

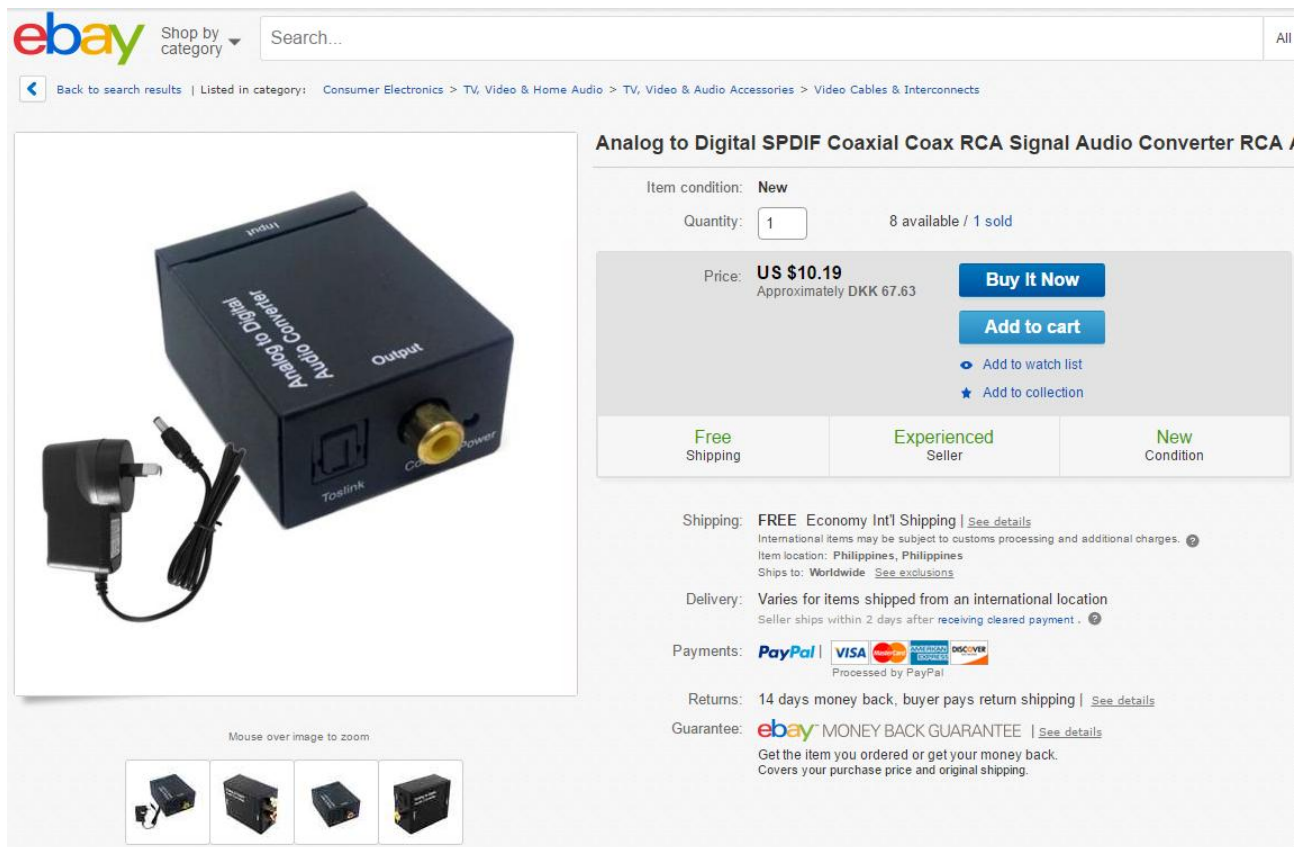
## 1. AP525 and testing of cheap 24-bit/48 kHz ADC



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## 1.1 24-bit/48 kHz ADC



The image shows an eBay product listing for an "Analog to Digital SPDIF Coaxial Coax RCA Signal Audio Converter RCA". The product is a black rectangular box with "Input" and "Output" labels. It has a Toslink optical output and a Coaxial output. A power supply is included. The listing includes a price of US \$10.19, a "Buy It Now" button, and an "Add to cart" button. The seller is an "Experienced Seller" with "Free Shipping". The item is "New" and "8 available / 1 sold". The listing also includes shipping, delivery, payments, and guarantee information.

