

6.10.84

OPT PAG

* NAM W.BINV2R3.3 5.10.84

W. Bin

V2

R 3.3

Waveterm

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2	0000	WAVBAS	EQU	#0000
3	002C	Z002C	EQU	#002C
4	0080	Z0080	EQU	#0080
5	0100	Z0100	EQU	#0100
6	0198	Z0198	EQU	#0198
7	01FF	WX1FF	EQU	#01FF
8	0315	Z0315	EQU	#0315
9	0415	Z0415	EQU	#0415
10	0515	Z0515	EQU	#0515
11	3700	Z3700	EQU	#3700
12	3F00	Z3F00	EQU	#3F00
13	3F80	Z3F80	EQU	#3F80
14	3FC0	Z3FC0	EQU	#3FC0
15	4000	TENDE	EQU	#4000
16	4040	Z4040	EQU	#4040
17	8000	Z8000	EQU	#8000
18	8F80	Z8F80	EQU	#8F80
19	8F8A	Z8F8A	EQU	#8F8A
20	E010	ZE010	EQU	#E010
21	E090	ZE090	EQU	#E090
22	E110	ZE110	EQU	#E110
23	E190	ZE190	EQU	#E190
24	E1A0	ZE1A0	EQU	#E1A0
25	E1B0	ZE1B0	EQU	#E1B0
26	E1B1	ZE1B1	EQU	#E1B1
27	E1B4	ZE1B4	EQU	#E1B4
28	E1D8	ZE1D8	EQU	#E1D8
29	E1E8	ZE1E8	EQU	#E1E8
30	E1F8	ZE1F8	EQU	#E1F8
31	E218	ZE218	EQU	#E218
32	E420	ZE420	EQU	#E420
33	E49F	ZE49F	EQU	#E49F
34	E500	ZE500	EQU	#E500
35	E900	ZE900	EQU	#E900
36	EA20	WELANF	EQU	#EA20
37	EA22	WELEND	EQU	#EA22
38	EA24	WALEND	EQU	#EA24
39	EA26	BITPTR	EQU	#EA26
40	EA27	BYTEZ	EQU	#EA27
41	EA28	ZEA28	EQU	#EA28
42	EA29	NULAGE	EQU	#EA29
43	EA2A	PEGEL	EQU	#EA2A
44	EA2C	HARMN	EQU	#EA2C
45	EA2D	MERK1	EQU	#EA2D
46	EA2F	DELTA	EQU	#EA2F
47	EA30	SDELTA	EQU	#EA30
48	EA31	MINUS	EQU	#EA31
49	EA32	VLAGE	EQU	#EA32
50	EA34	XKORME	EQU	#EA34
51	EA38	PWIN	EQU	#EA38
52	EA39	MERK3	EQU	#EA39

59		EA3A	MERK4	EQU	\$EA3A
60		EA3D	PAGEM	EQU	\$EA3D
61		EA3E	UNIT	EQU	\$EA3E
62		EA45	CLMERK	EQU	\$EA45
63		EA46	HALFTE	EQU	\$EA46
64		EA47	WTABL	EQU	\$EA47
65		EA49	ALTZ	EQU	\$EA49
66		EA4A	TSWAVE	EQU	\$EA4A
67		EA5B	FAKTOR	EQU	\$EA5B
68		EA5C	INTEG	EQU	\$EA5C
69		EA5D	ZEASD	EQU	\$EA5D
70		EASE	ZEASE	EQU	\$EASE
71		EA61	PHI	EQU	\$EA61
72		EA63	WAVNU	EQU	\$EA63
73		EA6B	BANK	EQU	\$EA6B
74		EA72	ZE72	EQU	\$EA72
75		EB05	INESC	EQU	\$EB05
76		EC8D	ZEC8D	EQU	\$EC8D
77		EE05	SOFKEY	EQU	\$EE05
78		EF05	XKOR	EQU	\$EF05
79		EF07	YKOR	EQU	\$EF07
80		EF0E	INVFLG	EQU	\$EF0E
81		F027	PDATA1	EQU	\$F027
82		FD00	PIA	EQU	\$FD00
83			\$PIA+1	EQU	\$FD01
84			\$PIA+2	EQU	\$FD02
85			\$PIA+3	EQU	\$FD03
86					
87			* *****		
88	5808		ORG		\$5808
89			* *****		
90					
91	5808 0000	Z5808	FDB		WAVBAS
92	580A 6B00		FDB		Z6B00
93	580C 7641		FDB		Z7641
94	580E 7778		FDB		Z7778
95					
96		5814	Z5814	EQU	\$5814
97		5816	Z5816	EQU	\$5816
98		5818	Z5818	EQU	\$5818
99		581A	Z581A	EQU	\$581A
100		581C	Z581C	EQU	\$581C
101		5824	Z5824	EQU	\$5824
102		582C	Z582C	EQU	\$582C
103		582E	Z582E	EQU	\$582E
104		5830	Z5830	EQU	\$5830
105		5832	Z5832	EQU	\$5832
106		5834	Z5834	EQU	\$5834
107					
108			* *****		
109	6B00		ORG		\$6B00
110			* *****		
111					
112	6B00 6B64	Z6B00	FDB		Z6B64

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113 6B02 6BD6      FDB  Z6BD6
114 6B04 6BE1      FDB  Z6BE1
115 6B06 6BEA      FDB  Z6BEA
116 6B08 6BF5      FDB  Z6BF5
117 6B0A 6C50      FDB  Z6C50
118 6B0C 6C6F      FDB  Z6C6F
119 6B0E 6C86      FDB  Z6C86
120 6B10 72CE      FDB  Z72CE
121 6B12 72CA      FDB  Z72CA
122 6B14 6D9F      FDB  Z6D9F
123 6B16 6D64      FDB  Z6D64
124 6B18 6D5A      FDB  Z6D5A
125 6B1A 6D27      FDB  Z6D27
126 6B1C 6DEC      FDB  Z6DEC
127 6B1E 6DB6      FDB  Z6DB6
128 6B20 6E71      FDB  Z6E71
129 6B22 6E90      FDB  Z6E90
130 6B24 72CE      FDB  Z72CE
131 6B26 72CA      FDB  Z72CA

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* *****

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134 6B3B      ORG  #6B3B

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* *****

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137 6B3B 72CE      FDB  Z72CE
138 6B3A 72CA      FDB  Z72CA

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* *****

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141 6B4C      ORG  #6B4C

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* *****

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144 6B4C 72CE      FDB  Z72CE
145 6B4E 72CA      FDB  Z72CA
146 6B50 71EE      FDB  Z71EE
147 6B52 7198      FDB  Z7198

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148 6B54 71B8      FDB  Z71B8

```

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149 6B56 71E4      FDB  Z71E4

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```

150 6B58 72D2      FDB  Z72D2

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```

151 6B5A 701F      FDB  Z701F

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```

152 6B5C 70B0      FDB  Z70B0

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```

153 6B5E 720F      FDB  Z720F

