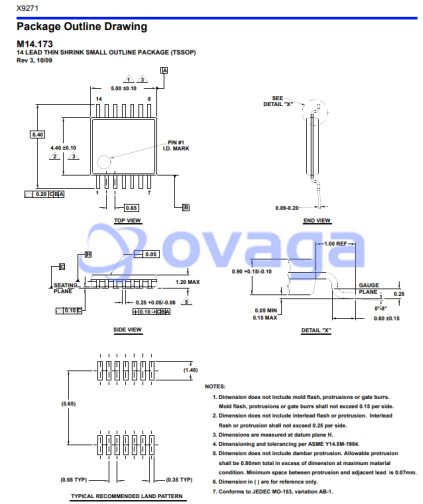


Single Digitally-Controlled (XDCP™) Potentiometer; Temperature Range: -40°C to 85°C;
 Package: 14-TSSOP

Manufacturers	Renesas Technology Corp
Package/Case	TSSOP-14
Product Type	Logic ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for X9271UV14IZ-2.7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The X9271 integrates a single, digitally controlled potentiometer (XDCP™) on a monolithic CMOS integrated circuit. The digitally controlled potentiometer is implemented by using 255 resistive elements in a series array. Between each element are tap points connected to the wiper terminal through switches. The position of the wiper on the array is controlled by the user through the SPI bus interface. The potentiometer has associated with it a volatile Wiper Counter Register (WCR) and four nonvolatile data registers that can be directly written to and read by the user. The contents of the WCR control the position of the wiper on the resistor array through the switches. Power-up recalls the contents of the default data register (DR0) to the WCR. The XDCP can be used as a three-terminal potentiometer or as a two-terminal variable resistor in a wide variety of applications including control, parameter adjustments, and signal processing.

Features

256 Resistor Taps

SPI Serial Interface for Write, Read, and Transfer Operations of Potentiometer

Wiper Resistance, 100Ω typical at >

16 Nonvolatile Data Registers

Nonvolatile Storage of Multiple Wiper Positions

Power-on Recall; Loads Saved Wiper Position on Power-up

Standby Current <3μA Max

50kΩ End-to-End Resistance

100-yr Data Retention

Endurance: 100,000 Data Changes per Bit per Register

14-Lead TSSOP

Low-power CMOS

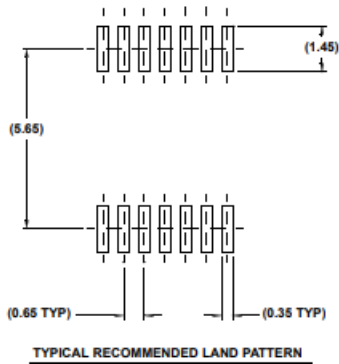
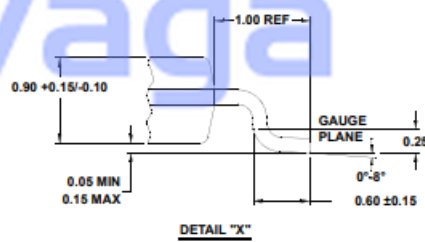
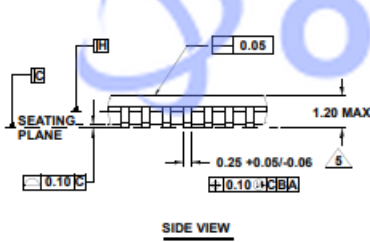
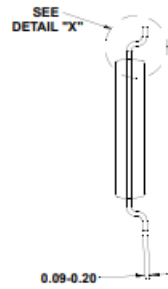
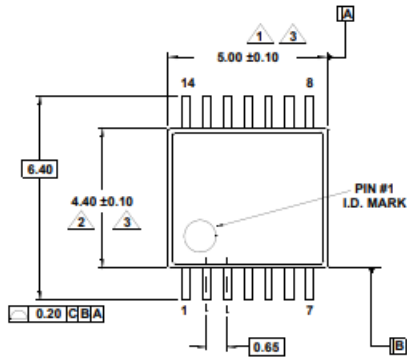
Pb-Free Plus Anneal Available (RoHS Compliant)

Package Outline Drawing

M14.173

14 LEAD THIN SHRINK SMALL OUTLINE PACKAGE (TSSOP)

Rev 3, 10/09



NOTES:

1. Dimension does not include mold flash, protrusions or gate burrs. Mold flash, protrusions or gate burrs shall not exceed 0.15 per side.
2. Dimension does not include interlead flash or protrusion. Interlead flash or protrusion shall not exceed 0.25 per side.
3. Dimensions are measured at datum plane H.
4. Dimensioning and tolerancing per ASME Y14.5M-1994.
5. Dimension does not include dambar protrusion. Allowable protrusion shall be 0.80mm total in excess of dimension at maximum material condition. Minimum space between protrusion and adjacent lead is 0.07mm.
6. Dimension in () are for reference only.
7. Conforms to JEDEC MO-153, variation AB-1.

