

&

1B.:021 *6>2 !.?@> C6@5 !29;>E

2:2>.8 2?0>6<@6;:

2:236@? .:1 2.@A>2?

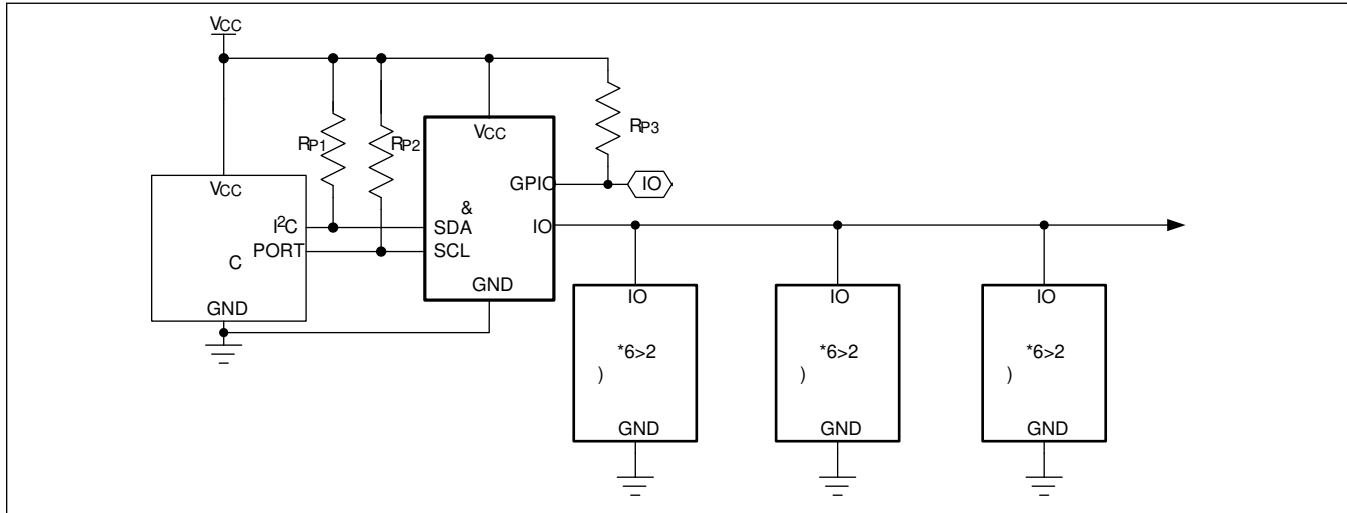
```
0A> / BL : 3BK> V F:LM>K MA:M I>K?HKFL IKHMH aHE% HFFNGB<:MBHG NI MH )$$
<HGO>KLBHG ;>MP>>G MA:LM>K :G= :GR :MM:<A>= a 3BK> /M:G=:K=:G= +O>K=KBO> 0BFBG@
3BK> LE:O>L "HK 3BK> EBG> =KBOBG@ BGM>KG:E NLFNGB<:MBHG /l>=>L
CNLM:;E> MBF>KL K>EB>O> MA> LRLM>F AHLM IKH<>LHFKHFF:G= /<KBIMBG@ .:;;BEBMR
@>G>K:MBG@ MBF><KBMB<:E 3BK> P:O>?HKFL LNIHOMBG@> 3BK> 0BFBG@/HK M% M,
;HMA LM:G=:K=:G= HO>K=KBO> 3BK> <HFFNGB<:MBHG M( M( M. M .,1,:G=,/(!3
LI>=>L 0A> 3BK> F:LM>K A:L L>E><M;E> :<MBO> HK I:b "; H? !,.,+ )?HK 1L>K :M:
LBO> 3BK> INEENI /MKHG@ INEENI ?>:MNK>L LNIIHKM 3BK>+>G K:BG #,%+,BG
IHP>K =>EBO>KR ?HK 3BK> =>OB<>L MA:M K>JNBK a MA@>?HK> EH<D N??>K RM>L ?HK !??B<B>GM
!!.,+>L :G= <KRIMH@K:IAB< <HFINM:MBHGL
:M: 0K:GL?>K
a +>K:MBG@ .:G@> 2 MH 2 U MH U
a FF Q FF ,BG 0 "*" !,,:<D:@>
```

<<860.@6;?>

a)>=B<:E %GLMKNF>GML
a %G=NLMKB:E />GLHLK :G= 0HHEL
a (BFBM>= 1L> HGLNF:;E>L
a ,KBGM>K :KMKB=@> %=>GMB?B<:MBHG

[Ordering Information](#) appears at end of data sheet.

'E<60.8 <<860.@6;: 6>0A6@>



=O:G<>= 3BK>):LM>K PBMA)>FHKR

/?;8A@2 !.D69A9 %.@6:4?

