
Adnaco-SU1 - USB 3.0 Over Fiber Optic Extension System



Product Overview

The **Adnaco-SU1** is the fiber optic extension system which can operate at distances up to 100 m from the location of your computer. Adnaco-SU1 is backward compatible with USB 2.0/1.1/1.0 devices.

Adnaco-SU1 requires the computer to be equipped with at least one USB 3.0 port. Adnaco-SU1 utilizes only Super-Speed protocol from the above mentioned USB 3.0 port and using transaction translator (Adnaco-UT1) converts Super-Speed protocol and related signals into full range of supported protocols including Super-Speed, High-Speed, Full-Speed and Low-Speed (USB 3.0/2.0/1.1/1.0). Adnaco-SU1 system was successfully tested with the most popular USB host controllers such as Renesas (formerly NEC), Texas Instruments and Intel (located on main boards).

Adnaco-SU1 works with all USB systems and peripherals and does not require any additional software.

Adnaco-SU1 System includes Adnaco-UF1 fiber optic cable and Adnaco-UT1 transaction translator with power supply.

It is recommended to disable PCI Express and USB Power Management. The instructions on how to disable PCI express and USB Power Management on Windows Operating System can be downloaded [here](#). Please restart the computer after changes applied.

Adnaco-SU1 Typical Applications

- Optical isolation of USB devices from computer
- Extending cable length for any USB devices including Video Cameras, Computer Monitors (using USB HDMI converter) etc.

Please see Fig.1 below outlining the typical Adnaco-SU1 usage scenario for the full set of USB protocols.

Fig.1 Usage Scenario for the full set of USB protocols



Main Features

Supported protocols with UT1 (transaction translator)	<ul style="list-style-type: none"> • Super-Speed (5.0 Gb/s) • High-Speed (480 Mbps) • Full-Speed (12 Mbps) • Low-Speed (1.5 Mbps)
Hot Plug and Play Host Side	<ul style="list-style-type: none"> • Any UF1 cable side that connects to computer and can be plugged or unplugged at any time while system is working. Computer rebooting is not necessary.
Hot Plug and Play Remote Side	<ul style="list-style-type: none"> • Any UF1 cable side that connects to UT1 (transaction translator) and can be plugged or unplugged at any time while system is working. Computer rebooting is not necessary.
Hot Plug and Play Device Side	<ul style="list-style-type: none"> • UT1 transaction translator’s side that connects to device and can be plugged or unplugged at any time while system is working. Computer rebooting is not necessary.

There is no special condition for power on/off sequence for your computer, Adnaco-UF1 cable, Adnaco-UT1 transaction translator and your USB device.

Adnaco-UF1 (Cable)

Adnaco-UF1 cable can extend the range of transmission for any USB device to a distance up to 100 meters.

Electrical Parameters

Parameter	Typical Value
Input Voltage	+5.0V \pm 0.25V
Maximum Required Current	60mA
Maximum Cable Length	100m
Working Temperature Range	0°C ... +60°C

Adnaco-UT1 (Transaction Translator)

Adnaco-UT1 transaction translator has two connectors: host connector is intended for connecting a cable and device connector is intended for plugging in any USB device.

Electrical Parameters

Parameter	Typical Value
Input Voltage	+5.0V \pm 0.25V
Maximum Required Current (UT1 only, without USB device)	250 mA @ 5V
Working Temperature Range	0°C ... +60°C



Warning: To avoid equipment malfunctioning, please ensure that cable is plugged into the host side of UT1 transaction translator and USB device is plugged into device side of UT1 transaction translator.

Power Supply for Adnaco-UT1

Parameter	Typical Value
Input Voltage/Current	~100V–240V/0.4A
Output Voltage/Current	+5.0V /2A
Working Temperature Range	0°C ... +60°C
Barrel Connector Outer Diameter	4.0 mm
Barrel Connector Inner Diameter	1.7 mm

Adnaco-SU1 System Ordering Information:

Adnaco-SU1 System includes Adnaco-UF1 fiber optic cable (available length 10, 30, 50 and 100 m) and Adnaco-UT1 transaction translator with power supply.

Adnaco-UT1	Included items
ADNACO-UT1-P1	<ul style="list-style-type: none"> • <u>Adnaco-UT1</u>: USB 3.0 transaction translator in enclosure • <u>Power supply (P1)</u> with North America AC plug (if product is used in Europe please use US-European adapter)

Adnaco-UF1	Description
ADNACO-UF1-10	<ul style="list-style-type: none"> • <u>Adnaco-UF1</u>: USB 3.0 Active Optical Cable 10 meters
ADNACO-UF1-30	<ul style="list-style-type: none"> • <u>Adnaco-UF1</u>: USB 3.0 Active Optical Cable 30 meters
ADNACO-UF1-50	<ul style="list-style-type: none"> • <u>Adnaco-UF1</u>: USB 3.0 Active Optical Cable 50 meters
ADNACO-UF1-100	<ul style="list-style-type: none"> • <u>Adnaco-UF1</u>: USB 3.0 Active Optical Cable 100 meters