Item condition: **New**

Quantity:  8 available / 1 sold

Price: **US \$10.19**  
Approximately DKK 67.63

[Buy It Now](#)

[Add to cart](#)

[Add to watch list](#)

[Add to collection](#)

**Free** Shipping

**Experienced** Seller

**New** Condition

Shipping: **FREE** Economy Int'l Shipping | [See details](#)  
International items may be subject to customs processing and additional charges. ⓘ  
Item location: **Philippines, Philippines**  
Ships to: **Worldwide** | [See exclusions](#)

Delivery: **Varies** for items shipped from an international location  
Seller ships within 2 days after **receiving cleared payment**. ⓘ

Payments: **PayPal** | **VISA** | **MasterCard** | **Discover**  
Processed by PayPal

Returns: **14 days** money back, buyer pays return shipping | [See details](#)

Guarantee: **ebay** MONEY BACK GUARANTEE | [See details](#)  
Get the item you ordered or get your money back.  
Covers your purchase price and original shipping.

### Description:

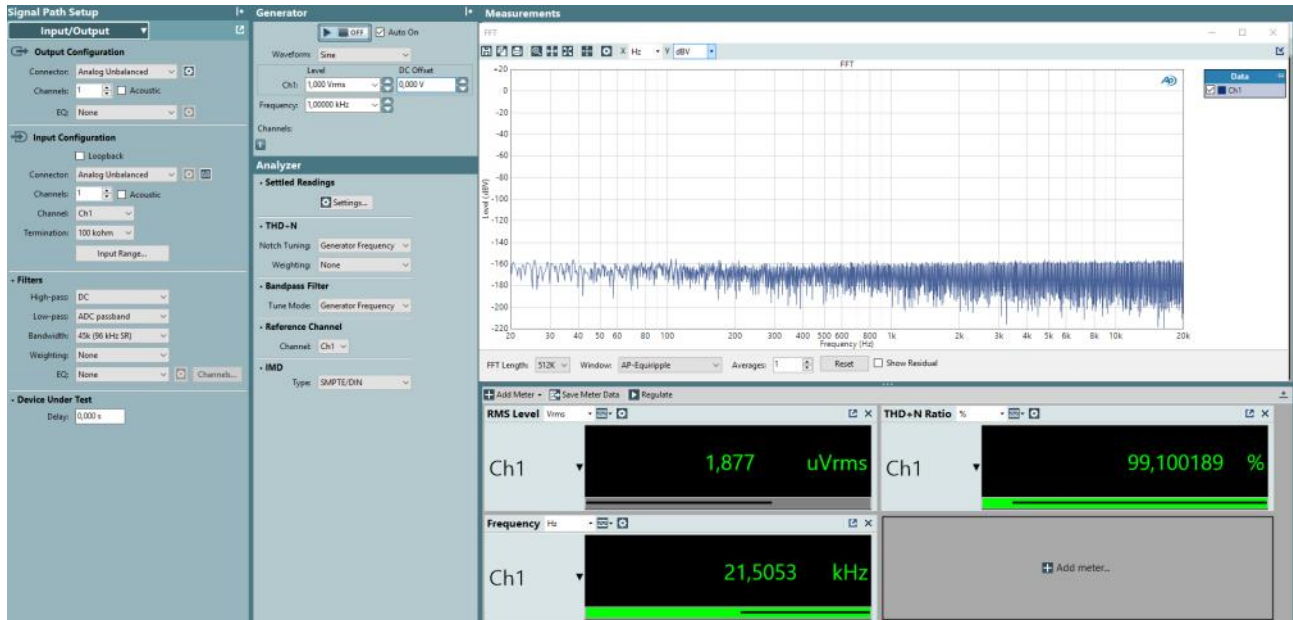
- Convert your analog stereo audio signal from R/L input to Coaxial and Toslink outputs simultaneously
- Inputs: Left and Right (Red/White) RCA Stereo Analog Connections
- Outputs: S/PDIF Digital Coaxial RCA and/or Optical Toslink Connections
- The output digital audio signal is 2-channel uncompressed LPCM (Linear Pulse Code Modulation) with sampling rate at 48 KHz
- Easy to Install
- Compact Size
- Power Supply is Included

