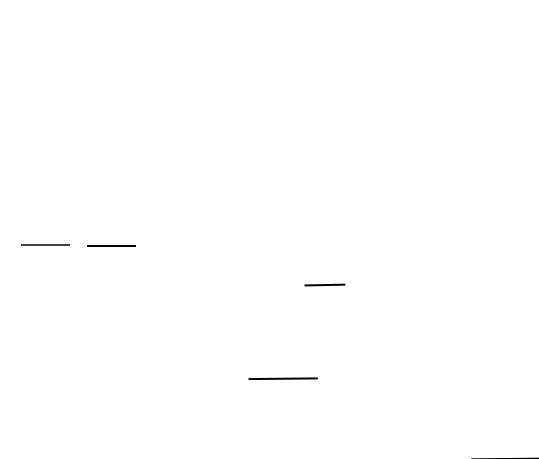




4-channel I2C-bus switch with interrupt logic and reset

Datasheet (EN) 1.3

Product Overview



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Applications

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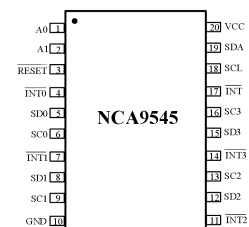
Key Features

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Device Information

Part Number	Package	Body Size

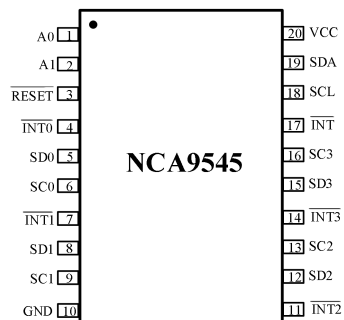
Functional Block Diagrams



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1. Pin Configuration and Functions



Symbol	Pin	Description
—		
—		
—		
—		
—		
—		

Table 1.1 Pin Configuration and Description

2. Absolute Maximum Ratings

Parameters	Symbol	Min	Max	Unit	Conditions
			±		
			±		
			±		
				°C	
				°C	

3. Recommended Operating Conditions

Parameters	Symbol	Min	Max	Unit	Conditions
				°C	

4. Thermal Information

Parameters	Symbol	value	Unit
	θ		°C
	$\theta_{()}$		°C
	θ		°C

5. Specifications

5.1. Electrical Characteristics

		°C	°C				°C
Parameters	Symbol	Min	Typ	Max	Unit	Conditions	
Supply							
Input SCL; Input/Output SDA							
Select inputs A0,A1,INT0,INT1,INT2,INT3,RESET							
INT output							
				±			
Pass gate							
					Ω		
					Ω		

5.2. Dynamic Characteristics

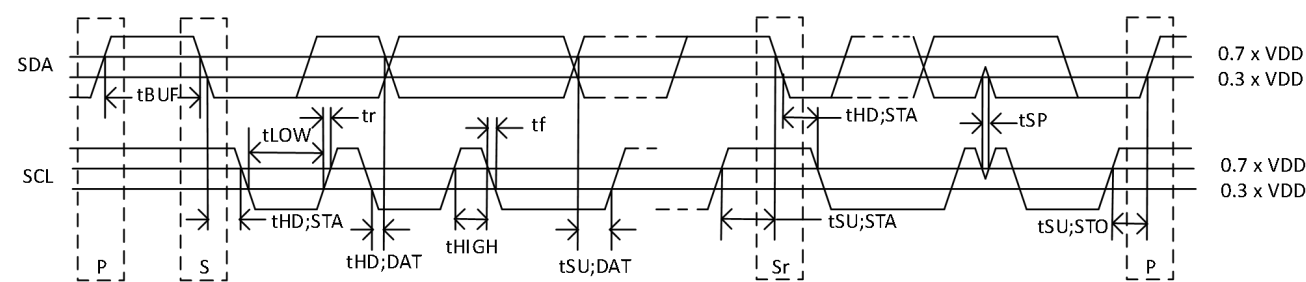
Parameters	Symbol	Standard-mode I2C-bus		Fast-mode I2C-bus		Unit
		Min	Max	Min	Max	

