

Exploring the TOPS20 RED PACK with the KS10 FPGA

```
CPU : Console alive.
CPU : Device identifier is 0x10040203.
NET : MAC Address is 01:1a:b6:00:64:00
NET : Successfully started telnet task.
NET : Telnet started.
FPGA: Programming with firmware. . . . .
FPGA: Programmed successfully.
CPU : EPI interface initialized.
FPGA: Firmware is REV 00.07
FPGA: Registers tested completed successfully.
SDHC: Card inserted.
SDHC: Card initialized successfully.
SDHC: FAT filesystem successfully mounted on SD media.
KS10: Halted.
KS10: Halt Cause: Microcode Startup. (PC=000000)
KS10> go diag/dskaa.sav 20000
Wrote CIR
Patched code
KS10: Running.

* SMMON [DSQDC] - DECSYSTEM 2020 DIAGNOSTIC MONITOR - VER 0.3 *

SMMON CMD - R

UBA # - 0
DISK:<DIRECTORY> OR DISK:[P,PN] - ?

DSKB   RP06   TOPS10
DSKC   RP06   TOPS10
PS     1,0    RP06    TOPS20

DISK:<DIRECTORY> OR DISK:[P,PN] - PS:?

ACCOUNTS.DIRECTORY
BACKUP-COPY-OF-ROOT-DIRECTORY.IMAGE
BOOTSTRAP.BIN
DIAGNOSTICS.DIRECTORY
```

DSKBTTBL.
F-S.DIRECTORY
INDEX-TABLE.BIN
MFG.DIRECTORY
NEW-SUBSYS.DIRECTORY
NEW-SYSTEM.DIRECTORY
OPERATOR.DIRECTORY
RED.DIRECTORY
REL.DIRECTORY
ROOT-DIRECTORY.DIRECTORY
SPOOL.DIRECTORY
SUBSYS.DIRECTORY
SYSTEM.DIRECTORY
UETP.DIRECTORY
UNSUPPORTED.DIRECTORY

DISK:<DIRECTORY> OR DISK:[P,PN] - PS:

SMMON CMD - H

NORMAL START = 20000
RESTART/ABORT = 20001
PRINT TEST TITLE = 20002
RESTART CURR TEST = 20003

COMMANDS;
STD=START DIAGNOSTIC
STM=REINITIALIZE START
STL=START LOADER
START=START DIAGNOSTIC
SFSTRT=SPECIAL FEATURE START
PFSTRT=POWER FAIL START
REE=REENTER
DDT=DDT
START1=SPECIAL START 1
START2=SPECIAL START 2
START3=SPECIAL START 3
START4=SPECIAL START 4
START5=SPECIAL START 5
SMMON=LOAD SMMON
SMMAG=LOAD SMMAG
SMAPT=LOAD SMAPT

R=RESELECT, X=XPN, I=INTERNAL, T=TTY, D=DEVICE,
S=SINGLE, F=DIR, L=LIST, G=GO

DEVICES;

UBA #

0 = UBA 1, RH ADR 776700

1 = UBA 1, RH ADR 776700

2 = UBA 2, RH ADR 776700

3 = UBA 3, RH ADR 776700

= UBA ADDRESS

?= IDENTIFY DISKS, DSK:?= MASTER DIRECTORY

SMMON CMD - F

BEWARE.TXT	2	CONVRT.SAV	32
CZDLDD.BIN	26	CZDLDG.BIN	27
CZDMCC.BIN	32	CZDMEC.BIN	28
CZDMED.BIN	28	CZDMFB.BIN	31
CZDMFC.BIN	32	CZDMGD.BIN	27
CZDMHB.BIN	19	CZDMHC.BIN	19
CZDPBC.BIN	26	CZDPCD.BIN	22
CZDPDD.BIN	21	CZDPEB.BIN	11
CZM9BA.BIN	8	CZM9BD.BIN	12
CZQMCF.BIN	27	CZQMCG.BIN	27
DECX11.BIN	62	DECX11.CNF	1
DECX11.MAP	2	DIAG.DN22	1
DMPBOT.BIN	1	DS65B.BIN	63
DSANA.SAV	137	DSANAL.KMC	7
DSANAM.KMC	6	DSANB.SAV	35
DSCDA.SAV	51	DSDUA.SAV	74
DSDZA.SAV	51	DSKAA.SAV	19
DSKAB.SAV	21	DSKAC.SAV	15
DSKAD.SAV	17	DSKAE.SAV	13
DSKAF.SAV	16	DSKAG.SAV	8
DSKAH.SAV	33	DSKAI.SAV	38
DSKAJ.SAV	26	DSKAK.SAV	48
DSKAL.SAV	52	DSKAM.SAV	33
DSKBA.SAV	98	DSKCA.SAV	26
DSKCB.SAV	13	DSKCC.SAV	27
DSKCD.SAV	49	DSKCE.SAV	39
DSKCF.SAV	72	DSKCG.SAV	48
DSKDA.SAV	110	DSKEA.SAV	40
DSKEB.SAV	29	DSKEC.SAV	25

