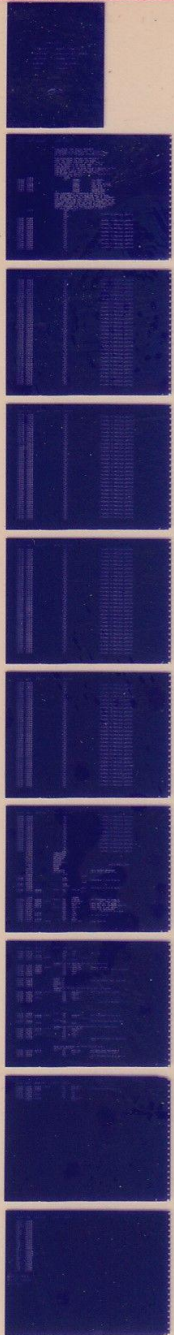


# DR11A

MASTER  
MD-11-DZDRD-A  
(DUAL DR11A INTERFACE)

EP-DZDRD-A-DL  
COPYRIGHT 1972  
FICHE 1 OF 1

MAY 1978  
**digital**  
MADE IN USA



IDENTIFICATION

PRODUCT CODE:       MAINDEC-11-DZDRD-A-D  
PRODUCT NAME:        MASTER (DUAI DR11A INTERFACE)  
DATE CREATED:        DECEMBER 19, 1972  
MAINTAINER:         IPG CUSTOM SYSTEMS  
AUTHOR:              R. BALDWIN

COPYRIGHT © 1972  
DIGITAL EQUIPMENT CORPORATION



321562	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321562	001564	,+2	
321564	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321566	001570	,+2	
321570	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321572	001574	,+2	
321574	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321576	001600	,+2	
321600	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321602	001604	,+2	
321604	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321606	001610	,+2	
321610	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321612	001614	,+2	
321614	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321616	001620	,+2	
321620	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321622	001624	,+2	
321624	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321626	001630	,+2	
321630	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321632	001634	,+2	
321634	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321636	001640	,+2	
321640	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321642	001644	,+2	
321644	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321646	001650	,+2	
321650	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321652	001654	,+2	
321654	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321656	001660	,+2	
321660	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321662	001664	,+2	
321664	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321666	001670	,+2	
321670	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321672	001674	,+2	
321674	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321676	001700	,+2	
321700	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321702	001704	,+2	
321704	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321706	001710	,+2	
321710	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321712	001714	,+2	
321714	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321716	001720	,+2	
321720	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321722	001724	,+2	
321724	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321726	001730	,+2	
321730	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321732	001734	,+2	
321734	000000	HALT	ITRAPPED TO PREVIOUS LOCATION

321736	201740	,+2	
321740	202020	HALT	ITRAPPED TO PREVIOUS LOCATION
321742	201744	,+2	
321744	202020	HALT	ITRAPPED TO PREVIOUS LOCATION
321746	201750	,+2	
321750	202020	HALT	ITRAPPED TO PREVIOUS LOCATION
321752	201754	,+2	
321754	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321756	001700	,+2	
321760	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321762	001764	,+2	
321764	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
321766	001770	,+2	
321770	200020	HALT	ITRAPPED TO PREVIOUS LOCATION
321772	001774	,+2	
321774	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
321776	202020	,+2	
322000	002020	HALT	ITRAPPED TO PREVIOUS LOCATION
322002	002024	,+2	
322004	200020	HALT	ITRAPPED TO PREVIOUS LOCATION
322006	002010	,+2	
322010	200020	HALT	ITRAPPED TO PREVIOUS LOCATION
322012	002014	,+2	
322014	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322016	202020	,+2	
322020	002000	HALT	ITRAPPED TO PREVIOUS LOCATION
322022	002024	,+2	
322024	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322026	002030	,+2	
322030	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
322032	202034	,+2	
322034	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322036	002040	,+2	
322040	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322042	002044	,+2	
322044	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
322046	002050	,+2	
322050	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322052	202054	,+2	
322054	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322056	002060	,+2	
322060	200020	HALT	ITRAPPED TO PREVIOUS LOCATION
322062	202064	,+2	
322064	002020	HALT	ITRAPPED TO PREVIOUS LOCATION
322066	202070	,+2	
322070	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322072	202074	,+2	
322074	000000	HALT	ITRAPPED TO PREVIOUS LOCATION
322076	002100	,+2	
322100	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322102	002104	,+2	
322104	000020	HALT	ITRAPPED TO PREVIOUS LOCATION
322106	002110	,+2	
322110	200020	HALT	ITRAPPED TO PREVIOUS LOCATION
322112	222114	,+2	

J22114	202200	HALT	TRAPPED TO PREVIOUS LOCATION
J22116	202120	,+2	
J22120	202000	HALT	TRAPPED TO PREVIOUS LOCATION
J22122	202124	,+2	
J22124	202000	HALT	TRAPPED TO PREVIOUS LOCATION
J22126	202130	,+2	
J22130	203200	HALT	TRAPPED TO PREVIOUS LOCATION
J22132	202134	,+2	
J22134	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22136	202140	,+2	
J22140	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22142	202144	,+2	
J22144	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22146	222150	,+2	
J22150	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22152	202154	,+2	
J22154	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22156	202160	,+2	
J22160	207000	HALT	TRAPPED TO PREVIOUS LOCATION
J22162	222164	,+2	
J22164	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22166	202170	,+2	
J22170	202000	HALT	TRAPPED TO PREVIOUS LOCATION
J22172	202174	,+2	
J22174	202000	HALT	TRAPPED TO PREVIOUS LOCATION
J22176	202200	,+2	
J22200	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22202	002204	,+2	
J22204	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22206	202210	,+2	
J22210	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22212	202214	,+2	
J22214	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22216	202220	,+2	
J22220	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22222	202224	,+2	
J22224	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22226	202230	,+2	
J22230	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22232	202234	,+2	
J22234	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22236	202240	,+2	
J22240	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22242	202244	,+2	
J22244	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22246	202250	,+2	
J22250	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22252	202254	,+2	
J22254	002000	HALT	TRAPPED TO PREVIOUS LOCATION
J22256	202260	,+2	
J22260	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22262	202264	,+2	
J22264	200000	HALT	TRAPPED TO PREVIOUS LOCATION
J22266	202270	,+2	
J22270	200000	HALT	TRAPPED TO PREVIOUS LOCATION

