

**AM8275**  
**4K UHD MULTIMEDIA SOC**

**DATASHEET**

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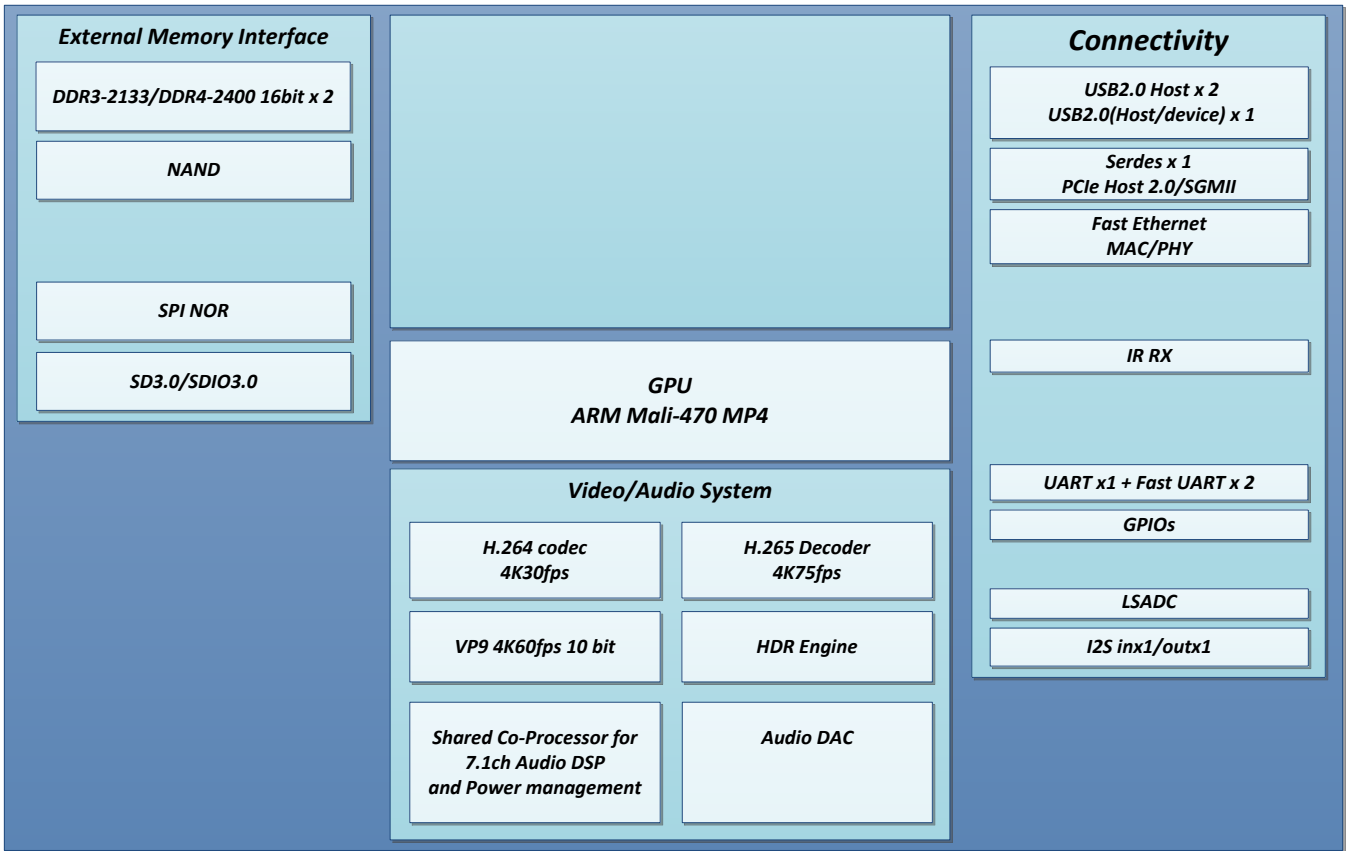


