

The **VREO LIBERTY** Board

- SONY FCB Block Cameras to USB3.0 Interface
- 1080p 30fps video streaming
- One cable solution
- Push Button inputs for Zoom
- PWM output for LED dimming control
- Free SDK for windows and Linux
- UVC compliant

Markets and Applications: Video Conferencing, Inspection Systems, UAVs, Robotics, Low Vision, Machine Vision.

VREO **LIBERTY** extends the range of cameras that can be integrated into your USB3.0 products. This board provides a USB3.0 interface for the established SONY FCB block cameras providing a cost effective way to bring USB 3.0 into your product lines, reducing time to market and development costs. **LIBERTY** is a very compact and efficient solution allowing a one cable interface to a PC and comes with free UVC viewer application called OneView which will help you evaluate the board and camera for your application.

LIBERTY is capable of streaming 1080p at 30fps over USB 3.0 and includes push button inputs for camera zoom control, PWM output for external LED light control, and an efficient selectable power supply for the attached camera. As well as being powered completely over the USB bus, there is the option to provide camera power via an auxiliary power input connector.

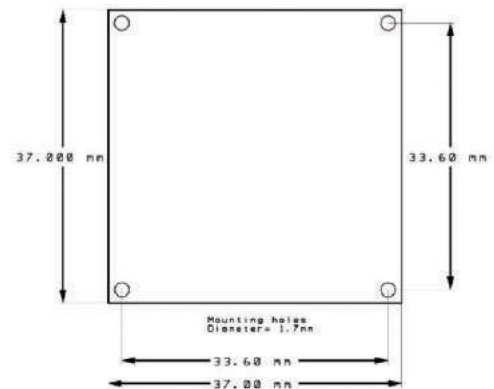


LIBERTY has a small form factor of only 37mm x 37mm x 12mm making it the smallest solution of its kind!

Even though the board is tiny, **LIBERTY** efficiently streams full HD video without compromise directly into a PC and is fully compatible with VREO's UVC viewer application OneView as well as other UVC programs.

LIBERTY is a perfect choice for both, brand new systems being designed for future use, and older systems that are getting updated and upgraded.

Supported Cameras from SONY	FCB-EH6500
	FCB-EH6300
	FCB-EH3410
	FCB-EH3310
	FCB-EH3150
	FCB-EV7500
	FCB-EV7300
FCB-EV7310	
FCB-EV7100	
FCB-EV5500	
FCB-EV5300	
Interface	USB3.0
Operating Temperature	0°C – 50°C
Max Resolution	1080p at 30fps
Camera Output Voltage	5v or 9v (selectable)
Board Dimensions	37mm x 37mm x 12mm



Actual size of the **LIBERTY** board

For full specifications of each camera, please visit www.vreoinnovation.com

Software Development Kit

Unique to VREO is a free SDK for use with the VREO LIBERTY board. The SDK includes an easy to use application programming interface API and the source code for the OneView viewer program. It has solutions for Linux and Microsoft Visual Studio 2010, 2012, and 2013. This SDK allows you to concentrate on your application development.

- Full source code for OneView Viewer application
- API that makes software development easy
- Supports visual studio 2010, 2012, and 2013
- Video recording using H.264 encoder
- Rapid integration for developing your product
- Brand your end user GUI
- Direct read and write to camera registers

```

int min, max, def, step, val;
m_ctrl.getPowerLineFreqRange(out min, out max, out def, out step);
val = m_ctrl.PowerLineFreq;
int isSelected = -1;
for (int i = min; i <= max; i++)
{
    switch ((PowerLineFrequency)i)
    {
        case PowerLineFrequency.Auto:
            this.comboPwLf.Items.Add("Auto");
            break;
        case PowerLineFrequency.f50Hz:
            this.comboPwLf.Items.Add("50Hz");
            break;
        case PowerLineFrequency.f60Hz:
            this.comboPwLf.Items.Add("60Hz");
            break;
        case PowerLineFrequency.Disabled:
            this.comboPwLf.Items.Add("Disabled");
            break;
    }
    if (def == i)
    {
        isSelected = i;
    }
}

```

VREO Engineering Expertise

VREO offer an end-to-end solution for integrating the above SONY block camera modules and USB3.0 into your application. We have developed our own hardware, firmware, and software solutions and are best placed to support your integration. VREO also have the full capability to offer custom bespoke solutions.