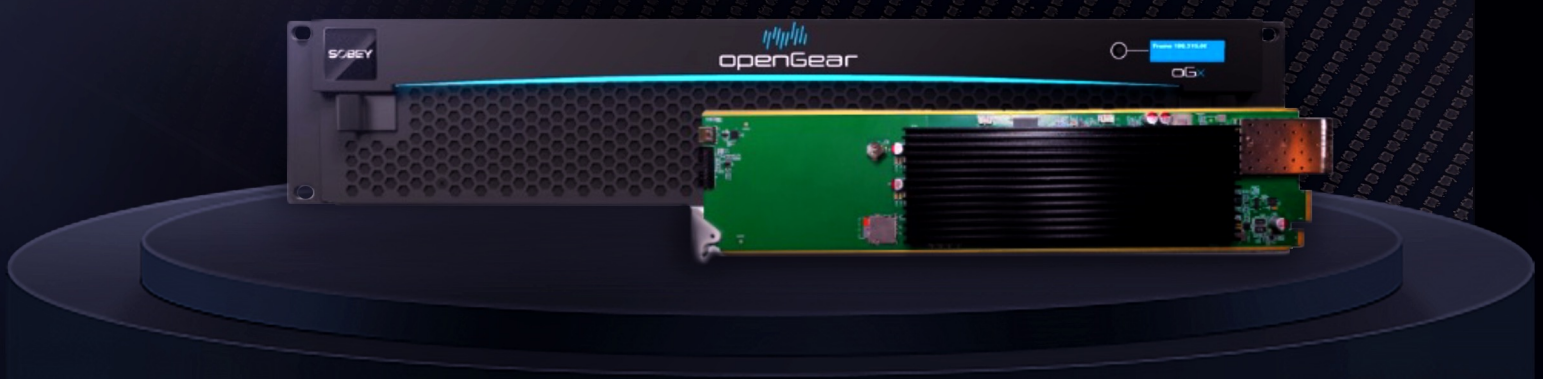
CHENGDU SOBEY DIGITAL TECHNOLOGY CO., LTD.

SOBEY

MCS-1015



4-to-1 signal selection	4K/HD SDI Up/Down scaling
16-Channel AES Support	LUTs with Fixed & Dynamic Parameters

MCS-1015

Product Overview

MCS-1015 achieves up-down conversion, 4-in-1 selection, and embedding functions, making it suitable for processing external signals in systems such as OB vans, studios, master control rooms, and broadcast systems.

The product possesses the following primary functions:

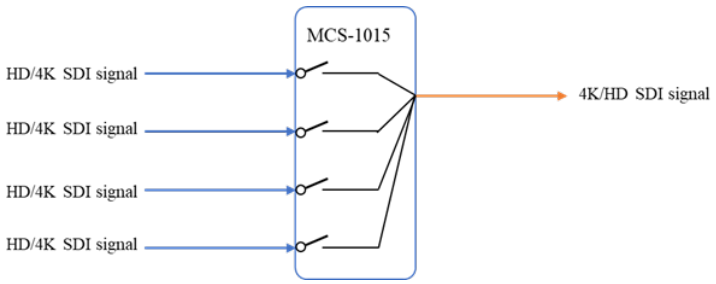
- Support the context transformation based on dynamic metadata, static metadata, parameter settings, and LUT tables
- Support the function of selecting one from four input signals
- Support embedding function
- Support the reproduction of transformation effects from other context transformation devices

The product adopts a chassis card-inserting form, with each 2U chassis supporting up to 5 processing units.

Application Scenarios

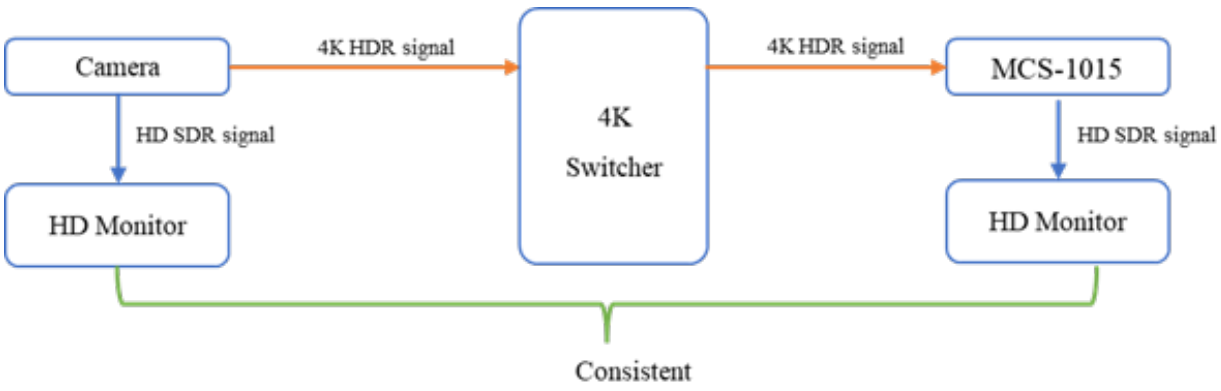
Select one from four signal inputs, with up and down conversion