Figure 1. Block Diagram













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**7.1. A M R**

**Table 2. Power Supply Specification**



**7.2. R O C**

**Table 3. Recommended Operating Conditions**

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**Table 4. DC Characteristics**

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## 7.5. *C R*

Table 6. Crystal Requirements for the AM8275

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## 7.8. P - O S

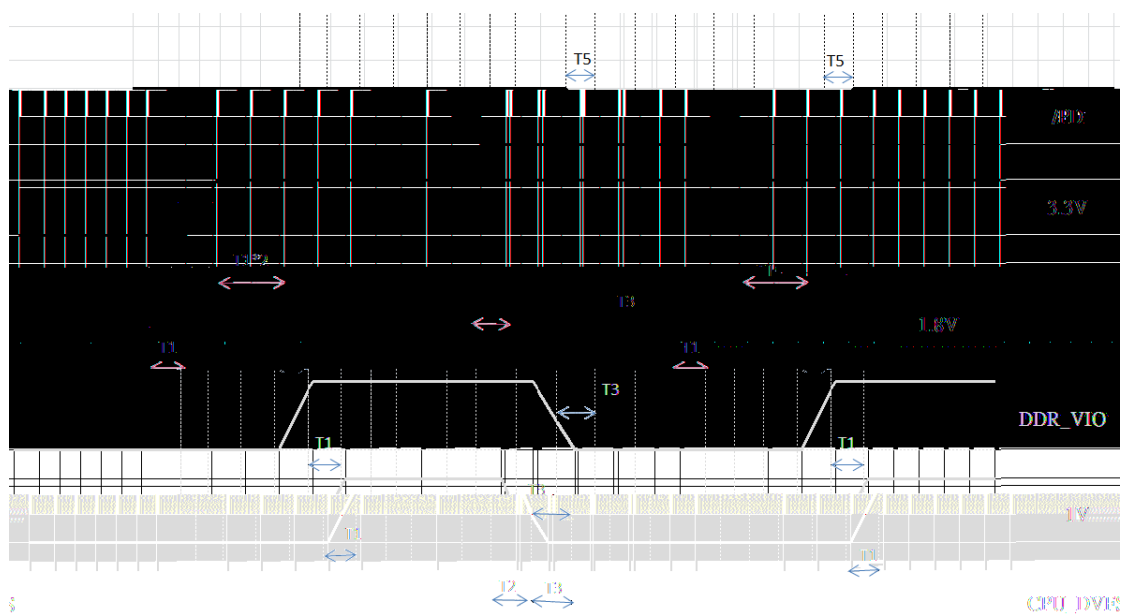


Figure 3. Power-On Sequence Timing Diagram

Table 9. Power-On Sequence Duration

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**Table 10. Power-On Reset Trigger Level**