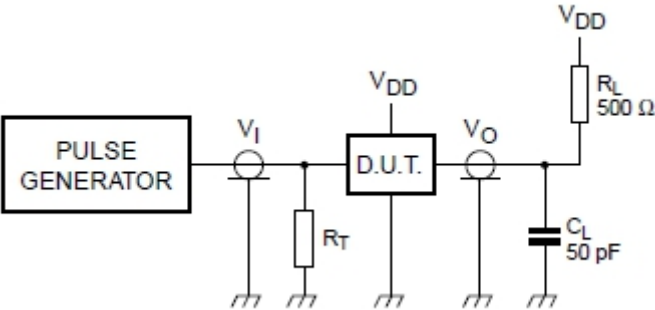
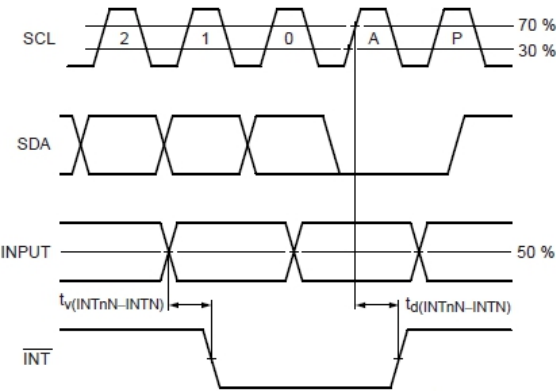
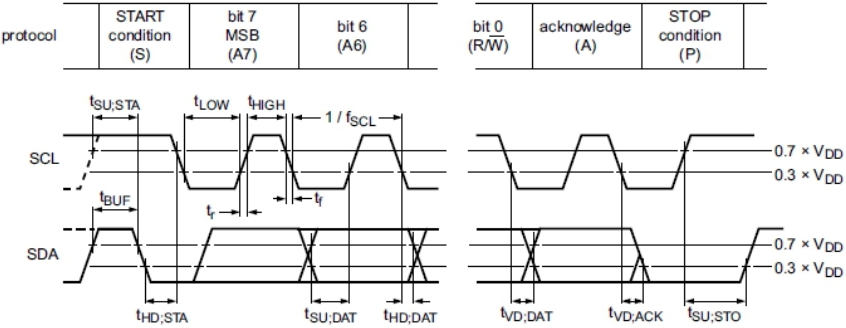
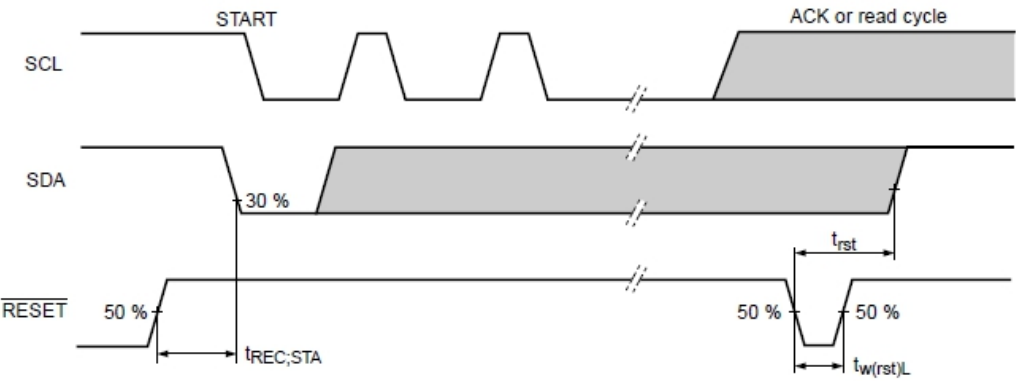
INT						
INTn INT						
INTn INT						
RESET						

