

Portable Waveform Monitor

25G ST 2110 and 12G-SDI with Battery Power



Overview

The QxP features an integral 3U, multi-touch LCD screen with class-leading waveforms in a portable unit. A choice of V-mount or Gold-mount (G-mount) battery plate is available for portability, making the QxP equally at home on-set in SDR or HDR Productions, Grading, Shading, or QC, MCR, Engineering and R&D environments.

Inheriting the flexible architecture of the QxL rasterizer, the QxP includes SMPTE ST 2110, 2022-6 and a wide-range of formats as standard. In-field upgrades are available for a rich set of options: UHD/4K, IP-MEAS, HDR, Dolby E decode, PCAP capture, EUHD and extensive Audio/Video/ANC test signal generation.

Factory-fitted options provide SDI interfaces and RTE™ real-time SDI eye/jitter analysis, with an engineering grade data view and an optional, advanced SDI-STRESS toolset.

For realtime IP workflows the QxP supports simultaneous Generation and Analysis of SD*/HD/3G/UHD/EUHD 2110 payloads on generic SFP28/25 GbE interfaces, with ST 2022-7 Seamless IP Protection Switching (SIPS) and independent PTP followers on both media ports for fully-redundant media network operation – all with AMWA NMOS IS-04 and IS-05.

Picture view, waveform monitor, vectorscope, extensive audio metering, audio channel-status, detection of common Dolby formats, ANC status and payload; on-screen display of closed captions and Ancillary Time Code (ATC); Loudness monitoring; advanced control and logging with human readable event logs; browser-based remote operator GUI access over noVNC and a full REST API are provided as standard.

Whether working in HD, UHD, SDR, HDR, SDI or IP, conventional or remote production, the QxP combines the user-configurability and advanced tools required for full operational flexibility when transitioning to next generation workflows.

Key Features

- 3U instrument with integral 1920 x 1200, 7 inch LCD screen
- HDMI Rasterizer output with up to 16 instruments
- Touchscreen, button or mouse-driven user interface for local and remote operation
- Intuitive interface with presets - QxP puts you in control
- Choice of V-mount or Gold-mount Battery Plate for external battery and portable operation
- Class-leading Waveforms in a portable device
- Inherits renowned JT-NM tested QxL features
- Available in: IP only, IP & SDI, IP & SDI Eye & Jitter each with the option of battery V-mount or Gold-mount
- SFP28 IP media interfaces fitted as standard, with SDI option for Hybrid SDI/IP
- Options for UHD/4K, IP-MEAS, Dolby E, HDR, PCAP, EUHD, AV-ANC Gen and SDI-STRESS
- ST 2110-20 payloads up to 4K60P 444 12-bit over 25G IP networks with 2022-7 and dual PTP
- Fully-featured SDI toolset: audio, Dolby-detect, Data view, ANC status and ANC Inspector included as standard
- 128 SDI audio channels, ST 2110-30 Class C, 32 channel metering, 5.1/2.0 Loudness measurement
- Remote access and control with remote browser access using noVNC
- Built-in speaker and headphone jack

QxP Rear Panel



Specifications

Monitor	
Display Resolution	1920 x 1200
Display	7 inch LCD
Touch	Multi-touch
User Interface	
HDMI instrument output, 1920 x 1080, 4:4:4 RGB, Type A	HDMI 2.0a
3G-SDI instrument output, 1920 x 1080, 4:2:2 YCbCr	Micro BNC
User Interface Video/Audio	2110-20 / 2110-30/-31
Remote browser GUI access	noVNC
Ethernet IP Inputs / Outputs (Accepts Generic SFPs)	
2 x SFP28 10 / 25G cages	Standard
2 x QSFP28 cages	Reserved
Upgrade to 25GbE support	Software Option
Networking & Control	
10 / 100 / 1000 BASE-T	RJ45
8 x Bidirectional GPI Socket	26 pin HD D-Type
SDI Inputs / Outputs	
4 x SDI inputs, SD*/HD/3G, 75 ohm terminated BNC	Factory Option
2 x SFP+ MSA / Non-MSA cages (12 Gbps copper or fiber SDI interfaces)	Factory Option
4 x SDI outputs, SD* / HD / 3G, 75 ohm BNC	Factory Option
SDI I/O to 6G/12G (Requires Factory SDI Option)	Software Option
RTE™ Real-Time Eye input (12G/6G/3G/HD/SD*-SDI) x 1 (SDI input A) BNC	Factory Option
Formats Supported	
Core IP Formats: 3G / HD / SD* ST 2110-20/-30/-31/-40 / 2022-7, 2022-6	Standard
ST 2110-30/-31	Class C
ST 2110 UHD / 4K Formats	Software Option
ST 2110 RGB UHD / 4K EUHD Formats	Software Option
Core SDI Formats: 3G / HD / SD*	Factory Option
12G / 6G / 3G / 1.5G-SDI UHD 4K (Requires Core Formats)	Software Option
Audio Inputs / Outputs	
4 x 75 ohm AES selectable I/O (26 pin high-density D-Type socket)	26 pin HD D-Type
1 x Stereo analog audio output (26 pin high-density D-Type socket)	26 pin HD D-Type
8 channel 48 kHz PCM audio	HDMI and SDI Instrument Out
Audio Monitoring	
Front panel speaker	Integral
Headphone socket	¼ inch jack
Reference	
Reference input, Tri-level or B&B with cross-lock	75 ohm Micro-BNC
Form Factor	
Size (Width x Height x Depth - excluding projections)	215 x 132 x 330 mm
Weight	4.1 kg [†]
Electrical	
4 pin XLR DC power connector	11-17V, 70W typical, 100W max
Internal AC power supply with IEC connector	100-240 VAC, 77 typical, 110 W max
Choice of External Battery V-mount or Gold-mount	Factory Fitted