2HEM:@> .:G@> HG GR ,BG .>E:MBO> MH #* 2 MH 2 /MHK:@> 0>FI>K:MNK> .:G@> U MH U
):QBFNF NKK>GM BGMH GR ,BG F MH F (>:= 0>FI>K:MNK> LHE=>KBG@ L U
 +I>K:MBG@ 0>FI>K:MNK> .:G@> U MH U /HE=>KBG@ 0>FI>K:MNK> K>?EHP U
 &NG<MBHG 0>FI>K:MNK> U

Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

\$.07.42 :3;>9.@6;:

' " \$

;<D:@> H=>	0
+NMEBG> *NF;>K	_____
(:G= .:MM>KG *NF;>K	_____
'52>9.8 %2?6?@.:02 &6:482 .E2> ;:>1	
&NG<MBHG MH F;B>GM c	U 3
&NG<MBHG MH :lg> c	U 3
'52>9.8 %2?6?@.:02 ;A> .E2> ;:>1	
&NG<MBHG MH F;B>GM c	U 3
&NG<MBHG MH :lg> c	U 3

"HK MA> E:M>LM I:<D:@> HNMEBG> BG?HKF:MBHG :G= E:G= I:MM>KGLW<HMKBGMgr@H.MH/packages *HM> MA:M :] ^] ^ HK] ^ BG MA> I:<D:@> <H=> BG=B<:M>L .H\$/ LM:MNL HGER ;:<D:@> =K:PBG@L F:R LAHP : =B??>K>GM LN??BQ <A:K:<M>K ;NM MA> =K:PBG@ I>KM:BGL MH MA> I:<D:@> K>@:K=E>LL H? .H\$/ LM:MNL ;:<D:@> MA>KF:E K>LBLM:G<>L P>K> H;M:BG=> NLBG@ MA> F>MAH= =>L<KB;>= BG &! ! Li<B?B<:MBHG &! NLBG@ : ?HNK E:R>K ;H:K= "HK =>M:BE=> BG?HKF:MBHG HG I:<D:@> <HGLB=>K:MBHGL K>?K.MHimintegrated.com/thermal-tutorial

820@>60.8 5.>.0@2>6?@60?

(BFBML :K> IKH=N<MBHG M>LM>=:MID :G= HK 0 U (BFBML HO>K MA> HI>K:MBG@ M>FI>K:MNK> K:G@> :G= K>E>O:GM LNIIEF OHEM:@> K:G@> :K> @N:K:GM>=> ;R =>LB@G :G= <A:K:<M>KBS:MBHG 0RIB<:E O:EN>L :K> GHM @N:K:GM>=>=

\$ % ! ' %	& , ! #	# " ' # "&	! " ' , \$! +	(" '&
/NIIEF 2HEM:@>	2	Note 1		2
/NIIEF NKK>GM	%	/M:G=:R		d
		HFFNGB<:MBG@ :<MBO> 2		F
3BK> %GINM \$B@A	2%\$	(HP <HG?B@NK:MBHG	Q 2	2
		)>=BNF <HG?B@NK:MBHG	Q 2	
		\$B@A <HG?B@NK:MBHG	Q 2	
(HP MH \$B@A /PBM<ABG@ OAK>LAHE=	2o\$	(HP <HG?B@NK:MBHG Note 4	Q 2	2
		)>=BNF <HG?B@NK:MBHG Note 4	2 Q 2	
		\$B@A <HG?B@NK:MBHG Note 4	Q 2	

/

=O:G<>= 3BK>):LM>K PBMA)>FHKR

820@>60.8 5.>.0@2>6?@60? 0;:@6:A21

(BFBML :K> IKH=N<MBHG M>LM>=:M0 :G= HK 0 U (BFBML HO>K MA> HI>K:MBG@ M>FI>K:MNK> K:G@> :G= K>E>O:GM LNIIE
 OHEM:@> K:G@> :K> @N:K:GM>=> ;R =>LB@G :G= <A:K:<M>KBS:MBHG 0RIB<:E O:EN>L :K> GHM @N:K:GM>=>=

