APPENDIX C MTU REGISTERS

Signals	Address	Bit	
0	1F	7	Logical "0"
OD	19	7	Opposite direction
1600	01	6	1600 bpi mode
6250F	1D	3	6250 bpi (GCR) moded
ACT	06	1	Capstan action
AGCOK	1D	5	SAGC OK
AGCON	18	3	Self adjust gain control (SAGC)
AIRDV	04	5	Air drive
ALUOK	01	2	Arithmetic logic unit OK
BO	1E	0 - 7	Bus out signal
BOT	19	6	Beginning of tape
BOTS	08	4	(BOT) sensed
BVLM	1B	5	Backward voltage limit-machine reel
BWD	01	1	Backward
CAPGO	03	1	Capstan go
CARY	17	4	Carry
CGOPN	1B	2	Cartridge opened
CLINF	1B	3	Column in file
CLINM	1B	4	Column in machine
CLNDV	04	4	Auto cleaner drive
CMTDV	0A	6	Cartridge drive
CN	12	0 - 7	Up/down counter
CNOVO	17	2	Counter 0 overflow
CNOVI	17	3	Counter 1 overflow
CSL0	09	2	Counter 0 select
CSL1	09	3	Counter 1 select
CTGCL	04	2	Cartridge close
CTGON	1B	1	Cartridge on (installed)
CTL	1F	2	Control log
CTPA	14	2	Capstan tach pulse A
CTPB	14	3	Capstan tach pulse B
DAC1	06	7	D/A convertor (capstan drive correct level)
DAC2	06	6	D/A convertor (capstan drive correct level)
DAC4	06	5	D/A convertor (capstan drive correct level)
DAC8	06	4	D/A convertor (capstan drive correct level)
DAC16	06	3	D/A convertor (capstan drive correct level)
DBOB	1F	4	Detected beginning of block
DDF	1D	4	Dual density feature
DIAG	08	1	Diagnostic for photo sensor
DIBG	1F	5	Detected inter block gap
DNOIS	1F	3	Noise detected
DO PN	15	3	Door open
DSE	02	5	Data security erase
DTM	1F	6	Detected tape mark

Signals	Address	Bit	
ECDO	07	0 - 7	Error code/key register
ECER	1A	3	Erase circuit error
ECON	1D	2	Erase current on
EMKDV	04	1	Error marker drive
EMMVD	1B	7	Error marker moved
ENITR	1C	5	Enable interrupt
ERRST	01	4	Error reset
ERSC	0B	2	Erase control
ESTDL	14	7	End stop delay
EQUAL	17	5	ALV input equal
MTU	0B	7	MTU configuration
FILE	08	7	Search for tape mark
FIPA	14	6	Full tach pulse A
FP	1D	0	File protect
FRB	19	3	File reel backward
FRF	19	2	File reel forward
FULF	1B	6	Forward voltage limit-file
GAPCT	19	4	Gap control
GA PEN	08	2	Gap control enable
GOB	1F	0	Go tag B
HSC	0B	3	High speed control
HSCF	1A	7	High speed control file
HSMD	0B	6	High speed mode
HS	13	0 - 7	High speed rewind
HSCM	1A	6	High speed control machine
HSRUM	03	0	High speed run
HUBAL	1A	2	Hub lock alarm
HUBLK	15	4	Auto lock alarm
INSTL	08	0	Installed (power supply)
INTRP	19	1	Interrupt signal
K	07	0 - 7	Key (index bit signal)
KT	19	0	Capstan motor start time
LDRK	15	7	Load rewind key
LOAD	08	6	Auto load
LOCK	06	0	Capstan lock
LTLAL	1A	1	Right tape loop alarm
LTPAS	03	2	Low tape pass
LVL64	1A	4	Slice level 64%
LVL90	1A	5	Slice level 90%
LVLT0	02	0	Level test 0
LVLT1	02	1	Level test 1
LVLT2	02	2	Level test 2
LWR	18	6	Loop write to read
LWR2	18	7	Loop write to read 2
LWSL	0B	0	Low slicee level
LWTP	14	1	Low tape
MARGN	11	7	Margin test
MASK	09	7	Interrupt control
MIDLD	03	3	Mid load
MISCE	18	0	Miscellaneous error