Ω

Ω

5.3. Parameter Measurement Information

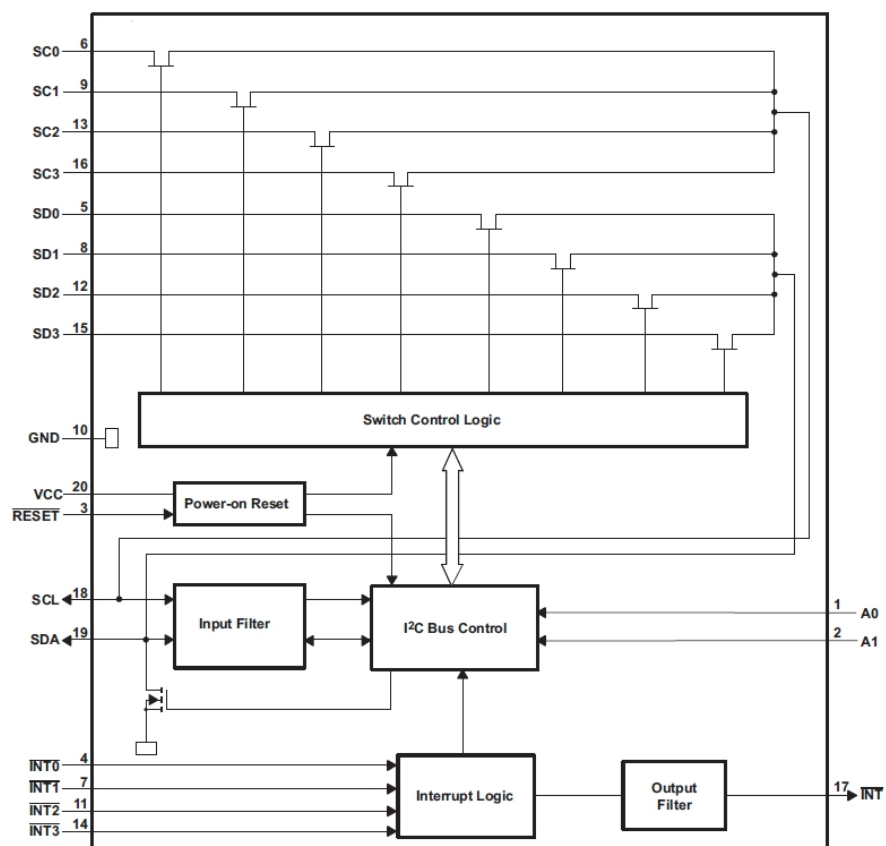




6. Detailed Description

6.1. Overview

6.2. Functional Block Diagram

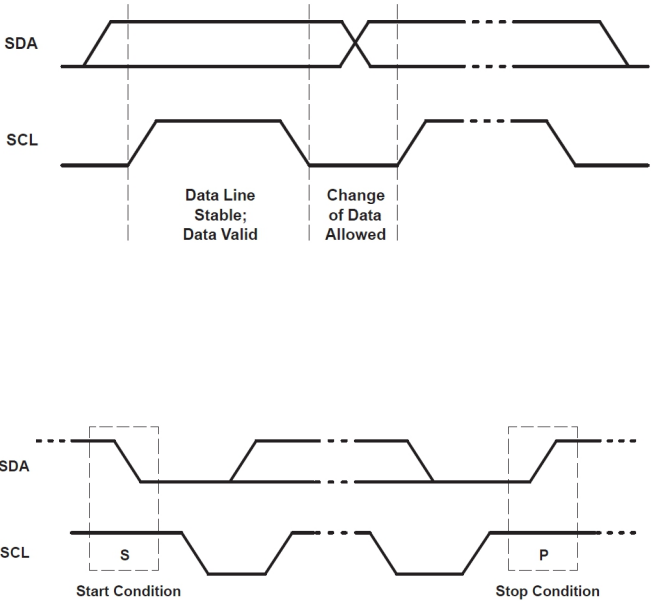


