

6.10.84

DFT PAG

* NAM T.CMDV2R3.3 5.OCT.1984

T.CMD

V2

R 3.3

Waveterm

Page 0

Communication

0068	Z0068	EQU	#0068
* *****			
580A		ORG	#580A
* *****			
580A 6002	WASS2	FDB	Z6002
5812	Z5812	EQU	#5812
5822	Z5822	EQU	#5822
5824	Z5824	EQU	#5824
5832	Z5832	EQU	#5832
5834	Z5834	EQU	#5834
5836	Z5836	EQU	#5836
583A	Z583A	EQU	#583A
* *****			
6000		ORG	#6000
* *****			
6000 6028		FDB	INIP1A
6002 62DB	Z6002	FDB	Z62DB
6004 60DB		FDB	Z60DB
* *****			
6014		ORG	#6014
* *****			
6014 6310		FDB	Z6310
6016	Z6016	EQU	#6016
6018	Z6018	EQU	#6018
601A	Z601A	EQU	#601A
601C	Z601C	EQU	#601C
601E	Z601E	EQU	#601E
* *****			
6020		ORG	#6020
* *****			
6020 613A		FDB	Z613A
A614	ZA614	EQU	#A614
C084	ZC084	EQU	#C084
E410	ZE410	EQU	#E410
E900	ZE900	EQU	#E900
EA2D	MERK1	EQU	#EA2D
EA36	ECHO	EQU	#EA36
EA39	MERK3	EQU	#EA39
EA3D	PAGEM	EQU	#EA3D
EA3E	UNIT	EQU	#EA3E

```

59      EA48 ZIFF EQU $EA48
60      EA49 ALTZ EQU $EA49
61      EA4A TSWAVE EQU $EA4A
62      EA4B XPOS EQU $EA4B
63      EA4D YPOS EQU $EA4D
64      EA51 KEY EQU $EA51
65      EA5C INTEG EQU $EA5C
66      EA61 PHI EQU $EA61
67      EA67 RECCC EQU $EA67
68      EA6C EVUA EQU $EA6C
69      EA6D RAM6D EQU $EA6D
70      EA6F LMERK EQU $EA6F
71      EA71 RAM71 EQU $EA71
72      EA73 RAM73 EQU $EA73
73      EA75 RAM75 EQU $EA75
74      EA77 RAM77 EQU $EA77
75      EB01 INPW EQU $EB01
76      EB04 INPENB EQU $EB04
77      EB05 INESC EQU $EB05
78      EB0C STOR1 EQU $EB0C
79      EB0D STOR2 EQU $EB0D
80      EC90 ZEC90 EQU $EC90
81      EC9F ZEC9F EQU $EC9F
82      ECE0 ZECE0 EQU $ECE0
83      ECE2 ZECE2 EQU $ECE2
84      EE05 SDFKEY EQU $EE05
85      EF0E INVFLG EQU $EF0E
86      F021 PCRLF EQU $F021
87      F027 PDATA1 EQU $F027
88      FCF4 PIA2 EQU $FCF4
89      FCFA PIAA EQU $FCFA
90      FCFB PIAB EQU $FCFB
91      FD00 PIA EQU $FD00
92      *PIA+1 EQU $FD01
93      *PIA+2 EQU $FD02
94      *PIA+3 EQU $FD03
95      FFFF ZFFF EQU $FFFF
96
97      * *****
98      6028 ORG $6028
99      * *****

```

```

100
101      6028 1A 10 INIPIA ORCC ##10
102      602A 7F FD03 CLR >PIA+3
103      602D 86 FF LDA ##FF
104      602F B7 FD02 STA >PIA+2
105      6032 C6 04 LDB #04
106      6034 F7 FD03 STB >PIA+3
107      6037 B7 FD02 STA >PIA+2
108      603A 7F FD01 CLR >PIA+1
109      603D 7F FD00 CLR >PIA
110      6040 7F FCF4 CLR >PIA2
111      6043 86 03 LDA #03
112      6045 B7 FCF4 STA >PIA2

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INIT Pias