```

```

154 6B60 6E90      FDB  Z6E90

```

```

155 6B62 72E2      FDB  Z72E2

```

80 Byte Variable
Transmit Data

FFT

```

156
157 6B64 C6 01      Z6B64 LDB  ##01
158 6B66 7F EB05    CLR  >INESC
159 6B69 AD 9F 5B18 JBR  [Z5B18]
160 6B6D 7C EB05    INC  >INESC
161 6B70 81 20      CMPA ##20
162 6B72 23 04      BLS  Z6B78
163 6B74 86 20      LDA  ##20
164 6B76 20 06      BRA  Z6B7E
165
166 6B78 81 01      Z6B78 CMPA ##01

```

167	6B7A 24	02		BCC	Z6B7E
168	6B7C B6	01		LDA	##01
169	6B7E B7	EA2C	Z6B7E	STA	>HARMN
170	6B81 BD	72B6		JSR	>Z72B6
171	6B84 C6	01		LDB	##01
172	6B86 AD	9F 581A		JSR	[Z581A]
173	6B8A B1	FF		CMFA	##FF
174	6B8C 26	04		BNE	Z6B92
175	6B8E 6E	9F 5830		JMP	[Z5830]
176					
177	6B92 B1	3F	Z6B92	CMFA	##3F
178	6B94 23	02		BLS	Z6B9B
179	6B96 B6	3F		LDA	##3F
180	6B98 BE	E190	Z6B9B	LDX	#ZE190
181	6B9B F6	EA2C		LDB	>HARMN
182	6B9E 5A			DECB	
183	6B9F A7	85		STA	B, X
184	6BA1 4B			ASLA	
185	6BA2 B7	EA2A		STA	>PEGEL
186	6BA5 BD	707C		JSR	>Z707C
187	6BA8 CE	0100		LDU	#Z0100
188	6BAB BD	7198		JSR	>Z7198
189	6BAE BE	E010		LDX	#ZE010
190	6BB1 BD	70DF		JSR	>Z70DF
191	6BB4 BE	E110		LDX	#ZE110
192	6BB7 10BE	E110		LDY	#ZE110
193	6BBB 10BF	EA22		STY	>WELEND
194	6BBF 10BE	E090		LDY	#ZE090
195	6BC3 BD	72B4		JSR	>Z72B4
196	6BC6 BE	E090		LDX	#ZE090
197	6BC9 BD	70DF		JSR	>Z70DF
198	6BCC C6	10	Z6BCC	LDB	##10
199	6BCE B6	01		LDA	##01
200	6BD0 BE	E1A0		LDX	#ZE1A0
201	6BD3 7E	720F		JMP	>Z720F
202					
203	6BD6 B6	EA2C	Z6BD6	LDA	>HARMN
204	6BD9 4C			INCA	
205	6BDA B1	21		CMFA	##21
206	6BDC 26	01		BNE	Z6BDF
207	6BDE 4A			DECA	
208	6BDF 20	9D	Z6BDF	BRA	Z6B7E
209					
210	6BE1 B6	EA2C	Z6BE1	LDA	>HARMN
211	6BE4 4A			DECA	
212	6BE5 26	01		BNE	Z6BE8
213	6BE7 4C			INCA	
214	6BE8 20	94	Z6BE8	BRA	Z6B7E
215					
216	6BEA BE	77B7	Z6BEA	LDX	#Z77B7
217	6BED AD	9F 5816		JSR	[Z5816]
218	6BF1 4B			ASLA	
219	6BF2 7E	6CB6		JMP	>Z6CB6
220					

*Grafik Ausgabe**well ?**→ Composite Wave?**— Grafik Wellen Ausgabe*

221	6BF5	8E	77AF	Z6BF5	LDX	#Z77AF
222	6BF8	AD	9F 5816		JSR	[Z5816]
223	6BFC	8D	03		BSR	Z6C01
224	6BFE	7E	6C86		JMP	>Z6C86
225						
226	6C01	34	02	Z6C01	PSHS	A
227	6C03	8E	E190		LDX	#ZE190
228	6C06	10BE	E1B4		LDY	#ZE1B4
229	6C0A	C6	24		LDB	#*24
230	6C0C	BD	72D4		JSR	>Z72D4
231	6C0F	8E	4040		LDX	#Z4040
232	6C12	10BE	E110		LDY	#ZE110
233	6C16	C6	80		LDB	#*80
234	6C18	A6	80	Z6C18	LDA	,X+
235	6C1A	88	80		ADDA	#*80
236	6C1C	A7	A0		STA	,Y+
237	6C1E	5A			DECB	
238	6C1F	26	F7		BNE	Z6C18
239	6C21	35	02		PULS	A
240	>6C23	BD	6C3F		JSR	>Z6C3F
241	>6C26	BD	6C98		JSR	>Z6C98
242	6C29	8E	E010		LDX	#ZE010
243	6C2C	10BE	E110		LDY	#ZE110
244	6C30	BD	72D2		JSR	>Z72D2
245	6C33	8E	E1B4		LDX	#ZE1B4
246	6C36	10BE	E190		LDY	#ZE190
247	6C3A	C6	24		LDB	#*24
248	6C3C	7E	72D4		JMP	>Z72D4
249						
250	6C3F	C6	24	Z6C3F	LDB	#*24
251	6C41	3D			MUL	
252	6C42	C3	40C0		ADDD	#*40C0
253	6C45	1F	01		TFR	D,X
254	6C47	10BE	E190		LDY	#ZE190
255	6C4B	C6	24		LDB	#*24
256	6C4D	7E	72D4		JMP	>Z72D4
257						
258	6C50	7F	EA2C	Z6C50	CLR	>RAM0N
259	6C53	8E	77C7		LDX	#Z77C7
260	6C56	AD	9F 5816		JSR	[Z5816]
261	>6C5A	BD	6C3F		JSR	>Z6C3F
262	6C5D	BD	6BCC		JSR	>Z6BCC
263	6C60	B6	E1B1		LDA	>ZE1B1
264	>6C63	BD	6C01		JSR	>Z6C01
265	6C66	BD	6BCC		JSR	>Z6BCC
266	>6C69	BD	6C86		JSR	>Z6C86
267	6C6C	7E	7069		JMP	>Z7069
268						
269	6C6F	8E	77BF	Z6C6F	LDX	#Z77BF
270	6C72	AD	9F 5816		JSR	[Z5816]
271	6C76	C6	24		LDB	#*24
272	6C78	3D			MUL	
273	6C79	C3	40C0		ADDD	#*40C0
274	6C7C	1F	02		TFR	D,Y

