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& L U F X L W

\$ S S O L F D W L R Q V

y , Q Y H U W H U I R U P R W R U G U L Y H
 y \$ & D Q G ' & V H U Y R G U L Y H D P S O L I L
 y 8 Q L Q W H U U X S W L E O H S R Z H U V X S S
) H D W X U H V
 y + L J K E U H D N G R Z Q Y R O W D J H L P S U R
 U H O L D E L O L W \\
 y 0 D [L P X P M X Q F W L R Q W H P S H U D W X U
 y 3 R V L W L Y H W H P S H U D W X U H F R H I L
 y , Q F O X G L Q J I D V W V R I W U H F R Y H U
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0 D [L P X P 5 D W L Q J V

3 D U D P H W H U	6 \ P E R O	9 D O X H
& R O O H F W R U (P L W W H U % U H D N G R Z Q 9 R O W D J H		9
' & & R O O H F W R U & X U U H Q W 7& f & 7& f &	OLPLWHG E \ 7 ,&	\$
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7 U D Q V L H Q W * D W H (P L W W H U 9 R O W D J H W S - V '	9*(f	9
7 X U Q R I I 6 D I H 2 S H ' U D W L Q J 7 f &	\$ U H D 9	\$
3 X O V H G & R O O H F W R U & X U U H Q W 9 W S O L P L W H G E \ 7	,&0	\$
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6 K R U W & L U F X L W : L W K V W D Q G 7 L P H 9*(9 & 9 9 & (0 0 9	7 V F	V
3 R Z H U ' L V V L S D W L R Q 7 M	f & 3 W F w f &	:

2SHUDWLQJ -XQFWLRQ 7HP SHUDWXUH			7 f &
6WRUDJH 7HP SHUDWXUH	7v		f &
6ROGHULQJ 7HP SHUDWXUH LQ IURP FDVH IRU V	ZDYH V	ROGHULQJ	PP f &

(OHFWULFDO & KDUDFWULVWLF VRRWKIDZL*%H7 VSHFLILH

3DUDPHWHU	6\PERO	&RQGLWLRQV	0LQ 7\
6WDWLF			
&ROOHFWRU (PLWWHU %UHDNGRZQ 9ROWDJH	9 & \$		9
*DWH 7KUHVKRQG & RQGLWLRQV	P \$		9
&ROOHFWRU (PLWWHU 6DWXUDWLRQ 9ROWDJH	9 & \$ f & 7 f &		9
=HUR *DWH 9ROWDJH &ROOHFWRU &XUUHQW	9 & \$ f & 7 f &		P \$
*DWH (PLWWHU /HDNDJH &XUUHQW	9 & \$ 9 *9 " 9		Q \$

3DUDPHWHU	6\PERO	&RQGLWLRQV	0LQ 7\
'\QDPLF			
,QSXW &DSDFLWDQFH	9 & \$ 9 *9 9		Q)
5HYHUVH 7UDQVIHU &DSDFLWDQFH &UHV	1 0+]		
*DWH &KDUJH	9 & \$ 9 *4 9		X &
6KRUV &LUFXLW & RQGHFWRVF" XV &XUUHQW	9 FF 907M f &		\$

(OHFWULFDO & KDUDFWWHULVWLFVRRWKKIDZLRGHVSHFLILH

3DUDPHWHU	6\PERO	&RQGLWLRQV	QLQ
6WDWLF			
'LRGH)RUZDUG)9ROXW DJH &) 7M \$ f &		9

6ZLWFKLQJ & KDUDFWWHULVWLF , QGXFWLYH /RDG

3DUDPHWHU	6\PERO	&RQGLWLRQV	QLQ
'\QDPLF M DW 7			
7XUQ RQ 'HOD\ 7LPH	9&& 9 & , \$ 9*(9a ' 9 5J		QV
5LVH 7LPH			QV
7XUQ RQ (QHUU\ (RQ			P-
7XUQ RII 'HOD\ 7LPH			QV
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'\QDPLF M DW 7			
7XUQ RQ 'HOD\ 7LPH	9&& 9 & , \$ 9*(9a ' 9 5J		QV
5LVH 7LPH			QV
7XUQ RQ (QHUU\ (RQ			P-
7XUQ RII 'HOD\ 7LPH			QV
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'\QDPLF M DW 7			
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5LVH 7LPH			QV
7XUQ RQ (QHUU\ (RQ			P-
7XUQ RII 'HOD\ 7LPH			QV
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7XUQ RII (QHUU\ (RII			P-

(OHFWULFDO & KDUDFWHULVWLFV RI WKH ',2' (

3DUDPHWHU	6\PERO	&RQGLWLRQV	OLQ
'\QDPLFDW 7			
'LRGH)RUZDUG 9)ROW,DJH\$			9
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5HYHUVH 5HFRYHU & KDUIH \$ 9 9 GL GW		\$ V	X &
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'\QDPLF DW 7M •			
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5HYHUVH 5HFRYHU & KDUIH \$ 9 9 GL GW		\$ V	X &
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5HYHUVH 5HFRYHU & KDUIH \$ 9 9 GL GW		\$ V	X &
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7KHUPDO 5HVLVWDQFH

3DUDPHWHU	6\PERO	OD[9DOXH	8QLW
, * % 7 7KHUPDO 5HVLVWDQFH - XQFWLRQ & DVH . :				
'LRGH 7KHUPDO 5HVLVWDQFH 5XQFWLRQ & DVH . :				
7KHUPDO 5HVLVWDQFH - XQFWLRQ \$ PELHQW . :				

oçpDoÅoÈ

oçpDoÄoÈoÃ

19V
 17V
 15V
 13V
 11V
 9V

19V
 17V
 15V
 13V
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 9V

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z Circuit Diagram

Z 3DFNDJH 2XWOLQH ,QIRUPDWLRQ