```

113 6048 B6 15 LDA ##15
114 604A B7 FCF4 STA >PIA2
115 604D F7 FD01 STB >PIA+1
116 6050 7F FCFB CLR >PIAB
117 6053 B6 F0 LDA ##F0
118 6055 B7 FCFA STA >PIAA
119 6058 F7 FCFB STB >PIAB
120 605B B7 FCFA STA >PIAA
121 605E 7F EA36 CLR >ECHO
122 6061 7F EB04 CLR >INPENB
123 6064 7F EA48 CLR >ZIFF
124 6067 7F EA51 CLR >KEY
125 606A 7F EA61 CLR >PHI
126 606D B6 01 LDA ##01
127 606F B7 EA67 STA >RECC
128 6072 B7 EA3D STA >PAGEM
129 6075 B7 EF0E STA >INVFLG
130 6078 B7 EB05 STA >INEBC
131 607B B6 FF LDA ##FF
132 607D B7 EB01 STA >INPW
133 6080 B6 0C LDA ##0C
134 6082 AD 9F 5832 JSR [Z5832]
135 6086 20 39 BRA Z60C1
136
137 * *****
138 608B BE 64F1 LDX #SOFREC
139 608B BD F027 JSR >PDAT1
140 * *****
141
142 608E AD 9F EE05 Z60BE JSR [SOFKEY]
143 6092 B1 14 CMPA ##14
144 6094 27 FB BEQ Z60BE
145 6096 B1 03 CMPA ##03
146 6098 26 27 BNE Z60C1
147 609A BE E410 LDX #ZE410
148 609D 6F B0 CLR ,X+
149 609F B6 08 LDA ##08
150 60A1 A7 B0 STA ,X+
151 60A3 B6 13 LDA ##13
152 60A5 A7 B0 STA ,X+
153 60A7 6F B0 CLR ,X+
154 60A9 BF EB0D STX >STOR2
155 60AC B6 01 LDA ##01
156 60AE B7 EB0C STA >STOR1
157 60B1 7F EA49 CLR >ALTZ
158 60B4 BE 6503 LDX #AKTIX
159 60B7 BD F027 JSR >PDAT1
160 60BA BE FFFF LDX #ZFFFF
161 60BD 30 1F Z60BD LEAX -01,X
162 60BF 26 FC BNE Z60BD
163 60C1 BE 637A Z60C1 LDX #TABL4
164 60C4 10BE 6329 LDY #HEADER
165 60C8 AD 9F 5812 JSR [Z5812]
166 60CC BD 0A BSR Z60DB

```

outcx

7,2,3,4,5,6,7,8,9,A,FF

TASBE

Tasten Text