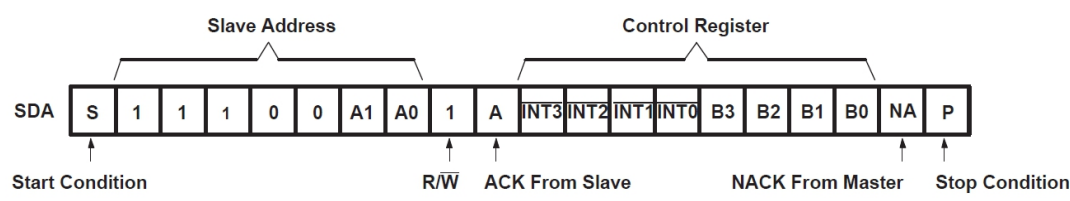
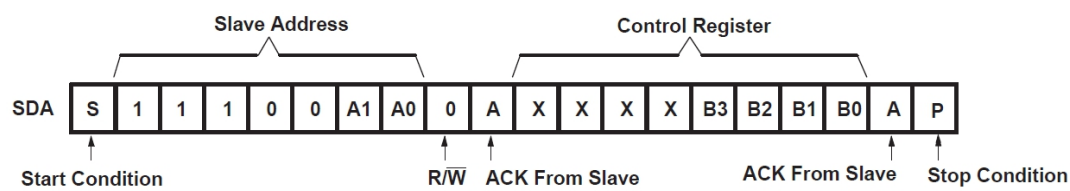
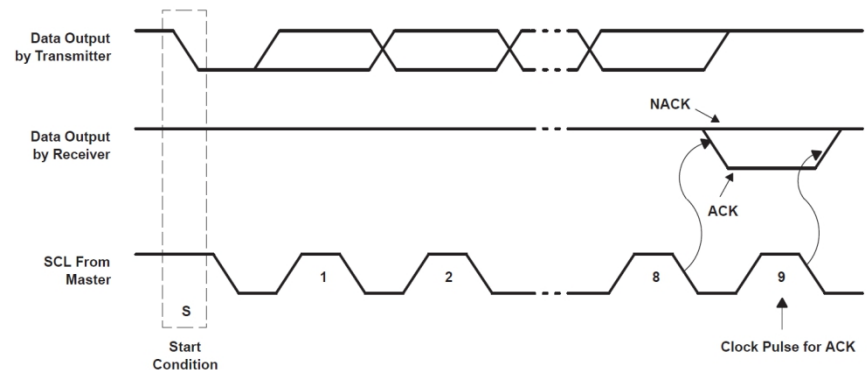
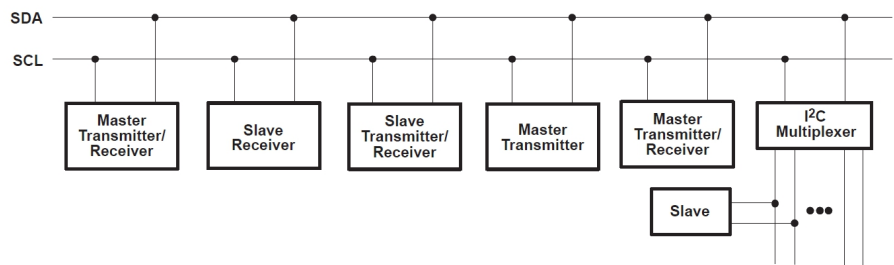
6.3. Feature Description

