CLAIMS

1. A method of reconstructing at least a portion of an image, comprising

parsing (S231) a first bitstream to obtain a first latent tensor;

processing (S233) the first latent tensor to obtain a first tensor representing a primary component of the image;

parsing (S235) a second bitstream different from the first bitstream to obtain a second latent tensor different from the first latent tensor;

obtaining (S239) a second tensor representing at least one secondary component of the image based on the second latent tensor and the re-sampled first latent tensor.

2. The method according to claim 1, wherein the obtaining (S239) a second tensor representing at least one secondary component of the image based on the second latent tensor and the re-sampled first latent tensor, comprises:

re-sampling (S237) the first latent tensor based on an integer factor to obtain a re-sampled first latent tensor; and

obtaining (S239) a second tensor representing at least one secondary component of the image based on the second latent tensor and the re-sampled first latent tensor.

3. The method according to claim 2, wherein the integer factor is calculated based on a first scaling factor for the primary component and a second scaling factor for the at least one secondary component.

4. The method according to claim 3, wherein the integer factor is calculated as s_{UV}/s_Y, wherein s_Y represents the first scaling factor, s_{UV} represents the second scaling factor.

5. The method according to claim 4, wherein s_Y is present in a bitstream or set to a first default value, and s_{UV} is present in a bitstream or set to a second default value.

6. The method according to claim 2, wherein the integer factor is present in a bitstream or set to a first default value.

7. The method according to claim 6, wherein s_Y is present in a bitstream or set to a second default value, s_{UV} is derived as $s_{UV} = r \cdot s_Y$, s_Y represents a first scaling factor for the primary component, s_{UV} represents a second scaling factor for the at least one secondary component, r represents the integer factor.

8. The method according to any one of claims 2 to 7, wherein the re-sampling is performed by using the nearest neighbour up-sampling or the nearest neighbour down-sampling.

9. The method according to claim 8, wherein a tensor input of the nearest neighbour up-sampling is size $[C, h_{in}, w_{in}]$, a tensor output of the nearest neighbour up-sampling is size $[C, s \cdot h_{in}, s \cdot w_{in}]$, and no interpolation is performed for the nearest neighbour up-sampling, a tensor input of the nearest neighbour down--sampling is size $[C, s \cdot h_{out}, s \cdot w_{out}]$, and a tensor output of the nearest neighbour down--sampling is size $[C, h_{out}, w_{out}]$, and no interpolation is performed for the nearest neighbour down-sampling, wherein s represents the integer factor.

10. The method according to any one of claims 1 to 9, wherein the obtaining the second tensor representing at least one secondary component of the image comprises:

concatenating the second latent tensor and the re-sampled first latent tensor to obtain a concatenated tensor and transforming the concatenated tensor into the second tensor.

11. The method according to any one of claims 1 to 10, wherein the primary component of the image is a luma component and the at least one secondary component of the image is a chroma component.

12. The method according to any one of claims 1 to 11, wherein the first bitstream is parsed by a first neural network and the second bitstream is parsed by a second neural network different from the first neural network.

13. The method according to claim 10, wherein the first latent tensor is transformed by a third neural network and the concatenated latent tensor is transformed by a fourth neural network different from the third neural network.

14. The method according to any one of claims 1 to 13, the first tensor representing a primary residual component of a residual for the primary component of the image; and

the second tensor representing at least one secondary residual component of a residual for the at least one secondary component

of the image using information from the first latent tensor.

15. The method according to any one of claims 3 to 5 and 7, wherein the first scaling factor includes a first horizontal scaling factor and a first vertical scaling factor.

16. The method according to any one of claims 3 to 5, 7 and 15, wherein the second scaling factor includes a second horizontal scaling factor and a second vertical scaling factor.

17. A computer program stored on a non-transitory medium comprising a code which when executed on one or more processors performs the steps of the method according to any one of claims 1 to 16.

18. A processing apparatus (40, 250, 2000, 2100) for reconstructing at least a portion of an image, the processing apparatus (40, 250, 2000, 2100) comprising:

one or more processors (43, 255, 2030, 2102); and

a non-transitory computer-readable storage medium coupled to the one or more processors and storing programming for execution by the one or more processors, wherein the programming, when executed by the one or more processors, configures the apparatus to carry out the method according to any one of claims 1 to 16.

19. A processing apparatus (40, 250, 2000, 2100) for reconstructing at least a portion of an image, the processing apparatus (40, 250, 2000, 2100) comprising a processing circuitry (255) configured for carrying out the method according to any one of claims 1 to 16.