- Variable x → y

→ Variable 80 Byte

→ Transfer Variable
x → y

275	6C7E	8E	E190	LDX	#ZE190
276	6C81	C6	24	LDB	##24
277	6C83	7E	72D4	JMP	>I72D4
278					
279	6C86	8D	10	Z6C86	BSR Z6C95
280	6C88	17	00BD	LBSR	Z6D18
281	6C8B	4F		Z6C8B	CLRA
282	6C8C	8E	E090	LDX	#ZE090
283	6C8F	BF	EA24	STX	>WALEND
284	6C92	8E	E010	LDX	#ZE010
285	6C95	16	02E9	LBRA	Z6F81
286					
287	6C98	B6	EA2C	Z6C98	LDA >HARMN
288	6C9B	34	02	PSHS	A
289	6C9D	8E	E010	LDX	#ZE010
290	6CA0	BD	71EE	JSR	>71EE → via E090 alles auf SPO setzen
291	6CA3	B6	01	LDA	##01
292	6CA5	B7	EA2D	STA	>MERK1
293	6CAB	B7	EA2C	STA	>HARMN
294	6CAB	10BE	E110	LDY	#ZE110
295	6CAF	10BF	EA22	STY	>WELEND
296	6CB3	8E	E110	Z6CB3	LDX #ZE110
297	6CB6	10BE	E090	LDY	#ZE090
298	6CBA	CE	E190	LDU	#ZE190
299	6CBD	4A		DECA	
300	6CBE	E6	C6	LDB	A,U
301	6CC0	27	1C	BEQ	Z6CDE
302	6CC2	5B		ASLB	
303	6CC3	F7	EA2A	STB	>FEGEL
304	6CC6	BD	72B4	JSR	>I72B4
305	6CC9	8E	E010	LDX	#ZE010
306	6CCC	10BE	E090	LDY	#ZE090
307	6CD0	A6	A0	Z6CD0	LDA ,Y+
308	6CD2	AB	84	ADDA	,X
309	6CD4	88	80	ADDA	##80
310	6CD6	A7	80	STA	,X+
311	6CD8	10BC	EA22	CMPLY	>WELEND
312	6CDC	26	F2	BNE	Z6CD0
313	6CDE	B6	EA2D	LDA	>MERK1
314	6CE1	4C		INCA	
315	6CE2	B7	EA2D	STA	>MERK1
316	6CE5	B7	EA2C	STA	>HARMN
317	6CE8	B1	21	CMPLA	##21
318	6CEA	26	C7	BNE	Z6CB3
319	6CEC	B6	01	LDA	##01
320	6CEE	B7	EA2C	STA	>HARMN
321	6CF1	B6	EA2A	LDA	>FEGEL
322	6CF4	34	02	PSHS	A
323	6CF6	B6	E1B0	LDA	>ZE1B0
324	6CF9	4B		ASLA	
325	6CFA	B7	EA2A	STA	>FEGEL
326	6CFD	8E	E010	LDX	#ZE010
327	6D00	31	B9 00B0	LEAY	##00B0,X
328	6D04	10BF	EA22	STY	>WELEND

Transmit Data

32. Teiltor ?

329	6D08 1F	12		TFR	X,Y
330	6D0A BD	72B4		JSR	>Z72B4
331	6D0D 35	02		PULS	A
332	6D0F B7	EA2A		STA	>PEGEL
333	6D12 35	02		PULS	A
334	6D14 B7	EA2C		STA	>HARMN
335	6D17 39			RTS	
336					
337	6D18 BD	707C	Z6D18	JSR	>Z707C
338	6D18 CE	0100		LDU	#Z0100
339	6D1E BD	7198		JSR	>Z7198
340	6D21 8E	E010		LDX	#ZE010
341	6D24 7E	70DF		JMP	>Z70DF
342					
343	>6D27 BD	6D43	Z6D27	JSR	>Z6D43
344	6D2A B6	04		LDA	##04
345	6D2C C6	13		LDB	##13
346	6D2E AD	9F 5824		JSR	[Z5824]
347	6D32 BE	75EC		LDX	#Z75EC
348	6D35 7D	EA46		TST	>HALFTE
349	6D38 27	03		BEQ	Z6D3D
350	6D3A BE	75F2		LDX	#Z75F2
351	6D3D BD	F027	Z6D3D	JSR	>PDATA1
352	6D40 7E	71E4		JMP	>Z71E4
353					
354	6D43 BE	E1D8	Z6D43	LDX	#ZE1D8
355	6D46 31	88 20		LEAY	#20,X
356	6D49 A6	84	Z6D49	LDA	,X
357	6D4B E6	A4		LDB	,Y
358	6D4D A7	A0		STA	,Y+
359	6D4F E7	B0		STB	,X+
360	6D51 BC	E1F8		CMPL	#ZE1F8
361	6D54 26	F3		BNE	Z6D49
362	6D56 73	EA46		COM	>HALFTE
363	6D59 39			RTS	
364					
365	6D5A B6	EA63	Z6D5A	LDA	>WAVNU
366	6D5D 01	01		CMPL	##01
367	6D5F 27	0C		BEQ	Z6D6D
368	6D61 4A			DECA	
369	6D62 20	09		BRA	Z6D6D
370					
371	6D64 B6	EA63	Z6D64	LDA	>WAVNU
372	6D67 4C			INCA	
373	6D68 B1	21		CMPL	##21
374	6D6A 26	01		BNE	Z6D6D
375	6D6C 4A			DECA	
376	6D6D B7	EA63	Z6D6D	STA	>WAVNU
377	6D70 BD	72B6		JSR	>Z72B6
378	6D73 C6	01		LDB	##01
379	6D75 AD	9F 581A		JSR	[Z581A]
380	6D79 B1	FF		CMPL	##FF
381	6D7B 26	04		BNE	Z6D81
382	6D7D 6E	9F 5830		JMP	[Z5830]