6.4. /RESET Input

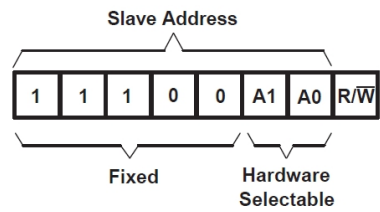
6.5. Power-On Reset

6.6. I²C Interface

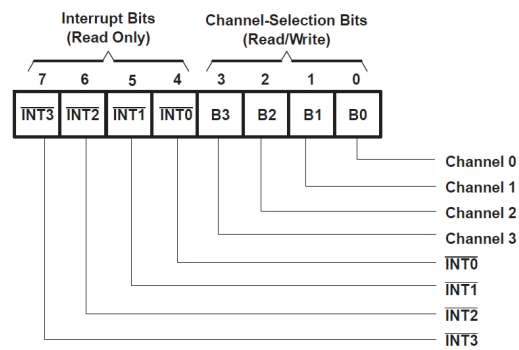




6.7. Device Address



6.8. Control Register Description

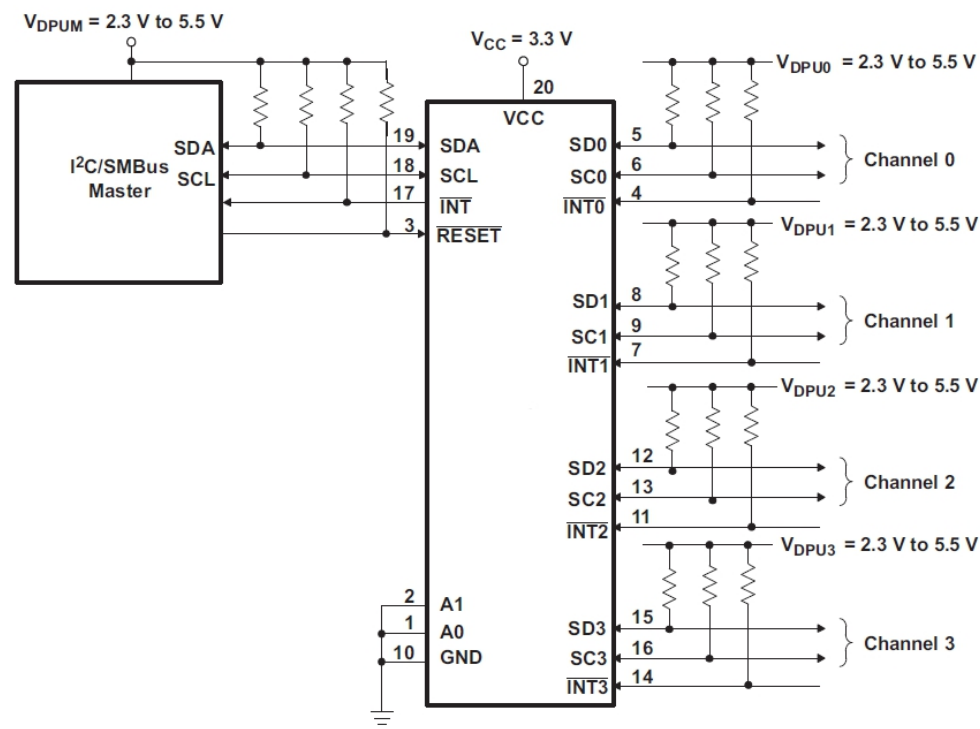


6.9. Control Register Definition

6.10. Interrupt Handling

7. Application and Implementation

7.1. Typical Application



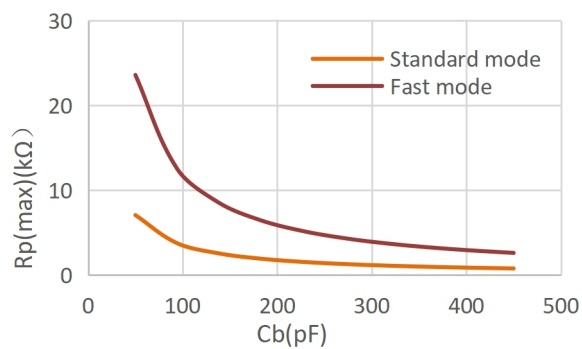
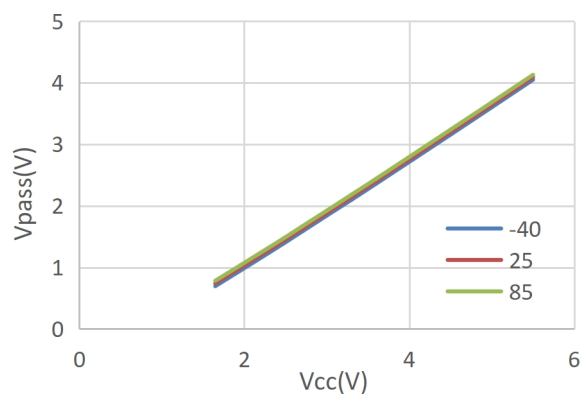
7.2. Design Requirements

