

Murraypro

The whole picture

EYE~POD

Eye & Jitter Testing



Test Chest capability extended to EYE & Jitter measurement

Straightforward and easy to use

Interfacing with Test Chest, **EYE~POD** extends it's monitoring capability to include SDI envelope and Jitter parameters from SD right up through to 3G. In use, the accessory couples effortlessly with the Test Chest D-25 connector, and is securely latched in a moment without tools, and with no fiddly mechanical alignment either!

Navigated using the Test Chest's hi-res touch-screen LCD, **EYE~POD** Users receive an immediate visual indication of the quality of the SDI input signal with regard to both overall signal amplitude and jitter.

Drawing power from Test Chest, the combo may also use long-duration battery power furnished via our 'V-Lock' adapter battery plate or the mains PSU. Only professional grade 'Lemo' power connectors are used on the V-Lock plate and interconnecting cable.

EYE~POD's optimised design ensures low input Return Loss for maximum signal fidelity, enabling the displayed Eye envelope to be evaluated for rise time, frequency and phase response anomalies.



Eye waveforms are presented together with a Histogram that simultaneously displays both the Alignment & Timing Jitter.

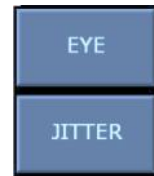
The dual colour histogram clearly shows the SMPTE limits for the Standard in use, which are automatically pre-set for the SDI input signal detected.

EYE~POD waveforms may be examined either "RAW" to capture nuances of the signal via very short input cables, as on the images above; or via an active Equaliser which dynamically compensates for HF losses on longer coaxial cables. Eye waveforms are displayed on the Test Chest LCD with 3E, 10E and Frame related timebase control of the 'Eye' envelope.

Input signal artefacts are lost when active equalisation is used, but investigation of jitter issues down longer cables will be facilitated. The perceived system jitter/noise will always increase with longer cables, as greater HF compensation will be required.

The detected jitter error waveform is displayed in real time together with the time-base on the Test Chest's 800x480px LCD display. Selection between the 'Timing' or 'Alignment' mode will automatically pre-select the jitter measurement bandwidth for the input SDI source detected.

EYE~POD performs a series of automatic envelope and jitter measurements, presenting them on-screen, but Users may choose to undertake manual



Touch navigation is easy!



Measurements are automatic

The EYE~POD Module snaps firmly into place on any Test Chest

measurements using the precision graticule markings.

A USB interface is provided on the EYE~POD permitting numeric data and stored image porting.*

Confusing 'soft keys' are eliminated through use of the Test Chest's fast and intuitive 'Touch' panel interface, which steadily guides Users through their investigations.

Shared, NOT obsolete Inventory

One of the elegant features of EYE~POD is that a single unit may be shared between several Test Chest units, and is simply clipped on when it is required.

ALL Test Chest Units will function satisfactorily with the EYE~POD accessory, although it will be necessary to upgrade earlier software and update relevant hardware. Both easily achieved by returning the Test Chest to us, and we will perform this work cost effectively.

There is NO QUESTION of "existing Inventory obsolescence" with Test Chest when you purchase a Murraypro EYE~POD module.

EYE~POD is approximately 7 cm wide, and shares the Audio-POD's plate to couple securely to Test Chest. The module in matching livery, is housed in a stout extruded alloy case capable of absorbing the rough and tumble of the real world; this no flimsy assembly!

Specification

(Subject to revision)

EYE Display

3E, 10E and Frame related EYE timebase.
On-screen auto-measurement readout.
Precision Graticule scale in mV, with rise/fall time measurement points marked.
X shift via LCD touch panel.

Jitter Display

High Pass Filters per SMPTE 292M
Alignment Jitter Spec < 0.2 UI, all Standards.
SD Timing Jitter Spec < 0.2 UI.
HD Timing Jitter Spec < 1.0 UI
3G Timing Jitter Spec < 2.0 UI
Graticule scale in UI units, SMPTE limits shown.
Jitter error waveform display using Test Chest with Frame related EYE timebase.
DUAL Jitter Histogram simultaneously displays Timing & Alignment Jitter, confirming both conform with SMPTE Specification limits.

Auto-measurements

- 1) Detected input and display timebase declared.
 - 2) Timing and Alignment Jitter declared.
 - 3) Envelope amplitude declared.
 - 4) Envelope rise & fall times declared.
 - 5) Envelope \pm overshoot on positive going edge.
 - 6) Envelope \pm overshoot on negative going edge.
- * Software is under development.

Harmonised Tariff: 90304000

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