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383
384 6DB1 8E E1DB Z6DB1 LDX #ZE1DB
385 6DB4 F6 EA63 LDB >WAVNU
386 6DB7 5A DECB
387 6DB8 A7 B5 STA B,X
388 6DBA B7 EA38 STA >PWN
389 6DBD BD 71E4 JSR >Z71E4
390 6D90 B6 EA38 LDA >PWN
391 6D93 BD 6C3F JSR >Z6C3F
392 6D96 B6 E1B1 LDA >ZE1B1
393 6D99 BD 6C01 JSR >Z6C01
394 6D9C 7E 6C86 JMP >Z6C86
395
396 6D9F C6 01 Z6D9F LDB ##01
397 6DA1 7F EB05 CLR >INESC
398 6DA4 AD 9F 5B18 JSR [Z5B18]
399 6DAB 7C EB05 INC >INESC
400 6DAB 81 3F CMPA ##3F
401 6DAD 23 02 BLS Z6DB1
402 6DAF 86 3F LDA ##3F
403 6DB1 44 Z6DB1 LSRA
404 6DB2 4C INCA
405 >6DB3 16 FFB7 LBRA Z6D6D
406
407 6DB6 7D EA46 Z6DB6 TST >HALFTE
408 6DB9 27 03 BEQ Z6DBE
409 6DBB BD 6D27 JSR >Z6D27
410 6DBE 8E 77CF Z6DBE LDX #Z77CF
411 6DC1 AD 9F 5B16 JSR [Z5B16]
412 6DC5 B7 EA47 STA >WTABL
413 6DC8 C6 44 LDB ##44
414 6DCA 3D MUL
415 6DCB C3 4ED0 ADDD ##4ED0
416 6DCE 1F 01 TFR D,X
417 6DD0 108E E1DB LDY #ZE1DB
418 6DD4 C6 44 LDB ##44
419 6DD6 BD 72D4 JSR >Z72D4
420 6DD9 BD 6E90 JSR >Z6E90
421 6DDC 7E 71E4 JMP >Z71E4
422
423 6DDF 34 04 Z6DDF PSHS B
424 6DE1 34 10 PSHS X
425 6DE3 BD 6D27 JSR >Z6D27
426 6DE6 35 10 PULS X
427 6DEB 35 04 PULS B
428 6DEA 20 0F BRA Z6DFB
429
430 6DEC 7D EA46 Z6DEC TST >HALFTE
431 6DEF 27 03 BEQ Z6DF4
432 6DF1 BD 6D27 JSR >Z6D27
433 6DF4 C6 80 Z6DF4 LDB ##80
434 6DF6 34 04 PSHS B
435 6DFB 8E 0000 LDX #WAVBAS
436 6DFB 7F EA31 Z6DFB CLR >MINUS

```

437	6DFE B6	05		LDA	##05
438	6E00 B7	EA2F		STA	>DELTA
439	6E03 B6	46		LDA	##46
440	6E05 B7	EA30		STA	>SDELTA
441	6E08 E6	E4	Z6E08	LDB	,S
442	6E0A C5	01		BITB	##01
443	6E0C 26	25		BNE	Z6E33
444	6E0E B6	EA2F		LDA	>DELTA
445	6E11 4C			INCA	
446	6E12 B1	16		CMPLA	##16
447	6E14 26	0F		BNE	Z6E25
448	6E16 7D	EA31		TST	>MINUS
449	6E19 26	C4		BNE	Z6DDF
450	6E1B 7C	EA31		INC	>MINUS
451	6E1E B6	4E		LDA	##4E
452	6E20 B7	EA30		STA	>SDELTA
453	6E23 B6	06		LDA	##06
454	6E25 B7	EA2F	Z6E25	STA	>DELTA
455	6E28 F6	EA30		LDB	>SDELTA
456	6E2B AD	9F 5824		JSR	[Z5824]
457	6E2F AD	9F 5830		JSR	[Z5830]
458	6E33 108E	E010	Z6E33	LDY	#ZE010
459	6E37 BD	72D2		JSR	>Z72D2
460	6E3A 34	10		PSHS	X
461	6E3C BD	6D18		JSR	>Z6D18
462	6E3F BD	6C8B		JSR	>Z6C8B
463	6E42 35	10		PULS	X
464	6E44 AD	9F EE05		JSR	[SOFKEY]
465	6E48 7D	EA49		TST	>ALTZ
466	6E4B 27	0C		BEQ	Z6E59
467	6E4D 4D			TSTA	
468	6E4E 27	1B		BEQ	Z6E6B
469	6E50 AD	9F EE05	Z6E50	JSR	[SOFKEY]
470	6E54 7D	EA49		TST	>ALTZ
471	6E57 26	F7		BNE	Z6E50
472	6E59 E6	E4	Z6E59	LDB	,S
473	6E5B 5C			INCB	
474	6E5C C5	01		BITB	##01
475	6E5E 26	04		BNE	Z6E64
476	6E60 AD	9F 5830		JSR	[Z5830]
477	6E64 6A	E4	Z6E64	DEC	,S
478	6E66 26	A0		BNE	Z6E08
479	6E68 35	04		PULS	B
480	6E6A 39			RTS	
481					
482	6E6B 35	04	Z6E6B	PULS	B
483	6E6D 6E	9F 5830		JMP	[Z5830]
484					
485	6E71 7D	EA46	Z6E71	TST	>HALFTE
486	6E74 27	03		BEQ	Z6E79
487	6E76 BD	6D27		JSR	>Z6D27
488	6E79 BE	77CF	Z6E79	LDX	#Z77CF
489	6E7C AD	9F 5816		JSR	[Z5816]
490	6E80 C6	44		LDB	##44

→ Transmit Partial Welle

491	6E82	3D		MUL		
492	6E83	C3	4ED0	ADDD	##4ED0	
493	6E86	1F	02	TFR	D,Y	
494	6E88	8E	E1D8	LDX	#ZE1D8	
495	6E8B	C6	44	LDB	##44	
496	6E8D	7E	72D4	JMP	>Z72D4	
497						
498	6E90	B6	EA46	LDA	>HALFTE	
499	6E93	27	03	BEQ	Z6E98	
500	6E95	BD	6D27	JSR	>Z6D27	
501	6E98	5F		Z6E98	CLRB	
502	6E99	10BE	0000	LDY	#WAVBAS	
503	6E9D	8E	E1D8	LDX	#ZE1D8	
504	6EA0	A6	84	LDA	,X	
505	6EA2	26	03	BNE	Z6EA7	
506	6EA4	7C	E1D8	INC	>ZE1D8	
507	6EA7	A6	88 3F	Z6EA7	LDA	#3F,X
508	6EAA	26	03	BNE	Z6EAF	
509	6EAC	6C	88 3F	INC	#3F,X	
510	6EAF	8E	E1D8	Z6EAF	LDX	#ZE1D8
511	6EB2	A6	85	LDA	B,X	
512	6EB4	27	22	BEQ	Z6ED8	
513	6EB6	2B	20	BMI	Z6ED8	
514	6EB8	B7	EA38	STA	>PWN	
515	6EBB	34	04	PSHS	B	
516	6EBD	34	20	PSHS	Y	
517	6EBF	BD	6C3F	JSR	>Z6C3F	
518	6EC2	B6	E1B1	LDA	>ZE1B1	
519	6EC5	BD	6C01	JSR	>Z6C01	
520	6EC8	BD	6C98	JSR	>Z6C98	
521	6ECB	8E	E010	LDX	#ZE010	
522	6ECE	10AE	E4	LDY	,S	
523	6ED1	BD	72D2	JSR	>Z72D2	
524	6ED4	35	20	PULS	Y	
525	6ED6	35	04	PULS	B	
526	6ED8	31	A9 0100	Z6ED8	LEAY	#0100,Y
527	6EDC	5C		INCB		
528	6EDD	C1	40	CMPB	##40	
529	6EDF	26	CE	BNE	Z6EAF	
530	6EE1	5F		Z6EE1	CLRB	
531	6EE2	8E	E1D8	LDX	#ZE1D8	
532	6EE5	10BE	0000	LDY	#WAVBAS	
533	6EE9	A6	85	Z6EE9	LDA	B,X
534	6EEB	27	0B	BEQ	Z6EF8	
535	6EED	31	A9 0100	LEAY	#0100,Y	
536	6EF1	5C		INCB		
537	6EF2	C1	40	CMPB	##40	
538	6EF4	27	3B	BEQ	Z6F31	
539	6EF6	20	F1	BRA	Z6EE9	
540						
541	6EF8	5A		Z6EF8	DECB	
542	6EF9	34	04	PSHS	B	
543	6EFB	31	A9 FF00	LEAY	#FF00,Y	
544	6EFF	5C		INCB		

