Chips **2D** Processing & Visualization. **Conveyor**.

The assignment of a chipsets – a creation is high technological electronic designer for realization of various kinds of conveyors for **2D** Processing and Visualization of high resolution images of frames format up to **4k*4k 16b/color B&W** (**48b/64b /pixel** at **RGB**) in a stream up to **25-30** fps.

Conveyor **2D** Processing and Visualization of high resolution frames include:

1. Chips / Modules preliminary stream processing in real time **- PP.4k**.
2. Chips / Modules finishing stream processing in real time **- FP.4k**.
3. The Chip / Module display stream visualization in real time **- VP.4k**.
4. The Chip / Module of parallel digital input in real time **- IP.4k**.

Chips / Modules of first two types allow to be assembled by designer in more than one unit which allows to design conveyors with a complex sequence of processing of streams of the staff and/or to provide separate processing colors **R, G** and **B** in a parallel stream.

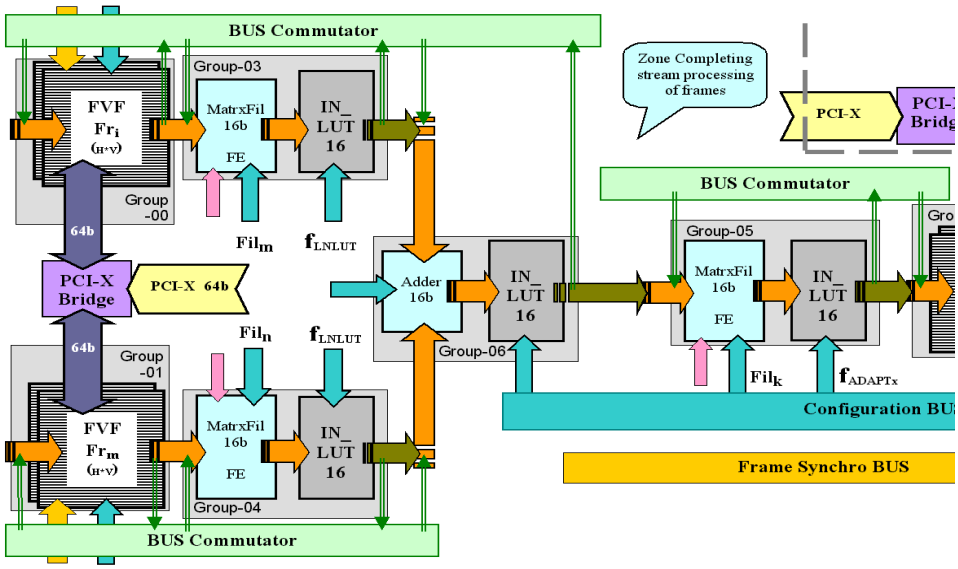
The following functions of mathematical processing of 16 bit conveyors are provided with a set of Chips/Modules:

- All operations on **2D** normalization pixel;
- Operations of integration of the frames in a stream;
- Operations of subtraction of the frames in a stream;
- Operations inside the frames in the allocated zone of processing;
- Display on the screen – **2D** visualization;
- Functions sequence stream filtration – **MatrxFil**;
- Various **16b** functions of conversions – **In_LUT16.**

The number of parallel channels of **2D** Processing and Visualization conveyor and kinds of processing of frame stream determine amount of required types of chips/modules and their location in the conveyor.

The chip provides parameters up to **200 Mpixel/sec /chip**:

- at frame format up to **4k*4k*16b – 8 fps;**
- at frame format up to **2k*2k*16b – 30 fps.**



The description of a set of chips in documents:

1. The Chips 2D of Processing and Visualization for the images of high resolution. ***Functional Conveyor.***
2. Adaptive Systems 2D of Processing and Visualization in real time. ***Electronic Conveyor***.
3. The Chips 2D Processing and Visualization. ***Modules***.
4. 2D Processing of Visualization in real time. ***Functional Elements***.
5. The Chip 2D Processing and Visualization in real time. ***Normalization***.