Signals	Address	Bit	
MRB	19	5	Machine reel backward
MRF	19	4	Machine reel forward
NEWF	1C	6	New function (streaming or skip file)
ONL	19	0	Online
PE	01	7	Phase encoded recording mode
PRESET	1A	7	Counter reset
PRSVL	04	7	Pressure valve drive
RDINH	1A	2	Inhibit read data
RDYHL	18	4	Ready hold
READY	08	3	MTU ready
RETENS	0A	4	Tape retention
RGPE	15	1	Register parity error
RLACT	02	3	Reel action
RLSTP	03	6	Reel stop
RSVW	03	7	Reel servo switch
RNOIS	14	0	Reset noise
ROMPE	15	0	RDM parity error
RPWR	19	6	Reel power
RSTK	15	2	Reset key
RTLAL	1A	0	Right tape loop alarm
RTSFL	14	6	Reset field tester flag
RUCHL	14	1	Reset unit check hold
RVSL	03	3	Reversal
RWD	02	6	Rewind
SAGC	1A	1	Self adjust gain control
SBOT	14	4	Sense BOT (beginning of tape)
SEMK	02	4	Set error mark
SEOT	14	5	Sense EOT (end of tape)
SERS	01	0	Set error status
SET	1A	6	Set (DGC amplifier control counter)
SHBOT	08	5	Search for BOT (beginning of tape)
SIGN	06	2	Sigh bit
SIRPT	14	4	Set interrupt
SKIPF	1C	7	Skip file feature
SLOW	19	7	Reel slow
SP-KT	19	2	Capstan motor stop time
SOLVL	04	7	Solenoid valve drive
SPOS	0B	4	Set positioning
SSTEP	1A	3	SGAC (self adjust gain control) step pulse
STEP 6	1C	0	Step 6, all tracks
STRMD	01	5	Streaming (high speed) mode
STRMF	1C	4	Streaming (MTU has high speed function)
STS	1F	1	Status lag
SVOK	03	4	Servo OK
SVON	03	5	Servo ON
SWO	16	0 - 7	Field test switch signal
SWRS	01	3	Set write status

Signals	Address	Bit	
TM	18	1	Tape mark
TM0	10	0 - 7	Time count register 0
TM1	11	0 - 7	Time count register 1
TMOD	18	5	Test mode
TMOV0	17	0	Timer 0 overflow
TMOU1	17	1	Timer 1 overflow
TMSR	1E	0 - 7	Time sensor
TMSR8	1F	2	Time sensor 8
TOVRN	18	2	Tape overrun
TP	14	0	Tape present
TSFL	17	6	Test flag (online/offline)
TSL0	09	4	Timer 0 select
TSL1	09	0	Timer 1 select
TST	17	7	Test start
TUCHK	19	3	Tape unit check
TWA	19	5	Tape wwarning area
WCER	1A	4	Write circuit error
WDCLS	1B	0	Window switch closed
WK00-WKD7	00	0 - 7	Work register 0
WK10-WK17	0C	0 - 7	Work register 1
WK20-WK27	0D	0 - 7	Work register 2
WK30-WK37	0E	0 - 7	Work register 3
WK40-WK47	0F	0 - 7	Work register 4
WK58	13	0 - 7	Work register 5
WKSL0	09	5	Work select registers
WKSL1	09	6	Work select registers
WNDCL	04	3	Window close
WPOS	0B	5	Write positioning
WRIST	1A	5	Write/read PCA installed
WTRC	0B	1	Write control
WVON	1D	1	Write voltage on
UCHLD	19	2	Unit check hold
UCKLP	04	0	Unit check lamp
UNL	02	7	Unload
UNLK	15	6	Unload key
VEL0	1D	6	Velocity mode 0
VELI	1D	7	Velocity mode 1