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## 9.1. *F*

## 9.2. *S F B E P D*

Table 13. Serial Flash Block External Pin Description



## 9.3. *NAND F B E P D*

Table 14. NAND Flash Block External Pin Description

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## 9.4. *B D S*

**Table 15. Boot Device Selection**

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**10.1. F**

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## 11.1. F

## 11.2. G SPIE S D

Table 18. General SPI External Signal Description

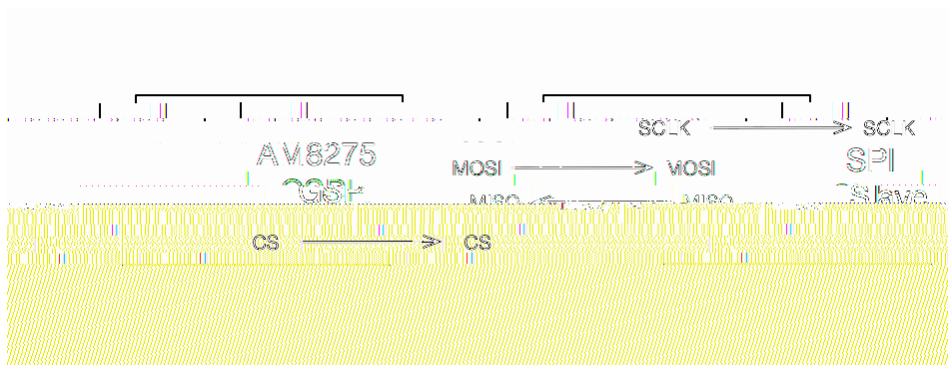


Figure 4. Basic SPI Bus Example

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## ***12.1. F***

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13.1. *G P I/O*

13.2. *U A R T*

Table 20. UART Block External Pin Description

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### 13.3. I2C S I

Table 21. I2C Block External Pin Description



### 13.4. I R C

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Table 22. IR RX Block External Pin Description


**13.5. T C**

**13.6. LSADC (L S ADC)**

Table 23. LSADC Interface


**13.7. P M**

**13.8. S C I**

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**Table 24. Smart Card Controller External Pin Description**

## 13.9. DC F C

Table 25. DC Fan Control External Pin Description

Pin	Signal	Description

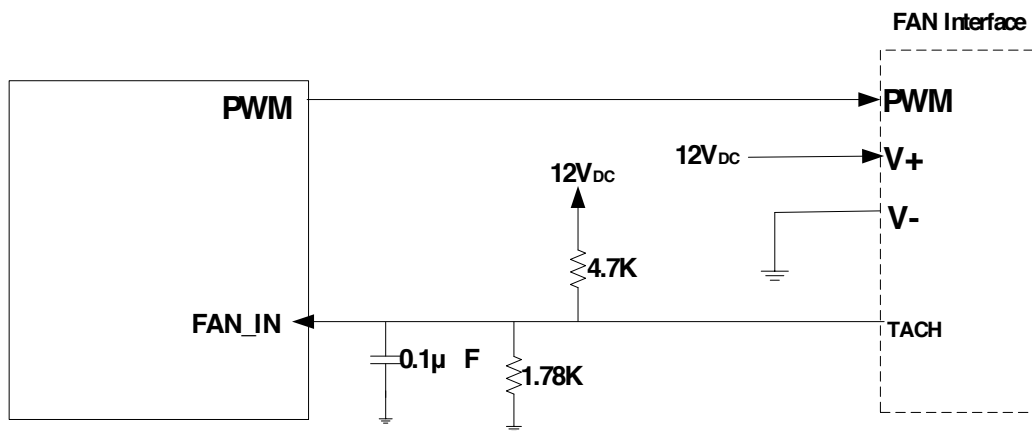


Figure 5. Typical 4-Wire Fan Interface

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## 14.1. F

## 14.2. T E A O I

Table 26. TV Encoder Analog Output Interface






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## 15.2. HDMI B E P D

Table 27. HDMI Block External Pin Description

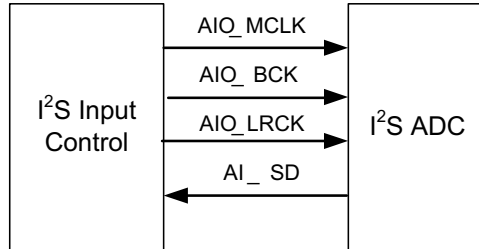
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## *16.1. F*

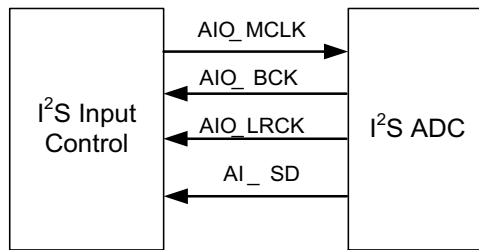
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# 16.2. A E S D