\$ % ! ' %	&, ! #	#" ' #"&	! " ',\$!+	(" '&
3BK> %GINM (HP	2%(	(HP <HG?B@NK:MBHG)>=BNF <HG?B@NK:MBHG \$B@A <HG?B@NK:MBHG	Q 2 Q 2 Q 2	2
\$B@A MH (HP /PBM<ABG@ 0AK>LAHE=	20(	Note 3 Note 5	Q 2	2
/PBM<ABG@ \$RLM>K>LBL	2\$5	Note 3 Note 6		2
3BK> 3>:D ,NEENI >LBLEMHK *HM>L	. 3,1	1EMK: EHP K:G@> (HP K:G@> \$B@A K:G@> !QM>KG:E AB@A BFI>=:G<>		b
3BK> +NMINM (HP	2+(	2 2 F LBGD <NKK>GM		2
<MBO> ,NEENI HG 0AK>LAHE=	2% ,+	(HP <HG?B@NK:MBHG)>=BNF <HG?B@NK:MBHG \$B@A <HG?B@NK:MBHG	Q 2 Q 2 Q 2	2
<MBO> ,NEENI HG 0BF> *HM>L	M,1	3BK> LM:G=:K= LI>>= =>?:NEM O:EN> 3BK> HO>K=KBO> LI>>= =>?:NEM O:EN>		dL
<MBO> ,NEENI >FI>=:G<>	. ,1	2 2 F EH:= Note 3		b
# \$ " *6>2 ' !"	Note 9			
3BK> +NMINM " :EE 0BF> Note 3	M	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
.>L>M (HP 0BF>	M0(	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
.>L>M \$B@A 0BF>	M0\$	/M:G=:K= :G= HO>K=KBO> Note 10	/>MM;:E>	dL
,K>L>G<> >M><M /:FIE> 0BF>	M,	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
/:FIEBG@ ?HK /AHKM :G= %GM>KKNIM	M%	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
3KBM> +G> .>:= (HP 0BF>	M(	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
.>:= /:FIE> 0BF>	M.	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
3KBM> 6>KH (HP 0BF>	M(	/M:G=:K= :G= HO>K=KBO>	/>MM;:E>	dL
.><HO>KR 0BF>	M	/M:G=:K= :G= HO>K=KBO> Note 10	/>MM;:E>	dL
3BK> 0BF> /EHM	M+0	/M:G=:K= :G= HO>K=KBO>	M (M	dL

/

=O:G<>= 3BK>):LM>K PBMA)>FHKR

820@>60.8 5.>.0@2>6?@60? 0;:@6:A21

(BFBML :K> IKH=N<MBHG M>LM>=:M0 :G= HK 0 U (BFBML HO>K MA> HI>K:MBG@ M>FI>K:MNK> K:G@> :G= K>E>O:GM LNIIE
 OHEM:@> K:G@> :K> @N:K:GM>=> ;R =>LB@G :G= <A:K:<M>KBS:MBHG 0RIB<:E O:EN>L :K> GHM @N:K:GM>=>=

\$ % ! ' %	&, ! #	#" ' #"&	! " ',\$!+	(" '&
*6>2 (" ' #"&				
+I>K:MBHG 0BF>	M,	Note 3		dL
/>JN>G<> 0BF>	M.	Note 3		dL
\$%#!				
.>:=)>FHKR	M			FL
3KBM>)>FHKR	M)			FL
3KBM> /M:M>	M/			FL
3KBM> !K:L> R<E>L !G=NK:G<>	* 5	0 U Note 12	,	
:M: .>M>GMBHG	M	0 U Note 13 Note 14		R>:KL
\$ # \$ "				
+NMINM (HP	#, % + 2 +(	#, % + % ( F Note 15		2
%GINM (HP	#, % + 2 % (		2 ^Q	2
%GINM \$B@A	#, % + 2 % \$		2 ^Q 2	2
(>:D:@> NKK>GM	#, % + % p		2	d
& " & \$ "&	Note 16			
(HP (>O>E %GINM 2HEM:@> 2% (			2	2
\$B@A (>O>E %GINM 2HEM:@> 2% \$			2 2	2
\$RLM>K>LBL H? /<AFBMM OKB@>K %GINML	2 \$5/	Note 3	2	2
(HP (>O>E +NMINM 2HEM:@> :M F /BGD NKK>GM	2 +(	Note 15		2
+NMINM ":EE 0BF> ?KHF 2%\$)%* MH 2 () 4 PBMA : NL :!<BM:G<> ?KHF !" MH !"	M"	Note 3		GL
,NEL> 3B=MA H? /IBD>L 0A:M K> /NIIK>LL>= ;R MA> %GINM "BEM>K	M	Note 3		GL
%GINM NKK>GM PBMA :G %GINM 2HEM:@> >MP>>G 2) 4 :G= 2) 4	%	Note 3 Note 17		Y
%GINM !:<BM:G<>	%	Note 3		!"
// (EH<D "K>JN>G<R	? (	Note 1)\$\$
\$HE= 0BF> .>I>:M>= /0 .0 HG=BMBHG	M /0			YL

=O:G<>= 3BK>):LM>K PBMA)>FHKR

820@>60.8 5.>.0@2>6?@60? 0;:@6:A21

(BFBML :K> IKH=N<MBHG M>LM>=:M0 :G= HK 0 U (BFBML HO>K MA> HI>K:MBG@ M>FI>K:MNK> K:G@> :G= K>E>O:GM LNIIEP
OHEM:@> K:G@> :K> @N:K:GM>=> ;R =>LB@G :G= <A:K:<M>KBS:MBHG 0RIB<:E O:EN>L :K> GHM @N:K:GM>=>=

