# **Electrical Communication Adapters** AFTDS • AMT75

# **Features**

### AFTDS DIFFERENTIAL SIGNAL ADAPTER FOR ELECTRICAL COMMUNICATION

- Complies with ANSI T1.102 and ITU-T G.703 Standards
- Ideal for Pulse Shape Analysis or Eye-Pattern Testing
- 120 MHz Bandwidth
- Low VSWR (Return Loss) < 1.1:1, (> 26 dB)
- Connects Directly to TDS Series Scope (TekProbe<sup>®</sup> Interface) or Other 50 Ω Terminated Instruments
- CE Certified

# AMT75 75 $\Omega$ 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
- Ideal for Pulse Shape Analysis or Eye-Pattern Testing
- 1.0 GHz Bandwidth
- Low VSWR (Return Loss) ≤ 1.1:1, (≥ 26 dB)
- Connects Directly to TDS Series Scope (TekProbe Interface) or Other
  50 Ω Terminated Instruments



See Tektronix on the World Wide Web: http://www.tek.com



Tektronix Measurement products are manufactured in ISO registered facilities.



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 interface which provides convenient autoscaling of waveforms on Tektronix TDS series oscilloscopes. Also the low VSWR (Return Loss) performance minimizes measurement errors commonly associated with interfacing with complex electrical signals

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

# CHARACTERISTICS

Electrica DS-1 DS-1A DS-1C	IFFERENTIAL SIGNAL ADAPTER I Standards – (1.544 Mb/s) (2.048 Mb/s) (3.152 Mb/s) (6.312 Mb/s) (2.048 Mb/s)
Standards of Compliance – ANSI T1.102 ITU-T G7.03	
Bandwidth (-3 dB) – 7 kHz to 120 MHz	
<b>Rise Time –</b> < 3.0 ns	
Attenuation – 5X, ( -14dB) ± 5.0% (valid over 50 kHz to 30 MHz)	
<b>Droop –</b> ≤ 2.0 %	per 700ns
VSWR (Return Loss) – $\leq$ 1.1:1 (> 26 dB), typical (valid over 50 kHz to 30 MHz)	

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 (-3dB) – DC to 1.0 GHz (typical)

Rise Time – < 350 ps (typical)

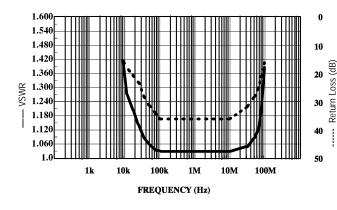
Attenuation –

5X, (-14 dB) ± 2.0%

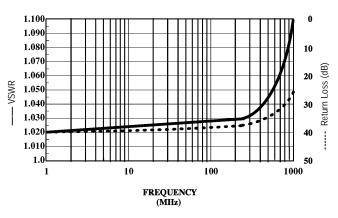
VSWR (Return Loss) –  $\leq 1.1:1 (\geq 26 \text{ dB})$ , up to 1 GHz (typical)



# **Electrical Communication Adapters AFTDS • AMT75**



AFTDS VSWR/Return Loss



AMT75 VSWR/Return Loss

### AFTDS FEATURES

TekProbe® interface -Auto-scaling and auto-termination with Tektronix TDS scopes

Input Impedance -

100  $\Omega$ , 110  $\Omega$ , or 120  $\Omega \pm 3.0\%$  (Selectable) (Valid over 50 kHz to 30 MHz)

Load Impedance - $50 \Omega \pm 3.0\%$ 

Safety -

CE, UL

# AMT75 FEATURES

TekProbe® interface -Auto-scaling and auto-termination with Tektronix TDS scopes

## Input Impedance - $75 \Omega \pm 1.5\%$

Output Impedance - $50 \Omega \pm 1.5\%$ 

### ORDERING INFORMATION

### AFTDS DIFFERENTIAL SIGNAL ADAPTER

Includes: Bantam (M) to Siemens (F) Cable, 5 inch (012-1520-00), Users Manuals (English) (070-9483-00), Certificate of Traceable Calibration

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

Bantam (M) to Bantam (M) Cable 0.9 m (3 ft) (012 - 1522 - 00)Bantam (M) to RJ11 (M) Cable 1.8m (6 ft) (012 - 1521 - 00)RJ45/RJ11 (F) to RJ45 (F) Adapter (103-0409-00)Opt 95 Calibration Data

AMT75 75  $\Omega$  SIGNAL ADAPTER Includes:Users Manuals (English only) (070-9479-00), Certificate of Traceable Calibration

**Recommended Accessories** 75 Ω, BNC (M) to BNC (M) Coaxial Cable 2 ft

(012--1339-00) 50 Ω, BNC (F) to BNC (F) Feed-through Adapter (103-0028-00)Opt 95 Calibration Data

#### OPTIONAL ACCESSORIES FOR INSTRUMENT CONNECTIONS

50 Ω, BNC (M) to BNC (F) Coaxial Cable 18 inch (012-0104-00) 50 Ω, BNC Coaxial Terminator Adapter (011-0049-01)50 Ω, BNC (F) to SMA (M) Adapter (015 - 0554 - 00)

### **RECOMMENDED OSCILLOSCOPES**

TDS 500 Series Digitizing Oscilloscopes TDS 600 Series Digitizing Oscilloscopes TDS 700 Series Digitizing Oscilloscopes TDS 800 Series Digitizing Oscilloscopes 11800 Series Digital Sampling Oscilloscopes CSA 803 Series Communications Signal Analyzer

#### For further information, contact Tektronix:

World Wide Web: http://www.tek.com; ASEAN Countries (65) 356-3900; Australia & New Zealand 61 (2) 888-7066; Austria, Eastern Europe, & Middle East 43 (1) 7 0177-261; Belgium 32 (2) 725-96-10; Brazil and South America 55 (11) 3741 8360; Canada 1 (800) 661-5625; Denmark 45 (44) 850700; Finland 358 (9) 4783 400; France & North Africa 33 (1) 69 86 81 08; Germany 49 (221) 94 77-400; Hong Kong (852) 2585-6688; India 91 (80) 2275577; Italy 39 (2) 250861; Japan (Sony/Tektronix Corporation) 81 (3) 3448-4611; Mexico, Central America, & Caribbean 52 (5) 666-6333; The Netherlands 31 23 56 95555; Norway 47 (22) 070700; People's Republic of China (86) 10-62351230; Republic of Korea 82 (2) 528-5299; Spain & Portugal 34 (1) 372 6000; Sweden 46 (8) 629 6500; Switzerland 41 (41) 7119192; Taiwan 886 (2) 765-6362; United Kingdom & Eire 44 (1628) 403300; USA 1 (800) 426-2200

From other areas, contact: Tektronix, Inc. Export Sales, PO. Box 500, M/S 50-255, Beaverton, Oregon 97077-0001, USA (503) 627-1916

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