REM*****66
13251 Y7=Y:Y=,6*X(8):GOSUB10550
13252 Y5$="BB"+MID$(STR$(Y7),2,8)+",":GOSUB16010:GOSUB16000
13253 IFLEFT$(Y5$,2)="BB"THEN13305
13254 GOTO14950
13300 Y1$="RX-SENS. F. SINAD":REM*****67
13301 Y7=Y:Y=,6*X(8):GOSUB10550
13302 IFY5$<>"A"THEN13305
13303 IFYE=1THENY5$="B04,":GOSUB16010
13304 IFYE=0THENY5$="B03,":GOSUB16010
13305 YE=0
13312 Y5$="AS"+MID$(STR$(Y7),2,8)+",":GOSUB16010:GOSUB16000
13313 IF LEFT$(Y5$,2)="AS"THEN13315
13314 GOTO14950
13315 Y=VAL(LEFT$(STR$(223*10^((VAL(MID$(Y5$,3,8))/20)+3)),5)):RETURN
13350 Y1$="QUIETING-SENS. ":REM*****68
13351 Y=0:GOSUB10450:GOSUB11350:Y2=Y/10:Y=1:GOSUB10450:Y=0:GOSUB10550:Y1
13352 Y=Y1:GOSUB10400:GOSUB11350:IFABS((Y-Y2)/Y2)<.2THEN13354
13353 Y1=Y1*(1+Y/Y2)/2:GOTO13352
13354 Y=(INT(100*Y1))/100:RETURN
13400 Y1$="RX-BANDWIDTH 6DB":REM*****69
13401 YC=0:YD=0:Y4=,0064:Y7=0,2:Y=0:GOSUB10550:Y=0:GOSUB10450:Y=10:GOSUB
13402 Y888=Y/3,16:Y=1:GOSUB10450
13403 Y=Y7:GOSUB10400:Y=4:GOSUB11850
13404 IF ABS(Y-Y8)<.2*Y8THEN Y8=Y:GOTO13406
13405 Y7=Y7*(1+Y/Y8)/2:GOTO13403
13406 Y=Y7*2:GOSUB10400:Y=4:GOSUB11850:Y8=Y:GOSUB13410
13407 Y5=Y6:Y4=-Y4:GOSUB13410
13408 Y=X(1):GOSUB10350
13409 Y=(INT((Y5-Y6)*10000))/10:Y1=(INT(((Y5+Y6)/2)-X(1))*10000))/10:RE
13410 Y6=X(1):Y9=1
13411 Y6=Y6+Y4/Y9:IFY6=YCTHEN13417
13412 YC=YD:YD=Y6:Y=Y6:GOSUB10350:Y=4:GOSUB11850
13413 IF ABS(Y-Y8)<.1*Y8THENRETURN
13414 IFABS(Y8-Y)>ABS(Y-Y8)THENY9=Y9/2
13415 IFABS(Y9)=64THENY9=32
13416 Y9=SGN(Y8-Y)*ABS(Y9*2):Y8=Y:GOTO13411
13417 Y6=(Y6+YD)/2:RETURN
13450 Y1$="-----":REM*****70
13451 RETURN
13500 Y1$="MOD. ACC. BANDWIDTH":REM*****71
13501 Y=12:GOSUB13300:Y=2*Y:GOSUB10400:Y1=60:YH=40
13502 Y=Y1:GOSUB13200:YK=ABS(Y-12):IFYK<7THENYH=80:IFYK<1.5THEN13504
13503 Y1=Y1*10^((Y-12)/YH):GOTO13502
13504 Y=60:GOSUB13200:Y=(INT(Y1*X(8)))/50:RETURN
13550 Y1$="SQUELCH ":REM*****72
13551 Y1=,22
13552 Y1=Y1*1,5:Y=Y1:GOSUB10400:GOSUB11350:IFY<50THEN13552
13553 Y=-1:GOSUB10500:GOSUB10500:Y1=Y1*,977:GOSUB11350:IFY>50THEN13553
13554 Y2=Y1:Y1=(INT(Y1*100))/100
13555 Y2=Y2/,977:Y=Y2:GOSUB10400:GOSUB11350:IFY<50THEN13555
13556 Y2=(INT(Y2*100))/100:Y=(INT(200*LOG(Y2/Y1)/LOG(10)))/10:RETURN
13600 Y1$="-----":REM*****73
13601 GOTO13550
13650 Y1$="-----":REM*****74
13651 RETURN
13700 Y1$="-----":REM*****75
13701 RETURN
13750 Y1$="RX. MOD. FREQU. RESP. ":REM***76
13751 GOSUB11554:Y=1:GOSUB10750
13752 Y=,2*X(8):GOSUB10550:GOSUB11350:Y(0)=Y
