

KUDOS Plus ARC20:20S

Variable Aspect Ratio Converter with Signalling



The **ARC20:20S** is a 10-bit, bi-directional broadcast quality aspect ratio converter with serial digital input and outputs. A comprehensive selection of fixed conversion modes is available with ultra-smooth adjustment of picture position both horizontally and vertically. In addition to the preset values, horizontal zoom and active picture size can be smoothly adjusted over a 2:1 to 1:2 range.

A proprietary vertical-temporal filter uses all picture lines to maximize the vertical resolution without motion artifacts. Full control of input and output blanking is available. Video path features include full proc. amp controls, background color and Y/C clippers.

Aspect ratio control may be through line-23 wide screen signalling, video index (read and write) or remotely with both RollCall and external GPIs. An ergonomic front panel gives easy access to pre-set aspect ratios as well as user-programmed memories.

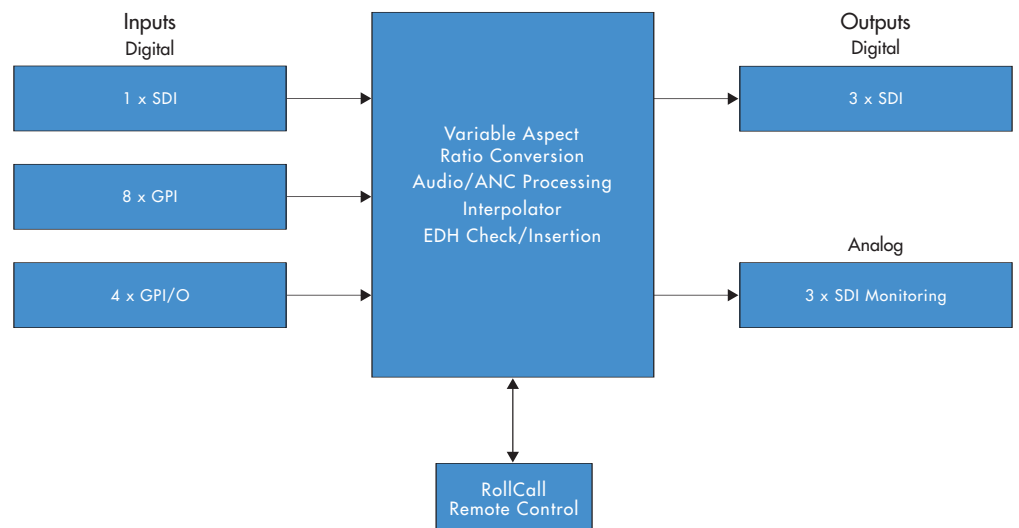
The unit automatically detects 525 and 625 line inputs. For added flexibility three SDI main and three SDI monitoring outputs are provided. SDI monitoring outputs incorporate on screen display of line-23 WSS and video index information and unit status. The ARC20:20S is designed to integrate up to four IQ modules to complement its dedicated function. This enables users to customize their unit according to application or system needs.

Features

- Aspect ratio conversion using vertical-temporal filtering
- 8 fixed up and down conversion modes
- Bi-directional ultra smooth variable aspect ratio between 2:1 and 1:2
- Ultra smooth dynamic pan & tilt
- Input and output blanking controls
- Line-23 WSS and Video Index signalling (reading and writing)

- On screen display of Line-23 WSS and Video Index information
- SDI monitoring outputs
- Fixed 1 frame delay for easy installation
- Transparent to horizontal and vertical interval data
- Background color control
- Auto field freeze on input loss
- Y/C gain controls
- Y black adjustment
- Y/C clippers for minimum and maximum values
- Pattern generation
- Caption insertion
- 8 GPI inputs and 4 input/outputs for rapid control
- 16 user definable memories
- Un-interruptible valid output
- RollTrack audio delay tracking and delay pulse output
- Automatic 625 & 525 operation
- EDH checking and insertion to SMPTE RP165
- RollCall remote control and monitoring

ARC20:20S Aspect Ratio Converter



Full Product List**Base Model**

Kudos Plus ARC20:20S Bi-directional 10-bit Aspect Ratio Converter (3768050)

Base Model

Kudos Plus ARC20:20STX, ARC20:20 with blank front panel (3768051)

Option

Additional Channel (individual I/O and control) Note: Maximum of three additional channels per unit (3768200)

Option

Remote Control (3768060)

Snell & Wilcox Inc.

3519 Pacific Ave.

Burbank, CA 91505

Tel: +1 818 556 2616

Fax: +1 818 556 2626

info@snellamerica.com

Snell & Wilcox Ltd.

Southleigh Park House,

Eastleigh Road, Havant,

Hampshire PO9 2PE, UK

Tel: +44 (0)23 9248 9000

Fax: +44 (0)23 9245 1411

info@snellwilcox.com

Snell & Wilcox Asia Pacific Ltd.