```

167 60CE CC 1445 LDD ##1445
168 60D1 FD EA6F STD >LMERK
169 60D4 6E 9F 601A JMP [Z601A]
170
171 60DB AD 9F 6016 Z60DB JSR [Z6016]
172 60DC CC 0000 LDD ##0000
173 60DF AD 9F 5824 JSR [Z5824]
174 60E3 86 2A LDA #2A
175 60E5 C6 1F LDB #1F
176 60E7 AD 9F 5822 JSR [Z5822]
177 60EB 8E 6385 LDX #PPGWBX
178 60EE BD F027 JSR >PDAT1
179 60F1 86 2A LDA #2A
180 60F3 C6 1F LDB #1F
181 60F5 AD 9F 5822 JSR [Z5822]
182 60F9 BD F021 JSR >PCRLF
183 60FC 8E 639C LDX #REVISX
184 60FF BD F027 JSR >PDAT1
185 6102 8E A614 LDX #ZA614
186 6105 108E 618E LDY #TABL2
187 6109 10BF EA5C STY >INTEG
188 610D C6 11 LDB #11
189 610F 8D 47 BSR Z6158
190 6111 108E 6195 LDY #TABL3
191 6115 10BF EA5C STY >INTEG
192 6119 C6 0A LDB #0A
193 611B 8D 38 BSR Z6158
194 >611D 7E 619C JMP >Z619C
195
196
197 6120 7D EC9F TST >ZEC9F
198 6123 26 01 BNE Z6126
199 6125 39 RTS
200
201
202 6126 C6 07 Z6126 LDB #07
203 612B 34 04 PSHS B
204 612A 108E EC90 LDY #ZEC90
205 612E E6 A0 Z612E LDB ,Y+
206 6130 27 02 BEQ Z6134
207 6132 8D 06 BSR Z613A
208 6134 6A E4 Z6134 DEC ,S
209 6136 26 F6 BNE Z612E
210 6138 35 B4 PULS PC,B
211 613A 8E 0068 Z613A LDX #Z0068
212 613D C4 7F ANDB #7F
213 613F 30 B8 38 Z613F LEAX #38,X
214 6142 C0 0C SUBB #0C
215 6144 24 F9 BCC Z613F
216 6146 CB 0C ADDB #0C
217 6148 34 10 PSHS X
218 614A 8E 6182 LDX #TABL1
219 614D E6 B5 LDB B,X
220 614F 4F CLRA

```

B. Bin 6FD5 Clear Rild Ram his BCO

Locat Sete Amor

Setout
'PPG Waveform-System'

'Version Page 0 Communication'

Spittpoint
Darstellung

221	6150 E3	E1		ADDD	,S++
222	6152 FD	EA4B		STD	>XFOB
223	6155 7E	6540		JMP	>Z6540
224					
225	6158 34	04	Z6158	PSHS	B
226	615A 34	10	Z615A	PSHS	X
227	615C 10BE	EA5C		LDY	>INTEG
228	6160 C6	06		LDB	##06
229	6162 34	04		PSHS	B
230	6164 C6	07	Z6164	LDB	##07
231	6166 A6	A0	Z6166	LDA	,Y+
232	6168 A7	80		STA	,X+
233	616A 5A			DECB	
234	616B 26	F9		BNE	Z6166
235	616D 31	39		LEAY	-#07,Y
236	616F 6A	E4		DEC	,S
237	6171 26	F1		BNE	Z6164
238	6173 33	04		PULS	B
239	6175 35	10		PULS	X
240	6177 6A	E4		DEC	,S
241	6179 27	05		BEQ	Z6180
242	617B 30	8B 40		LEAX	#40,X
243	617E 20	DA		BRA	Z615A
244					
245	6180 35	B4	Z6180	PULS	FD,B
246					
247	6182 00 06 0A 0E		TABL1	FCB	#00,#06,#0A,#0E,#12,#16,#1A,#20
