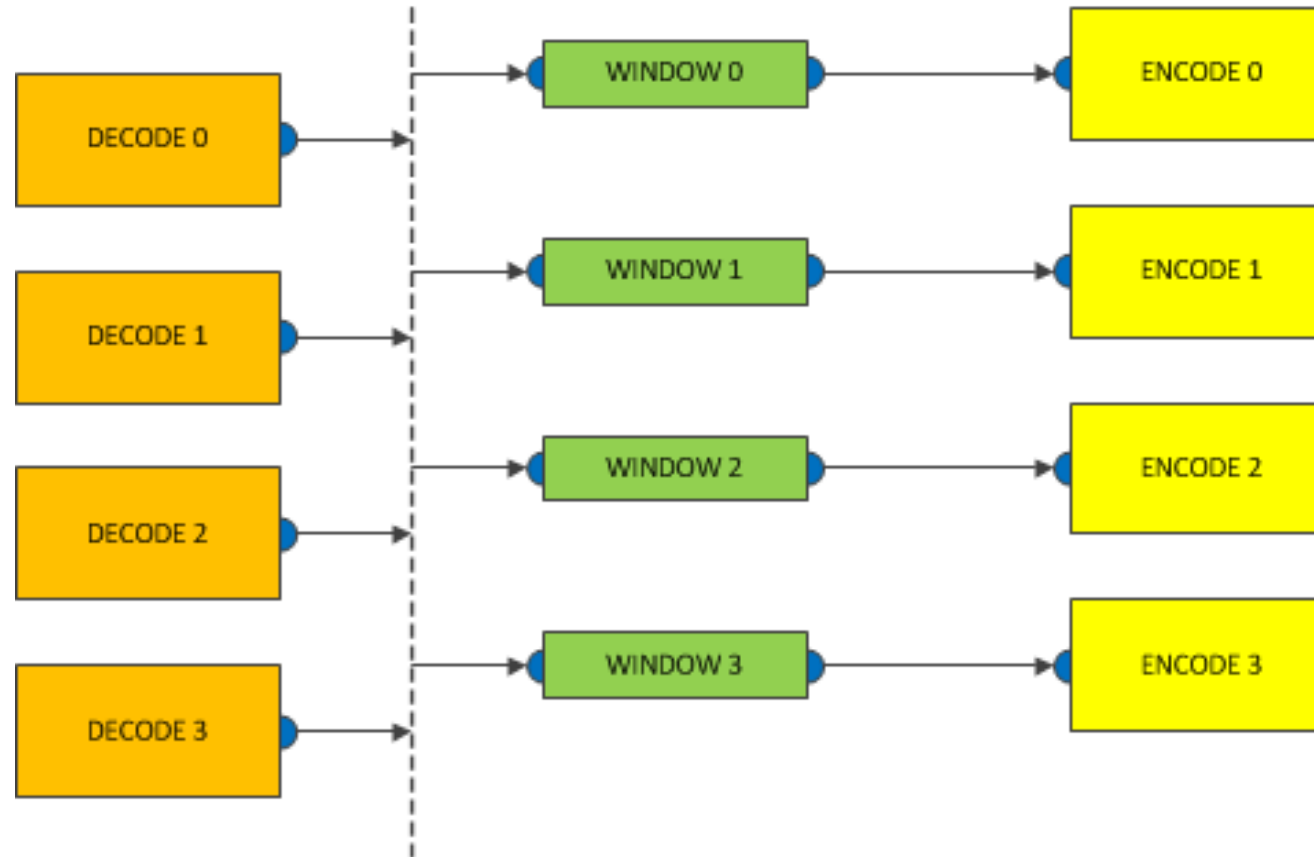# Box Mode #17

7445S

Summary

- Required memory speed: 3x 32-bit DDR4-2400 (1% SSC)
  - High-temp refresh supported

- Features:
  - One 3840x2160p60 10-bit decode
  - Three 1920x1080p30/60i decodes
  - Four 1080p30 / 720p60 / 1080i60 encodes
  - Allows any single source to be routed to one or more encoding operations.
  - No display (headless)
  - No HDMI input
  - Audio with SAP pass-through and AC4 input support for one transcode operation.

Possible video routings

Source limitations

- For each source, you may choose one of the provided options.

- Decode 0
  - 3840x2160p60 10-bit HEVC
  - 3840x2160p60 8-bit VP9
  - 1920x1080p30/60i 8-bit AVC / MPEG2

- Decode 1
  - 1920x1080p30/60i 8-bit HEVC / VP9 / AVC / MPEG2

- Decode 2
  - 1920x1080p30/60i 8-bit HEVC / VP9 / AVC / MPEG2

- Decode 3
  - 1920x1080p30/60i 8-bit HEVC / VP9 / AVC / MPEG2

- No graphics overlay on video used for transcode

- No HDMI input

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Window limitations

- Window 0 (MAIN / Encode 0)
  - Full-screen only
  - 1080i60 de-interlacing

- Window 1 (MAIN / Encode 1)
  - Full-screen only
  - 1080i60 de-interlacing

- Window 2 (MAIN / Encode 2)
  - Full-screen only
  - 1080i60 de-interlacing

- Window 3 (MAIN / Encode 3)
  - Full-screen only
  - 1080i60 de-interlacing

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Encode and Display limitations

- Encode 0
  - 1080p30 / 720p60
  - 1080i60

- Encode 1
  - 1080p30 / 720p60
  - 1080i60

- Encode 2
  - 1080p30 / 720p60
  - 1080i60

- Encode 3
  - 1080p30 / 720p60
  - 1080i60

- No UHD or SD display

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Audio Capabilities

- For each of the four transcode operations, we have the following capabilities in audio:
  – Main audio may be transcoded
  – SAP audio must be pass-through

- AC4 source is supported for the main audio of one of the transcode operations.

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