

IT8282M

Enhanced K8 Power Sequence Controller for Desktop System

Preliminary Specification V0.4

(For C Version)

ITE TECH. INC.



Copyright © 2005 ITE Tech. Inc.

This is a Preliminary document release. All specifications are subject to change without notice. The material contained in this document supersedes all previous material issued for the products herein referenced. Please contact ITE Tech. Inc. for the latest document(s).

All sales are subject to ITE's Standard Terms and Conditions, a copy of which is included in the back of this document.

ITE, IT8282M is a trademark of ITE Tech. Inc. All other trademarks are claimed by their respective owners. All specifications are subject to change without notice.

Additional copies of this manual or other ITE literature may be obtained from:

ITE Tech. Inc. Tel: 886-2-29126889

Marketing Department Fax: 886-2-2910-2551, 886-2-2910-2552

7F, No.233-1, Baociao Rd., Sindian City, Taipei County 23145, Taiwan, ROC

If you have any marketing or sales questions, please contact:

P.Y. Chang, at ITE Taiwan:

E-mail: p.y.chang@ite.com.tw, Tel: 886-2-29126889 X6052, Fax: 886-2-29102551

You may also find the local sales representative nearest you on the ITE web site.

To find out more about ITE, visit our World Wide Web at: http://www.ite.com.tw

Or e-mail itesupport@ite.com.tw for more product information/services





Contents

1.	Features		1
		ion	
	·		
		ntion	
		ntion	



1. Features

- Enhanced K8 Power Sequence Controller
 - Built-in enhanced voltage comparator
 - Supports Desktop platform
- System Power-Good Generation
 - Built-in power-good glue logic
 - Integrated panel button reset input
- Single 5VSB Power Supply
- 16-pin SOP





2. General Description

The IT8282M incorporates glue logics for AMD K8 CPU power sequence application and provides the system power-good request.

Outstanding features of this controller IC include special voltage comparators for VLDT, VDDA and VDIMM_STR power detected without the need of any external components. All power-good generation circuits support AMD K8 main board design for saving glue logics cost.

The following figure is the application hint.

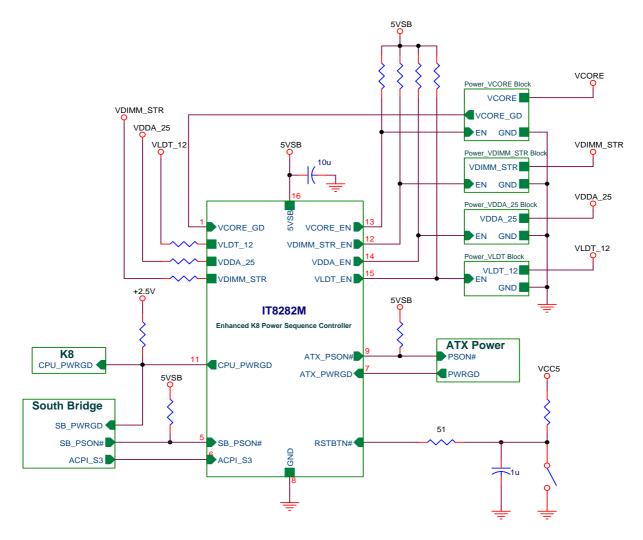
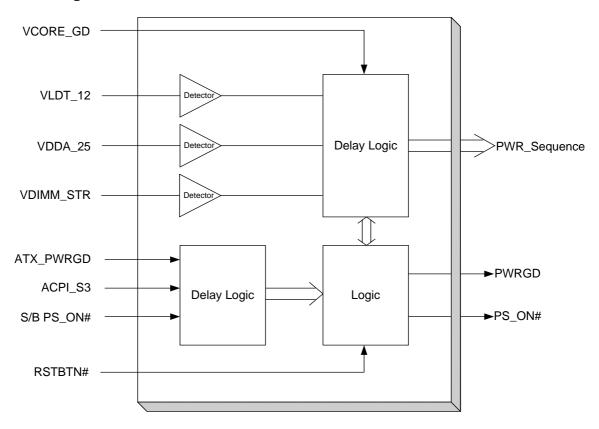


Figure 2-1. Application Circuit





3. Block Diagram

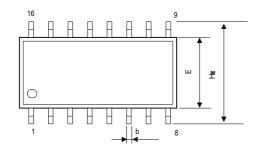


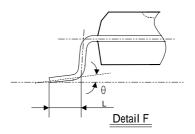


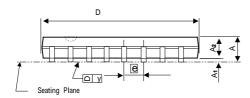


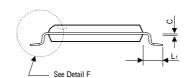
4. Package Information

SOP16L Outline Dimensions









unit:

inches/mm

Symbol	Dimension in inches			Dimension in mm		
Symbol	Min	Nom	Max	Min	Nom	Max
Α	0.053	0.064	0.069	1.35	1.63	1.75
A ₁	0.004	0.006	0.010	0.10	0.15	0.25
A ₂	0.051	0.055	0.059	1.30	1.40	1.50
b	0.013	0.016	0.020	0.33	0.41	0.51
С	0.007	_	0.010	0.19	l	0.25
D	0.386	0.390	0.394	9.80	9.91	10.01
Е	0.150	0.154	0.157	3.80	3.90	4.00
е	0.050BSC		1.27BSC			
HE	0.228	0.236	0.244	5.80	6.00	6.20
L	0.016	0.025	0.050	0.40	0.64	1.27
L ₁	0.042REF.		1	.07REF		
У			0.004			0.10
θ	O°	_	8°	0°		8°