	6186 12 16 1A 20				
248	618A 26 2A 2E 32			FCB	#26,#2A,#2E,#32
249					
250	618E F8 38 38 3E		TABL2	FCB	#F8,#38,#3B,#3E,#FB,#38,#3E
	6192 F8 38 3E				
251					
252	6195 FE FE FE FE		TABL3	FCB	#FE,#FE,#FE,#FE,#FE,#FE,#FE
	6199 FE FE FE				
253					
254	619C 10BE	ECE0	<u>Z619C</u>	LDY	#ZECE0
255	61A0 B6	FF		LDA	##FF
256	61A2 B7	EA39		STA	>MERK3
257	61A5 6F	E2		CLR	,S
258	61A7 BD	631F	Z61A7	JSR	>Z631F
259	61AA A6	E4		LDA	,S
260	61AC BB	30		ADDA	##30
261	61AE AD	9F 5832		JSR	[Z5832]
262	61B2 C6	02		LDB	##02
263	61B4 B6	20		LDA	##20
264	61B6 AD	9F 5822		JSR	[Z5822]
265	61BA A6	E4		LDA	,S
266	61BC BB	0A		ADDA	##0A
267	61BE C6	0A		LDB	##0A
268	61C0 FD	EA6F		STD	>LMERK
269	61C3 A6	E4		LDA	,S
270	61C5 4B			ASLA	
271	61C6 4B			ASLA	

Keyboard
Darstellung
L. Splittprints
Darstellung

272	61C7	48		ASLA	
273	61C8	48		ASLA	
274	61C9	B7	EA3E	STA	>UNIT
275	61CC	CC	080F	LDD	##080F
276	61CF	AD	9F 5834	JSR	[Z5834]
277	61D3	7D	EA4A	TST	>15WAVE
278	61D6	1026	00F7	LBNE	Z62D1
279	61DA	B6	E900	LDA	>ZE900
280	61DD	84	F0	ANDA	##F0
281	61DF	A7	A4	STA	,Y
282	61E1	B7	EA39	STA	>MERK3
283	61E4	B6	E900	LDA	>ZE900
284	61E7	44		LSRA	
285	61E8	44		LSRA	
286	61E9	44		LSRA	
287	61EA	44		LSRA	
288	61EB	8E	64D0	LDX	#COMPX
289	61EE	4D		TSTA	
290	61EF	27	05	BEQ	Z61F6
291	61F1	30	03	LEAX	#03,X
292	61F3	4A		DECA	
293	61F4	20	FB	BRA	Z61EE
294					
295	61F6	C6	03	LDB	##03
296	61FB	34	04	FSHS	B
297	61FA	A6	80	LDA	,X+
298	61FC	AD	9F 5832	JSR	[Z5832]
299	6200	6A	E4	DEC	,S
300	6202	26	F6	BNE	Z61FA
301	6204	32	61	LEAS	#01,S
302	6206	C6	08	LDB	##08
303	6208	B6	20	LDA	##20
304	620A	AD	9F 5822	JSR	[Z5822]
305	620E	B6	E900	LDA	>ZE900
306	6211	84	0F	ANDA	##0F
307	6213	A7	AB 10	STA	#10,Y
308	6216	8B	30	ADDA	##30
309	6218	AD	9F 5832	JSR	[Z5832]
310	621C	34	20	PSHS	Y
311	621E	A6	AB 10	LDA	#10,Y
312	6221	10BE	652A	LDY	#TABL5
313	6225	E6	62	LDB	#02,S
314	6227	A1	A5	CMPLA	B,Y
315	6229	27	16	BEQ	Z6241
316	622B	8E	64E7	LDX	#NEEDX
317	622E	34	04	PSHS	B
318	6230	BD	F027	JSR	>PDAT1
319	6233	35	04	PULS	B
320	6235	A6	A5	LDA	B,Y
321	6237	8B	30	ADDA	##30
322	6239	AD	9F 5832	JSR	[Z5832]
323	623D	35	20	PULS	Y
324	623F	20	10	BRA	Z6251
325					

WAVEVUHDU mm.

Character out


