



DP583 Frame Synchronizer



The Dolby DP583 synchronizes Dolby E, Dolby Digital, and PCM audio to your broadcast, cable, or satellite plant reference.

Unlike conventional audio synchronizers that work only with PCM audio, the Dolby® DP583 Frame Synchronizer can sync Dolby Digital and Dolby E bitstreams from outside (asynchronous) sources to your local reference. This enables you to align the guard band on Dolby E bitstreams for switching and editing, allow Dolby E and Dolby Digital bitstreams to pass through head-end and turnaround facilities, and maintain A/V sync.

Postproduction facilities can also use the DP583 to reframe Dolby E streams that have been stored on devices without reference capabilities (such as 20-bit DAT or hard-disc recorder) so they can be recorded onto VTRs or servers.

The DP583 can operate with both tracking and fixed delays of up to a maximum of 310 ms. When tracking with Dolby E, the video reference provides framing information; when tracking with PCM, a standard TTL input signal compatible with most video frame synchronizers can be used. The output clock can be derived from either a video black or AES reference.

The DP583 displays the incoming bitstream type (Dolby E, Dolby Digital, or PCM), the program configuration, and the current delay through the unit. It also counts the number of frame drops or repeats for subsequent retrieval, and logs any errors discovered in Dolby E and Dolby Digital bitstreams. Redundant power supplies with separate inputs assure fail-safe operation in broadcast-critical paths.

Dolby DP583 Frame Synchronizer

DP583 Front Panel



Display and Controls

Two-line, 16-character LCD with control keys

Status LEDs

Indicate audio input status, reference input status, power supply status, fault, and error

RS-232 Serial Remote Control Port

8-pin female mini-DIN connector for software upgrades

DP583 Rear Panel



Main Input

BNC female connector with loop-through, unbalanced, 75 Ω , signal levels per AES-31D-1995 (SMPTE 276M), external 75 Ω termination required

AES Reference Input

BNC female connector, 75 Ω internally terminated, signal levels per AES-31D-1995 (SMPTE 276M); supports 32, 44.1, and 48 kHz sampling rates

Video Reference Input

BNC female connector with passive loop-through; NTSC/PAL program or black; signal level per SMPTE RP 154-1994, external 75 Ω termination required

Bypass Input

BNC female connector, 75 Ω internally terminated, signal levels per AES-31D-1995 (SMPTE 276M); in Bypass mode, termination is switched out and the Bypass Input signal is sent to the Main Output

Main Output

BNC female connector, unbalanced, 75 Ω , signal levels per AES-31D-1995 (SMPTE 276M)

RS-485 Serial Remote Control Port

9-pin female D-connector for software upgrades

Status Port

9-pin female D-connector, 0–5 V TTL level; includes active high TTL input for delay tracking

Power Requirements

Two built-in power supplies

100–240 VAC, 50–60 Hz, auto-sensing, 10 W maximum, designed to operate from a centrally switched source

Dimensions and Weight

1-U rackmount: 44 × 483 × 324 mm

(1.75 × 19 × 12.75 inches)

Net: 2.9 kg (6.3 lb)

Environmental Conditions

Operating: 0°C–50°C (32°F–122°F) natural convection cooling, 0%–98% relative humidity (noncondensing)

Nonoperating: –20°C to 70°C (–68°F to 158°F)

Regulatory Notices

North America: This unit complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules, and Industry Canada ICES-003 requirements. It is UL Listed for the US and Canada.

Europe: This unit complies with the requirements of Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC and carries the CE marking accordingly.

Warranty

One-year limited, parts and labor; see disclaimer. Specifications subject to change without notice.

Disclaimer of Warranties

Equipment manufactured by Dolby Laboratories is warranted against defects in materials and workmanship for a period of one year from the date of purchase. There are no other express or implied warranties and no warranty of merchantability or fitness for a particular purpose, or of noninfringement of third-party rights (including, but not limited to, copyright and patent rights).

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