

DATA MAX[®] T-1, E-1 xDSL AND T-3 CABLES



YOUR CONNECTION TO THE FUTURE, TODAY

The industry leader in design and performance



QUABBIN'S DIGITAL TELCO CABLES ARE SUPERIOR



The explosive growth of Internet connections, complex wide area networks, and rapidly increasing data traffic through existing Telco infrastructure is creating huge demand for these cables. They interconnect switching and data transmission equipment, providing low loss and signal distortion combined with excellent shielding isolation.

This brochure outlines Quabbin's T-1 (DS-1), E-1, xDSL and T-3 (DS-3) product range.

Telco Digital Signaling Growth

Years ago AT&T developed the "T-carrier" system to make more efficient use of copper cabling. It converts analog voice traffic to multiplexed digital signals within central offices. T-1 transmits 24 voice channels on a single pair of Telco "ABAM" cable. T-3 multiplexing combines 28 T-1 circuits using a low loss coaxial cable.

With the breakup of AT&T, these protocols became ANSI standards, designated DS-1 and DS-3 respectively. E-1 is a European version of T-1, with only slight differences.

The recent increase in LANs, WANs, call centers, fax and Internet traffic created growing applications for these digital protocols within central offices and also at customer premises. T-1, E-1 and T-3 digital signaling is a proven technology, is usually available, and uses existing copper media.

Quabbin Solves Cabling Problems

Most LAN installers or owners are not familiar with T-1 or T-3, so they often use the wrong cabling. Cable density, connector size, EMI isolation, and crosstalk are significant problems. As more circuits are crammed into bridges and routers, older Telco cabling is proving to be too large.

Quabbin's digital Telco cables solve all these problems. They meet the ANSI signaling requirements for bit error rates, EMI shielding, pulse shape, and cabling length.

Manufacturers of T-1 multiplexing equipment and central office switching gear have independently verified this fact. Several who failed the FCC's EMI system test requirements using poorer quality cabling have easily passed using Quabbin's designs.

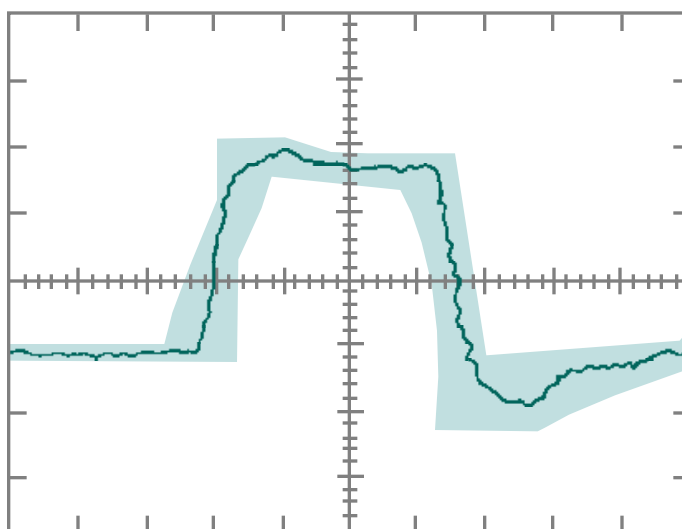
QUABBIN WIRE & CABLE'S DIGITAL TELCO CABLE

PRODUCT FAMILY	CONSTRUCTION DETAILS (see note below)	APPLICATION NOTES
Oval DataMax T-1 2 pair with isolated shields	22 AWG solid, 24 AWG solid or 26 AWG stranded 100 Ohm dual-layer insulation	T-1 signaling Terminates to modular connector
Shotgun DataMax T-1 2 pair with isolated shields	22 AWG solid or 24 AWG solid 100 Ohm dual-layer insulation Pair legs may be separated	T-1 signaling Separated pair legs terminate to modular connector
Multipair DataMax T-1 2 – 12 pair with overall or isolated shields	22 AWG solid 100 Ohm foam insulation 2 pair with dual-layer insulation	T-1 signaling 2 pair terminates to modular connector
Oval DataMax E-1 2 pair with isolated shields	24 AWG solid 120 Ohm dual-layer insulation	E-1 signaling Terminates to modular connector
Shotgun DataMax E-1 2 pair with isolated shields	24 AWG solid 120 Ohm dual-layer insulation pair legs may be separated	E-1 signaling Separated pair legs terminate to modular connector
Multipair DataMax E-1 4 – 12 pair with isolated shields	22 AWG solid 120 Ohm foam insulation	E-1 signaling
DataMax xDSL 1 and 2 pair unshielded	24 AWG stranded 100 Ohm single layer insulation	Various varieties of DSL signaling
DataMax T-3 Double shielded coaxial	26 AWG solid 75 Ohm foam insulation	T-3 signaling Terminates to BNC type connector

Note: Detailed specification information and actual performance data for all of the above DataMax digital Telco cable families is available in Quabbin's product catalog, printed specifications, and in Quabbin web site (www.quabbin.com). You may also contact your local Quabbin representative or Quabbin's headquarters sales office at the location listed on the back cover.

Actual T-1 (DS-1) Data Pulse

The scope trace at right illustrates the ANSI minimum and maximum pulse-mask for DS-1 signaling. The trace shown within the mask is an actual pulse after transmission through Quabbin P/N 9720. The cable meets these requirements for lengths greater than 200 meters.



Quabbin's Distributors and Assemblers

Quabbin sells these products through distribution and value-added assembly houses. Contact Quabbin Wire & Cable Co., Inc. or Quabbin's local sales representative for a source near you. They will provide you with pricing and delivery for either bulk cable or terminated Telco assemblies.

Other Products from Quabbin

Quabbin Wire produces many other products in addition to the digital Telco cables outlined in this booklet. These include PVC multiconductor and multipair shielded and unshielded cables for low-voltage, instrumentation, control, and signaling applications. Quabbin also manufactures special designs and LAN patch cable that exceeds the requirements for Categories 3, 5, 5e, and 6 (draft).

Technical Leadership

Quabbin is an active corporate member in both BICSI and the TIA. Quabbin's research and modeling data have had a significant role in setting industry standards. As an example, Quabbin Wire is acknowledged to have led the industry in the study of LAN channel return loss and return loss effects.

More Information

If you would like a full line catalog, additional information on Quabbin's products, or technical white papers contact your local Quabbin representative. You may also contact Quabbin's sales department or visit the Technical Briefs section at Quabbin's web site.



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