Room 63, Tai Tung Building,

No. 8 Fleming Road,

Wanchai, Hong Kong

Tel: +852 2356 1660

swhk@snellwilcox.com.hk

Company policy is one of continuous product improvement. Specifications are therefore subject to change without notice.

Snell & Wilcox, Putting Pictures to Work, RollPod and RollCall are trademarks of the Snell & Wilcox Group.

All other trademarks mentioned herein are duly acknowledged.

© 2007 Snell & Wilcox Limited
All Rights Reserved

Features**Signal Inputs**

Serial Digital 1 x SDI- SMPTE 259M -1997 and embedded audio SMPTE 272M (level A)

Signal Outputs

Serial Digital 3 x SDI - SMPTE 259M -1997 and embedded audio SMPTE 272M (level A)
3 x SDI Monitoring - SMPTE 259M - 1997 and embedded audio SMPTE 272M (level A)

Control**Control Interface**

GPI 8 Closing Contact style
4 Closing Contact Inputs / Outputs via 25-way D Connector

Controls**Conversion Mode Select Terms**

AA Active image aspect ratio with reference to 9 (4:3 is 12:9 = 12)
B Display Format
P for pillar-box
L for letter-box
F for full-frame
CC Raster aspect ratio with reference to 9 (4:3 is 12:9 = 12)

Conversion Mode Select

Input---->Output Comment (output)
12F12---->12P16 16:9 pillar-box
12F12---->14P16 16:9 pillar-box vertically cropped
12F12---->16F16 Full 16:9 picture
16L12---->12F12 Side cropped
16L12---->14L12 Side cropped 14:9 letterbox
16F16---->12F12 Side cropped
16F16---->14L12 Side cropped 14:9 Letterbox
16F16---->16L12 16:9 letter box

Control

Aspect ratio Smooth adjustment between 2:1 and 1:2
Size Smooth adjustment between 2:1 and 1:2
Pan control Smooth adjustment across input active picture
Tilt control Smooth adjustment across input active picture
Input blanking Smooth adjustment of top, bottom, left and right
Output blanking Smooth adjustment of top, bottom, left and right
L23 and Video Index Comprehensive control of Video Index & Line 23 including Automatic read, Automatic or Manual write, or removal
Y Gain Adjust ±6 dB in 0.1dB steps
C Gain Adjust ±6 dB in 0.1dB steps
Black Level Adjust ±100 mV in 0.8m V steps
Y Min/Max Clipper value - 50 mV to + 50 mV and 635 mV to 765 mV in 0.8m V steps

C Min/Max Clipper value + 200 mV to + 400 mV in 0.8 mV steps
Line 23, Video Index Insert on Monitoring outputs (On/Off) and unit status on screen display
Freeze on Input Loss (On/Off)
Manual /Automatic response to incoming video index or wide screen signalling / Minimum Delay
Background control Black, Blue, Red Magenta, Green, Cyan, Yellow, White, Grey or 2 user Defined R, G, B
Caption Off / 1 Line Caption / 10 Line Display
Pattern Select Off, Black, EBU Bars, 100 % Bars, Multiburst, Valid Ramp, Pulse and Bar, Green
Monitoring Output Output Input and monitoring information /Aspect ratio converted output
Ratio Terminology WRT-9, PB/LB, Ratio
User Memories 16 recall locations
Standard 525 / 625 / Auto
Preset Unit Returns all settings to factory defaults

Additional Controls via RollCall Remote Control System

Logging EDH, Input Loss, Input Standard, Input and Output Video Index Signalling, Input and Output Wide Screen Signalling, Video Index and Wide Screen Signalling AFD conflict, Unit mode
RollTrack Video Delay, Input Present, Input Missing, Input Standard, Input and Output Video Index Signalling, Input and Output Wide Screen Signalling, Video Index and Wide Screen Signalling AFD conflict
GPI configuration Select the function of each GPI input and output from a predefined list of options

Specifications

Maximum Input Cable length >200 m (PSF1/2 or equiv. cable)
Serial Output Level 800 mV ±10 %
Output Overshoot <70 mV
Output Jitter <0.2 UI
Delay Normal: 1 frame and approximately 2µS Minimum delay: Approximately 37µS

Power

Mains Supply 115/230 V 60/50 Hz 1.2 A
Power Consumption 140 W max

Mechanical

Temperature Range 0 ° to 40 °C operating
Cooling Axial fan
Case Type 1 RU Rack Mounting
Dimensions Overall 483 x 440 x 45 mm (w x d x h)
Depth from mounting face (including unmated connectors) 415 mm
Weight 9.75 kg
EMC Environment This unit is intended for use in the commercial and light industrial environment E2.



KP20 03/06 V1