REGISTER ASSIGN TABLE 1 OF 4

Register		U-Bit 0	U-Bit 1	U-Bit 2	U-Bit 3	Bit 0	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7
00	WK0 work 0					WK00 Work 0 Bit 0	WK01 Work 0 Bit 1	WK02 Work 0 Bit 2	WK03 Work 0 Bit 3	WK04 Work 0 Bit 4	WK05 Work 0 Bit 5	WK06 Work 0 Bit 6	WK07 Work 0 Bit 7
01	ST status					SERS Set erase status	BWD Back- ward	ALUCK ALU-OK	SWRS Set write status	ERRST Error reset	STRMD Stream ing mode	1600 1600 bpi (FMT)	PE PE mode (MTU)
02	CT control					LVLT0 Level Test 0	LVLT1 Level Test 1	LVLT2 Level Test 2	RLACT Reel Action	SEMK Set Error Mark	DSE Data secur- ity erase	RWD Rewind	UNL Unload RSOL Reset Online
03	SV servo					HSRUN High Speed Run	CAPGO Capstan Go	LTPAS Low Tape Pass POSOK Posi- tion OK	RVSLO Rever- sal MIDLD Mid Load	SVOK Low Tape	SVON Servo on	RLSTP Reel Stop	RSVSW Reel Servo Switch
04	ME mecha					UCKLP Unit Check Lamp	EMKDV Error Marker Drive	CTGCL Cart- ridge Close	WNDCL Window Close	CLNDV Cleaner Drive	AIRDV Air Drive	PRSVL Pres- sure Valve	VACVL Vacuum Valve
05	SPR spare												
06	CP capstan					LOCK Capstan Lock	ACT Capstan Action	*SIGN Sign Bit	DAC16 D/A Con- verter 16	DAC8 D/A Con- verter 8	DAC4 D/A Con- verter 4	DAC2 D/A Con- verter 2	DAC1 D/A Con- verter 1
07	ER error code					ECD0 Error Code 0	ECD1 Error Code 1	ECD2 Error Code 2	ECD3 Error Code 3	ECD4 Error Code 4	ECD5 Error Code 5	ECD6 Error Code 6	ECD7 Error Code 7
	KEY key					K0 Key 0	K1 Key 1	K2 Key 2	K3 Key 3	K4 Key 4	K5 Key 5	K6 Key 6	K7 Key 7

REGISTER ASSIGN TABLE 2 OF 4

Register		U-Bit 0	U-Bit 1	U-Bit 2	U-Bit 3	Bit 0	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7
08	SN sense					INSTL In-stalled	DIAG Diag Mode	GAPEN Gap Control Enable	READY Device Ready	BOTS BOT sense TWAS TWA Sense	SHBOT Search BOT RETRY Load Retry	LOAD Auto Load	FILE Skip File
09	FL Flag					TSL 10 Timer 1 Select 0	TSL 11 Timer 1 Select 1	CSL0 Count Select 0	CSL1 Select 1	TSL00 Timer 0 Select 0	WKSL1 Work 5-8 Select 1	WKSL1 Select 0	MASK Mask
0A	SPR2										50 MOD 50 IPS Mode	CMIDV Cart-ridge	50 RUN 50 IPS Run
0B	MC Motion Control					LWSL Low Slice	WRTC Write Control	ERSC Erase Control	HSC High Speed Control	SPOS Set Posi-tioning	WPOS Write Posi-tioning	HSMD High Speed Mode	F618 F618 MTU
0C	WK1 Work 1	WK10U Work 1 Upper Bit 0	WK11U Work 1 Upper Bit 1	WK12U Work 1 Upper Bit 2	WK13U Work 1 Upper Bit 3	WK10 Work 1 Bit 0	WK11 Work 1 Bit 1	WK12 Work 1 Bit 2	WK13 Work 1 Bit 3	WK14 Work 1 Bit 4	WK15 Work 1 Bit 5	WK16 Work 1 Bit 6	WK17 Work 1 Bit 7
0D	WK2 Work 2	WK20U Work 2 Upper Bit 0	WK21U Work 2 Upper Bit 1	WK22U Work 2 Upper Bit 2	WK23U Work 2 Upper Bit 3	WK20 Work 2 Bit 0	WK21 Work 2 Bit 1	WK22 Work 2 Bit 2	WK23 Work 2 Bit 3	WK24 Work 2 Bit 4	WK25 Work 2 Bit 5	WK26 Work 2 Bit 6	WK27 Work 2 Bit 7
0E	WK3 Work 3	WK30U Work 3 Upper Bit 0	WK31U Work 3 Upper Bit 1	WK32U Work 3 Upper Bit 2	WK33U Work 3 Upper Bit 3	WK30 Work 3 Bit 0	WK31 Work 3 Bit 1	WK32 Work 3 Bit 2	WK33 Work 3 Bit 3	WK34 Work 3 Bit 4	WK35 Work 3 Bit 5	WK36 Work 3 Bit 6	WK37 Work 3 Bit 7
0F	WK4 Work 4	WK40U Work 4 Upper Bit 0	WK41U Work 4 Upper Bit 1	WK42U Work 4 Upper Bit 2	WK43U Work 4 Upper Bit 3	WK40 Work 4 Bit 0	WK41 Work 4 Bit 1	WK42 Work 4 Bit 2	WK43 Work 4 Bit 3	WK44 Work 4 Bit 4	WK45 Work 4 Bit 5	WK46 Work 4 Bit 6	WK47 Work 4 Bit 7

