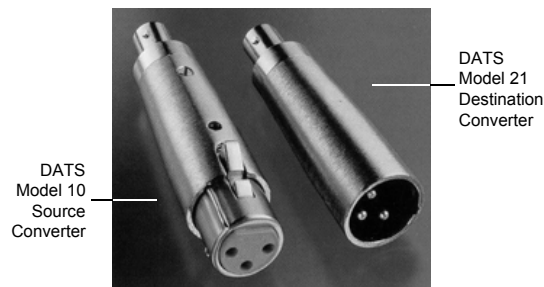


DATS

About the DATS

DATS (Digital Audio Transmission System) converters allow longer, more robust AES transmission links by sending unbalanced signals over standard coaxial cable. Error free transmission distances of 1000 feet are attained with inexpensive coaxial cables. DATS converters are used in pairs on digital equipment to convert AES format audio to and from the DATS format — a common unbalanced format using 1V p-p signals (75 Ω) that treats AES signals just like video signals.

A DATS converter is essentially an XLR connector with DATS conversion circuitry inside, and a BNC connector on the other end. The converters simply plug into the I/O connectors on the back of the selected machine.



Two DATS models are available:

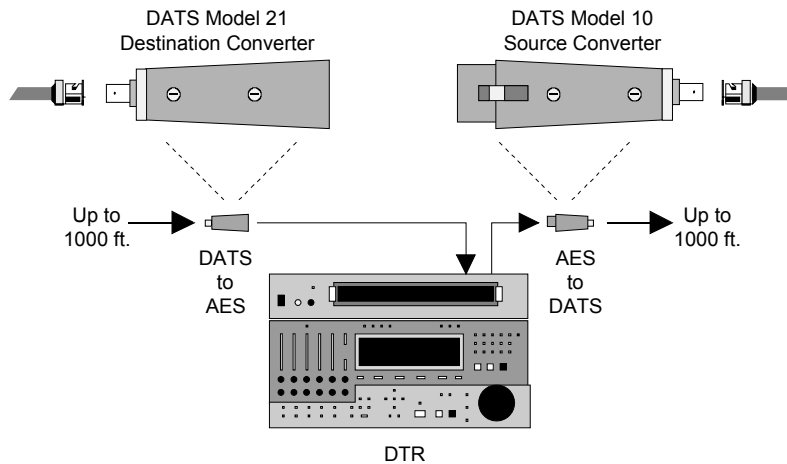
- **Model 10 Source Converter** — converts AES to DATS. The connector includes one female XLR and one BNC jack.
- **Model 21 Destination Converter** — converts DATS to AES. The connector includes one male XLR and one BNC jack.

DATS Installation

- **Model 10 Source Converter** — install one DATS Model 10 in the selected machine's AES output connector. Connect a BNC cable to the Model 10 to distribute AES audio in the DATS format.
- **Model 21 Destination Converter** — install one DATS Model 21 in the selected machine's AES input connector. Connect a BNC cable to the Model 21 to convert DATS back to AES.

Cable length and connections

Our tests and experience have demonstrated that 100 meters of commonly used twisted pair cable is too long for error-free transmission of AES signals. Use of a pair of DATS Converters results in an error-free transmission distance of at least 1000 feet using Belden 8279 cable. Low-cost, RG-59U cables are acceptable, and for short transmission paths, smaller, higher loss cables are sufficient.



DATS Specifications

The following table lists DATS specifications.

Parameter	Specification
DATS Model 10 Source Converter	Typical AES sources supply 7 to 10 volts p-p (open circuit) with a balanced source impedance of 110 Ω , and a male XLR jack. The DATS Model 10 delivers 0.7 to 1 volt into a terminated 75 Ω cable (or load), with a source impedance of 75 Ω .
DATS Model 21 Destination Converter	A receiving device designed to the AES3-1992 standard, should operate with 400 mV p-p, supplied through a female XLR connector and includes a 110 Ω load. The DATS Model 21 transforms the 75 Ω line to 110 Ω resulting in a signal of 0.8 to 1.2 volts p-p into the load.

- NOTE**
- The DATS signal is much less critical than NTSC video, but requires about the same bandwidth. Almost any device such as DA's, jackfields, and routing switchers can be used.
 - Existing video cable can be used, but RG-59 type cable is adequate for over 1000 feet without equalization.

Printing History

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FCC Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at your own expense.

Warranty Statement

Graham-Patten warrants that the equipment it manufactures is free from defects in workmanship and materials and meets applicable published specifications. Equipment that has been operated within published ratings and has not been subjected to abuse or modification, and which fails because of such defects, will be replaced or repaired at the Company's discretion if it is returned, freight prepaid, to Graham-Patten within one year of receipt.

This warranty supersedes all other Warranties, express or implied. Graham-Patten is not liable for any consequential damages.

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