13753 FORY8=1TOY9:Y=X(20+Y8):GOSUB10750:GOSUB11350
13754 Y(Y8)=(INT(200*LOG(Y/Y(0))/LOG(10)))/10:NEXTY8
13755 Y=1:GOSUB10750:RETURN
13800 Y1$="DUPLEXER-CHECK":REM*****77
13801 Y=12:GOSUB13300:Y2=Y:GOSUB11950:Y=X(1):GOSUB10350:Y=12:GOSUB13300
13802 Y4=Y:GOSUB13050:Y=(INT(200*LOG(Y4/Y2)/LOG(10)))/10:RETURN
```

```

13801 Y=12:GOSUB13300;Y2=Y:GOSUB11950;Y=X(1):GOSUB10350;Y=12:GOSUB13300
13802 Y4=Y:GOSUB13050;Y=(INT(200*LOG(Y4/Y2)/LOG(10)))/10:RETURN
13850 Y1#="IMAGE-FREQ. REJECT. ";REM***78
13851 Y=12:GOSUB13300;Y2=Y;Y=X(1)+2*X(5):GOSUB10350;Y8=1
13852 Y=Y8:GOSUB10400;Y=60:GOSUB13200;IFY8=1E6THEN13857
13853 IF ABS(Y-12)<3THEN13855
13854 YH=40:GOSUB13875:GOTO13852
13855 IFABS(Y-12)<.5THEN13857
13856 YH=80:GOSUB13875:GOTO13852
13857 Y4=Y8:GOSUB13050;Y=(INT(200*LOG(Y2/Y4)/LOG(10)))/10:RETURN
13875 Y8=(INT(100*Y8*10^((12-Y)/YH)))/100
13876 IFY8>1E6THENY8=1E6
13877 RETURN
13900 Y1#="-----";REM***79
13910 RETURN
13950 Y1#="-----";REM***80
13960 GOTO14950
14000 Y1#="-----";REM***81
14010 RETURN
14050 Y1#="-----";REM***82
14060 RETURN
14100 Y1#="-----";REM***83
14100 RETURN
14150 Y1#="-----";REM***84
14150 RETURN
14200 Y1#="-----";REM***85
14200 RETURN
14250 Y1#"ANALOG DISPLAY":REM***86
14251 IFY3=1THEN14266
14252 IFY>Y1ANDY<Y2THENY3=0:RETURN
14253 Y3=1:IFPEEK(826)=169THEN14260
14254 Y$(0)="169,032,162,016,157,248,129,232,208,250,162,030,169,233,157
14255 Y$(1)="130,157,048,130,169,223,157,010,130,157,051,130,169,160,157
14256 Y$(2)="130,157,050,130,157,089,130,157,090,130,157,129,130,157,130
14257 Y$(3)="157,169,130,157,170,130,157,209,130,157,210,130,096,210,130
14258 FORY4=0TO3:FORY5=0TO15;Y=VAL(RIGHT$(Y$(Y4),63-Y5*4))
14259 POKE826+Y4*16+Y5,Y:NEXTY5:NEXTY4
14260 POKE158,0
14261 PRINT"CL":Y#;"#####":PRINTTAB(11)Y1,TAB(23)Y2
14262 PRINTTAB(12)" | | ##### | | ##### | | ##### | | ##### \ /##### \ /";
14263 PRINT"          ##### | | ##### | | ##### | | ##### | | ##### \ /##### \
14264 PRINT"#####. . . . .#####"
14265 Y5=(12*Y2-24*Y1)/(Y2-Y1);Y6=12/(Y2-Y1)
14266 Y9=Y5+Y*Y6:IFY9<0 THEN Y9=0
14267 IFY9>36 THEN Y9=36
14268 POKE 837,Y9:SYS 826
14269 GETY1#:IFY1#=""THENRETURN
14270 Y3=0:PRINT"CL":RETURN
14300 Y1#"TEXT ON SCREEN":REM***87
14301 Y=LEN(Y#):PRINT:POKE158,0
14302 Y#=Y#+ " ":IFLEN(Y#)<39THEN14302
14303 PRINT" ":Y#:HOLD300:PRINT"CL":Y#:HOLD300:GETY1#:IFY1#=""THEN14303
14304 PRINT" "
14350 Y1#"TEXT ON PRINTER":REM***88