TSL00	Step
0	200 s
1	1 s

TSL10	TSL10	Step
0	0	1 s
0	1	200 s
1	0	3.2 ms
1	1	51 ms

CSL0	CSL1	Step
0	0	1 s
0	1	Quarter Tacho Pulse
1	0	Low Tape Pulse
1	1	16 Quarter Tach Pulse

WKSL0	WSL1	Work 5-8
0	0	Work 5
0	1	Work 6
1	0	Work 7
1	1	Work 8

REGISTER ASSIGN TABLE 3 OF 4

Register		U-Bit 0	U-Bit 1	U-Bit 2	U-Bit 3	Bit 0	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7
10	TM0 Timer 0					TM00 Timer 0 Bit 0	TM01 Timer 0 Bit 1	TM02 Timer 0 Bit 2	TM03 Timer 0 Bit 3	TM04 Timer 0 Bit 4	TM05 Timer 0 Bit 5	TM06 Timer 0 Bit 6	TM07 Timer 0 Bit 7
11	SH 2 Short Circuit					OPIN0 Option 0	OPIN1 Option 1	OPIN2 Option 2	OPIN3 Option 3				*MARGN Margin Test
	TM 1 W Timer 1					TM10 Timer 1 Bit 0	TM11 Timer 1 Bit 1	TM12 Timer 1 Bit 2	TM13 Timer 1 Bit 3	TM14 Timer 1 Bit 4	TM15 Timer 1 Bit 5	TM16 Timer 1 Bit 6	TM17 Timer 1 Bit 7
12	CN Counter	C2048 Count 2048	C1024 Count 1024	C512 Count 512	C256 Count 256	CN0 Counter 0	CN1 Counter 1	CN2 Counter 2	CN3 Counter 3	CN4 Counter 4	CN5 Counter 5	CN6 Counter 6	CN7 Counter 7
13	WK58 Work 5-8					WK580 Work 5-8 Bit 0	WK581 Work 5-8 Bit 1	WK582 Work 5-8 Bit 2	WK583 Work 5-8 Bit 3	WK584 Work 5-8 Bit 4	WK585 Work 5-8 Bit 5	WK586 Work 5-8 Bit 6	WK587 Work 5-8 Bit 7
	HS High Speed Flag					HS0 High Speed 0	HS1 High Speed 1	HS2 High Speed 2	HS3 High Speed 3	HS4 High Speed 4	HS5 High Speed 5	HS6 High Speed 6	HS7 High Speed 7
14	PH R Photo Sense					TP Tape Present	LWTP Low Tape	CTA Capstan Tacho A	CTB Capstan Tacho B	SBOT Sense BOT	SEOT Sense EOT	FTPA Full Tacho Pulse A	
	SETP W Set/Reset Pulse					RNOIS Reset Noise	RUCHL Reset Unit Check Hold			SIRPT Set Inter-rupt		RTSFL Reset Test Flag	ESTDL End Stop Delay
15	OP R Operation					ROMPE ROM Parity Error	RDM Parity Error	RSTK Reset Key	DOPN Door Open	*HUBLK Auto Lock Alarm		UNLK Unload Key	LDRK Load Rewind Key
16	TSW R Tester Switch					*SW0 Tester Switch 0	*SW1 Tester Switch 1	*SW2 Tester Switch 2	*SW3 Tester Switch 3	*SW4 Tester Switch 4	*SW5 Tester Switch 5	*SW6 Tester Switch 6	*SW7 Tester Switch 7
17	TJ R Test Jump					TMOV0 Timer 0 Over-flow	TMOV1 Timer 1 Over-flow	TMOV2 Timer 2 Over-flow	TMOV3 Timer 3 Over-flow				
17	TJ R Test Jump					TMOV0 Timer 0 Over-flow	TMOV1 Timer 1 Over-flow	CNOV0 Timer 1 Over-flow	CNOV1 Timer 1 Over-flow	CARY Carry	EQUAL Equal	TSFL Test Flag	TST Test Start

