PRELIMINARY 03/00

ALTMANN
MICRO MACHINES

ALTMANN JISCO

JITTER SCRAMBLING DECORRELATOR
(patent applied for)

FEATURES:

AMM - JISCO- TOS in original size

- the worlds first jitter scrambling decorrelator
- uses ALTMANN proprietary technology
- decorrelates the incoming signal-jitter from the digital source and performs high-frequency jitter-shaping
- improves the sound qualtity of digital audio reproduction systems significantly
- performs a high precision signal reconditioning
- interfaces between optical (TOSLINK, ST) and galvanic (AES, S/P DIF) transmissions
- makes a „Direct Clock Injection“ to the receiver (DA-converter or AD-converter)
- decorrelates transmitter jitter (CD, DVD, SACD/DSD, DAT transports, master clocks)
- decorrelates line induced jitter
- single unit supports all sampling frequencies from 32,0 .. 96 or 192 kHz, including varispeed applications
- output signal voltage level switchable for S/PDIF or AES connections
- delivers high-end performance even with lowest cost transmitters (fe. cheap CD/DVD/DAT players)
- improves AD recordings

DESCRIPTION:

The ALTMANN - JITTER SCRAMBLING DECORRELATOR (JISCO) is a high performance transceiver device, primarily designed to raise audio reproduction performance.

The ALTMANN JISCO receives digital audio data from a transmitter (fe. CD, DVD, DSD, DAT player, master or reference clock) via TOSLINK, ST, Cinch or XLR connection, decorrelates the incoming jitter from transmitter & line distortions, performs a high frequency jitter shaping, and then transmits the decorrelated signal via „Direct Clock Injection“ into the Cinch, XLR or BNC input of the receiver (fe. AD or DA converter).

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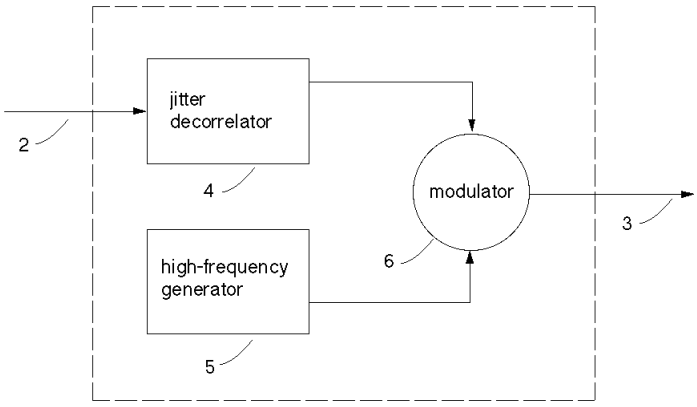
DESCRIPTION CONTINUED:

The ALTMANN JISCO is a device that raises audio reproduction performance of digital audio systems.

This is accomplished by eliminating the effects of transmitter jitter and line induced jitter to the receiving device (f.e. DA converter). The ALTMANN JISCO is not a jitter attenuation device (like the ALTMANN UPCI), but uses a totally different proprietary technology:



AMM - JISCO block diagram

The incoming signal (2) passes the jitter decorrelation block (4) that executes the real-time scrambling algorithms.

A modulator (6) performs a jitter frequency shift of the decorrelated signal using an ultra stable high-frequency generator.

The jitter at the output of the modulator has its energy shifted to high frequencies, where it has no influence on the clock recovery PLL of the receiving device (f.e. DA converter).

The operation of the ALTMANN JISCO is independent of the sampling rate. A single ALTMANN JISCO can bes used for CD, DAT, DVD and multichannel applications. It can also be used in varispeed applications that continuously alter the sampling frequency (fe. broadcast and dj-applications).

The ALTMANN JISCO is directly plugged into the digital input of a DA converter, respectively the clock input of an AD converter.

„Direct Clock Injection“ is a technique developed by ALTMANN in order to overcome cable losses and additional line induced distortion after the signal has been reconditioned.

The subjective performance improvements of the ALTMANN JISCO have been evaluated in numerous listening tests with the following results:

- improved ease of listening
- increased clarity and dimensionality
- improved high frequency response
- increased instrument separation
- more information
- much better timing
- better soundstage
- improved overall audio performance

The ALTMANN JISCO is covered by a 5 years limited warranty.

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TECHNICAL DATA:

supported sample frequencies	32 .. 96 .. 192 kHz
compatibility	CD, DVD, SACD/DSD, DAT, Dolby Digtal, etc.
supported signal types	any
initial input signal recognition time	zero
timelag between input and output	typ. 25ns @ all sampling frequencies
capture range of sample frequency	complete frequency range
output jitter frequencies	several MHz
AES mode output voltage	5Vpp
S/PDIF mode output voltage	0,5Vpp, when terminated
Input options	ST optical, TOSLINK, Cinch, BNCadapt, XLRadapt
Output	Cinch, BNC, XLR, optical upon request
Dimensions	65 x 55 x 24 mm + external power supply

ORDERING INFORMATION:

AMM - JISCO -input (TOS/ST/CIN/BNC/XLR) -sample frequency (32..96kHz or 192kHz)

fe.	AMM - JISCO- ST - 96	means ST-optical input, 96 kHz max. sampling frequency
	AMM - JISCO- TOS - 96	means TOSLINK input, 96 kHz max. sampling frequency
	AMM - JISCO- XLR - 192	means XLR input, 192 kHz max. sampling frequency

Note: The AMM - JISCO standard output is via Cinch plug. BNC or XLR adapters are supplied, if required.

APPLICATIONS:

CD & DVD mastering / premastering
recording studio / control room
high quality broadcast applications
high end consumer audio

TOTAL SATISFACTION POLICY:

The AMM - JISCO can be obtained directly from ALTMANN, Germany.
If the customer is not satisfied with the product, he can return it within 14 days to ALTMANN, Germany for a full refund on the price of the product (applies only for customers located in Europe).

ONLINE SUPPORT:

Updated information and user manuals can be accessed from our web-sites:

www.altmann.haan.de
www.jitter.de

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