## 1.2 Reference measurements for AP525

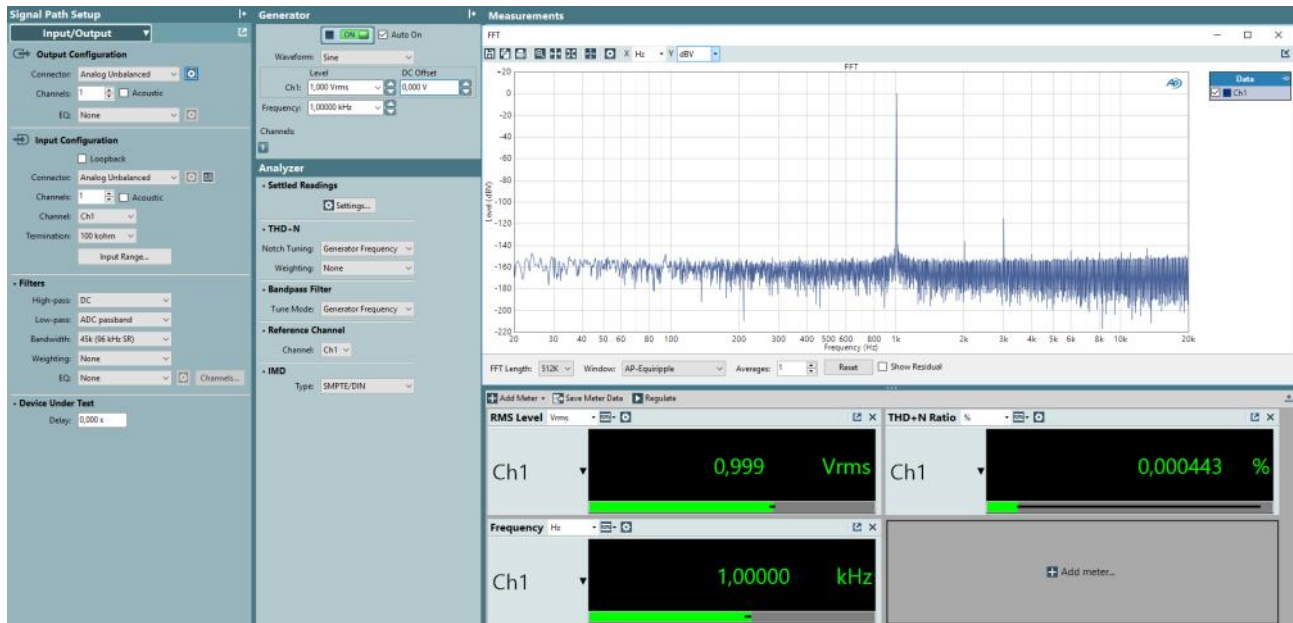
For analog reference measurements: AP analog output connected to analog input with 30 cm coax cable

For digital reference measurements: AP digital output connected to digital input with optical cable

