



Data Sheet

Pb-Free IIC XDCP, 100K QUAD, 256 TAPS HT SUSA CODE:8542390000

Manufacturers Renesas Technology Corp

Package/Case SOP24

Product Type Integrated Circuits (ICs)

**RoHS** 

Lifecycle



Images are for reference only

Please submit RFQ for X9258US24Z or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

# **General Description**

The X9258 integrates 4 digitally controlled potentiometers (XDCP<sup>TM</sup>) on a monolithic CMOS integrated circuit. The digitally controlled potentiometer is implemented 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 2-wire bus interface. Each potentiometer has associated with it a volatile Wiper Counter Register (WCR) and 4 non-volatile Data Registers (DR0:DR3) that can be directly written to and read by the user. The contents of the WCR controls the position of the wiper on the resistor array though the switches. Power-up recalls the contents of DR0 to the WCR. The XDCP<sup>TM</sup> 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**

Four potentiometers in one package
256 resistor taps/potentiometer: 0.4% resolution
2-wire serial interface
Wiper resistance, $40\Omega$ typical @ V+ = 5V,>
Four nonvolatile data registers for each potentiometer
Nonvolatile storage of wiper position
Standby current <5 µA max (total package)
Power supplies
V+ = 2.7V  to  5.5V
$100k\Omega$ , $50k\Omega$ total potentiometer resistance
High reliability
Endurance: 100,000 data changes per bit per register
Register data retention: 100 years
24 Ld SOIC, 24 Ld TSSOP
Dual supply version of X9259
Pb-free (RoHS compliant)



#### **Related Products**



## **<u>X9241AWVIZΤ1</u>**

Renesas Technology Corp TSSOP-20



#### **X9241AWSIZT1**

Renesas Technology Corp 20SOIC



## **X9C503PIZ**

Renesas Technology Corp DIP8



## **X9C102SIZT2**

Renesas Technology Corp SOP8



# <u>**X9241AWSZΓ1**</u>

Renesas Technology Corp SOP20



#### **X9C503SZT1**

Renesas Technology Corp 8-SOIC



## **X9C104SZT1**

Renesas Technology Corp SOP8



## **X9C102SZT1**

Renesas Technology Corp SOP8