\$ % ! ' %	&, ! #	#" ' #"&	! " ', \$! +	(" '&
(HP ,>KBH= H? MA> / (EH<D	M43	Note 18		YL
\$B@A ,>KBH= H? MA> / (EH<D	M%#\$	Note 3		YL
/>MNI 0BF> ?HK : .>I>:M>=/0 .0 HG=BMBHG	M /0	Note 3		YL
:M: \$HE= 0BF>	M 0	Note 3 Note 18 Note 19		YL
:M: />MNI 0BF>	M 0	Note 3 Note 18 Note 20		GL
/>MNI 0BF> ?HK /0+, HG=BMBHG	M /0+	Note 3		YL
NL "K>> 0BF> >MP>>G : /0+, :G= /0 .0 HG=BMBHG	M"	Note 3		YL
:I:<BMBO> (H:= ?HK !:<A NL (BG>		Note 1 Note 21		I"
3:KFNI 0BF>	M/ 31,	Note 4 Note 22		FL

";@2 /RLM>F K>JNBK>F>GM
";@2 +I>K:MBG@ <NKK>GM PBMA : 3BK> PKBM> ;RM> L>JN>G<> ?HEEHP>=> ;R <HGMBGNHNL PKBM> K>:= H? MA> 3BK> EH<D <HF BG HO>K=KBO>
";@2 #N:K:GM>=> ;R =>LB@G :G= HK <A:K:<M>KBS:MBHG HGER *HM IKH=N<MBHG M>LM>=
";@2 2HEM:@> ;HO> PAB<A =NKBG@ : KBLBG@ >=@> HG %+ : EH@B< BL =>M><M>=
";@2 2HEM:@> ;>EHP PAB<A =NKBG@ : KBLBG@ >=@> HG %+ ?HK AB@A <HG?B@NK:MBHG HGER MA> OHEM:@> ;R =>M><M>=> :L EH@B<
";@2 ?M>K @ BL <KHLL>=> =NKBG@ : KBLBG@ >=@> HG %+ ?HK AB@A <HG?B@NK:MBHG HGER MA> OHEM:@> ;R =>M><M>=> :L EH@B<
";@2 <MBO> INEENI HK K>LBLEMBO> INEENI :G= K:G@> :K> <HG?B@NK::E>
";@2 0A> :<MBO> INEENI =H>L GHM :IHER MH MA> KBLBG@ >=@> H? : IK>L>G<> INEL> HNMLB=> H? : 3BK> K>L>M <R<E> HK =NKBO :?M>K : LAHKM HG MA> 3BK> EBG>
";@2 EE 3BK> MBFBG@ LI<<B?B<:MBHGL :K> =>KBO>=?KHF MA> L:F> MBFBG@ <BK<NBM
";@2 1I MH :G :==BMBHG:E dL H? B=E> AB@A MBF> F:R H<<NK ;>MP>>G : 3BK> K>L>M <R<E> :G= MA> ?BKLM MBF> LEHM HK ; 3BK> ;RM> =NKBG@ : <HFF:G= L>JN>G<>
";@2 NKK>GM =K:PG ?KHF 2NKBG@ MA> !,.) IKH@K:FFBG@ BGM>KO:E HK /\$ <HFINM:MBHG
";@2 3KBM> <R<E> >G=NK:G<> BL M>LM>=> BG <HFIEB:G<> PBMA &! #
";@2 *HM IKH=N<MBHG M>LM>=> @N:K:GM>=> ;R K>EB;;BEBMR FHGBMHK L:FIEBG@
";@2 :M: K>M>GMBHG BL M>LM>=> BG <HFIEB:G<> PBMA &! #
";@2 0A> % 2 <A:K:<M>KBLMB< BL EBG>:K ?HK OHEM:@>L E>LL MA:G 2
";@2 EE %MBFBG@ O:EN>L :K> K>?>K:G= 2%() 4 E>O>EL
";@2 0A> %+ IBGL H? MA> / =H GHM H;LMKN<M MA> / :G= / (EBG>L BBL2LPBM<A>=> H??
";@2 M3 FBG M 0 F:Q GL ?HK KBL> HK ?EE MBF> 0 M FBG 2:EN>L @K>:M>K MA:G MA>L <:G ;> :<<HFFH=:M>=> ;R >QM>G=BG@ M<<HK=BG@ER
";@2 0A> / IKHOB=>L : AHE= MBF> H? :M E>;LM GL ?HK MA> / LB@G:E K>?>K>G<> %M)M MA> / (LB@G:E MH ;KB=@> MA> NG=>?BG=> K>@BHG H? MA> ?EEBG@ >=@> H? / (
";@2 0A> / <:G ;> NL>=> BG : LM:G=:K= FH>% ;NL LRLM>F ;NM MA> K>JNBK>F>GM H? X GL FNLM MA>G ;> F>M ELH MA> :<DGHPE>=> @> MBFBG@ FNLM F>M MABL LNMNLMBFB<MBHG .O &NG>
";@2 MHM:E <!:<BM:G<> H? HG> ;NL EBG> BG I" 0A> F:QBFNF ;NL <!:<BM:G<> :EEHP;>E> F:R O:KR ?KHF MABL O:EN> =>I>G=E HG MA> :<MN:E HI>K:MBG@ OHEM:@> :G= ?K>JN>G<R H? MA> NLIEB<MBHG .O &NG>