```

545 6F00 33 A9 0100 LEAU $0100,Y
546 6F04 A6 B5 Z6F04 LDA B,X
547 6F06 26 07 BNE Z6F0F
548 6F08 33 C9 0100 LEAU $0100,U
549 6F0C 5C INCB
550 6F0D 20 F5 BRA Z6F04
551
552 6F0F E0 E4 Z6F0F SUBB ,S
553 6F11 54 LSRB
554 6F12 EB E4 ADDB ,S
555 6F14 86 FF LDA ##FF
556 6F16 A7 B5 STA B,X
557 6F18 E0 E0 SUBB ,S+
558 6F1A 1F 21 TFR Y,X
559 6F1C 30 B9 0100 Z6F1C LEAX $0100,X
560 6F20 5A DECB
561 6F21 26 F9 BNE Z6F1C
562 6F23 C6 B0 LDB ##B0
563 6F25 A6 A0 Z6F25 LDA ,Y+
564 6F27 AB C0 ADDA ,U+
565 6F29 46 RORA
566 6F2A A7 B0 STA ,X+
567 6F2C 5A DECB
568 6F2D 26 F6 BNE Z6F25
569 6F2F 20 B0 BRA Z6EE1
570
571 6F31 BE E1D8 Z6F31 LDX #ZE1D8
572 6F34 A6 B0 Z6F34 LDA ,X+
573 6F36 B1 FF CMPA ##FF
574 6F38 26 02 BNE Z6F3C
575 6F3A 6F 1F CLR -#01,X
576 6F3C 8C E218 Z6F3C CMPX #ZE218
577 6F3F 26 F3 BNE Z6F34
578 6F41 10BE 0000 LDY #WAVBAS
579 6F45 CE 0100 LDU #Z0100
580 6F48 BE 0080 LDX #Z0080
581 6F48 C6 40 LDB ##40
582 6F4D E7 E2 STB ,-S
583 6F4F C6 B0 Z6F4F LDB ##B0
584 6F51 A6 A0 Z6F51 LDA ,Y+
585 6F53 AB C0 ADDA ,U+
586 6F55 46 RORA
587 6F56 A7 B0 STA ,X+
588 6F58 5A DECB
589 6F59 26 F6 BNE Z6F51
590 6F5B 30 B9 0080 LEAX $0080,X
591 6F5F 31 A9 0080 LEAY $0080,Y
592 6F63 33 C9 0080 LEAU $0080,U
593 6F67 6A E4 DEC ,S
594 6F69 26 E4 BNE Z6F4F
595 6F6B 32 61 LEAS $01,S
596 6F6D BE 3F00 LDX #Z3F00
597 6F70 10BE 3F80 LDY #Z3F80
598 6F74 BD 72D2 JSR >Z72D2

```

Vernetze 3F00 bis 3F80
~~Wasserfall~~
 nach 3F80 bis 3FFF
 Loop Teil?

Vpn 205

599	6F77	4F		CLRA	
600	6F78	8E	4000	LDX	#TENDE
601	6F7B	BF	EA24	STX	>WALEND
602	6F7E	8E	0000	LDX	#WAVBAS
603	6F81	7F	EA6B	CLR	>BANK
604	6F84	7F	EA2D	CLR	>MERK1
605	6F87	7F	EA72	CLR	>ZEA72
606	6F8A	34	10	PSHS	X
607	6F8C	34	02	PSHS	A
608	6F8E	7F	E900	CLR	>ZE900
609	6F91	CC	0005	LDD	#0005
610	6F94	AD	9F 5834	JSR	[Z5834]
611	6F98	35	02	PULS	A
612	6F9A	B7	E900	STA	>ZE900
613	6F9D	CC	0108	LDD	#0108
614	6FA0	AD	9F 5834	JSR	[Z5834]
615	6FA4	35	10	PULS	X
616	6FA6	B4	EA3E	Z6FA6 LDA	>UNIT
617	6FA9	B1	FF	CMFA	#%FF
618	6FAB	26	01	BNE	Z6FAE
619	6FAD	39		RTS	
620					
621	6FAE	B6	EA6B	Z6FAE LDA	>BANK
622	6FB1	48		ASLA	
623	6FB2	48		ASLA	
624	6FB3	48		ASLA	
625	6FB4	48		ASLA	
626	6FB5	48		ASLA	
627	6FB6	F6	EA2D	LDB	>MERK1
628	6FB9	5C		INCB	
629	6FBA	5A		Z6FBA DECB	
630	6FBB	27	04	BEQ	Z6FD1
631	6FBD	BB	10	ADDA	#010
632	6FBF	20	F9	BRA	Z6FBA
633					
634	6FC1	B7	E900	Z6FD1 STA	>ZE900
635	6FC4	CC	0109	LDD	#0109
636	6FC7	1F	13	TFR	X,U
637	6FC9	AD	9F 5834	JSR	[Z5834]
638	6FCD	7D	EA4A	TST	>TSWAVE
639	6FD0	27	01	BEQ	Z6FD3
640	6FD2	39		RTS	
641					
642	6FD3	B6	FE	Z6FD3 LDA	#%FE
643	6FD5	B7	FD02	STA	>PIA+2
644	6FD8	B6	FD00	LDA	>PIA
645	6FDB	10BE	B000	LDY	#28000
646	6FDF	31	3F	Z6FDF LEAY	#01,Y
647	6FE1	27	25	BEQ	Z700B
648	6FE3	7D	FD01	TST	>PIA+1
649	6FE6	2A	F7	BPL	Z6FDF
650	6FEB	B6	FD00	LDA	>PIA
651	6FEB	7F	FD01	CLR	>PIA+1
652	6FEE	B6	FF	LDA	#%FF

clear Info Byte 8-12 Bit!

Select 12 Bit Transfer.

Bank Nr
Code

Sender V. CMD

code

} Bank Selection!

Bank Nr. Transmitt Bank Nr.
Code
Wavchan + Syn Nr

TRANSFER Transienten

ERROR-Ruest } System da?

653	6FF0 B7	FD00	STA	>PIA
654	6FF3 B6	04	LDA	##04
655	6FF5 B7	FD01	STA	>PIA+1
656	6FFB 1F	31	TFR	U, X
657	6FFA 7D	ECBD	TST	>ZECBD
658	6FFD 26	2C	BNE	Z702B
659	6FFF A6	80	LDA	, X+
660	7001 BD	46	BSR	Z7049
661	7003 BC	EA24	CMFX	>WALEND
662	7006 26	F7	BNE	Z6FFF
663	7008 B6	FD00	LDA	>PIA
664	700B 7F	FD01	CLR	>PIA+1
665	700E 7F	FD00	CLR	>PIA
666	7011 B6	04	LDA	##04
667	7013 B7	FD01	STA	>PIA+1
668	7016 B6	FF	LDA	##FF
669	7018 B7	FD02	STA	>PIA+2
670	701B B6	FD00	LDA	>PIA
671	701E 39		RTS	
672				
673	701F BE	4000	LDX	##TENDE
674	7022 BF	EA24	STX	>WALEND
675	7025 BE	0000	LDX	##WVBAS
676	702B 16	FF7B	LBRA	Z6FA3
677				
678	702B 7D	EA72	TST	>ZEA72