**Figure 6. I2S Audio-In Master Mode Interface Configuration**



**Figure 7. I2S Audio-In Slave Mode Interface Configuration**

**Table 28. Audio-In Block External Pin Description**

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## *17.1. F*

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## 18.1. F

## 18.2. PCI E 2.0 B E P D

Table 30. PCI Express 2.0 Block External Pin Description

# 18.3. T PCI E 2.0 A

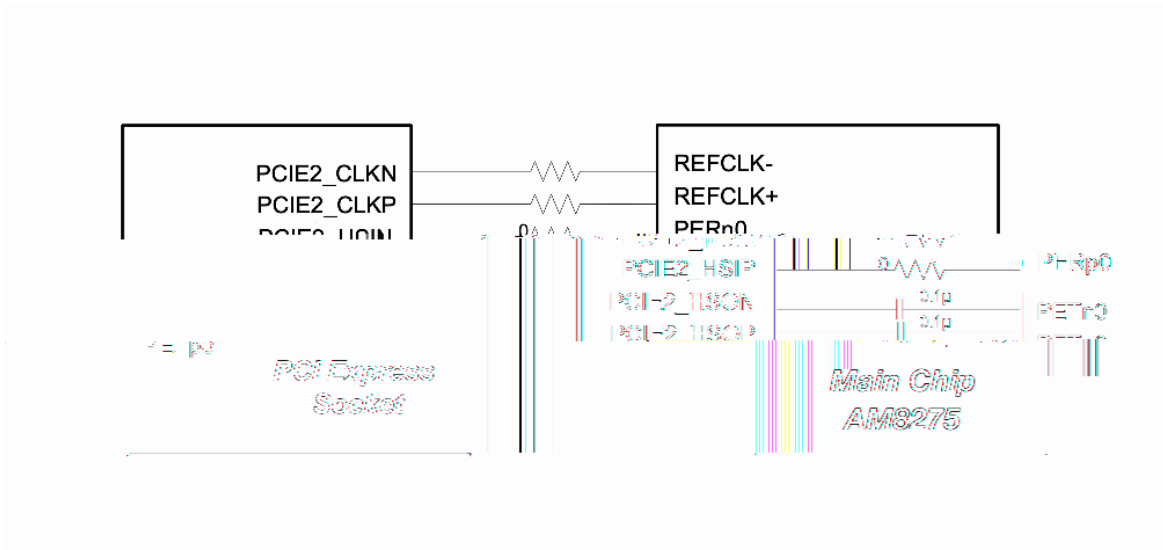