- Select one from four input signals and perform up/down conversion simultaneously



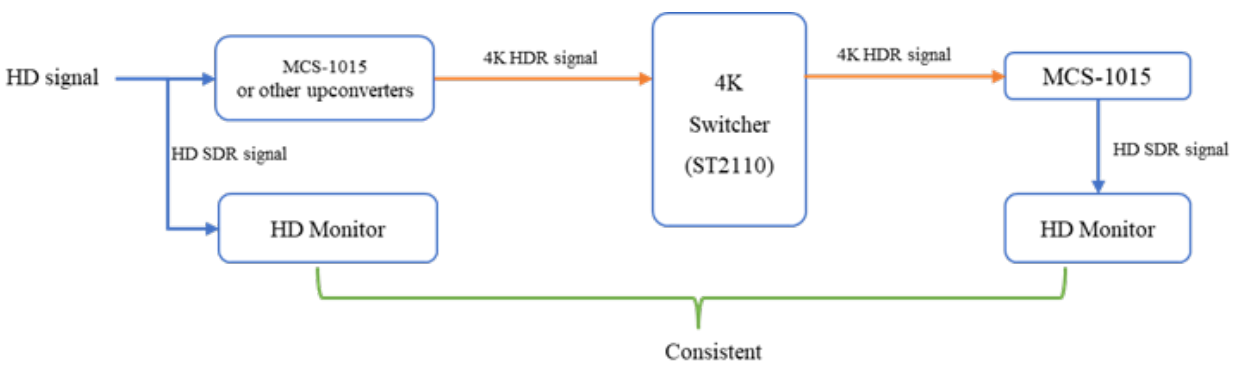
Support calibration, reproduce/adapt the transformation effects of other converters

- Based on the pre-set CCU output on site, using Sobey's proprietary algorithm, we restore the conversion parameters between 4K HDR and HD SDR output by the CCU and generate a LUT. This LUT can be imported into post-production systems such as Da Vinci, FCP, Sobey non-linear editing, etc., and can also be exported back to the cross converter for post-processing on the switcher



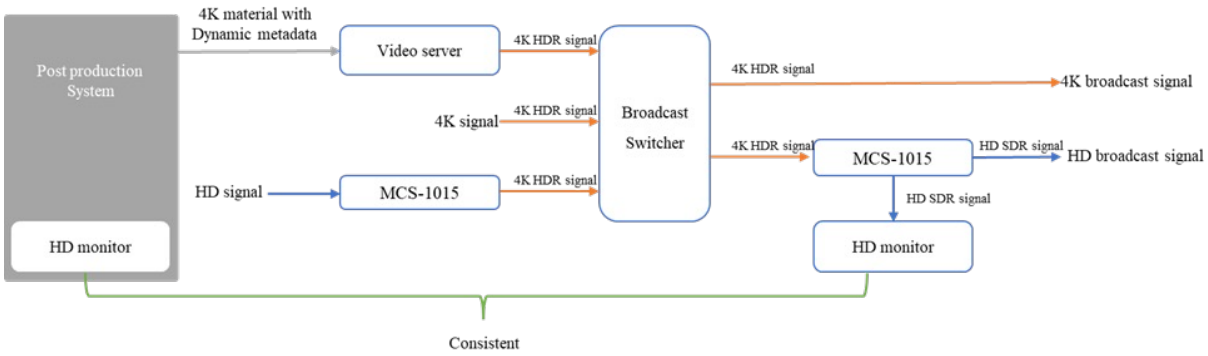
Output restored HD signals

- In the production process of 4K live broadcasting, external HD signals need to be up-converted into 4K signals before being fed into the system. The PGM signals produced by the switcher also need to be down-converted into HD signals for the post-production system or broadcasting system. Regardless of whether the up-conversion is performed using equipment from the same series, the MCS-1015 supports the output of restored HD signals through down-conversion.