679	702E 26	CF	BNE	Z6FFF
680	7030 A6	80	LDA	, X+
681	7032 5F		CLRB	
682	7033 44		LSRA	
683	7034 56		RORB	
684	7035 44		LSRA	
685	7036 56		RORB	
686	7037 44		LSRA	
687	7038 56		RORB	
688	7039 44		LSRA	
689	703A 56		RORB	
690	703B F7	FD00	STB	>PIA
691	703E BD	0F	BSR	Z704F
692	7040 BD	07	BSR	Z7049
693	7042 BC	EA24	CMFX	>WALEND
694	7045 26	E9	BNE	Z7030
695	7047 20	BF	BRA	Z7008
696				
697	7049 B7	FD00	STA	>PIA
698	>704C BD	705C	JSR	>Z705C
699	704F C6	34	LDB	##34
700	7051 F7	FD03	STB	>PIA+3
701	>7054 BD	705C	JSR	>Z705C
702	7057 C6	3C	LDB	##3C
703	7059 F7	FD03	STB	>PIA+3
704	705C 39		RTS	
705				
706	705D 0315	Z705D	FDB	Z0315

warban

Setim K. Biru / Terim R. CM

} Loop: Transmit

Reset Pias

Einsprung Kommand von R.CM)
und von HH.CM) (Z6DAS)

Info Byte: 8-12 Bit

Decode Sound
8-12 Bit ?} Loop
TransmitFlanke
Transmit + Flanke

Subro: Transmit Byte

707	705F	EA38		FDB	PWN	
708	7061	0415		FDB	Z0415	
709	7063	E1B1		FDB	ZE1B1	
710	7065	0515		FDB	Z0515	
711	7067	E1B0		FDB	ZE1B0	
712	7069	8E	705D	LDX	#Z705D	
713	706C	AD	9F 5B14	JSR	[Z5B14]	
714	7070	30	04	LEAX	#04,X	
715	7072	AD	9F 5B14	JSR	[Z5B14]	
716	7076	30	04	LEAX	#04,X	
717	707B	6E	9F 5B14	JMP	[Z5B14]	
718						
719	707C	86	10	Z707C	LDA	##10
720	707E	8E	8F8A	LDX	#Z8F8A	
721	7081	20	05	BR	Z7088	
722						
723	7083	86	20	LDA	##20	
724	7085	8E	8F80	LDX	#Z8F80	
725	7088	B7	EA45	Z7088	STA	>CLMERK
726	708B	10BE	0000	LDY	#WAVBAS	
727	708F	C6	96	LDB	##96	
728	7091	10AF	B1	Z7091	STY	,X++
729	7094	4A		DECA		
730	7095	26	FA	BNE	Z7091	
731	7097	B6	EA45	LDA	>CLMERK	
732	709A	B1	20	CMFA	##20	
733	709C	27	03	BEQ	Z70A1	
734	709E	30	8B 20	LEAX	#20,X	
735	70A1	5A		Z70A1	DECB	
736	70A2	26	ED	BNE	Z7091	
737	70A4	39		RTS		
738						
739	70A5	8E	E190	LDX	#ZE190	
740	70AB	6F	B0	Z70AB	CLR	,X+
741	70AA	BC	E1B1	CMFX	#ZE1B1	
742	70AD	26	F9	BNE	Z70AB	
743	70AF	39		RTS		
744						
745	70B0	10BE	EA32	Z70B0	LDY	>VLAGE
746	70B4	10BF	EA27	STY	>BYTEZ	
747	70B8	10BE	01FF	LDY	##WX1FF	
748	70BC	86	B0	LDA	##80	
749	70BE	B7	EA26	STA	>BITPTR	
750	70C1	7F	EA3A	CLR	>MERK4	
751	70C4	E6	B0	LDB	,X+	
752	70C6	54		LSRB		
753	70C7	F7	EA39	STB	>MERK3	
754	70CA	E6	1F	LDB	-#01,X	
755	70CC	C8	90	ADDB	##80	
756	70CE	BD	7167	JSR	>Z7167	
757	70D1	E6	B0	Z70D1	LDB	,X+
758	70D3	34	20	PSHS	Y	
759	>70D5	BD	7127	JSR	>Z7127	
760	70DB	35	20	PULS	Y	

815					
816	7148	7C	EA3A	Z7148	INC >MERK4
817	7148	8D	1D		BSR Z716A
818	714D	35	04		PULS B
819	714F	F7	EA39		STB >MERK3
820	7152	39			RTS
821					
822	7153	34	04	Z7153	FSHS B
823	7155	F6	EA39		LDB >MERK3
824	7158	5A			DECB
825	7159	F7	EA39		STB >MERK3
826	715C	8D	0C		BSR Z716A
827	715E	35	04		PULS B
828	7160	F1	EA39		CMFB >MERK3
829	7163	27	E3		BEQ Z7148
830	7165	20	EC		BRA Z7153
831					
832	7167	CB	80	Z7167	ADDB ##80
833	7169	54			LSRB
834	716A	53		Z716A	COMB
835	716B	F0	EA29		SUBB >NULAGE
836	716E	4F			CLRA
837	716F	44			LSRA
838	7170	56			RORB
839	7171	46			RORA
840	7172	56			RORB
841	7173	46			RORA
842	7174	1E	89		EXG A,B
843	7176	F3	EA27		ADDD >BYTEZ
844	7179	C3	8000		ADDD ##8000
845	717C	1F	03		TFR D,U
846	717E	A6	C4		LDA ,U
847	7180	BA	EA26		ORA >BITPTR
848	7183	A7	C4		STA ,U
849	7185	7D	EA3A		TST >MERK4
850	7188	27	0D		BEQ Z7197
851	718A	74	EA26		LSR >BITPTR
852	718D	24	08		BCC Z7197
853	718F	B6	80		LDA ##80
854	7191	B7	EA26		STA >BITPTR
855	7194	7C	EA28		INC >ZEA28
856	7197	39		Z7197	RTS
857					
858	7198	B6	80	Z7198	LDA ##80
859	719A	B7	EA26		STA >BITPTR
860	719D	10BE	EA32		LDY >VLAGE
861	71A1	10BF	EA27		STY >BYTEZ
862	71A5	B7	EA3A		STA >MERK4
863	71AB	5F		Z71AB	CLRB
864	71A9	34	40		FSHS U
865	71AB	8D	BA		BSR Z7167
866	71AD	35	40		PULS U
867	71AF	33	5F		LEAU -#01,U
868	71B1	1183	0000		CMPL ##WAVBAS

IMPTABLE

GRAFIK Ausgabe