```

380 62BC C1 30 CMPB ##30
381 62BE 26 03 BNE Z62C3
382 62C0 F7 EA6C STB >EVUA
383 62C3 6E 9F 601E Z62C3 JMP [Z601E]
384
385 62C7 B7 EA3E Z62C7 STA >UNIT
386 62CA B7 EA6C STA >EVUA
387 62CD B7 EA6D STA >RAM6D
388 62D0 39 RTS
389
390 62D1 86 FF Z62D1 LDA ##FF
391 62D3 A7 A4 LDA ,Y
392 62D5 16 FF79 LBRA Z6251
393
394 62D8 B6 C0B4 Z62D8 LDA >ZC0B4
395 62DB B7 EA71 STA >RAM71
396 62DE B6 EA73 LDA >RAM73
397 62E1 B7 EA3E STA >UNIT
398 62E4 AD 9F 601B JSR [Z601B]
399 62E8 BE 64B0 LDY #GETWX
400 62EB 7D EA77 TST >RAM77
401 62EE 27 03 BEQ Z62F3
402 62F0 BE 64B8 LDY #GETUX
403 62F3 AD 9F 5836 Z62F3 JSR [Z5836]
404 62F7 AD 9F 583A JSR [Z583A]
405 62FB BE 64C0 LDY #TXTR
406 62FE 7D EA77 TST >RAM77
407 6301 27 03 BEQ Z6306
408 6303 BE 64C2 LDY #TXTQ
409 6306 AD 9F 5836 Z6306 JSR [Z5836]
410 630A 6E 9F 583A JMP [Z583A]
411
412 630E 44 Z630E FCC "D"
413 630F 04 FCB #04
414
415 6310 BE 630E Z6310 LDY #Z630E
416 6313 20 F1 BRA Z6306
417
418 * *****
419 6315 47 45 54 20 FCC "GET "
420 6319 04 FCB #04
421
422 631A 2E 55 53 52 FCC ".USR"
423 631E 04 FCB #04
424
425 * *****
426 631F 34 76 Z631F PSWS U,Y,X,B,A
427 6321 86 20 LDA ##20
428 6323 AD 9F 5832 JSR [Z5832]
429 6327 35 F6 PULS PC,U,Y,X,B,A
430
431 6329 20 45 53 43 HEADER FCC " ESCAPE RETRY COMPO DISPLAY "
432 632D 41 50 45 20
433 6331 20 20 52 45

```

01234 ← COPY
Line Buffer GET_Txxx

Get O.W.Bin

Get O.U.Bin

INBUF, Dos

R.CM)

Q.CM)

} Print Space!

493	652B 04		FCB	#04
494	652C 01		FCB	#01
495	652D 01		FCB	#01
496	652E 01		FCB	#01
497	652F 00		FCB	#00
498	6530 00		FCB	#00
499	6531 00		FCB	#00
500				
501	6532 BE	64C4	Z6532	LDX #BETBK
502	6535 AD	9F 5836		JSR [Z5836]
503	6539 AD	9F 583A		JSR [Z583A]
504	653D 7E	602B		JMP >INIP1A
505				
506	6540 BE	EA4B	Z6540	LDX >XPDS
507	6543 C6	90		LDB #90
508	6545 F7	EA4D	Z6545	STB >YPDS
509	6548 BD	2B		BSR Z6575
510	654A F6	EA4D		LDB >YPDS
511	654D 5C			INCB
512	654E C1	98		CMPS #98
513	6550 26	F3		BNE Z6545
514	6552 39			RTS
515				
516				* *****
517	6553 BD	09		BSR Z655E
518	6555 7C	EA4D		INC >YPDS
519	6558 BD	04		BSR Z655E
520	655A 7A	EA4D		DEC >YPDS
521	655D 39			RTS
522				* *****
523				
524	655E BD	15	Z655E	BSR Z6575
525	6560 FC	EA4B		LDD >XPDS
526	6563 C3	0001		ADD #0001
527	6566 FD	EA4B		STD >XPDS
528	6569 BD	0A		BSR Z6575
529	656B FC	EA4B		LDD >XPDS
530	656E B3	0001		SUBD #0001
531	6571 FD	EA4B		STD >XPDS
532	6574 39			RTS
533				
534	6575 FC	EA4B	Z6575	LDD >XPDS
535	6578 34	04		PSHS B
536	657A C4	07		ANDB #07
537	657C F7	EA2D		STB >MERK1
538	657F 35	04		PULS B
539	6581 44			LSRA
540	6582 56			RORB
541	6583 44			LSRA
542	6584 56			RORB
543	6585 44			LSRA
544	6586 56			RORB
545	6587 34	06		PSHS B,A
546	6589 B6	40		LDA #40

← Start

Get B' Get K'
INB4,
DOS
INIT PIA, S

Grafik

✓ Page Ø

Plittypoints

Keyboard
Darstellung

6.10.84

TCMDA

V2 R3.3

Waveform

Page 0

Communication

AKTIX	00488	00158							
ALTZ	00060	00157							
COMFX	00481	00288							
ECHO	00055	00121							
