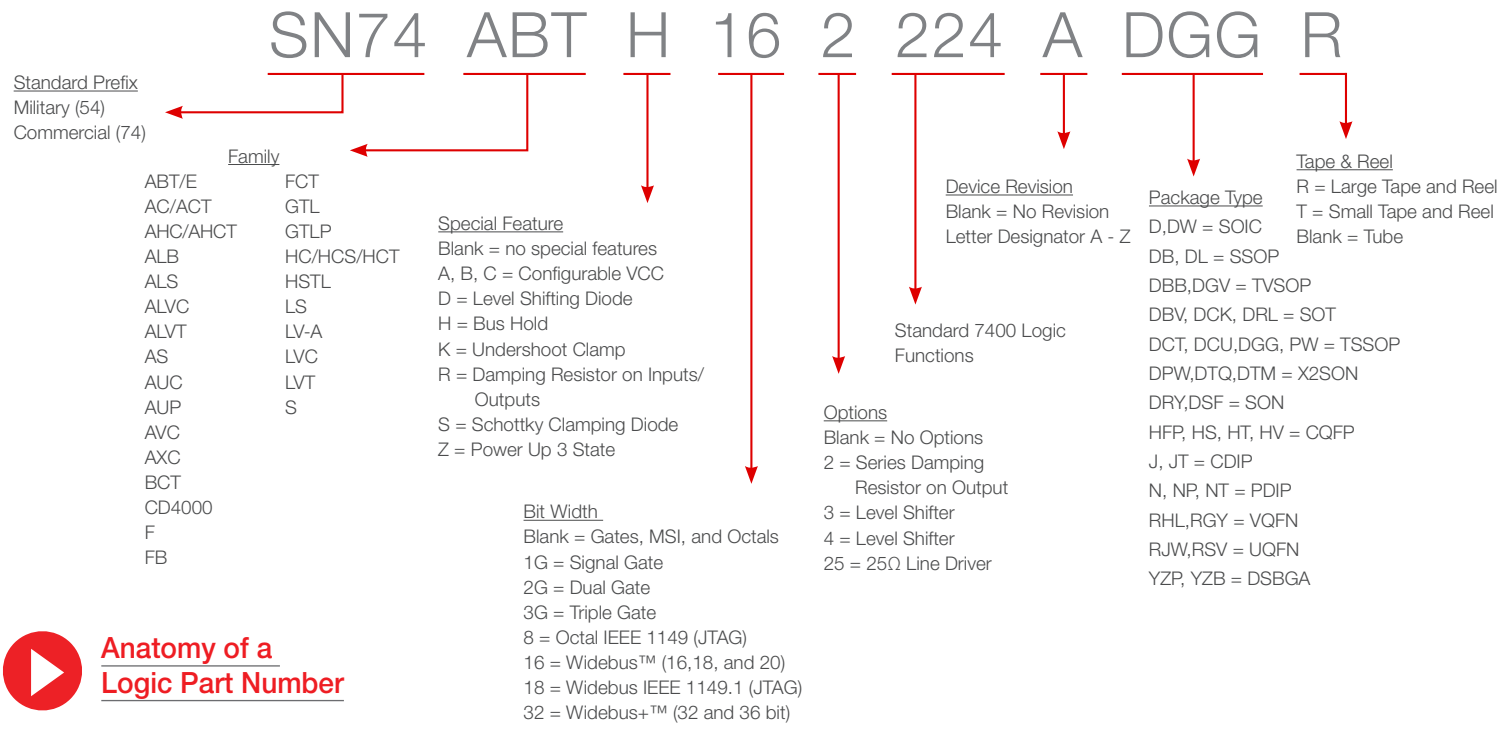
Interpreting TI Logic part numbers

1. Can you help me understand the Logic device part numbers? There are so many part numbers, is there a logic part number naming convention?



Anatomy of a Logic Part Number

2. Why does a device have an E4/G4 suffix? What is the difference between SN74xxG4 and SN74xx and SN74xxE4?

In short, there will be no difference in performance between a device labelled SN74xxG4 and SN74xx.

Historically, G4 and E4 suffixes meant that the devices were rated to be “Green” or “Lead Free.” However, as time has passed, all devices have been pushed to these new “Green” or “Lead Free” standards, but the specific part orderables have remained available so that customers have had a consistent orderable part number.

Today there are some non-E4/GE and E4/G4 devices that have different lead frames or bond wire materials which both meet the “Green” and “Lead Free” standard. Any differences can be found under the ‘Quality and packaging’ page of a device.

To check on the “Green” status of a part, you can enter your part number on our Material Content Search Tool page.

For definitions of E4, G4 suffixes, please refer to our Environmental Information and Environmentally Friendly Solutions from TI pages.

You can also refer to the end of the datasheet in the Part Orderable Addendum to see the “Eco Plan” of a specific part orderable, where the terminology is defined by the following document: Green and Lead Free Definitions.

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