Claims

1. An electronic descrambling device for descrambling at least one video stream originating from at least one producer, configured to

- receive a chain of out transfer from an I/O interface connectable with a host device and thus receive a scrambled data chunk, wherein the data chunk is of a particular producer and defined from the video stream , and the chain of out transfer comprises a chain out header (oqH) linked with a plurality of chain out descriptors (oqTD), the first chain out descriptor pointing to a out description packet containing a producer ID, the second and subsequent chain out descriptor pointing to the data chunk,

- receive the out description packet;

- retrieve the producer ID from said out description packet;

- identify key data associated with the data chunk with the producer ID,

- use the key data to descramble the scrambled data chunk,

- return the descrambled data to the I/O interface connectable with the host device.

2. The electronic descrambling device according to claim 1, wherein the electronic descrambling device is a USB Dongle.

3. The electronic descrambling device according to claim 1 or 2, comprising a key table populated, for each of a plurality of producer IDs, with key data related to said producer ID.

4. The electronic descrambling device according to claim 3, wherein the key table contains a packet identifier PID or a program ID, in case one producer ID is associated with a plurality of key data.

5. The electronic descrambling device according to any of claims 1 to 4, comprising a personal key and further configured to receive the key data encrypted from the host device, and to decrypt the encrypted key data with the personal key.

6. The electronic descrambling device according to claim 5, configured to obtain the encrypted key data in the form of an Entitlement Control Message.

7. The electronic descrambling device according to claim 5, configured to obtain the encrypted key data in a license file.

8. The electronic descrambling device according to any of claims 1 to 7, comprising the I/O interface connectable with the host device, a memory acting as a buffer memory and configured to

store data chunks, a processing block in charge of directing a flow of data entering or exiting via the I/O interface to the memory, and a descrambling module, wherein the processing block is configured to handle in and out pointers of the buffer memory, pass the pointer for a data chunk stored in the memory to the descrambling module, keep track of the producer ID for said data chunk and load the related key data into the descrambling module.

9. The electronic descrambling device according to any of claims 1 to 8, comprising a key memory to store the key data received from the host device.

Claims

1. An electronic descrambling device for descrambling a video stream, the video stream originating from a producer, said electronic descrambling device comprising:

processing circuitry configured to

receive a chain out transfer from an I/O interface connectable with a host device, and thus receive a scrambled data chunk, wherein the scrambled data chunk is of a particular producer and defined from the video stream, and the chain out transfer comprises a chain out header linked with a plurality of chain out descriptors, a first chain out descriptor pointing to an out description packet containing a producer ID, second and subsequent chain out descriptors pointing to a corresponding data chunk,

receive the out description packet;

retrieve the producer ID from said out description packet;

identify key data associated with the scrambled data chunk using the retrieved producer ID;

use the identified key data to descramble the scrambled data chunk, and

return the descrambled data to the I/O interface connectable with the host device.

2. The electronic descrambling device according to claim 1, wherein the electronic descrambling device is a USB Dongle.

3. The electronic descrambling device according to claim 1, further comprising a memory storing a key table populated with, for each producer ID of a plurality of producer IDs, key data related to said producer ID.

4. The electronic descrambling device according to claim 3, wherein the key table contains a packet identifier PID or a program ID, in case one producer ID is associated with a plurality of key data.

5. The electronic descrambling device according to claim 1, further comprising a memory storing a personal key, wherein the processing circuitry is further configured to receive the key data encrypted from the host device, and decrypt the encrypted key data using the stored personal key.

6. The electronic descrambling device according to claim 5, wherein the processing circuitry is further configured to obtain the encrypted key data in a form of an Entitlement Control Message.

7. The electronic descrambling device according to claim 5, wherein the processing circuitry is further configured to obtain the encrypted key data in a license file.

8. The electronic descrambling device according to claim 1, further comprising the I/O interface connectable with the host device, a memory acting as a buffer memory and configured to store data chunks,

wherein the processing circuitry is further configured to direct a flow of data entering or exiting via the I/O interface to the memory, and

the processing circuitry includes descrambling circuitry, wherein the processing circuitry is further configured to handle in and out pointers of the buffer memory, pass a pointer for a data chunk stored in the memory to the descrambling circuitry, keep track of the producer ID for said data chunk, and load the key data into the descrambling circuitry.

9. The electronic descrambling device according to claim 1, further comprising a key memory to store the key data received from the host device.