Graphics and RADAR Embedded Computer Products

A wide range of embedded graphics and RADAR products are available from Unitronix based on the XMC, PMC, and VME form factors. These standards are enormously versatile in the construction of professional, deployed, embedded systems. These products are available in multiple levels of ruggadisation for survival in different environmental conditions including extended temperature and conduction cooled applications.

Listing of Products for Graphic's requirements and RADAR applications.

Graphics Products:

- PMC-281 MPEG 4 Compression card
- XMC-280 JPEG 2000 Compression card
- PMC-724 Frame Grabber
- XMC-710 Graphics card
- PMC-706 Graphics card
- PMC-704 Graphics card
- Sabre-VME Graphics

Video Windowing, Recording and Distribution:

- Cobra AX Video Windowing system
- Sentric2 Video Recording system
- VDS Video Distribution system
- VDA Video Distribution Amplifier

RADAR Products:

- Osiris Dual channel Radar Interface card PMC.
- Eagle2 Scan Convertor PMC.
- RVP RADAR Video Processor System.
- Softscan Software Scan Conversion

Graphics Products from Curtiss Wright Controls, PMC, XMC, VME form factors:

PMC-281 MPEG4 Video Compression: Real-time MPEG4part10 H.264, dual channel with frame rates up to 1920x1200, encoding or decoding simultaneously at resolutions to 1080p30 / 1080i60. Utilises on board ASIC for low power operation .

XMC-280 JPEG 2000 Video Compression: Acquires and displays two channels of high definition video 1920x1200 @60Hz. Designed for very low latency and resilience to errors.

PMC-724 Frame Grabber: Captures both analogue and digital video with high speed transfer of images to systems memory to support real time target tracking. Highly flexible configuration options through on board FPGA. Supports VxWorks (T2) and X11.

XMC-710 Rugged Graphics Card PCI Express based dual output graphics with video capture capability. Utilises the NVIDIA G73M. Support safety critical applications and path to DO-254, DO-178B.

PMC-706 Graphics Card:
Dual Video output
Full X11, X extensions
Open GL 1.3, Open LDT.

PMC-704 Graphics Card:
Dual Video Capture
Dual Video output
Full X11, X extensions

Sabre VME Imaging Platform: PPC with 2xATI-M9 graphics VDUs giving a hosted X server on card, multi-head, multi-layer graphics.

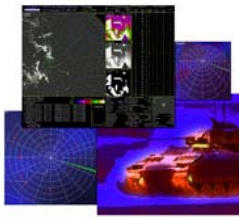
Other products from Curtiss Wright include.

VME/ VPX SBCs
DSP and FPGA processing
Networking
IO
Data Recording
Rugged Military Grade Chassis

Video Windowing, Recording and Distribution:

Cobra Ax : High-performance, multi-input, video windows processor that can accept up to 12 videos per card and select up to 4 for display as windows on a high-resolution, digital flat panel or analogue display. Video inputs can be TV, RS170, RS343, STANAG or hi-resolution computer video up to 1600 x 1200.

Sentric 2: High-definition video recording systems that capture, compress and store multiple channels of high-resolution analogue or digital video, composite TV, network video and audio in digital format. Fully integrated into Curtiss Wright Controls Video Distribution System (**VDS**) family of products providing the capability to record and replay network video.



VDS Video Distribution System: VDS product family from Curtiss-Wright Controls Embedded Computing that provides all the elements required for high-performance video distribution over IP networks. VDS digital distribution systems allow video from any source to be captured, compressed and distributed to any display or recording station over local or wide area networks, using JPEG2000 or MPEG compression techniques.

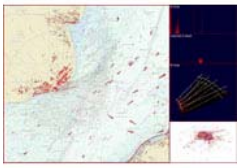
VDA Video Amp:
The VDA is a line replaceable unit (LRU) developed in order to replicate RGB analogue video so that one video source can be routed to two destinations – for example, routing the output from a computer to two consoles.

RADAR interface, scan conversion hardware and software, tracking, plot extraction:

Osiris Dual Channel RADAR interface:
Osiris is a high-performance, dual channel radar interface board that accepts and processes analogue and digital radar signals and provides a PCI interface to applications. Osiris comes from a long history of radar interface products at Curtiss-Wright (formerly Primagraphics), with interfaces to support many legacy and modern radar types.

Eagle RADAR hardware Scan conversion:
Eagle-2 provides improved performance and support for high-resolution screen displays up to 2560 x 1600, including 2048 x 2048, making it the perfect choice for high-end radar display applications. A key feature of Eagle-2 is the ability to accept a DVI graphics input signal, for mixing with the scan-converted radar.

RVP RADAR Video Processor: Curtiss-Wright has a unique range of capabilities in the field of radar acquisition, display, distribution and tracking, and has successful installations world-wide in a diverse range of market sectors. These include air traffic control, vessel traffic systems, aircraft ground-movement, coastal surveillance and naval tracking systems.



Software Scan Conversion: Embedded Computing radar product providing ultra-high radar scan-conversion performance using unique GPU accelerated algorithms. Utilizing the power and performance of today's modern COTS graphics offerings, Soft Scan can provide unrivalled scan conversion performance with minimal CPU utilization.

Graphics and Video Design Overview: Today's high performance display systems rapidly and effectively depict tactical situations, sensor data and decision criteria for the operators and commanders of military platforms of all types, from combat aircraft, to submarines, tanks, airborne command posts and many more. Fusing data from many systems, often across a group of different platforms, is a capability that requires extensive real-time data processing and very sophisticated graphical technology to display video from multiple sensors overlaid onto, or mixed with, a composite tactical picture. Curtiss-Wright Controls Embedded Computing has amassed many years of experience offering graphics and video distribution solutions for many types of platform based on our broad range of off-the-shelf product lines.

- Combat aircraft, helicopter and tracked ground vehicle fire control, sensor and moving map displays
- Certifiable solutions for cockpit displays
- Naval Command and Control consoles for multi-sensor and situational display
- Airborne display consoles for maritime patrol, multi-sensor surveillance platforms and aerial command posts
- Fixed and mobile sensor ground stations
- UAV ground stations
- Air traffic control and port authority systems

With the introduction of the digital battlefield, video distribution and display technologies have become the keys to wide-ranging tactical and strategic situational awareness. Commanders of today's forces build this awareness from multiple sources of digital voice, data and video gathered from many different sources from individual soldiers in the field, to multi-sensor UAVs, to complete air, ground or naval battle groups. No other company offers such complete off-the-shelf video and graphics solutions from sensor to displays for all these platform types and environmental conditions.
These solutions are all deployable in a wide range of environmental conditions to fit specific customer application areas. As with other Curtiss-Wright products, graphics and video solutions are designed for operation in the most severe environments.

For further information on these or other products or for technical support call:

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