14351 OPEN99,230;Y1=6:IFY=1THENY#=CHR$(15)+Y#+CHR$(13)+CHR$(14)
14352 IFY=2THENY#=CHR$(27)+CHR$(14)+Y#+CHR$(13)+CHR$(27)+CHR$(15);Y1=3
14353 IFY=3THENY#=""
14354 PRINT#99,SPC(Y1);Y#:CLOSE99:RETURN
14400 Y1#"OUTPUT ON PRINTER":REM***89
14401 OPEN99,230:PRINT#99,SPC(6);Y#:SPC(50-LEN(Y#));Y:CLOSE99:RETURN
14450 Y1#"LIMIT-COMP. PRINTER":REM***90
14451 IFY<Y1ORY>Y2THEN14453
14452 GOTO14400
14453 OPEN99,230:PRINT#99,SPC(6);Y#:SPC(54-LEN(Y#));"* ";Y:CLOSE99:RETU
14500 Y1#"LIMIT-COMP. SCREEN":REM***91
14501 IFY<Y1ORY>Y2THEN14503
14502 PRINTY#:TAB(33)Y:RETURN
14503 PRINTY#:TAB(28)"***":TAB(33)Y:RETURN
14550 Y1#"DISPL. FREQ. RESP. ":REM***92
14551 Y8= .5;Y5=99;YA=-99:FORY1=1TOY9:IFY5>Y(Y1)THENY5=Y(Y1)

```



```

10 REM*****
20 REM* *
30 REM* SMFP2 DEMO PROGRAM USER #1/2 *
40 REM* ----- *
50 REM* ORIGINATOR: BAYRHUBER TBF *
60 REM* MODIFIED : VENZIN MANETSCH *
70 REM* DATE : 10.MAI.1986/MK III
80 REM* *
90 REM*****
100 Y1$="SMFP2"
110 R=1:GOSUB 9000
120 R=6:Y=2:GOSUB9000 :REM FM
130 R=7:Y=3.5:GOSUB9000 :REM MAX.MOD.
140 Y1=2:Y=0:R=20:GOSUB9000
150 Y1=3:Y=0:R=20:GOSUB9000
160 Y1=4:Y=0:R=20:GOSUB9000
170 REM*****
180 REM* *
190 REM* S E N D E R *
200 REM* ===== *
210 REM* *
220 REM*****
230 :
240 GOSUB 3320
250 PRINT "G"
260 PRINT:PRINT:PRINT
270 PRINT"GERAETEDATEN"
280 PRINT"-----" 39
290 PRINT:PRINT:PRINT:PRINT
300 INPUT"BETRIEBSSPANNUNG IN VOLT =";B
310 Y3=2:Y1=(B-0.1):Y2=(B+0.1):R=35:GOSUB 9000
320 PRINT
330 R=35:GOSUB 9000
340 IF Y<Y1 THEN 310
350 IF Y>Y2 THEN 310
360 PRINT"BETRIEBSSPANNUNG = "TAB(25) Y "VOLT"
370 PRINT
380 INPUT"ANZAHL KANAEL " ;K$
390 IF ASC(K$)> 47 THEN 400
400 IF ASC(K$)< 58 THEN 430
410 POKE 198,0:POKE 197,130:POKE 196,560 AND 255
420 GOTO 380
430 K=ASC(K$)-48:IF K<1 THEN GOTO 380
440 Y1=2:Y=1:R=20:GOSUB9000
450 FOR L=1 TO K STEP 1
460 PRINT"G"
470 PRINT:PRINT:PRINT
480 PRINT"SENDERTEST"
490 PRINT"-----" 39
500 PRINT:PRINT:PRINT:PRINT
510 PRINT
520 PRINT
530 INPUT"EINSTELLEN KANAL " ;K$(L)
540 IF ASC(K$(L))> 47 THEN 550
550 IF ASC(K$(L))< 58 THEN 580
560 POKE 198,0:POKE 197,129 :POKE 196,480 AND 255
570 GOTO 530
580 PRINT: K(L)=ASC(K$(L))-48
590 PRINT
600 R=41:GOSUB9000:IF Y>0.1THEN GOTO 640
610 R=40:GOSUB 9000
620 Y$="SENDER HOCHTASTEN "
630 R=87:GOSUB9000
640 R=54:YE=2:GOSUB9000
650 IFY<.4THEN680
660 PRINT"MESSUNG TX FREQUENZ = ";Y;" MHZ"
670 X(6)=INT(200*Y+.5)/200

```