Note:

- 1. Controlling dimension: inch
- Dimension "D" and "E" do not include mold protrusion.
 "D" and "E" are maximum plastic body size dimension including mold mismatch
- 3. Dimension "b" dose not include dambar protrusion.

 Damber cannot be located on the lower radius of the foot.
- 4. Reference Document: JEDEC SPEC MS-012.

DI-SOP16(150mil Body)v3





5. Ordering Information

Part No.	Package
IT8282M	16 SOP

ITE also provides lead-free component. Please mark " -L " at the end of the Part No. when the parts ordered are lead-free.

ITE TECH. INC. TERMS AND CONDITIONS OF SALE (Rev: 2005)

 $\frac{\textit{PARTIES}}{\textit{ITE Tech.}} \text{ Inc. ("Seller") is a company headquartered in Taiwan, Republic of the technique of the techn$ China, and incorporated under laws of Republic of China, Buyer is a company or an entity, purchasing product from ITE Tech. Inc.

1. ACCEPTANCE OF TERMS
BUYER ACCEPTS THESE TERMS (i) BY WRITTEN ACCEPTANCE (BY
PURCHASE ORDER OR OTHERWISE), OR (ii) BY FAILURE TO RETURN GOODS
DESCRIBED ON THE FACE OF THE PACKING LIST WITHIN FIVE DAYS OF THEIR DELIVERY.

- (a) Delivery will be made Free Carrier (Incoterms), Seller's warehouse, Science-Based Industrial Park, Hsinchu, Taiwan.
- Title to the goods and the entire risk will pass to Buyer upon delivery to carrier. (c) Shipments are subject to availability. Seller shall make every reasonable effort to meet the date(s) quoted or acknowledged, and if Seller makes such effort, Seller will not be liable for any delays.

- <u>TERMS OF PAYMENT</u>
 Terms are as stated on Seller's quotation, or if none are stated, net thirty (30) days. Accounts past due will incur a monthly charge at the rate of one percent (1%) per month (or, if less, the maximum allowed by applicable law) to cover servicing
- Seller reserves the right to change credit terms at any time in its sole discretion.

LIMITED WARRANTY

- Seller warrants that the goods sold will be free from defects in material and wor kmarship and comply with Seller's applicable published specifications for a period of ninety (90) days from the date of Seller's delivery. Within the warranty period and by obtaining a return number from Seller, Buyer may request replacement or repair for defective goods.
- (b) Goods or parts which have been subject to abuse (including without limitation repeated or extended exposure to conditions at or near the limits of applicable absolute ratings) misuse, accident, alteration, neglect, or unauthorized repair or improper application are not covered by any warranty. No warranty is made with respect to custom products or goods produced to Buyer's specifications (unless
- specifically stated in a writing signed by Seller).
 (c) No warranty is made with respect to goods used in devices intended for use in applications where failure to perform when properly used can reasonably be expected to result in significant injury (including, without limitation, navigation, aviation or ages to indemify, defend, and had hamless Seller from all daims, damages and liabilities arising out of any such uses.
- This Paragraph 4 is the only warranty by Seller with respect to goods and may
- not be modified or amended except in writing signed by an authorized officer of Seller.

 (e) Buyer acknowledges and agrees that it is not relying on any applications, diagrams or circuits contained in any literature, and Buyer will test all parts and applications under extended field and laboratory conditions. Nowithstanding any cross-reference or any statements of compatibility, functionality, interchangeability, and the like, the goods may differ from similargoods from other vendors in performance, function or operation, and in areas not contained in the written specifications, or as to ranges and conditions outside such specifications; and Buyer agrees that there are no warranties and that Seller is not responsible for such things
 (f) EXCEPT AS PROVIDED ABOVE, SELLER MAKES NOWARRANTIES OR
- CONDITIONS, EXPRESS, IMPLIED, OR STATUTORY; AND SELLER EXPRESSLY EXCLUDES AND DISCLAIMS ANY WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR APPLICATION.

LIMITATION OF LIABILITY

- (a) Seller will not be liable for any loss, damage or penalty resulting from causes beyond its reasonable control, including but not limited to delay by others, force majeure, acts of God, or labor conditions. In any such event, the date(s) for Seller's ringetire, acts of cod, or abort conditions. In any such event, the dates) for salers performance will be deemed extended for a period equal to any delay resulting.