/

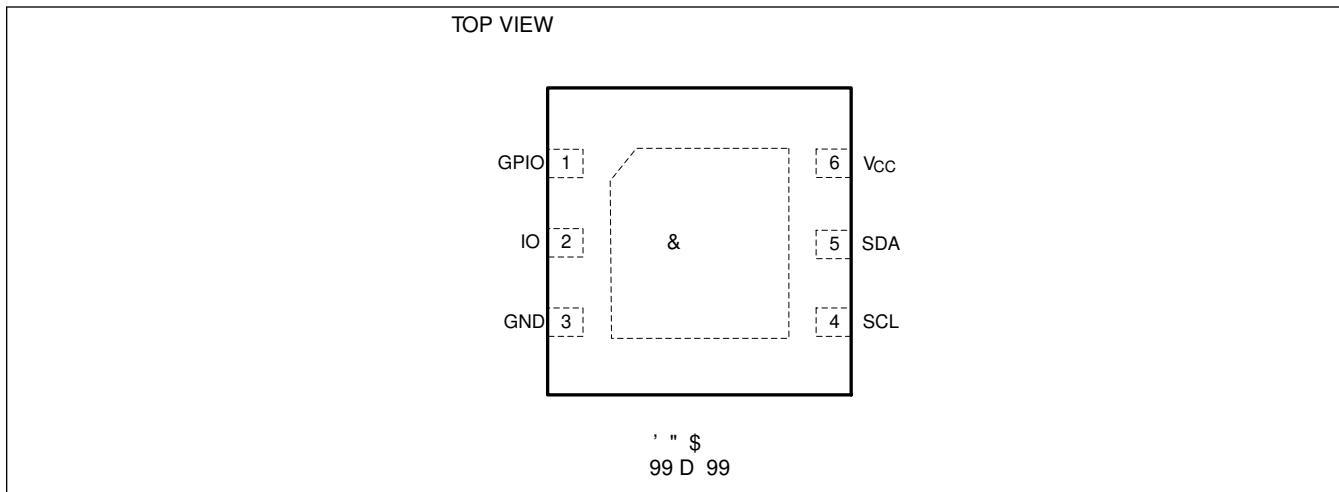
=O:G<>= 3BK>):LM>K PBMA)>FHKR

";@2 % <HFFNGB<:MBHG LAHNE= GHM M:D> IE:<> ?HK,MA> F:QMF> ?HEEHPBG@ : IHP>K HG K>L>M

/

=O:G<>= 3BK>):LM>K PBMA)>FHKR

\$6: ;:364A>.@6;:

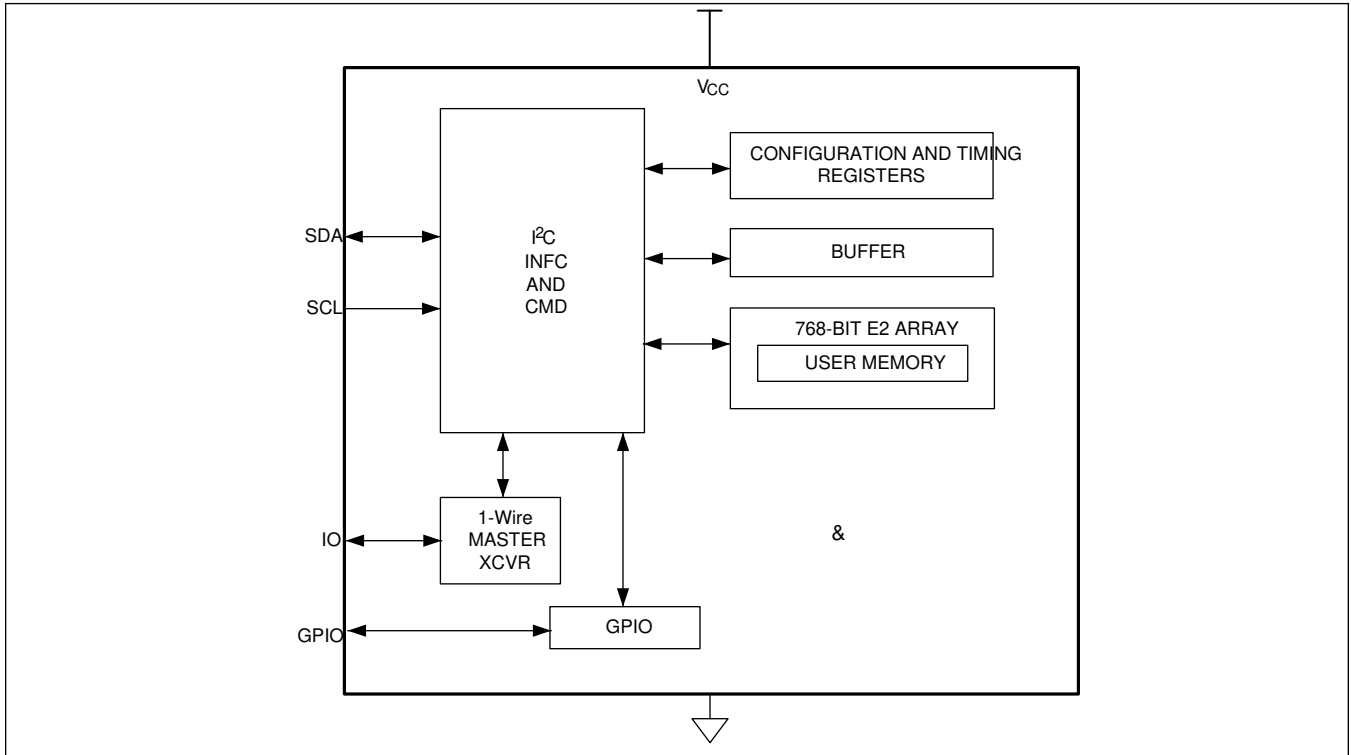


\$6: 2?0>6<@6;:

\$ "	" !	(" ' #"
	#, %+	+|>G K:BG #>G>K:E ,NKIHL> %GINM +NMINM .>JNBK>L >QM>KG:E INEENI K>PBLKHKMH 2 :L :G HNMIMM
	%+	3BK> %GINM +NMINM KBO>K 0A> 3BK> EBG> <:G ;> INEE>= NI ;R :G BGM>KG:E P>:D INEENI . :G >QM>KG:E INEENI HK A:O> ;HMA :G >QM>KG:E INEENI :G= BGM>KG:E P>:D INEENI
	#*	#KHNG=
	/ (	% />KB:E EH<D %GINM)NLM ;> <HGG><M>= MANKHN@A : INEENI K>LBLMHK
	/	+|>G K:BG % />KB:E :M: %GINM +NMINM)NLM ;> <HGG><M>= MANKHN@A : INEENI K>LBLMHK
	2	,HP>K /NIER %GINM
[	!,	IQIHL>= ,:= 0 "" +GER /HE=>K >O>GER MH MA> ;H:K= L @KHNG= IE:G> ?HK IKHI>K HI>K:MBHG .>?>K MApplication Note 3273: Exposed Pads: A Brief Introduction ?HK :=BMBHG:E BG?HKF:MBHG

A:0@6;:8 6.4>.9?

&69<863621 8;07 6.4>.9



=O:G<>= 3BK>):LM>K PBMA)>FHKR

2@.6821 2?0>6<@6;:

0A> / BL : 3BK> F:LM>K MA:M I>K?HKFL IKHMH<HE <HGO>KLBHG ;>MP>>FLMAK ?G= :GR :MM:<A>= 3BK>
LE:O>L "HK 3BK> EBG> =KBOBG@ BGM>KG:E NL>K :=CNLM;E> MBF>KL K>EB>O> MA> LRLM>F AHLM IKH<>LLHK ?KH
<KBMB<:E 3BK> P:O>?HKFL LNIHKMBG@ ;HMA LM:G=:K= :G= HO>K=KBO> 3BK> <HFFNGB<:MBHG LI>>=L 0A> :=O:G
MBF>= 3BK> F:LM>K A:L L>E><M;E> :<MBO> HK I:LLBO> 3BK> INEENI /MKHG@ INEENI ?>:MNK>L LNIHKM 3BK> IHP>K
?HK 3BK> =>OB<>L MA:M K>JNBK> MABL ?HK !,.)L :G= <KRIMH@K:IAB< <HFIM:MBHGL +G<> LNIIEB>= PBMA : <HFF:G
=:M: MA> BGINM HNMINM <HGMKHEE>K H? MA> / I>K?HKFL MBF> <KBMB<:E 3BK> <HFFNGB<:MBHG ?NG<MBHGL
IK>L>G<> =>M><M <R<E> K>:= ;RM> PKBM> ;RM> K>:= ;EH<D PKBM> ;EH<D LBG@E> ;BM .3 MKBIE>ML ?HK .+) />:K:
<HFF:G= L>JN>G<>L ?HK 3BK> :NMA>GMB<:MHKL PBMAHNM K>JNBKBG@ BGM>K:<MBHG PBMA MA> AHLM IKH<>LLHK
> BG=>I>G=>GMER HI>K:M>= NG=>K <HFF:G= <HGMKHEE ==BMBHG:EER MA> / IKHOB=>L MAK>> !:@>L H? NL>K F>FH
/ <HFFNGB<:M>L PBMA : AHLM IKH<>LLHK MAKHN@A BGM>K?<> BG LM:G=:K= FH=> HK BG ?>LM FH=> NI MH)\$\$
0A> / BL GHM <HFI:MB;E> PBMA MA> / / / =>OB<>L