Ordering Information

QxP Chassis Options

PHQXP-V	QxP 3U SD* / HD / 2K 10GbE IP Waveform Monitor/Analyzer, V-mount
PHQXP-G	QxP 3U SD* / HD / 2K 10GbE IP Waveform Monitor/Analyzer, G-mount
PHQXP01-3G-V	QxP 3U SD* / HD / 2K 10GbE IP/SDI Waveform Monitor/Analyzer, V-mount
PHQXP01-3G-G	QxP 3U SD* / HD / 2K 10GbE IP/SDI Waveform Monitor/Analyzer, G-mount
PHQXP01E-3G-V	QxP 3U SD* / HD / 2K 10GbE IP / SDI Waveform Monitor/Analyzer, Eye/Jitter, V-mount
PHQXP01E-3G-G	QxP 3U SD* / HD / 2K 10GbE IP / SDI Waveform Monitor/Analyzer, Eye/Jitter, G-mount

QxP Chassis Upgrades (Return to Factory)

PHQXPM-01	QxP SDI I/O return to factory upgrade (requires PHQXP)
PHQXPM-01E	QxP SDI Eye/Jitter return to factory upgrade (requires PHQXP01-3G)

QxP IP Options

PHQXPO-IP-25G	25GbE media network (requires 2x PHSFP-25G-SR or PHSFP-25G-LR)
PHQXPO-IP-MEAS	IP Measurement 2110-21, PIT histograms, Timing
PHQXPO-IP-PCAP	PCAP 2x25Gbps line rate capture tool 4GB max.
PHQXPO-IP-NGT	2022-6 IP Network Traffic Generator Tool (requires PHQXPO-GEN)
PHSFP-10GE-SR	SFP+ 10GBASE-SR Ethernet MM 850nm 300m
PHSFP-10GE-LR	SFP+ 10GBASE-LR Ethernet SM 1310nm 10km
PHSFP-25GE-SR	SFP28 25GBASE-SR Ethernet MM 850nm 100m
PHSFP-25G-LR	SFP28 25GBASE-LR Ethernet SM 1310nm 10km

QxP SDI/IP Software Options

PHQXPO-DOLBY	Dolby E Decoder, Metadata Analyser, LtRt/LoRo downmix, metering
PHQXPO-GEN	SDI/IP AV Test Signal Generator (SDI requires PHQXP01-3G or PHQXP01E-3G)
PHQXPO-UHD	2K Extended + UHD/4K IP/SDI (ST 2110 requires PHQXPO-IP-25G) (SDI requires PHQXP01-3G or PHQXP01E-3G)
PHQXPO-EUHD	Add RGB, 12b, 444, 48-60 Hz UHD formats to ST2110 (requires PHQXPO-UHD)
PHQXPO-HDR	HDR/WCG support, CIE1931, HDR Heat map (PQ, HLG, S-Log3, SR Live)

QxP SDI Options

PHQXPO-SDI- STRESS	12G-SDI Stress Test Toolset (requires PHQXP01E-3G, PHQXPO-UHD, PHQXPO-GEN)
PHSFP-RT12-1310	SFP+ SM(10km) LC Non-MSA, Tx 1310nm, Rx 1260-1620nm SD*/HD/3G/6G/12G-SDI

QxP Fitting Kits / Cables

PHQXC-1	12G-SDI Eye Measurement Test Cable 1m
PHQXK7	3U 19 inch rackmount kit (1x QxP Chassis)
PHQXK8	3U 19 inch rackmount kit (2x QxP Chassis)
PHQXK9	QxP desktop kit (adjustable feet plus handle)

Please see the PHABRIX
website for more information.

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* Future software release.

† Excluding external battery.

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