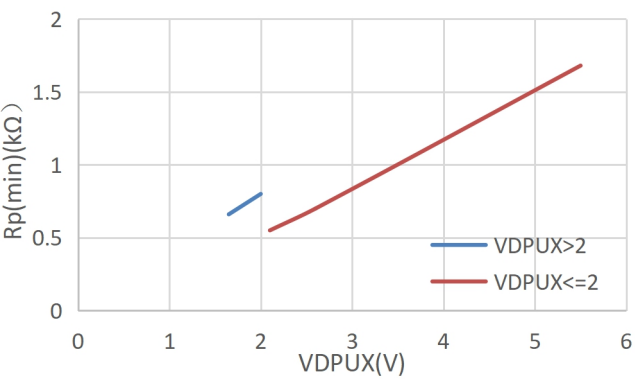
7.3. Detailed Design Procedure

$$R_{p(min)} = \frac{V_{DPUV} - V_{OL(max)}}{I_{OL}}$$

$$R_{p(max)} = \frac{t_r}{0.8473 \times C_b}$$

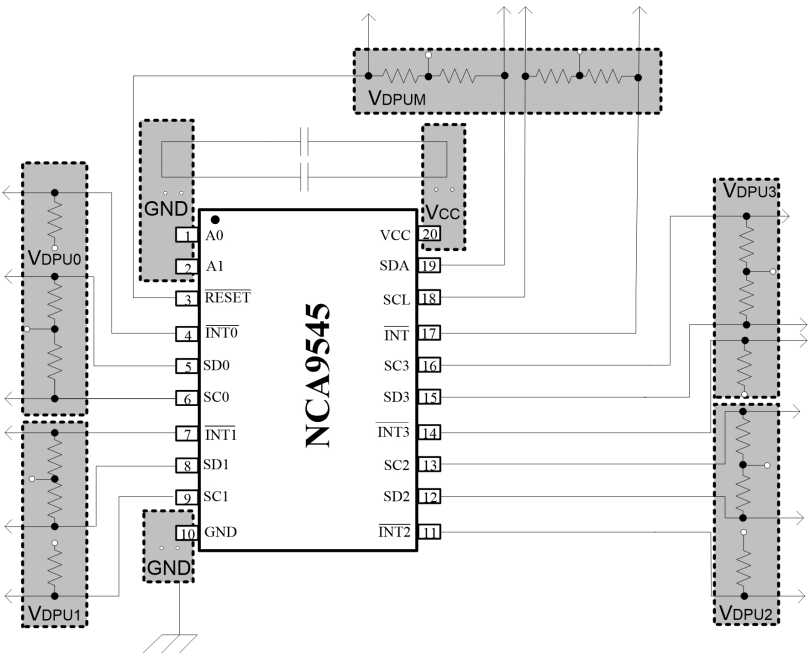
7.4. NCA9545 Application Curves



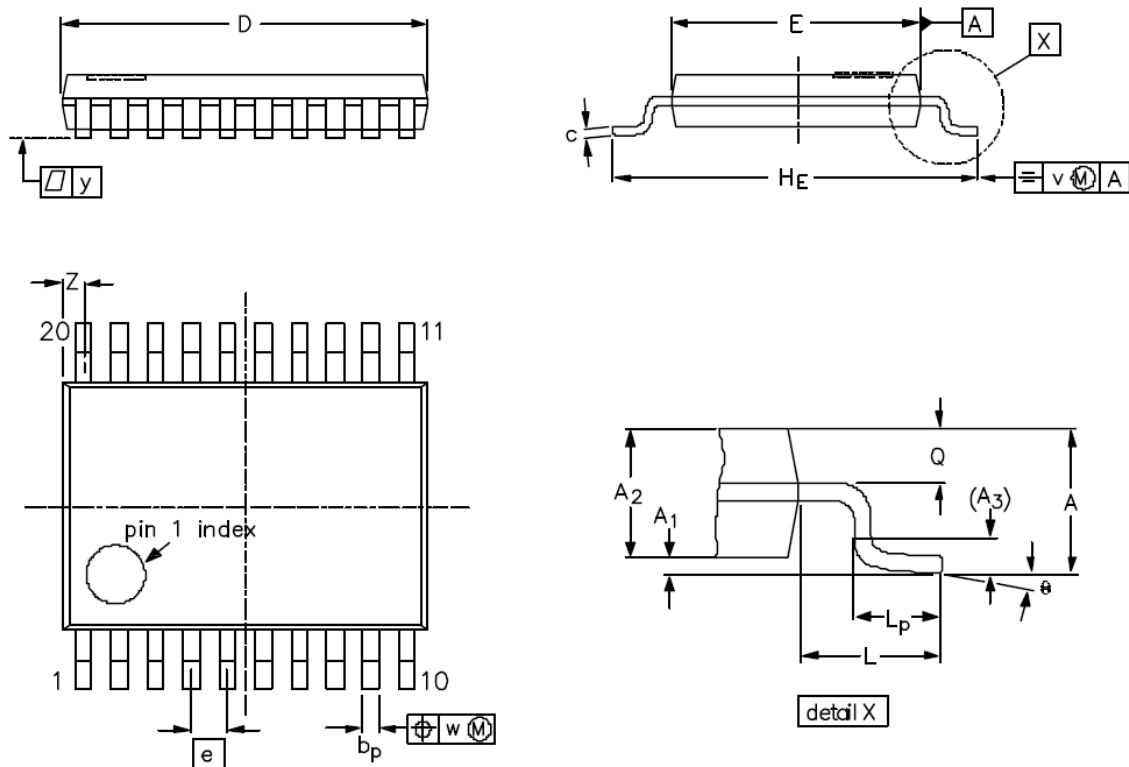


8. Layout

8.1. Layout Guidelines

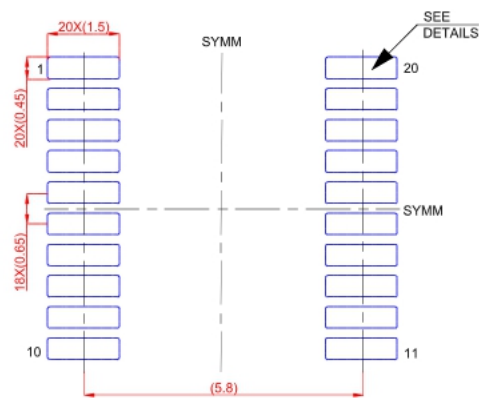


9. Package Information

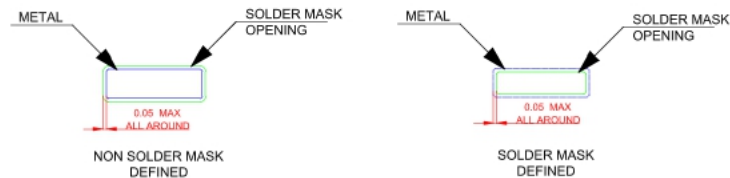


DIMENSIONS (mm are the original dimensions)

UNIT	A _{max.}	A ₁	A ₂	A ₃	b _p	c	D ⁽¹⁾	E ⁽²⁾	e	H _E	L	L _p	Q	v	w	y	Z ⁽¹⁾	θ
mm	1.10	0.15 0.05	0.95 0.80	0.25	0.30 0.19	0.2 0.1	6.6 6.4	4.5 4.3	0.65	6.6 6.2	1.0	0.75 0.50	0.4 0.3	0.2	0.13	0.1	0.5 0.2	8° 0°



LAND PATTERN EXAMPLE(mm)



SOLDER MASK DETAILS

10. Order information

Part Number	Pins	Temperature	MSL	Package Type	Package Drawing	Package Qty
		°C				

11. Documentation Support

Part Number	Product Folder	Datasheet	Technical Documents	Isolator selection guide