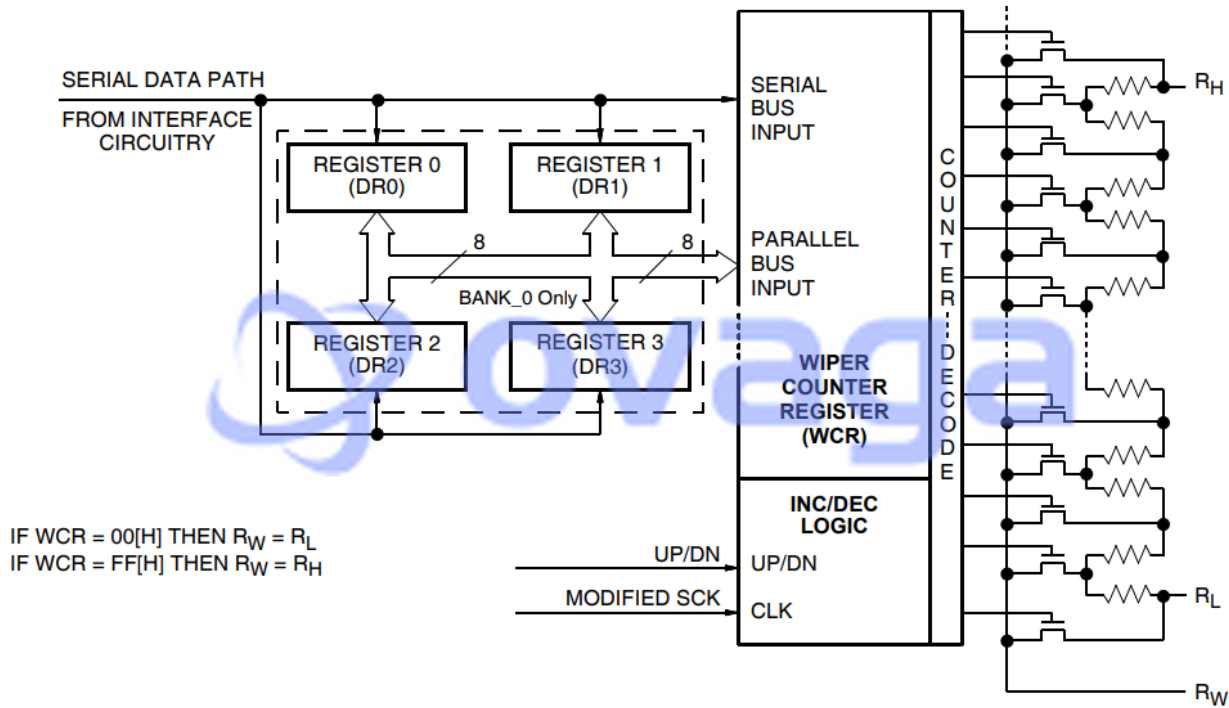


FIGURE 1. DETAILED POTENTIOMETER BLOCK DIAGRAM

Related Products



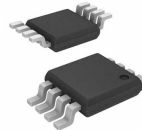
[X9317WV8Z-2.7T1](#)
 Renesas Technology Corp
 8-TSSOP



[X9317WV8Z-2.7](#)
 Renesas Technology Corp
 8-TSSOP (0.173, 4.40mm Width)



[X9317WS8IZT1](#)
 Renesas Technology Corp
 SOP8



[X9317TM8Z-2.7](#)
 Renesas Technology Corp
 8-MSOPMICRO88-UMAX8-USOP



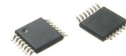
[X9314WMIZ-3](#)
 Renesas Technology Corp
 8-TSSOP, 8-MSOP (0.118, 3.00mm Width)



[X9313ZPZ-3](#)
 Renesas Technology Corp
 DIP-8



[X9313ZMZ-3T1](#)
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 8-MSOP



[X9271UV14IZT1](#)
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 14-TSSOP