 (b) THE LIABILITY OF SELLER ARISING OUT OF THE CONTRACT OR ANY GOODS SOLD WILL BE LIMITED TO REFUND OF THE PURCHASE PRICE OR REPLACEMENT OF PURCHASE DIGOODS (RETURNED TO SELLER FREIGHT PRE-PAID) OR, WITH SELLER'S PRIOR WRITTEN CONSENT, REPAIR OF PURCHASED GOODS.
- Buyer will not return any goods without first obtaining a customer return order number.
- (d) AS A SEPARATE LIMITATION, IN NO EVENT WILL SELLER BE LIABLE FOR COSTS OF SUBSTITUTE GOODS; FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES; OR LOSS OF USE, OPPORTUNITY, MARKET POTENTIAL, AND/OR PROHT ON ANY THEORY (CONTRACT, TORT, FROM THIRD PARTY CLAIMS OR OTHERWISE). THESE LIMITATIONS SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY
- (e) No action against Seller, whether for breach, indemnification, contribution or otherwise, shall be commenced more than one year after the cause of action has accrued, or more than one year after either the Buyer, user or other person knew or with reasonable diligence should have known of the matter or of any claim of will lead that entire should have now in the interest of a dry state of a dry sta perinent details, and a good faith opportunity to resolve the matter.

 (f) BUYER EXPRESSLY AGREES TO THE LIMITATIONS OF THIS PARAGRAPH 5 AND TO THEIR REASONABLENESS.

SUBSTITUTIONS AND MODIFICATIONS

Seller may at any time make substitutions for product ordered which do not materially and adversely affect overall performance with the then current specifications in the typical and intended use. Seller reserves the right to halt deliveries and shipments and alter specifications and prices without notice. Buyer shall verify that the literature and information is current before purchasing.

CANCELLATION

The purchase contract may not be canceled by Buyer except with written consent by Seller and Buyer's payment of reasonable cancellation charges (including but not be limited to expenses already incurred for labor and material, overhead, commitments made by Seller, and a reasonable profit).

8. INDEMNIFICATION
Seller will, at its own expense, assist Buyer with technical support and information in connection with any claim that any parts as shipped by Seller under the purchase order infiring any valid and enforceable copyright, or trademark, provided however, that Buyer (i) gives immediate written notice to Seller, (ii) permits Seller to participate and to defend if Seller requests to do so, and (iii) gives Seller all needed information, assistance and authority. However, Seller will not be responsible for infringements resulting from anything not entirely manufactured by Seller, or from any combination with products, equipment, or materials not furnished by Seller. Seller will have no liability with respect to intellectual property matters arising out of products

made to Buyer's specifications, code, or designs.

Except as expressly stated in this Paragraph 8 or in another writing signed by an authorized officer, Seller makes no representations and/or warranties with respect to intellectual and/or industrial property and/or with respect to claims of infringement. Except as to claims Saler agrees in writing to defend, BUYER WILL INDE WNIFY, DEFEND AND HOLD HARMLESS SELLER FROM ALL CLAIMS, COSTS, LOSSES AND DAMAGES (INCLUDING ATTORNEYS FEES) AGAINST AND/OR ARISING OUT OF GOODS SOLD AND/OR SHIPPED HEREUNDER.

NO CONFIDENTIAL INFORMATION
Seller shall have no obligation to hold any information in confidence except as provided in a separate non-disclosure agreement signed by both parties.

- ENTIRE AGREEMENT
 These terms and conditions are the entire agreement and the only representations and understandings between Seller and Buyer, and no addition, deletion or modification shall be binding on Seller unless expressly agreed to in
- written and signed by an officer of Seller.

 (b) Buyer is not relying upon anywarrantyor representation except for those specifically stated here.

11. APPLICABLE LAW

The contract and all performance and disputes arising out of or relating to goods in volved will be governed by the laws of R.O.C. (Tai wan, Republic of China), without reference to the U.N. Convention on Contracts for the International Sale of Goods or to conflict of laws principles. Buyer a grees at its sole expense to comply with all applicable laws in connection with the purchase, use or sale of the goods provided hereunder and to in connection with the purchase, use or sale of the goods provided hereunder and to indemnify Seller from any failure by Buyer to so comply. Without limiting the foregoing, Buyer certifies that no ted nical data or direct products thereof will be made available or re-exported, directly or indirectly, to any country to which such export or access is prohibited or restricted under R.O.C. laws or U.S. laws or regulations, unless prior authorization is obtained from the appropriate officials and agencies of the government as required under R.O.C. or U.S. laws or regulations.

12. JURISDICTION AND VENUE
The courts located in Hsinchu, Taiwan, Republic of China, will have the sole and exclusive jurisdiction and venue over any dispute arising out of or relating to the contract or nysale of goods hereunder. Buyer hereby consents to the jurisdiction of such courts.

13. ATTORNEYS FEES

Reasonable attorneys' fees and costs will be awarded to the prevailing party in the event of litigation involving and/or relating to the enforcement or interpretation of the contract and/oranygoods sold underit.