EVUA	00068	00347	00353	00358	00382	00386			
GETBK	00478	00501							
GETUX	00469	00402							
GETWX	00466	00399							
HEADER	00431	00164							
INESC	00077	00130							
INIP1A	00101	00027	00504						
INFENB	00076	00122							
INPW	00075	00132							
INTEG	00065	00187	00191	00227					
INVFLG	00085	00129							
KEY	00064	00124							
LMERK	00070	00168	00268						
MERK1	00054	00537	00552	00559	00561	00563	00565	00566	00570
MERK3	00056	00256	00282	00343					
NEEDX	00482	00316							
PAGEM	00057	00128							
PCRLF	00086	00182	00333						
PDATA1	00087	00139	00159	00178	00184	00318			
PHI	00066	00125							
PIA	00091	00102	00104	00106	00107	00108	00109	00115	
PIA2	00088	00110	00112	00114					
PIAA	00089	00118	00120						
PIAB	00090	00116	00119						
PPGWX	00439	00177							
RAM6D	00069	00352	00361	00387					
RAM71	00071	00395							
RAM73	00072	00364	00372	00379	00396				
RAM75	00073	00342							
RAM77	00074	00340	00400	00406					
RECC	00067	00127							
REV18X	00442	00183							
SOFKEY	00084	00142							
SOFREC	00485	00138							
STOR1	00078	00156							
STOR2	00079	00154							
TABL1	00247	00218							
TABL2	00250	00186							
TABL3	00252	00190							
TABL4	00436	00163							
TABL5	00492	00312							
TSWAVE	00061	00277							
TXID	00475	00408							
TXTR	00472	00405							
UNIT	00058	00274	00363	00375	00378	00385	00397		
WASS2	00013								
XPDS	00062	00222	00506	00525	00527	00529	00531	00534	
YFDS	00063	00508	00510	00518	00520	00547			
Z0068	00007	00211							
Z5812	00015	00165							
Z5822	00016	00176	00181	00264	00304				
Z5824	00017	00173							
Z5832	00018	00134	00261	00298	00309	00322	00428		
Z5834	00019	00276							
Z5836	00020	00403	00409	00502					
Z583A	00021	00404	00410	00503					
Z6002	00029	00013							
Z6016	00038	00171							
Z6018	00039	00398							

Z601A	00040	00169	
Z601C	00041	00331	
Z601E	00042	00383	
Z608E	00142	00144	
Z608D	00161	00162	
Z60C1	00163	00135	00146
Z60DB	00171	00030	00166
Z6126	00202	00178	
Z612E	00205	00209	
Z6134	00208	00206	
Z613A	00211	00048	00207
Z613F	00213	00215	
Z6158	00225	00189	00193
Z615A	00226	00243	
Z6164	00230	00237	
Z6166	00231	00234	
Z6180	00245	00241	
Z619C	00254	00194	
Z61A7	00258	00338	
Z61EE	00289	00293	
Z61F6	00295	00290	
Z61FA	00297	00300	
Z6241	00326	00315	
Z6251	00333	00324	00329 00392
Z6292	00361	00350	
Z6296	00363	00356	00359
Z62B2	00376	00374	
Z62C3	00383	00381	
Z62C7	00385	00345	
Z62D1	00390	00278	
Z62DB	00394	00029	
Z62F3	00403	00401	
Z6306	00409	00407	00416
Z630E	00412	00415	
Z6310	00415	00036	
Z631F	00426	00258	
Z6532	00501	00574	
Z6540	00506	00223	
Z6545	00508	00513	
Z655E	00524	00517	00519
Z6575	00534	00509	00524 00528
Z659D	00556	00558	
Z659B	00569	00562	
Z65BD	00571	00567	
ZA614	00050	00185	
ZC0B4	00051	00394	<i>Line Buffer</i>
ZE410	00052	00147	
ZE900	00053	00279	00283 00305
ZEC90	00080	00204	
ZEC9F	00081	00197	
ZECE0	00082	00254	00354 00370
ZECE2	00083	00348	
ZFFFF	00095	00160	
Z1FF	00059	00123	