12. Tape and Reel Information

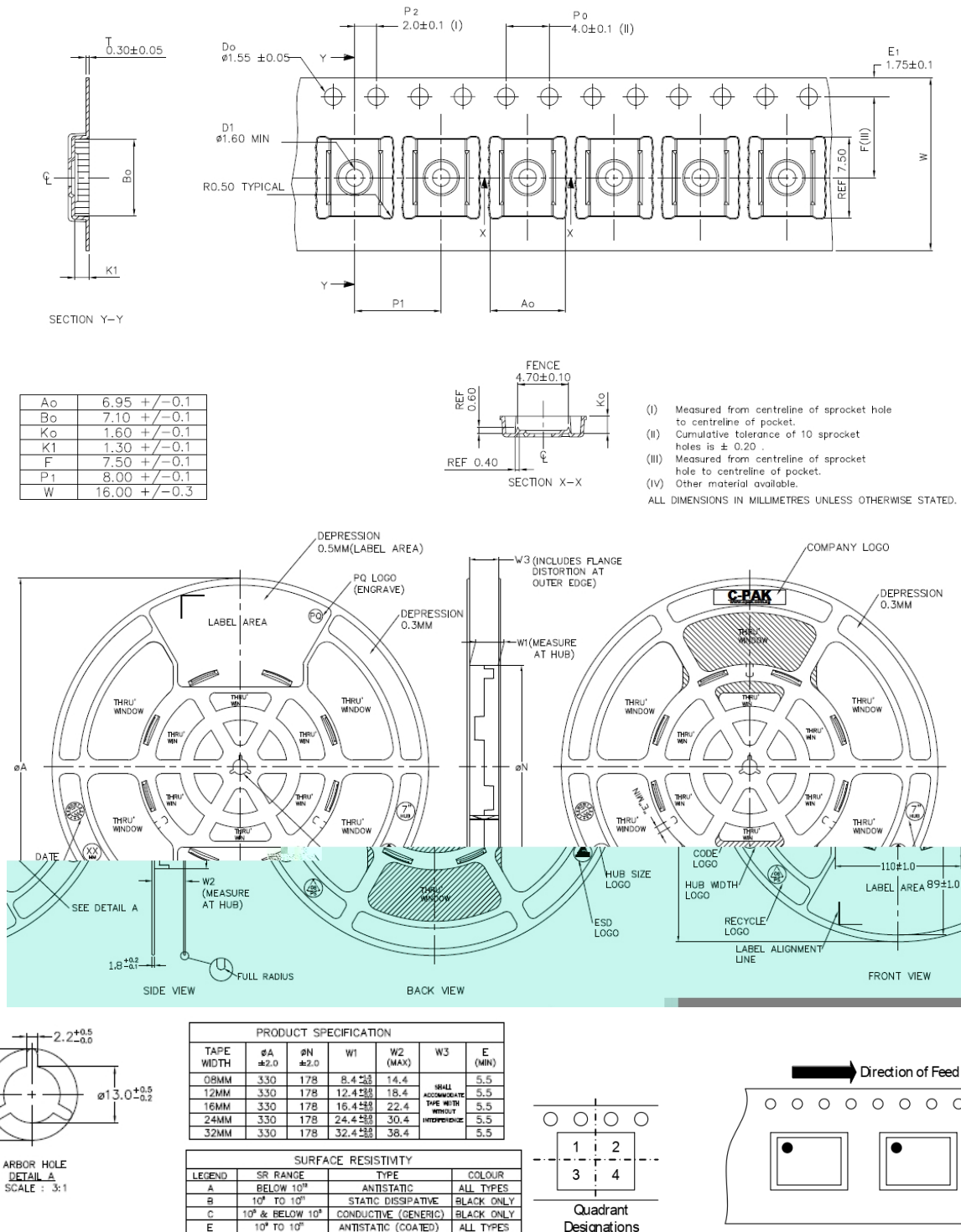


Figure 12.1 Tape and Reel Information of TSSOP

13. Revision History

Revision	Description	Date