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# Test & Measurement

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## **Complimentary Reference Material**

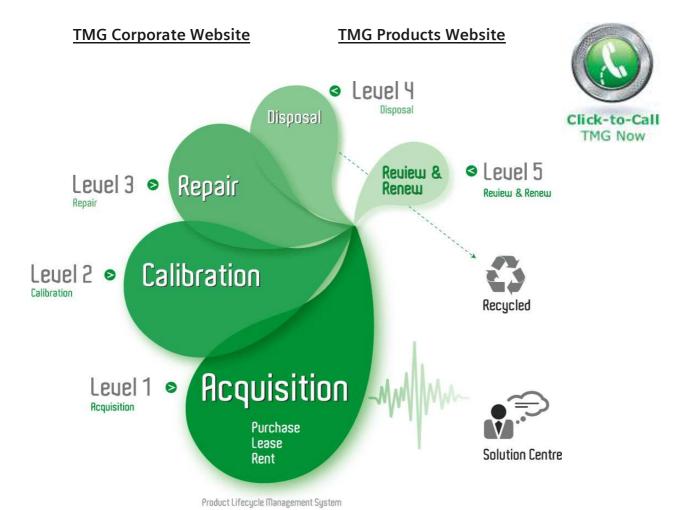
This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

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# **Electrical Communication Adapters**

► AFTDS • AMT75



The AFTDS Differential Signal Adapter and the AMT75 75  $\Omega$  Adapter provide an effective means for 50  $\Omega$  terminated instruments to connect to, and analyze differential and high-speed electrical communication signals, as well as video signals. Both adapters are rugged and have the TEKPROBE<sup>™</sup> interface, which provides convenient auto-scaling of waveforms on Tektronix TDS Series oscilloscopes. Also, the low VSWR (Return Loss) performance minimizes measurement errors commonly associated when interfacing with complex electrical signals.

Ideal for use in pulse shape compliance testing of high-speed electrical communication signals.

## ► Characteristics

#### AFTDS Differential Signal Adapter

Electrical Standards -

DS-1: (1.544 Mb/s).

DS-1A: (2.048 Mb/s).

DS-1A. (2.040 IVID/S)

DS-1C: (3.152 Mb/s).

DS-2: (6.312 Mb/s).

E-1: (2.048 Mb/s).

Standards of Compliance –

ANSI T1.102, ITU-T G7.03

Bandwidth (-3 dB) - 7 kHz to 120 MHz.

Rise Time - <3.0 ns.

#### Attenuation -

5x, (-14 dB)  $\pm 5.0\%$  (valid over 50 kHz to 30 MHz).

**Droop** - ≤2.0% per 700 ns.

VSWR (return loss) -

 $\leq$ 1.1:1 ( $\geq$ 26 dB), typical (valid over 50 kHz to 30 MHz).

#### **AFTDS Features**

TEKPROBE Interface -

Auto-scaling and auto-termination with Tektronix TDS oscilloscopes.

#### Input Impedance -

100  $\Omega$ , 110  $\Omega$  or 120  $\Omega$  ±3.0% (selectable). (Valid over 50 kHz to 30 MHz.)

Load Impedance –  $50 \Omega \pm 3.0\%$ .

#### Safety -

UL3111-1, CSA1010.1, EN61010-1, IEC61010-1 (AFTDS only).

## AMT75 75 $\Omega$ Adapter

### Electrical Standards -

DS-3: (44.736 Mb/s).

DS-4: (139.264 Mb/s).

STS-1: (51.84 Mb/s).

STS-3: (155.51 Mb/s).

STM-1: (155.51 Mb/s).

E-2: (8.448 Mb/s).

E-3: (34.368 Mb/s).

E-4: (139.264 Mb/s).

D-1: (270 Mb/s).

D-2: (143 Mb/s).

## Standards of Compliance –

ANSI T1.102, ITU-T G.957, ITU-T G7.03, Bellcore GR-253-CORE.

Bandwidth (-3 dB) - DC to 1.0 GHz (typical).

Rise Time - <350 ps (typical).

**Attenuation** – 5X,  $(-14 \text{ dB}) \pm 2.0\%$ .

#### ▶ Features & Benefits

#### AFTDS Differential Signal Adapter for Electrical Communication

Complies with ANSI T1.102 and ITU-T G.703 Standards

120 MHz Bandwidth

Low VSWR (Return Loss) ≤1.1:1, (≥26 dB)

Connects Directly to TDS Series Scope (TEKPROBE Interface) or Other 50  $\Omega$  Terminated Instruments

CE Certified

# AMT75 75 $\Omega$ to 50 $\Omega$ Adapter for Electrical Communication and Video Signals

Complies with ANSI T1.102, ITU-T G.957, ITU-T G.703 Standards and Bellcore GR-253-CORE

1.0 GHz Bandwidth

Low VSWR (Return Loss) ≤1.1:1, (≥26 dB)

Connects Directly to TDS Series Scope (TEKPROBE Interface) or Other 50  $\Omega$  Terminated Instruments

#### ► Applications

Communication Pulse Shape or Eye Pattern Testing

Electrical Communication and Video Signal Interface for  $50 \Omega$  Terminated Instruments



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Updated 15 June 2005

► AMT75 VSWR/Return Loss.

#### AMT75

#### **Recommended Accessories**

Adapter - Order 103-0028-00.

#### **Optional Accessories for Instrument Connections**

50 Ω, BNC Coaxial Terminator Adapter –

Order 015-0554-00.

#### **Recommended Oscilloscopes**

TDS500 Series Digitizing Oscilloscopes.

TDS700 Series Digitizing Oscilloscopes.

TDS5000B Series Oscilloscopes.

TDS6000B, TDS/CSA7000B Series Oscilloscopes with TCA-BNC.

75 Ω Signal Adapter.

Includes: User's manuals (English) (070-9479-00), Certificate of Traceable Calibration.

50  $\Omega$ , BNC (F) to BNC (F) Feed-through

50  $\Omega$ , BNC (M) to BNC (F) Coaxial Cable – 18 in. Order 012-0104-00.

Order 011-0049-02.

50  $\Omega$ , BNC (F) to SMA (M) Adapter –

TDS600 Series Digitizing Oscilloscopes.

11000 Series Oscilloscopes

Our most up-to-date product information is available at: www.tektronix.com

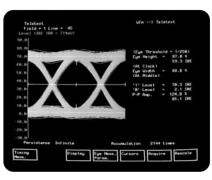


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8/05 HB/WOW

60W-11302-1





AFTDS VSWR/Return Loss.

VSWR (Return Loss) -≤1.1:1 (≥26 dB), up to 1 GHz (typical).

#### **AMT75 Features**

TEKPROBE™ Interface -

Auto-scaling and auto-termination with Tektronix TDS scopes.

Input Impedance – 75  $\Omega$  ±1.5%. Output Impedance – 50  $\Omega$  ±1.5%.

Ordering Information

Differential Signal Adapter.

**AFTDS** 

Includes: Bantam (M) to Siemens (F) cable, 5 in. (012-1520-00), user's manuals (English) (070-9483-00), Certificate of Traceable Calibration.

#### **Recommended Accessories**

Siemens (M) to Siemens (M) Cable -2 m (6.5 ft.), 120 Ω. Order 012-1469-00

Bantam (M) to Bantam (M) Cable -0.9 m (3 ft.). Order 012-1522-00.

Bantam (M) to RJ11 (M) Cable -1.8 m (6 ft.). Order 012-1521-00. RJ45/RJ11 (F) to RJ45 (F) Adapter -

Order 103-0409-00.