DSKFA.SAV	14	DSKMA.SAV	77
DSLPA.SAV	119	DSLTA.SAV	8
DSMMA.SAV	34	DSMMB.SAV	6
DSMMC.SAV	16	DSMMD.SAV	11
DSPCA.SAV	90	DSPCB.SAV	71
DSRHA.SAV	46	DSRMA.SAV	190
DSRMB.SAV	191	DSRPA.SAV	200
DSTUA.SAV	181	DSTUB.SAV	97
DSUBA.SAV	50	DSXLA.INP	9
DUMP0.DMP	112	DZDMCB.BIN	32
DZDMEB.BIN	27	DZDMFB.BIN	31
DZDMHB.BIN	19	GKAAA0.BIC	15
GKABC0.BIC	16	KS10.MCL	442
KS10.MCR	1777	KS10.RAM	48
KS10.RSQ	8	KS10.ULD	165
SMAPT.HLP	1	SMAPT.SAV	12
SMBC2.EXE	136	SMBC2.SAV	125
SMCPU.CMD	1	SMDDT.HLP	8
SMDDT.SAV	27	SMFILE.EXE	168
SMFILE.HLP	2	SMFILE.TXT	15
SMFLT.CMD	1	SMMAG.EXE	36
SMMAG.SAV	18	SMMON.EXE	36
SMMON.SAV	25	SMTAPE.DIR	14
SMTAPE.MTA	3	SMTAPE.RAM	48
SMTAPE.RDI	4	SMTAPE.SAV	30
SMUSR.CMD	1	SUBSM.SAV	23
SUBUSR.SAV	18	ZDLDB0.BIN	20
ZDPBBX.BIN	26	ZDPCBX.BIN	22
ZDPDBX.BIN	22	ZDPEA0.BIN	12
ZDPFB0.BIN	4		
SMMON CMD - L			

FILE.EXT - **BEWARE.TXT**

JULY 1981 KS10 DIAGNOSTIC UPDATE

THE MASTER DIAGNOSTIC MAGTAPE DSXLA HAS BEEN REVISED

FROM REVISION 0.4 FROM REVISION 0.5

THE FOLLOWING CHANGES HAVE BEEN MADE TO DSXLA

DIAGNOSTIC NAME -----	OLD REV LEVEL -----	NEW REV LEVEL -----
DSANA.SAV	NEW	0.2
DSANB.SAV	NEW	0.2
DSLPA.SAV	0.5	0.7
DSPCA.SAV	NEW	0.1
DSPCB.SAV	NEW	0.1
DSTUA.SAV	0.2	0.3

THE FOLLOWING 11 DIAGNOSTICS WERE ADDED TO THE DSXLA DIAGNOSTIC MAGTAPE. THEY ARE ALSO ADDED TO THE KS10 FICHE LIBRARY.

CZDLDG.BIN	NEW	0.7
CZQMCG.BIN	NEW	0.7
CZDPBC.BIN	NEW	0.3
CZDPCD.BIN	NEW	0.4
CZDPDD.BIN	NEW	0.4
CZDPEB.BIN	NEW	0.2
ZDPFB0.BIN	NEW	0.2
CZDMCC.BIN	NEW	0.3
CZDMED.BIN	NEW	0.4
CZDMFC.BIN	NEW	0.3
CZDMGD.BIN	NEW	0.4
CZDMHC.BIN	NEW	0.3
CZM9BD.BIN	NEW	0.4
DECX11.BIN	NEW	
DMPBOT.BIN	NEW	
GKAAA0.BIC	NEW	0.1
GKABC0.BIC	NEW	0.3

DSTUA.SAV 0.3 FAILS TEST 132 IF STOP HITCH GAP ECO IS INSTALLED.
SMMON CMD - T

NAME	PASSES	RH SWS	ITERATIONS
DSKAA	10	0	1
^Z			

DSKAA.

SMMON PASS 1

DSKAA.

SMMON PASS 2

DSKAA.

SMMON PASS 3

DSKAA.

SMMON PASS 4

DSKAA.

SMMON PASS 5

DSKAA.

SMMON PASS 6

DSKAA.

SMMON PASS 7

DSKAA.

SMMON PASS 8

CMD'S REQUIRED

MMON CMD - T

NAME	PASSES	RH	SWS	ITERATIONS
------	--------	----	-----	------------

DSKAB	10	0		1
--------------	-----------	----------	--	----------

^Z

DSKAB.

SMMON PASS 1

DSKAB.

SMMON PASS 2

DSKAB.

SMMON PASS 3

DSKAB.

SMMON PASS 4

DSKAB.

SMMON PASS 5
DSKAB.

SMMON PASS 6
DSKAB.

SMMON PASS 7
DSKAB.

SMMON PASS 8

CMD'S REQUIRED

SMMON CMD - T

NAME	PASSES	RH	SWS	ITERATIONS
DSKAC	10	0		1

^Z

DSKAC.

SMMON PASS 1
DSKAC.

KS10> Halted.

KS10: Halt Cause: Halt Instruction. (PC=032003)

PC is 000000032003	HR is 702300000100
MAG is 377777777777	ONE is 000000000001
AR is 000000000100	ARX is 000000000001
BR is 000000376000	BRX is 065657752603
EBR is 000020000000	UBR is 100000000000
MSK is 777777777777	FLG is 020000000000
PI is 000000000000	X1 is 000001000001
TO is 045201776700	T1 is 000000000002
VMA is 140000032003	