2?64: %2?;A>02 #B2>B62C

+I>K:MBHG H? MA> / BGOHEO>L <HG?B@NKBG@ MA> 3BK> F:LM>K :G= MA>G I>K?HKFBG@ BG=BOB=N:E 3BK> <
>KHNIBG@ MA>F BGMH : L>KB>L H? IKBFMBMO> 3BK> <HFF:G=L

I29;>E

0A> / A:L : ' ; !,.) :KK:R H? @>G>K:E INKIHL> NL>K IKH@K:FF;E> F>FHKR HK@:GBS>= BGMH MAK>> !:@>L
H? ;RM>L PBMA >O>G GNF;>K>= :=K>LL>L +== GNF;>K>= !:@>L :K> GHM :O:BE;E> ?HK NL> :G= :K> PKBM> IKHM><
!<A >O>G GNF;>K>= !:@> A:L HIMBHG:E IKHM><MBHG FH=>L

./82 (?2> I29;>E !.< C6@5 23.A8@ \$;>@20@6;:?

\$	% #"	! #%, '\$	(' \$%# ' #"	#" (% \$%# ' #"
	1L>K ,:@>	!!		3, *+*!
	.>L>KO>= ,:@>	\	3,	
	1L>K ,:@>	!!		
	.>L>KO>= ,:@>	\	3,	
	1L>K ,:@>	!!		
	.>L>KO>= ,:@>	\	3,	

\$%# ' # " !#) ' #"	& % \$ ' #"
3,	3KBM> IKHM><M
+!	*H IKHM><MBHG HG 1L>K ,:@> 0ABL EH<DL MA> IKHM><MBHG ?>:MNK> :G= =H>L GHM :EEHP :GR IKHM><MBHG MH ;> L>M

*Protection mode restrictions: Protection for a page can only be set once.

#<2: >.6: \$ #

=>=B<:M>= OHE:MBE> F>FHKR K>@BHG BL NL>= MH <HGMKHE :G= HK K>:= MA> HI>G =K:BG #,%+ IBG 1IHG IHP>K NI
IBG BL AB@A BFI>=:G<>

*6>2 !.?@2>

0A> 3BK> F:LM>K K>IHKML =:M: :G= LM:MNL ?KHF MA> 3BK> LB=> MH MA> AHLM IKH<>LLHK

'>.:?0@6;: &2=A2:02

0A> IKHMH<HE ?HK <<>LLBG@ : <HGG><M>= LE:O> =>OB<> MAKHN@A MA> 3BK> F:LM>K BL :L ?HEEHPL

a %GBMB:EBS:MBHG

=O:G<>= 3BK>):LM>K PBMA)>FHKR

a .+) "NG<MBHG <HFF:G=
a >OB<> "NG<MBHG <HFF:G=
a 0K:GL:<MBHG =:M:

\$.C2> (< *6>2 A?

+G IHP>K NI MA> / 3BK> F:LM>K =>?:NEML PBMA MA> 3BK> ;NL BG MA> J?EH:M <HG=:BMBH?M>K IHP>K
NI MABL L>MMBG@ FNLM ;> <A:G@>=?HK <HKK><M 3BK> HI>K:MBHG />M K>@BLM>K „1, 1" ?HK <HKK><M 3BK> HI
FHLM :IIEB<:MBHGL PBMA HGER HG> 3BK> LE:O> =>OB<> MA> K><HFF>G=:MBHG BL MH L>M MA> „1, 1" K>@BLM>K
0:;E> ?M>K L>MMBG@ „1, 1" : 3BK> K>L>M FNLM ;> l>K?HKF>= PBMA :GR <HFF:G= MA:M <:G l>K?HKF MA:M HI>K:ME

:6@6.86F.@6::

EE MK:GL:<MBHGL HG MA> 3BK> ;NL ;>@BG PBMA :G BGBMB:EBS:MBHG L>JN>G<> 0A> BGBMB:EBS:MBHG L>JN>G<>
INEL> MK:GLFBMM>=:R MA> 3BK> F:LM>K ?HEEHP>=:R :IK>L>G<> INEL> L MK:GLFBMM>=:R MA> LE:O> L 0A> IK>L>G<>
E>ML MA> ;NL F:LM>K DGHP MA:M MA> LE:O> BL HG MA> ;NL :G= BL K>:=R MH HI>K:M> "HK HKWise-McBLink>> MA>
and Timing L><MBHG

