

Selenio™ Network Processor

IP Synchronizer Personality SNP-PSK-SYNC



Selenio™ Network Processor (SNP) is the industry’s first fully network-attached media processing platform, supporting uncompressed HD and UHD, based on SMPTE ST 2110. This high-density, scalable platform enables media companies to perform video processing and conversion functions on standards-based IP networks using the SMPTE ST 2022-6 and ST 2110 standards. Inside the SNP there are four processing engines, and each engine can be assigned a different personality at runtime, including the SNP-PSK-SYNC personality.

The Synchronizer personality is typically used when bringing signals into or out of the local timing domain, and it is often applied in SDI-to-IP Gateway applications. Coupled with the Magellan™ Control System, SNP’s SYNC personality supports traditional SDI-router operational patterns including clean switching, implemented on an IP media fabric using SMPTE ST 2110.

As facility needs evolve and more devices natively support ST 2110 in the future, the common SNP hardware can be repurposed with other personality keys to support different applications – video format conversions or even multiviewers.

The SNP SYNC personality provides a very high-density platform – up to 32 1080p signals, or 8 Ultra HD (UHD) signals per SNP. These ultra-low latency gateways can be configured for SDI-to-IP or IP-to-SDI, for HD or UHD, in groups of four. In-band PTP or external reference signals will ensure signals are locked and timed appropriately for fast and clean switching within the routing system. Optional VSFP expansion cages allow for greater flexibility in combining existing audio infrastructure via MAD1 into the SMPTE ST 2110 network.

The SNP REMAP personality handles two UHD signals in the SQD (four-corners) format, remapping these into single-raster UHD inside the 2110 network and taking UHD signals from the network and delivering SQD output to legacy devices that require it. REMAP is enabled with the same license key as SYNC.

The SNP STAT personality, also enabled by the SYNC license, provides Simple Transparent Asynchronous Transport (STAT) of SDI signals without synchronization or processing – useful where a completely transparent, asynchronous SDI link is needed across an IP network.



ST 2110



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MORE THAN JUST A SYNCHRONIZER

The SNP SYNC and REMAP personalities are more than just synchronizing gateways. Each path features a full color processing engine with parametric adjustments in the non-linear and linear domains. The optional HDR processing key enables conversion between HDR systems, conforming the signal to the plant requirements. The color adjustment controls are all mapped in the well-known CCSP protocol, enabling 3rd party controllers to integrate SNP's functionality.

The SNP SYNC and REMAP personalities also support the MADIEXP key, adding 128 additional audio channels inside the synchronizer, supporting MADI input or output SFPs and/or additional IP stream channels.

The DOWNHD key is also supported on both, creating an HD (1080i or 1080p) output stream of any UHD signal in transit.

KEY FEATURES and SPECIFICATIONS – SYNC PERSONALITY

- High-density processing – up to 8 1080p or 2 UHD signals per processor
- SMPTE 259M, 292M, 424M, ST 2082 support (SD, HD, 3G SDI, and 12G SDI)
- SMPTE ST 2110-20,22,30,31,40 support on inputs and outputs
- SMPTE ST 2022-6 support on inputs and outputs
- SMPTE ST 2022-7 redundancy support on all IP inputs and outputs
- CCSP control API for integration into 3rd party control systems
- NMOS IS 04/05 Compliant for all ST 2110 receivers and senders
- (optional) conversion between SDR-709, SDR-2020, HLG, PQ, and Slog3 formats
- (optional) coaxial or optical MADI inputs or outputs
- (optional) downsampled 1080i or 1080p parallel output (in 2110-20) for each UHD signal

ORDERING INFORMATION

SNP-PSK-SYNC	SNP Software Key - enables SYNC and REMAP AP Personalities supporting eight (8) 1080P or two (2) UHD Frame Synchronizers, or supporting two UHD SQD/2SI REMAP functions. One Key per AP. (MAX 4 PER SNP) HDR Conversion or HD Proxy require additional related keys.
SNP-PSK-HDR	SNP Software Key - Adds HDR Conversion and Adjustment to Sync, Remap, MV, Dual-Conversion, or Quad-Conversion AP. Max 4 per SNP.
SNP-PSK-MADIEXP	SNP Software Key - Adds 128 additional audio channels to Sync or Remap AP. Max 4 per SNP. MADI SFPs sold separately.
SNP-PSK-DOWNHD	SNP Software Key - Adds two HD-Downscaled streams to Sync, Remap, and Dual-Conversion AP. Max 4 per SNP.
SNP-PSK-ACO	SNP Software Key - Adds 4xHD or 1xUHD Automatic Change-Over Switching feature to one Sync AP. Max 4 per SNP.



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