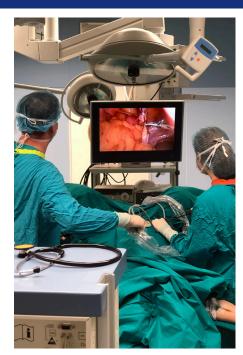
# **12G-SDI Broadcast 4K Video** Low Latency Stereo 3D Surgical Imaging

## Design Note #129



Low Latency Stereo surgical applications are realized using proprietary video technology developed by OTEC.



"Developed to exacting standards, OTEC's *first prototype worked awlessly – not even* one wire on the circuit board; and it was on schedule too. Remarkable! OTEC is simply Remarkable Engineering with a capital 'R'."

- VP Video Products Division



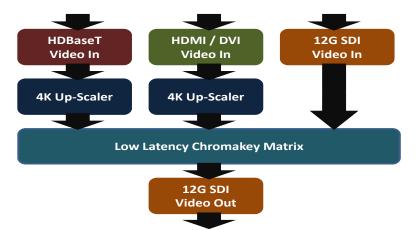
**ORCHID TECHNOLOGIES** ENGINEERING & CONSULTING, INC.

#### Low Latency Stereo Surgical Imaging

Three dimensional surgical imaging demands outstanding visual acuity with low image latency. The delivery of high reliability stereo video for robotic surgical applications presents unique challenges. With managed image latency under 100 vertical lines, OTEC's 4K video imaging system is best in class. Capable of providing highly reliable end-to-end 4K stereo imaging with signal path latencies below 5 milliseconds makes natural surgical procedures a reality. Conceived from the ground up, OTEC's surgical image processing solutions create new product opportunities.

#### Intel-PSG Arria 10 FPGA-based Architecture

OTEC's Intel-PSG Arria 10 FPGA-based architecture makes low latency, hardware based chroma keying a reality. The flexible FPGA architecture makes the addition of customized features possible.

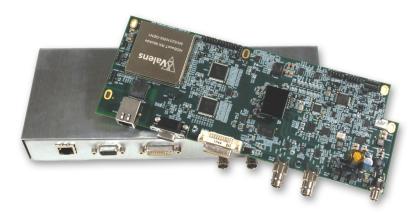


#### **Proprietary Firmware Architecture**

Built upon OTEC's proprietary non-preemptive real time operating system; OTEC's custom hardware; and custom FPGA IP modules, low latency stereo surgical applications may be accomplished without reliance upon open-source software. Secure, robust, proprietary; OTEC's solutions are built from the ground up.

#### **Orchid Technologies: Custom Video Solutions**

The development of custom electronic products for our OEM clients is OTEC's entire business. The design of Custom Video Solutions with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!



### **Custom Engineering From Concept to Production**

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