

# **Evaluate SN74AXC1T45DRL Using A Generic EVM**

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## **ABSTRACT**

This application report focuses on introducing the generic DIP adapter EVM and interfacing the DRL package of the SN74AXC1T45 device with the generic DIP adapter EVM.

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## **Trademarks**

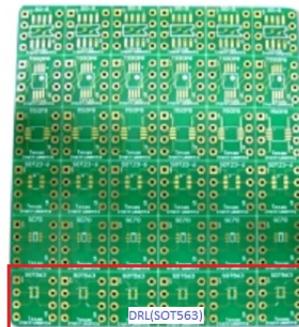
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## 1 Introduction

The SN74AXC1T45 is the latest device in the family of direction controlled translators which includes the AVC and LVC series as well. For more information on the available products, please visit the product page [here](#). The SN74AXC1T45 is available in the DRL (SOT563). The DRL package can be easily evaluated using the DIP adapter generic EVM which also includes the footprint for the most commonly available packages DBV (SOT-23), DCK (SC-70), D (SOIC), PW (TSSOP), and DGK (MSOP, VSSOP) from TI. [Figure 1](#) shows the generic DIP adapter EVM.

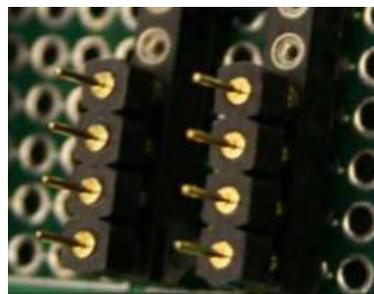
## 2 Device Overview

The EVM has 6 footprints for each of the package options and have been arranged such that it can be broken along the perforation groove lines.



**Figure 1. Generic DIP EVM**

Solder the included 100-mil header pins to connect the EVM to the breadboard, as [Figure 2](#) shows.



**Figure 2. 100-mil Header Pins**

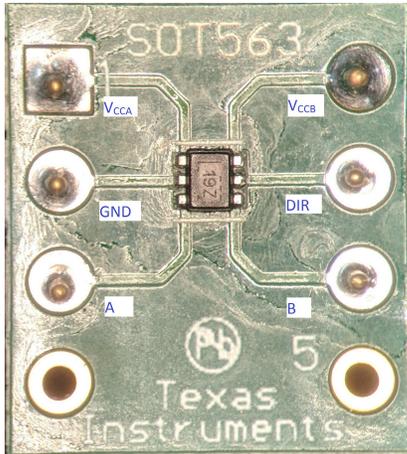


Figure 3. Soldered SN74AXC1T45DRL (Microscope Image)



Figure 4. Soldered SN74AXC1T45DRL With Header Pins

The SN74AXC1T45DRL was soldered onto the generic EVM and tested for power up and power down at 3.6 V as shown in Figure 5 and Figure 6.

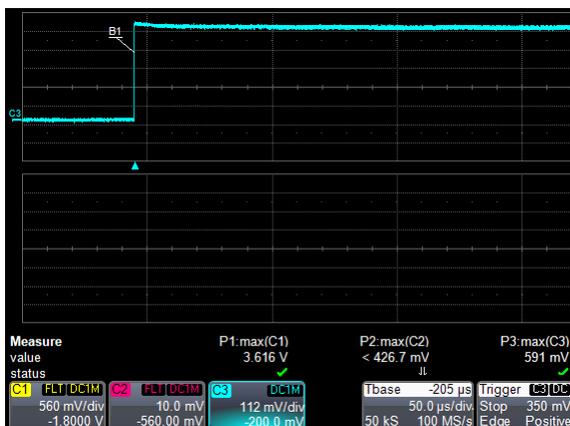


Figure 5. DRL Power up testing



Figure 6. DRL Power down testing

### 3 Additional Reading and References

1. Texas Instruments, [DIP Adapter Evaluation Module](#)
2. [Generic EVM for Direction-Controlled Bidirectional Translation Device Supporting AVC and LVC](#)
3. Texas Instruments, [Basics of Voltage-Level Translation](#)
4. Texas Instruments, [Designing with SN74LVCXT245 and SN74LVCHXT245 Family of Direction Controlled Voltage Translators/Level-Shifters](#)

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