*6>2 &64:86:4 :1 '696:4

0A> 3BK> IKHMH<HE <HGLBLML H? ?HNK MRI>L H? LB@G:EBG@ HG HG> EBG> K>L>M L>JN>G<> PBMA K>L>M INEL> :
PKBM> S>KH PKBM> HG> :G= K>:==:M: !Q<>IM ?HK MA> IK>L>G<> INEL> MA> 3BK> F:LM>K BGBMB:M>L :EE ?;EEB
3BK> F:LM>K <:G <HFFNGB<:M> :M MPH Li>>=L LM:G=:K=:G= HO>K=KBO> 3ABE> BG HO>K=KBO> FH=> MA> ?;LM MBF
MH :EE P:O>?HKFL

"B@NK>LAHPL MA> BGBMB:EBS:MBHG L>JN>G<> K>JNBK>= MH ;>@BG :GR <HFFNGB<:MBHG K>L>M INEL> ?HEEHP>
INEL> BG=B<:M>L MA:M :LE:O> BL K>:=R MH K><>BO> =:M: @BO>G MA> <HKK><M .+) :G= =>OB<> ?NG<MBHG <HFF:G=

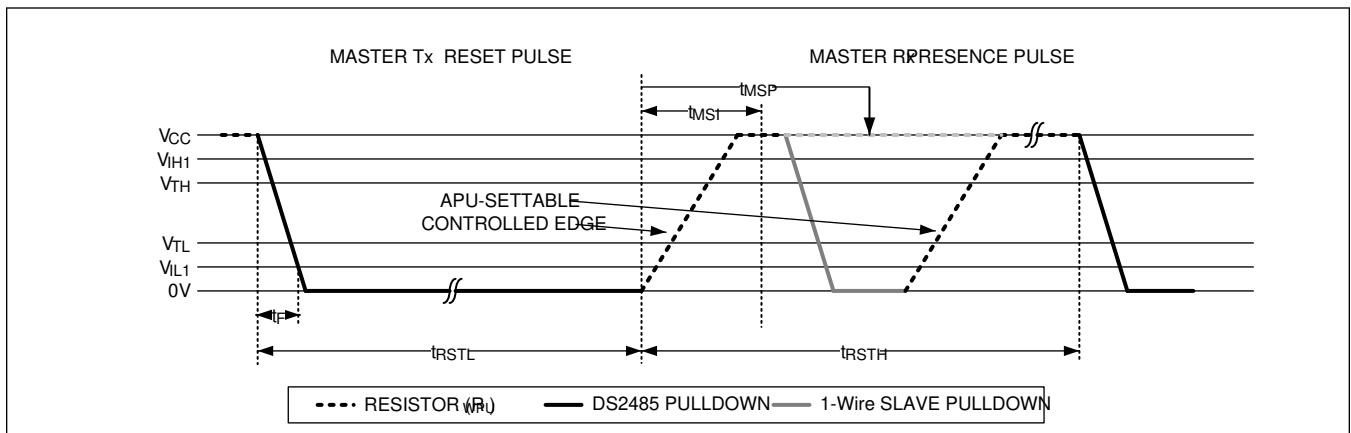


Figure 1. 1-Wire Reset/Presence-Detect Cycle

%2.1 *>6@2 '692 &8;@?

:M: <HFFNGB<:MBHG HG MA> 3BK> ;NL M:D>L IE:<> BG MBF> LEHML MA:M <:KKR :L BG@E> ;BM >:A 3KBM> MBF> L
=:M: ?KHF MA> 3BK> F:LM>K MH :<HGG><M>= LE:O> .:= MBF> LEHML MK:GL?>K =:M: ?KHF MA> LE:O> MH MA> 3B
"B@NK>BEENLMK:M>L MA> =>?BGBMBHGL H? MA> PKBM> :G= K>:= MBF> LEHML

EE <HFFNGB<:MBHG ;>@BGL PBMA MA> F:LM>K INEEBG@ MA> =:M: EBG> EHP L MA> OHM:@> HG MA> 3BK> EB
MAK>LAHE 2MA> LE:O> LM:KML BML BGM>KG:E MBFBG@ @>G>K:MHK MA:M =>M>KFBG>L PA>G MA> =:M: EBG> BL L:F
MBF> LEHM :G= AHP EHGA =>:M: BL O:EB= =NKBG@ : K>:= MBF> LEHM

!.@2> @; &8.B2

"HK : PKBM> HG> MBF> LEHM MA> OHM:@> HG MA> =:M: EBG> FNLM A<MAK>LAHE=MA>K MA> PKBM> HG> EHP
MBF> 3M 4 BL >QIBK>= "HK : PKBM> S>KH MBF> LEHM MA> OHM:@> HG MA> =:M: EBG> FNLM A<MAK>LAHE=MA>K MA> PKBM> HG> EHP