```

869 71B5 26 F1 BNE Z71AB
870 71B7 39 RTS
871
872 71B8 7C EF0E Z71B8 INC >INVFLG
873 71B8 4F CLRAB
874 71BC 5F CLRB
875 71BD AD 9F 5824 JSR [Z5B24] SECUR
876 71C1 F6 EA3D LDB >PAGEM
877 71C4 C1 01 CMPB ##01
878 71C6 26 03 BNE Z71CB
879 71C8 8E 740C LDX #Z740C
880 71CB C1 02 Z71CB CMPB ##02
881 71CD 26 03 BNE Z71D2
882 71CF 8E 748F LDX #Z748F
883 71D2 C1 03 Z71D2 CMPB ##03
884 71D4 26 03 BNE Z71D9
885 71D6 8E 74FD LDX #Z74FD "PPG Wave Form Page 3 INPRT Transit"
886 71D9 C1 04 Z71D9 CMPB ##04
887 71DB 26 03 BNE Z71E0
888 71DD 8E 7586 LDX #Z7586
889 71E0 8D F027 Z71E0 JSR >PDAT1
890 71E3 39 RTS
891
892 71E4 C6 10 Z71E4 LDB ##10
893 71E6 86 02 LDA ##02
894 71E8 8E E1E8 LDX #Z1E8
895 >71EB 7E 720F JMP >Z720F
896
897 71EE C6 80 Z71EE LDB ##80
898 71F0 86 80 LDA ##80
899 71F2 A7 80 Z71F2 STA ,X+
900 71F4 5A DECB
901 71F5 26 FB BNE Z71F2
902 71F7 39 RTS
903
904 * *****
905 71F8 86 FF LDA ##FF
906 71FA C6 40 LDB ##40
907 71FC 8E 3700 LDX #Z3700
908 * *****
909
910 71FF A7 80 Z71FF STA ,X+
911 7201 5A DECB
912 7202 26 FB BNE Z71FF
913 7204 C6 40 LDB ##40
914 7206 8E 3FC0 LDX #Z3FC0
915 7209 A7 80 Z7209 STA ,X+
916 720B 5A DECB
917 720C 26 FB BNE Z7209
918 720E 39 RTS
919
920 720F F7 EA2D Z720F STB >MERK1
921 7212 108E 002C LDY #Z002C
922 7216 10BF EF07 STY >YKOR

```

JMP Table

"PPG Wave Form Page 3 INPRT Transit"

Page 2 Display Rows

Rows

Display Page

7, 2

923	721A	108E	019B		LDY	#Z019B
924	721E	10BF	EF05		STY	>KKOR
925	7222	10BF	EA34		STY	>KKORME
926	7226	34	02		PSHS	A
927	7228	A6	E4	Z7228	LDA	,S
928	722A	3D			MUL	
929	722B	B6	EA3D		LDA	>PAGEM
930	722E	81	01		CMPA	##01
931	7230	27	01		BEQ	Z7233
932	7232	5A			DECB	
933	7233	AD	9F 581C	Z7233	JSR	[Z581C]
934	7237	BD	72DC		JSR	>Z72DC
935	723A	E6	B2		LDB	,X
936	723C	AD	9F 581C		JSR	[Z581C]
937	7240	BD	72DC		JSR	>Z72DC
938	7243	BD	72DC		JSR	>Z72DC
939	7246	BD	72DC		JSR	>Z72DC
940	7249	F6	EA2D		LDB	>MERK1
941	724C	CB	10		ADDB	##10
942	724E	A6	E4		LDA	,S
943	7250	3D			MUL	
944	7251	B6	EA3D		LDA	>PAGEM
945	7254	81	01		CMPA	##01
946	7256	27	01		BEQ	Z7259
947	7258	5A			DECB	
948	7259	AD	9F 581C	Z7259	JSR	[Z581C]
949	>725D	BD	72DC		JSR	>Z72DC
950	7260	E6	8B 10		LDB	#10,X
951	7263	AD	9F 581C		JSR	[Z581C]
952	>7267	BD	72DC		JSR	>Z72DC
953	726A	FC	EA34		LDD	>KKORME
954	726D	FD	EF05		STD	>KKOR
955	7270	FC	EF07		LDD	>YKOR
956	7273	C3	000A		ADDD	##000A
957	7276	FD	EF07		STD	>YKOR
958	7279	7A	EA2D		DEC	>MERK1
959	727C	F6	EA2D		LDB	>MERK1
960	727F	26	A7		BNE	Z7228
961	7281	32	61		LEAS	#01,S
962	7283	39			RTS	
963						
964	7284	30	89 0080	Z7284	LEAX	#0080,X
965	7288	BF	EA20		STX	>WELANF
966	728B	30	88 B0		LEAX	-#B0,X
967	728E	B6	EA2C		LDA	>HARMN
968	7291	34	02	Z7291	PSHS	A
969	7293	B6	EA2A		LDA	>PEGEL
970	7296	48			ASLA	
971	7297	E6	B4		LDB	,X
972	7299	3D			MUL	
973	729A	B9	80		ADCA	##B0
974	729C	B0	EA2A		SUBA	>PEGEL
975	729F	A7	A0		STA	,Y+
976	72A1	35	02		PULS	A

E770

Compute Page 7

E790 (Pegel)

E090

```

977 72A3 10BC EA22      CMPY  >WELEND
978 72A7 27 0C          BEQ   Z72B5
979 72A9 30 86          LEAX   A,X
980 72AB BC EA20        CMPX   >WELANF
981 72AE 2B E1          BMI    Z7291
982 72B0 30 88 80      LEAX   -#80,X
983 72B3 20 DC          BRA    Z7291
984
985 72B5 39              Z72B5 RTS
986
987 72B6 C6 47          Z72B6 LDB   ##47
988 72B8 81 10          CMPA   ##10
989 72BA 23 04          BLS    Z72C0
990 72BC CB 08          ADDB   ##08
991 72BE 80 10          SUBA   ##10
992 72C0 8B 05          Z72C0 ADDA   ##05
993 72C2 AD 9F 5824     JSR    [Z5824]
994 72C6 6E 9F 5830     JMP    [Z5830]
995
996 72CA 6E 9F 582E     Z72CA JMP    [Z582E]
997
998 72CE 6E 9F 582C     Z72CE JMP    [Z582C]

```

E 110