Figure 10. Typical PCI Express 2.0 Application

**19.2. Ethernet Block External Pin Description**

**Table 31. Ethernet 10/100/1000M Block External Pin Description**

### 19.3. T A

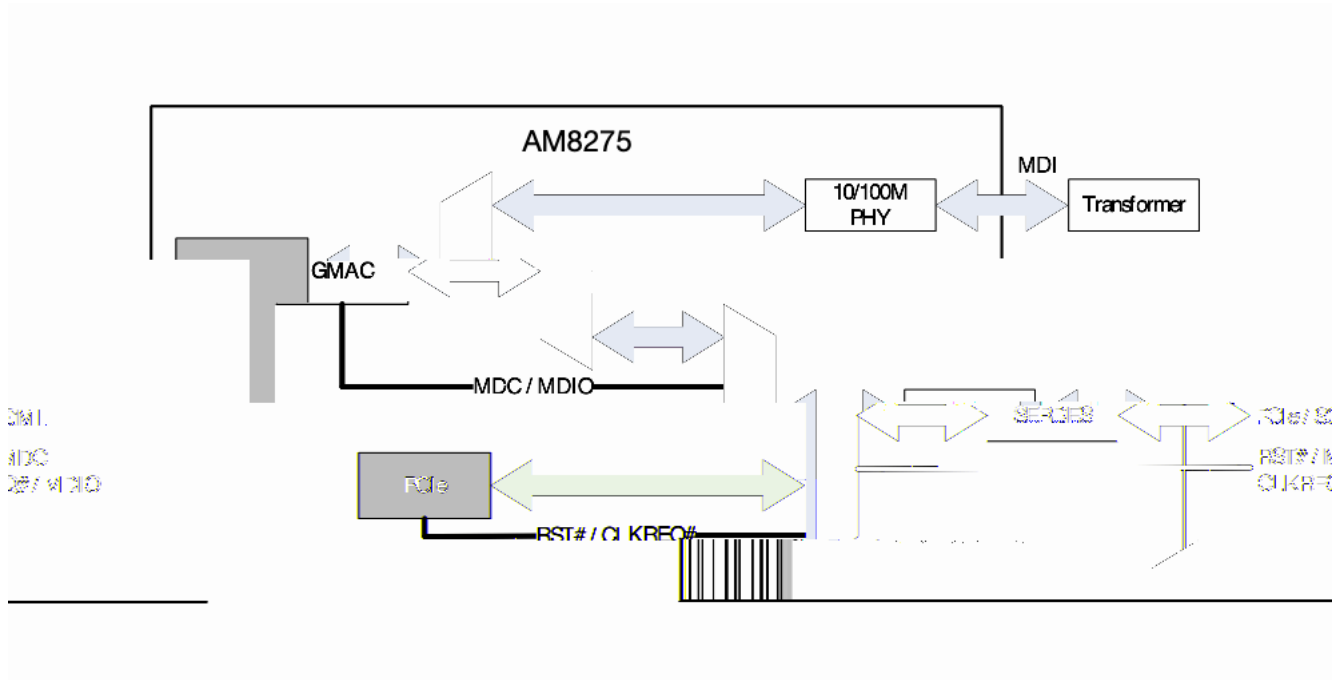


Figure 11. Relationship of PCIe and Ethernet Block

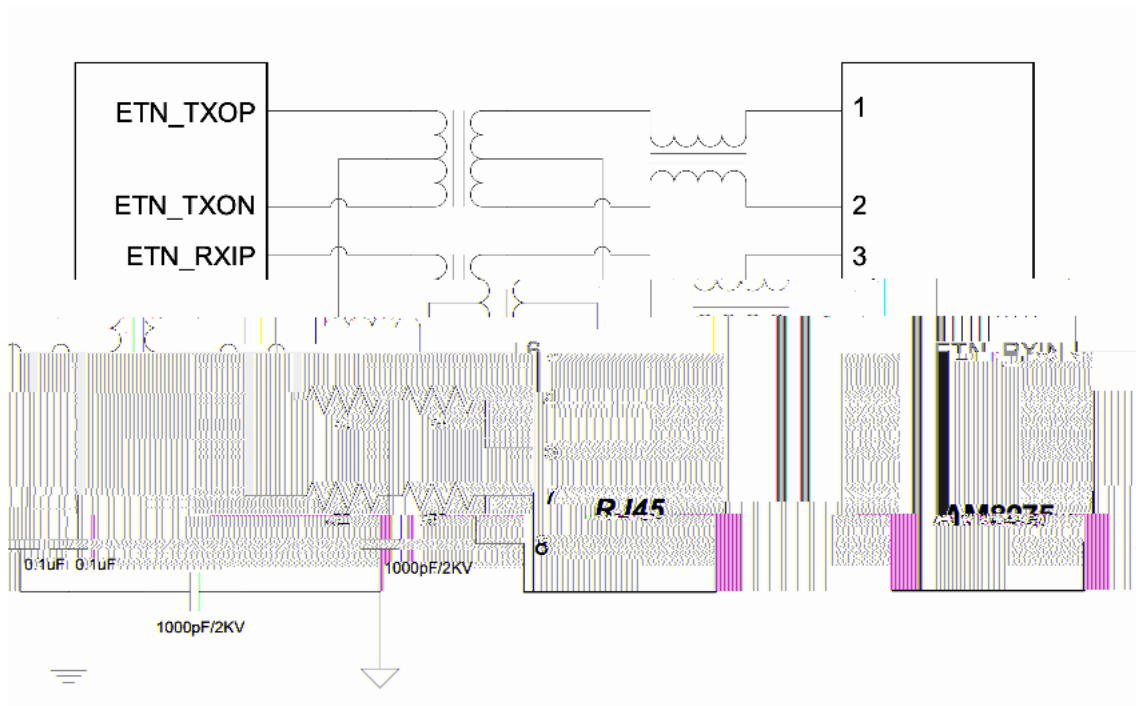


Figure 12. Typical Gigabit Ethernet Application





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**22.1. F**