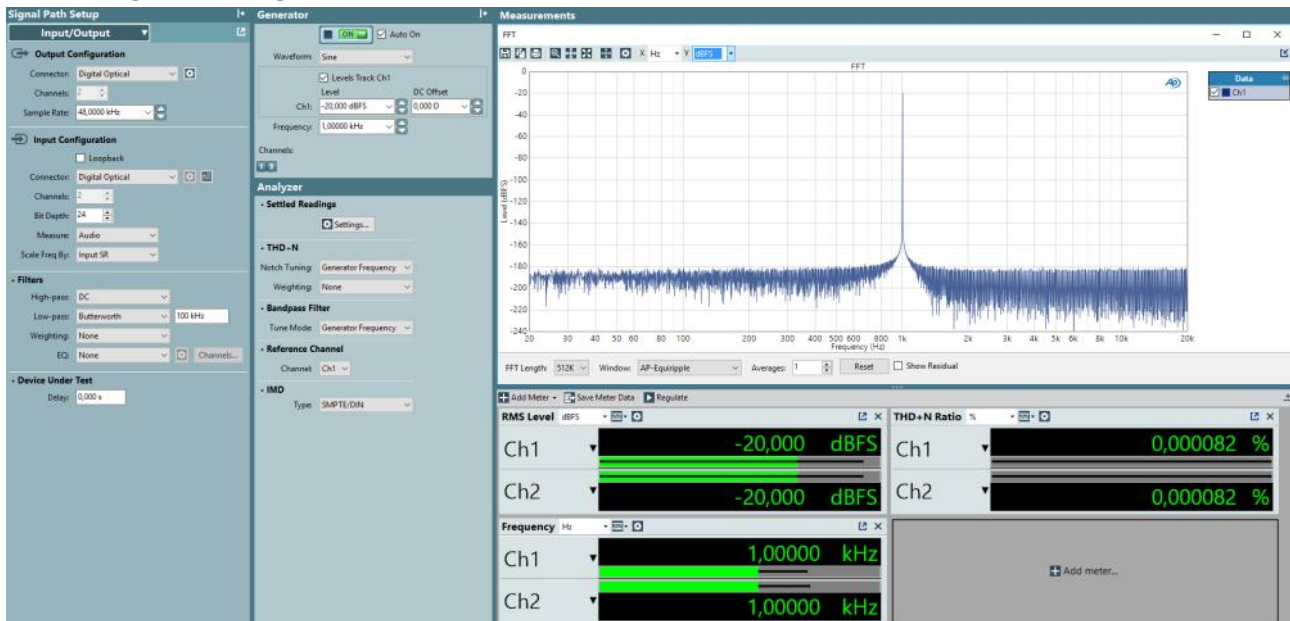
### 1.2.1 Generator off



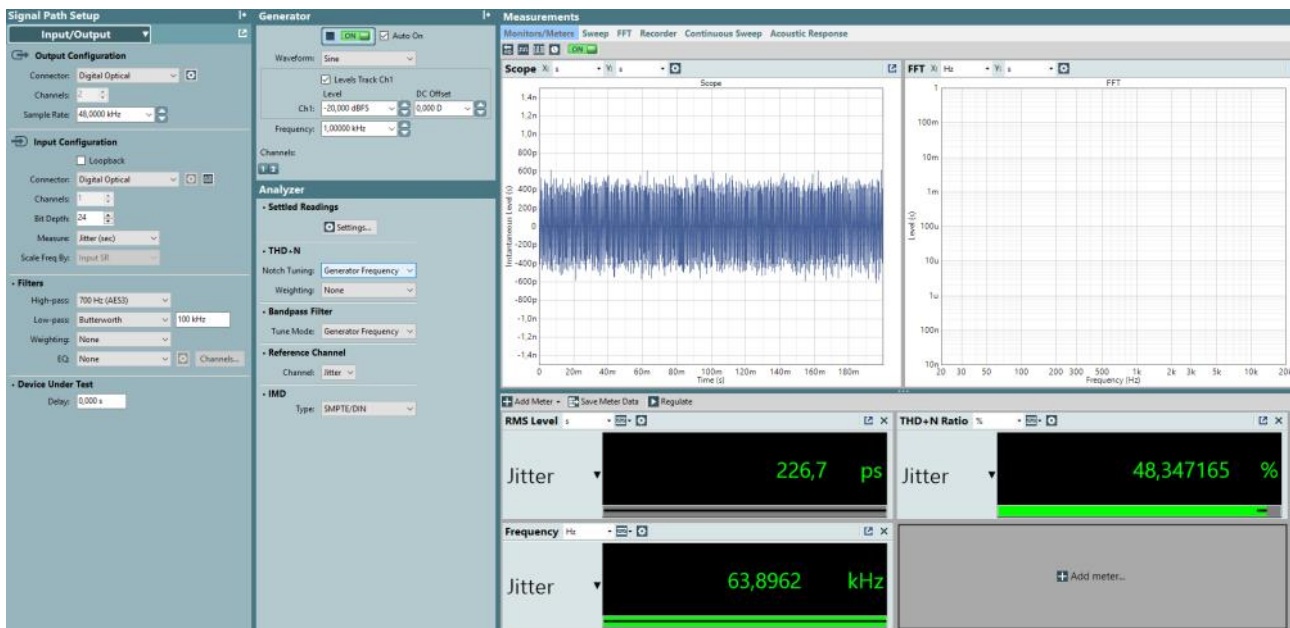
### 1.2.2 Generator on > 1 kHz, 1 VRMS



### 1.2.3 Digital out, digital in



### 1.2.4 Jitter



## 2 ADC tests

Only left ADC channel tested.

### 2.1 Settings for AP analog output, digital input

Output Configuration:

- Connector Analog Unbalanced
- Source impedance 20 ohm
- Channels 1
- Eq None

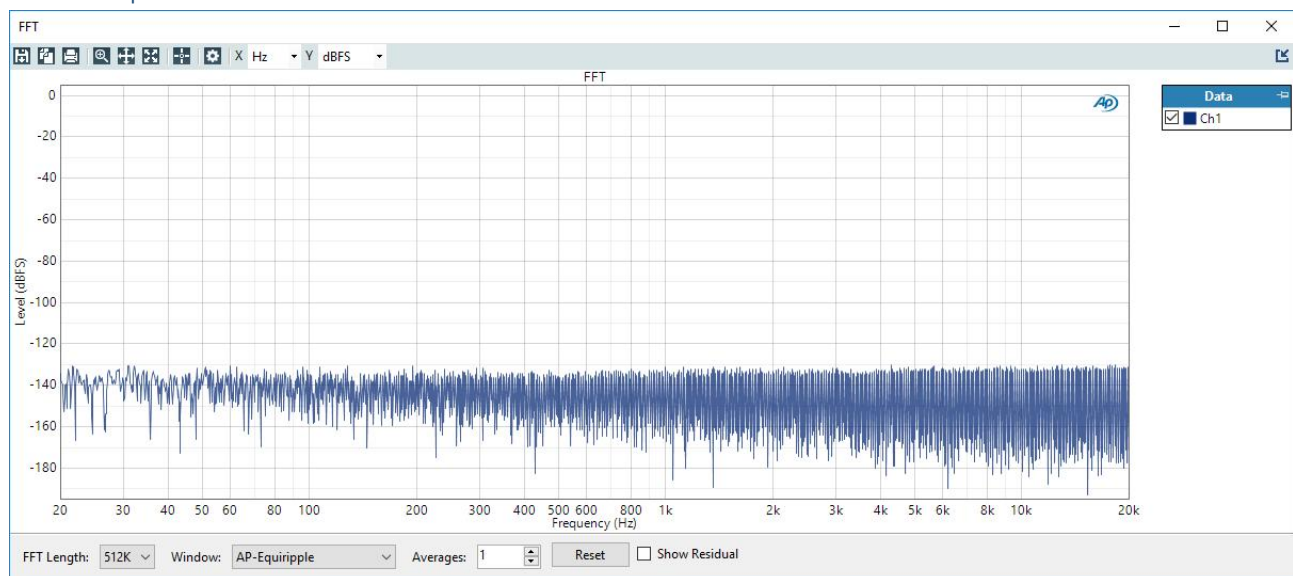
Input Configuration:

- Connector Digital Optical
- Channels 2
- Bit depth 24 bit
- Measure Audio
- Scale by freq Fixed rate
- Fixed rate 48 kHz

Filters:

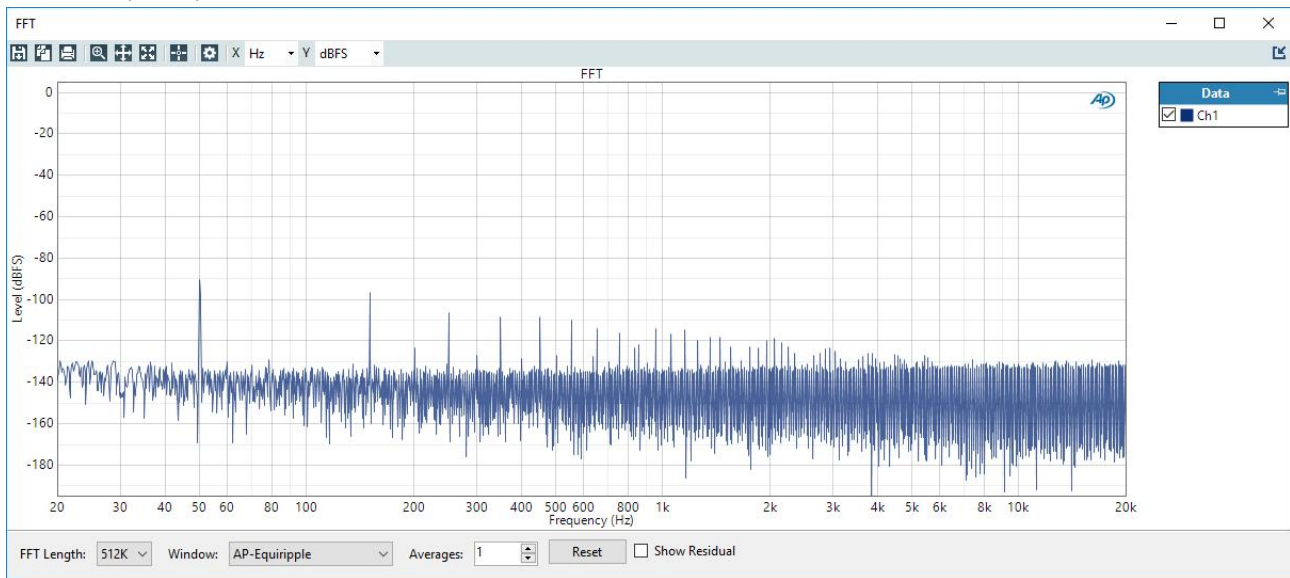
- High-pass DC
- Low pass  $F_s/2$
- Weighting None
- Eq None

#### 2.1.1 Input shorted





### 2.1.2 Input open



### 2.1.3 Connected to AP, AP generator off