```

1000 72D2 C6 80          Z72D2 LDB   ##80
1001 72D4 A6 80          Z72D4 LDA    ,X+
1002 72D6 A7 A0          STA    ,Y+
1003 72D8 5A            DECB
1004 72D9 26 F9          BNE    Z72D4
1005 72DB 39            RTS

```

3F00-3F80 => 3A00-3FFF

Increment-Loop
Vernats Subtra

```

1007 72DC 86 20          Z72DC LDA    ##20
1008 72DE 6E 9F 5832     JMP    [Z5832]
1009
1010 72E2 10BE E500       Z72E2 LDY    #ZE500
1011 72E6 86 01          LDA    ##01
1012 72E8 34 02          Z72E8 PSHS   A
1013 72EA B7 EA3B        STA    >FAKTOR
1014 72ED 7F EA61        CLR    >PHI
1015 72F0 8D 3D          BSR    Z732F
1016 72F2 ED A8 50       STD    #50,Y
1017 72F5 34 02          PSHS   A
1018 72F7 86 20          LDA    ##20
1019 72F9 B7 EA61        STA    >PHI
1020 72FC 8D 31          BSR    Z732F
1021 72FE ED A7 0090     STD    #0090,Y
1022 7302 4D            TSTA
1023 7303 2A 01          BPL    Z7306
1024 7305 40            NEGA
1025 7306 1F 89          Z7306 TFR    A,B
1026 7308 4D            TSTA
1027 7309 3D            MUL
1028 730A 34 06          PSHS   B,A
1029 730C A6 62          LDA    #02,B
1030 730E 2A 01          BPL    Z7311

```

Analyse

C. 1084

W B I N A

V2 R 3.3

Waveterm

ALTZ 00065 00465 00470
 BANK 00073 00603 00621
 BITPTR 00045 00749 00771 00847 00851 00854 00859
 BYTEZ 00046 00746 00766 00843 00861
 CLMERK 00062 00725 00731
 DELTA 00052 00438 00444 00454
 FAKTOR 00067 01013 01044 01056
 HALFTE 00063 00348 00362 00407 00430 00485 00498
 HARMN 00050 00169 00181 00203 00210 00258 00287 00293 00316 00320 00334
 00967

INESC 00075 00158 00160 00397 00399
 INTEG 00068 01051 01082 01083 01090 01092 01101 01108 01112 01123
 INVFLB 00080 00872
 MERK1 00051 00292 00313 00315 00604 00627 00920 00940 00958 00959
 MERK3 00058 00753 00775 00803 00807 00809 00812 00819 00823 00825 00828
 MERK4 00059 00750 00772 00800 00816 00849 00862
 MINUS 00054 00436 00448 00450
 NULAGE 00048 00835
 PAGEM 00060 00876 00929 00944
 PDATA1 00081 00331 00889
 PEGEL 00049 00185 00303 00321 00325 00332 00969 00974
 PHI 00071 01014 01019 01058
PIA 00082 00643 00644 00648 00650 00651 00653 00655 00663 00664 00665

PWN 00057 00388 00390 00514 00707
 SDELTA 00053 00440 00452 00455
 SOFKEY 00077 00464 00469
 TENDE 00020 00600 00673
 TSWAVE 00066 00638
 UNIT 00061 00616
 VLABE 00055 00745 00765 00860
 WALEND 00044 00283 00601 00661 00674 00693
 WAVBAS 00007 00091 00435 00502 00532 00578 00602 00675 00726 00868
 WAVNU 00072 00365 00371 00376 00385
 WELANF 00042 00965 00980
 WELEND 00043 00193 00295 00311 00328 00768 00789 00977
 WTABL 00064 00412
 WX1FF 00012 00747
 XKDR 00078 00924 00954
 XKORME 00056 00925 00953
 YKQR 00079 00922 00955 00957
 Z002C 00008 00921
 Z0080 00009 00580
 Z0100 00010 00187 00338 00579
 Z0198 00011 00923
 Z0315 00013 00705
 Z0415 00014 00708
 Z0515 00015 00710
 Z3700 00016 00907
 Z3F00 00017 00596
 Z3F80 00018 00597
 Z3F00 00019 00914
 Z4040 00021 00231 01053
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 Z5814 00096 00713 00715 00717
 Z5816 00097 00217 00222 00260 00270 00411 00489
 Z5818 00098 00159 00398
 Z581A 00099 00172 00379
 Z581C 00100 00933 00936 00948 00951
 Z5824 00101 00346 00456 00875 00993
 Z582C 00102 00998
 Z582E 00103 00996
 Z5830 00104 00175 00382 00457 00476 00483 00994
 Z5832 00105 01008

Handwritten signature
Waveform data
Waveform data

Page 1, 2, 3

Z6B00	00112	00092							
Z6B64	00157	00112							
Z6B78	00166	00162							
Z6B7E	00169	00164	00167	00208	00214				
Z6B92	00177	00174							
Z6B98	00180	00178							
Z6BCC	00198	00262	00265						
Z6BD6	00203	00113							
Z6BDF	00208	00206							
Z6BE1	00210	00114							
Z6BEB	00214	00212							
Z6BEA	00216	00115							
Z6BF5	00221	00116							
Z6C01	00226	00223	00264	00393	00519				
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Z6C3F	00250	00240	00261	00391	00517				
Z6C50	00258	00117							
Z6C6F	00269	00118							
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Z732F	01049 01015 01020 01045
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Z77B7	01297 00216
Z77BF	01299 00269
Z77C7	01301 00259
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ZB000	00023 00645
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ZE010	00026 00189 00242 00284 00289 00305 00326 00340 00458 00521
ZE090	00027 00194 00196 00282 00297 00306
ZE110	00028 00191 00192 00232 00243 00294 00296
ZE190	00029 00180 00227 00246 00254 00275 00298 00739
ZE1A0	00030 00200
ZE1B0	00031 00323 00711
ZE1B1	00032 00263 00392 00518 00709 00741
ZE1B4	00033 00228 00245
ZE1DB	00034 00354 00384 00417 00494 00503 00506 00510 00531 00571
ZE1EB	00035 00894
ZE1FB	00036 00360
ZE21B	00037 00576
ZE420	00038 01052
ZE49F	00039 01093
ZE500	00040 01010
ZE900	00041 00608 00612 00634
ZE92B	00047 00855
ZE95D	00069 01050 01079 01080 01087 01089
ZE95E	00070 01102 01105
ZE972	00074 00605 00678
ZE98D	00076 00657