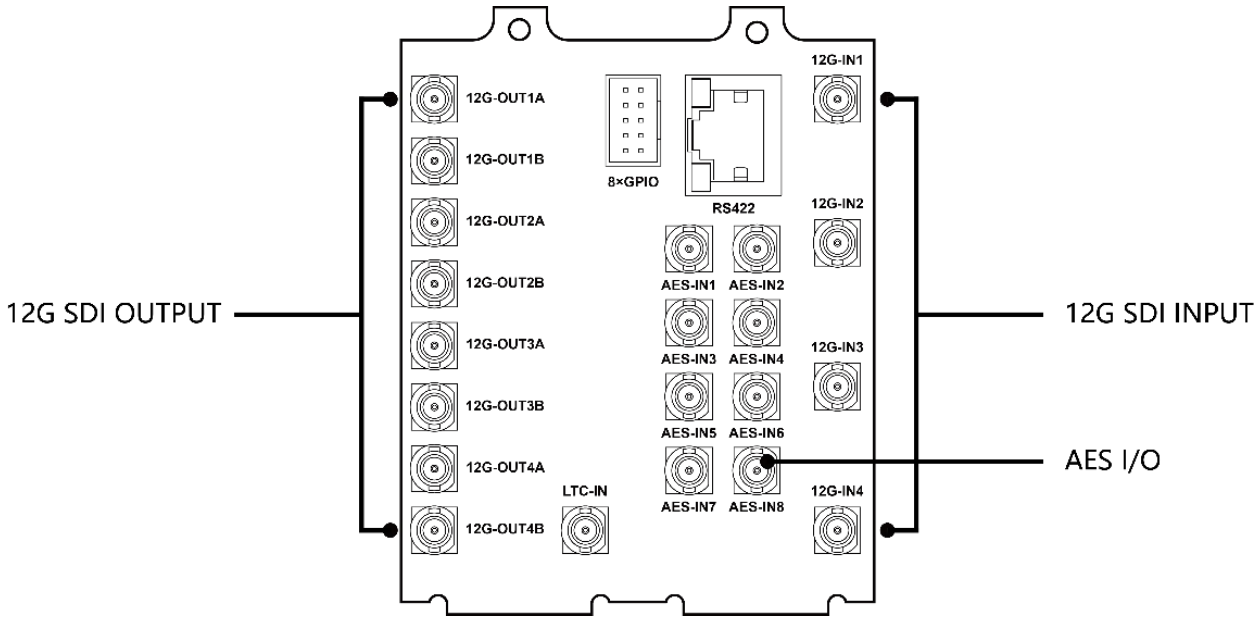
A collaborative production and broadcasting scenario where what is reviewed is what is broadcasted, based on dynamic metadata down-conversion

- In the broadcast scenario, it supports down-conversion based on the dynamic metadata provided by the post-production system, achieving HD effects consistent with the content that has been produced and reviewed by the post-production system.



- Supports a variety of transformation methods, including dynamic/static metadata, LUTs, and parameter settings.

Device Interface



Technical Specification

Input/output	
SDI interface	12G SDI x 12(4 IN，8 OUT)
Audio	BNC x 8, 16-channel input
LTC	LTC In x 1
Management Port	RS422 x 1
GPIO	GPIO x 8
Video format	
4K	3840 x 2160 60p/59.94p/50p
HD	1920 x 1080 60p/59.94p/50p/59.94i/50i
Clock synchronization	
REF Bi-Level or Tri-Level	
Number of slots	
4 slots	
Main function	
Single-channel cross-converter	
Support the function of selecting one from four inputs	
Support frame synchronization processing for all external signals	
Support 8-channel AES (16-channel) embedding	

Technical Specification

Main function
Supports SDI signal up/down conversion, HDR/SDR conversion, and HDR/HDR adaptation conversion
Supports color space recognition and conversion between ITU-R BT.709 and BT.2020
Supports up and down conversion based on dynamic/static metadata, with dynamic metadata supporting HDR Vivid
Supports up and down conversion based on LUT, and supports LUT import and export
Support for up and down transformation of configuration parameters
Supports HDR/HDR adaptation based on fixed parameters or LUTs
Provide supporting software to support calibration, reproduction/adaptation of transformation effects from other converters
Provide supporting software that supports the generation of a downconverter LUT based on the upconverter adaptation, to achieve the restoration of HD signals
Provide supporting software to support further optimization and dimming of the transformation effects achieved by LUT, and generate new LUTs for real-time transformation
Simultaneous output of 4K and HD
One 2RU chassis supports up to 5 channel cross-connections

Chassis configuration	
Number of slots	20
Power supply	100V to 240V AC，50/60 Hz
Power consumption	600W
Temperature range	0℃- 40℃
Dimensions (W x H x D, mm)	483 x 90 x 427
Redundant power supply	Yes