**22.2. C R B E P D**

**Table 34. Card Reader Block External Pin Description**

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**23.1. F**

**23.2. C R B E P D**

**Table 35. Card Reader Block External Pin Description**

Table 36. Classification Reflow Profile

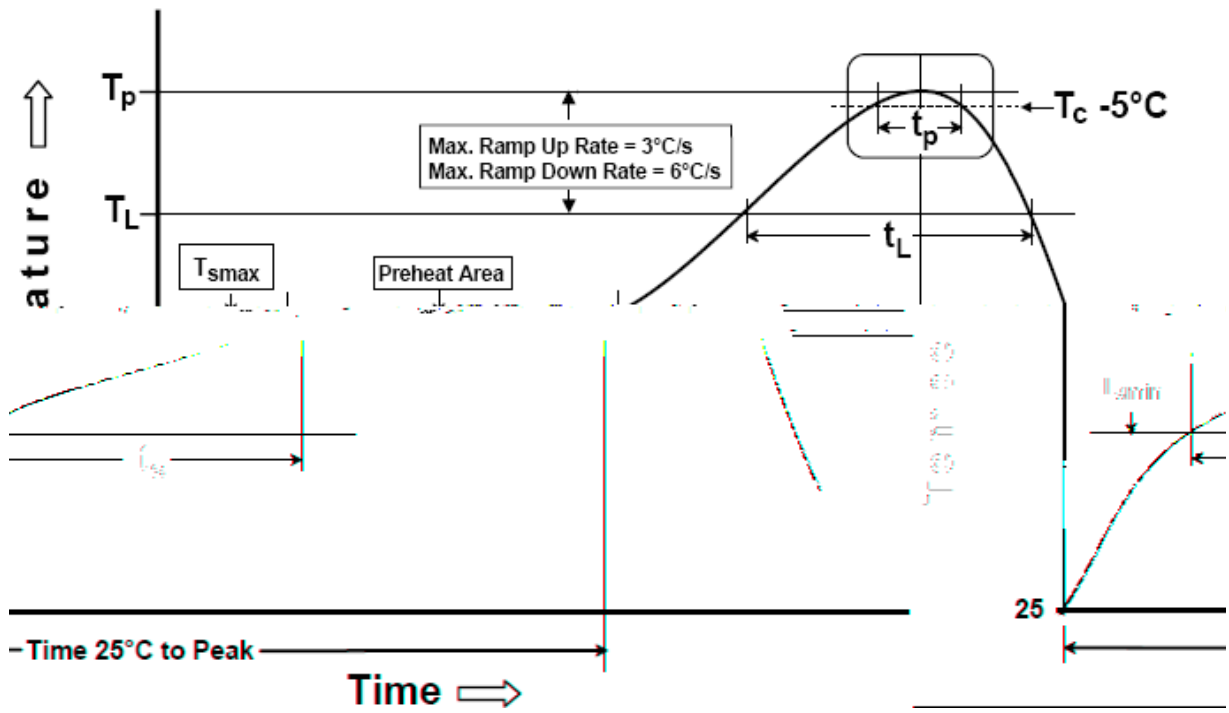
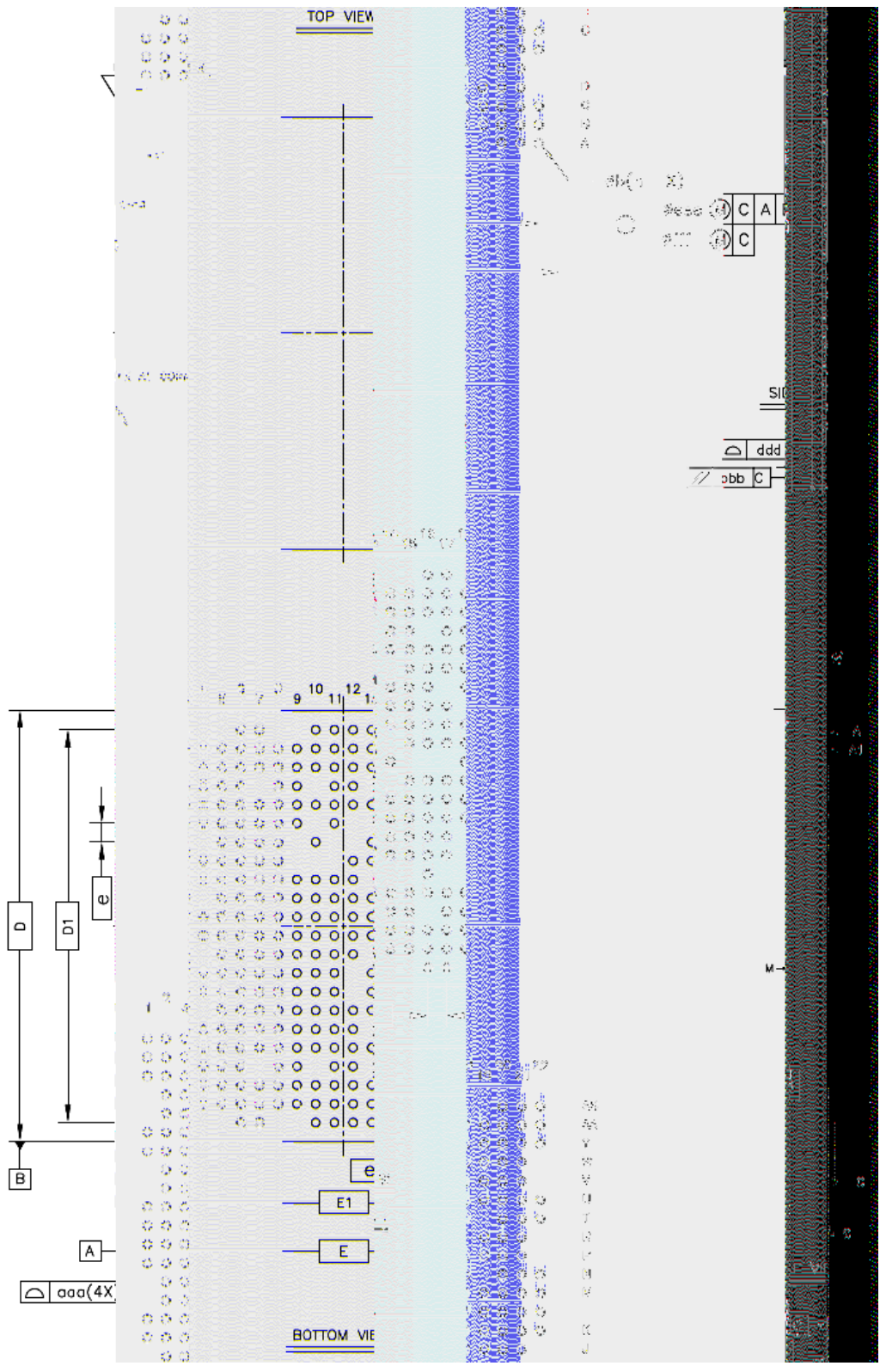


Figure 13. Soldering Temperature Profile



25.1. M

D

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Package :	
Body Size:	
Ball Pitch:	
Total Thick	
Mold Thick	
Substrate	
Ball Diame	
Stand Off	
Ball Width	
Package E	
Mold Flatr	
Coplanarity	
Ball Offse	
Ball Offset	
Ball Count	
Edge Ball	

E	1	
D	1	
e		
A		
M	0.7	
S	0.3	
A1	0.160	1.700
b	0.270	
caa		
abb		
add		0.280
eee		0.370
fff		
n	4	
E1	1	
D1	1	
Symbol	Commo	
	MIN.	

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**Table 37. Ordering Information**