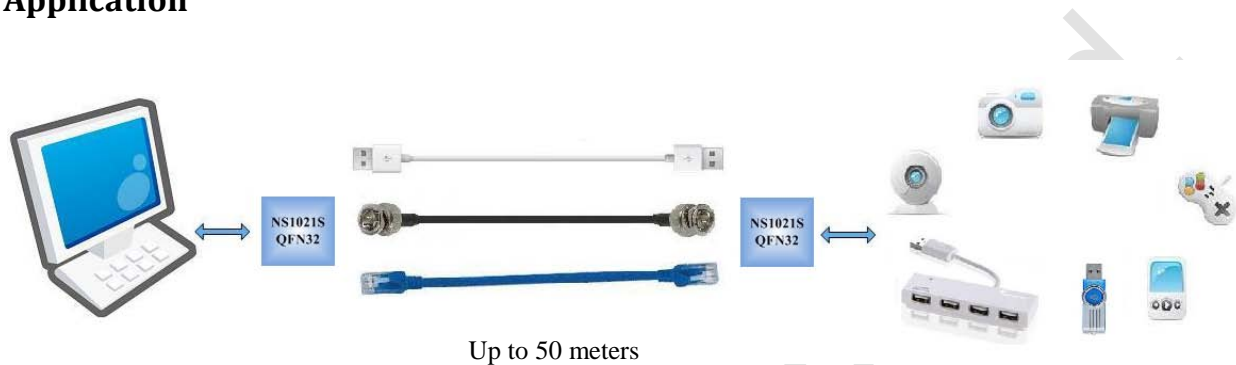


# NS1021S USB2.0 Extension Controller

## Introduction

NS1021S is a versatile high-performance USB 2.0 Extension Controller which is designed for extending USB 2.0 communication distance up to 50 meters over various types of cables such as Ethernet cable, coaxial cable, or standard USB cable. It eliminates the 5-meter distance limitation of USB.

## Application



- Security and surveillance
- Cable extension
- Remote desktop connections
- Active Optical Cable

## Highlights

- Extending USB 2.0 distance for up to 50 meters at the true USB 2.0 speed of 480Mbit/s.
- Ideal for extending the reach of USB2.0 HUB or USB2.0 devices such as USB2.0 cameras, display cards, network adapters, hard drives, flash drives, mp3 players, CD/DVD ROMs, printers, scanners, etc.
- Integrated adaptive cable equalizer to automatically adjust parameters for different cable types and lengths.
- Support multiple cable types:
  - a) CAT6/CAT5/CAT5e Ethernet cable.
  - b) Single-ended 75-3/75-5/75-7 coaxial cable.
  - c) Standard USB cable.
  - d) Twisted pair cable such as telephone cable.
- Build-in noise reduction and cancellation circuitry for reliable communication.
- AC coupled for long distance communication in noisy environments.
- Transparent to USB hosts and devices, no driver is needed.
- Proprietary signaling and link protocol over the long cables.
- Support hot plug.
- Single 5V power supply.
- Integrated 5V→3.3V LDO and 3.3V→1.2V DCDC to minimize BOM and for reduced power consumption.
- 8KV HBM ESD.
- 32-pin QFN(4\*4) RoHS package.

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