322272	302274	,+2	
322274	302020	HALT	ITRAPPED TO PREVIOUS LOCATION
322276	302320	,+2	
322320	302020	HALT	ITRAPPED TO PREVIOUS LOCATION
302302	302324	,+2	
302324	302020	HALT	ITRAPPED TO PREVIOUS LOCATION
322306	302310	,+2	
322310	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322312	302314	,+2	
322314	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322316	302320	,+2	
322320	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302322	302324	,+2	
302324	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322326	302330	,+2	
302330	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322332	302334	,+2	
322334	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302336	302340	,+2	
322340	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322342	302344	,+2	
302344	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322346	302350	,+2	
302350	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322352	302354	,+2	
302354	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302356	302360	,+2	
322360	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302362	302364	,+2	
322364	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322366	302370	,+2	
322370	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322372	302374	,+2	
322374	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322376	302400	,+2	
302400	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302402	302404	,+2	
322404	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302406	302410	,+2	
302410	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302412	302414	,+2	
322414	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302416	302420	,+2	
322420	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322422	302424	,+2	
302424	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302426	302430	,+2	
322430	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302432	302434	,+2	
322434	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302436	302440	,+2	
322440	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
302442	302444	,+2	
302444	300020	HALT	ITRAPPED TO PREVIOUS LOCATION
322446	302450	,+2	



```

321256 105707 176522      TSTB   TVSR
321262 120422      BHI    ,=0           ;WAIT FOR A DONE
321264 200167 177760      JMP    ,=0
321270 212767 177770 200034  MOV    #=2,COUNT
321276 202167 177270      JMP    STAHY

;
;SUBROUTINE FOR SENDING DATA OUT TO SLAVE POP=11
DATA01  MOV    (X4),HOLD
321122 211467 000020      MOV    #140,CSR      ;ENABLE INT A+B
321126 212767 200140 100654  MOV    (X4)+,DBR     ;SENT DATA OUT TO DR11A ON MASTER
321114 212467 166052      MOV    HOLD
321120 205167 200010      COM    HOLD
321124 205267 000004      INC    HOLD
321130 200205      RTS    X5

;
COUNT1 =2
HOLD: 0
321132 177776      ;SAVE RECIPROCAL TEST DATA HERE
321134 200000
321136 200000
321140 200000
321142 200000
;SUBROUTINE TO WAIT FOR DATA BEING READ INTO SLAVE
;POP=11
321144 212767 177770 177764  WAIT:  MOV    #=2,COUNT1  ;SET TIME OUT FOR A LOOPS
321152 205267 177762      INC    COUNT2
321156 001375      BNE    ,=4
321160 205267 177752      INC    COUNT1
321164 201372      BNE    ,=12
321166 000000      HALT    ;NO INT B RETURNED

;
;
;
;
;INTB:  NOP
321170 200240
321172 212767 000200 176576  MOV    #200,PSTAT  ;SET PROCESSOR STATUS TO 0
321200 200167 177610      JMP    CYCLE

;INTA:  NOP
321204 200240
321206 200167 000224      JMP    READ

;
;SUBROUTINE TO WAIT FOR DATA RETURNED TO THE MASTER DR11-A
DATA11  MOV    #=3,COUNT1
321212 212767 177770 177716  INC    COUNT2
321220 205267 177714      BNE    ,=4
321224 201375      INC    COUNT1
321226 205267 177704      BNE    ,=12
321232 201372      HALT    ;DATA NOT RETURNED IN SPECIFIED
321234 200000      ;TIME

;
;
;READ DATA RETURNED AND VERIFY AGAINST DATA
;IN HOLD POSITION
321236 213723 167774      READ:  MOV    @ADR1,X3  ;PUT DATA INTO REGISTER 3
321242 206723 177666      ADD    HOLD,X3     ;ADD RECIPROCAL OF NUMBER
321246 201431      BEQ    ,=4
321250 200000      HALT    ;DATA RETURNED NOT SAME AS SENT

```

321252	212707	002200	176516	MOV	#220,MSTAT
321260	212726	002000		MOV	#072,X0
321264	005267	177652		INC	#07
321270	001375			BNE	,=4
321272	005267	177644		INC	#07
321276	001375			BNE	,=4
321320	000137	001020		JMP	#CYCLE+4
	000001				.END

ISPT PROCESSOR STATUS TO 4

BEGIN	001020
COUNT	001132
COUNT1	001136
COUNT2	001140
CSR	107770
CYCLE	001022
DAT1	001212
DAT0	001122
DGR	107772
DIT	107774
DRL	000240
HOLD	001134
INTA	001204
INTB	001170
VDP	000240
PSTAT	177776
R4	000004R
R5	000005R
R6	000006R
READ	001236
ROT	001142
SR	177570
START	000220
TAB	001500
TYCH	177566
TYSR	177564
WAIT	001144

ERRORS DETECTED: 0

RUN-TIME: 2 SECONDS

4K CORE USED