REGISTER ASSIGN TABLE 4 OF 4

Register		U-Bit 0	U-Bit 1	U-Bit 2	U-Bit 3	Bit 0	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7
18	IF Interface					MISCE Misc. Error	TM Tape Mark	TOVRN Tape Over run (20m check)	AGCON SAGC On	RDYHL Ready Hold	TMOD Test Mode	LWR Loop Write to read	LWR2 Loop Write to read
19	ITR R Interrupt					*ONL Online	INTRP Inter-ruption	UCHLD Unit Check Hold	TUCHK Tape Unit Check	GAPCT Gap Control	TWA Tape Warning Area	BOT Begin-ning of tape	OD Opposite direction
	RL W Reel	ST-KT Start Time	STPCK Stop Lock Check	SP-KT Stop Time				FRF File Reel Forward	FRB File Reel Backward	MRF Machine Reel Forward	MRB Machine Reel Backward	RPWR Reel Power On	SLOW Reel Slow
1A	AL R Alarm					RTLAL Right Tape Loop Alarm	LTLAL Left Tape Loop Alarm	HUBAL Hub Lock Alarm	ECER Erase Circuit Error	WCER Write Circuit Error	*WRIST Write/ Read Installed	HSCM High Speed Control Machine	HSCF High Speed Control Machine
	AGC W AGC						SAGC Self Adjust Gain	RDINH Inhibit Read Data	SSTEP SAGC Step Pulse	LVL64 Slice Level 64%	LVL90 Slice Level 90%	SET SAGC Set	PRESET SAGC Counter Reset
1B	MSW R Macha Switch					*WDCLS Window Close Switch	CTGON Cart-ridge On	*CGOPN Cartridge Open Switch	*CLINF Column In File	*CLINM Column In Machine	BVLM Backward Voltage Limit Machine	FVLF Forward Voltage Limit File	*EMMVD Error Marker Moved
1C	Feature R					STEP6 Step 6 All	CGO Go Tag			STRMF Streaming Feature	ENITR Enable Interrupt	NEWF New Function	SKIPF Skip File Feature
1D	WR R Write/Read					FP File Protect	WVON Write Voltage On	ECON Erase Current On	6250F 6250 Feature	DDF Dual Density Feature	AGCOK SAGC OK	VEL0 Velocity Model 0	VEL1 Velocity Model 1
1E	BO R Bus Out					BO0 Bus Out 0	BO1 Bus Out 1	BO2 Bus Out 2	BO3 Bus Out 3	BO4 Bus Out 4	BO5 Bus Out 5	BO6 Bus Out 6	BO7 Bus Out 7
	TMSR R Time Sensor					TMSR0 Time Sensor	TMSR1 Time Sensor	TMSR2 Time Sensor	TMSR3 Time Sensor	TMSR4 Time Sensor	TMSR5 Time Sensor	TMSR6 Time Sensor	TMSR7 Time Sensor
1F	TG Tag					GO B Go Tag B	STS Status Tag	CTL Control Tag TMSR8 Time Sensor 8	DNOIS Detected Noise	DBOB Detected Beginning of Block	DIBG Detected Inter Block Gap	DIM Detected Tape Mark	0 Logical "0"