**Community Translations – Knowledge Base Articles**

**ORIGINAL KBA**

# Title: Single Transaction Translator(STT) and Multiple Transaction Translator (MTT)

**Question:**

what is the difference between Single Transaction Translator(STT) and Multiple Transaction Translator (MTT)

**Answer:**

A USB hub has two choices for organizing Transaction Translators (TTs). A hub can have one TT for all downstream facing ports that have full-/low-speed devices attached ( called Single Transaction Translator---STT) or the hub can have one TT for each downstream facing port ( called Multiple Transaction Translator---MTT) . For Multiple Transaction Translator (MTT) , each downstream port of the Hub has its own transaction translator to provide the best USB performance no matter what class of USB device is connected it.

When implementing a USB Hub system, consider the types of devices and the speeds they will run at. If downstream USB devices are either all high-speed or just a single full-/low-speed device a lower cost, a Single Transaction Translator (STT) hub can be considered. If the application is multiple full-/low-speed devices with a need for bandwidth, a Multiple Transaction Translator (MTT) hub should be used. In the case of consumers connecting full-/low- speed devices with USB 2.0 hubs that use Single Transaction Translator (STT) technology, they are bound to face performance issues when multiple USB devices are used.

Please review the application note AN1071-Single Versus Multiple Transaction Translator for more details : http://www.cypress.com/?rID=47480

**TRANSLATED KBA**

**Community Translated by** Version \*\*