

Video Tracking From Vision4ce



Vision4ce offers both hardware and software solutions for video tracking. The DART (detection and acquisition, with robust tracking) video tracking product is a software based tracker that can run on either a Linux or Windows platform based on Intel or ARM processors.

The Vision4ce CHARM hardware products use the DART software hosted on an embedded multi-core ARM processor board for complex video tracking and image processing requirements.

Video detection & tracking

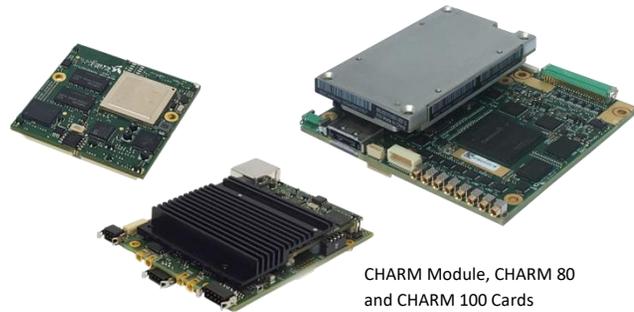
A video tracker analyses video image sequences from a sensor system, mounted on a servo controlled pedestal to keep the camera pointing at the nominated person or object. In this context the tracker has two functions, detecting and locating objects of interest in the video image, and controlling the platform (pan & tilt) position and rate such that the camera follows the designated object.



Tracking a jet-ski using IR video

Applications for use:

- Security and surveillance for land sea and air
- Unmanned aerial vehicle
- Unmanned ground vehicle
- Instrumentation
- Automated video analysis



CHARM Module, CHARM 80 and CHARM 100 Cards



CHARM 80 and CHARM 100 enclosures

For more information on any of our products:

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Video tracking product comparison table (Interfaces, features, use and capacity varies for each product)

Key Features	DART	CHARM Module	CHARM 70	CHARM 80	CHARM 80 HD	CHARM 100	CHARM 104	CHARM 3U	CHARM 6U
Size of Board	-	50mm x 50mm	70mm x 100mm	80mm x 90mm	80mm x 90mm	100mm x 100mm	PC/104	Single Eurocard	VME Double Eurocard
Data Interfaces	-	2 x UART Ethernet	1 x RS232, 1 x RS422 Ethernet	2 x RS232, 2 x RS422 Ethernet	2 x RS232, 2 x RS422 Ethernet	4 x RS422 Ethernet	4 x RS232/422/485 Ethernet	2 x RS232, 2 x RS422 Ethernet	2 x RS232, 2 x RS422 Ethernet, VME
Video Inputs	-	1 x Parallel digital	2 x PAL/NTSC	2 x PAL/NTSC	2 x HD-SDI	4 x PAL/NTSC 2 x YPbPr 4 x 3G-SDI	2 x PAL/NTSC	2 x PAL/NTSC	2 x PAL/NTSC 2 x HD-SDI
Video outputs	-	1 x HDMI 1 x Parallel digital	1 x HDMI	2 x PAL/NTSC	2 x HD-SDI	4 x PAL/NTSC/ YPbPr 4 x 3G-SDI	2 x PAL/NTSC	2 x PAL/NTSC	2 x PAL/NTSC 2 x HD-SDI
Processing channels	-	1	1	1	1	2	1	1	1
Multiple object detection & tracking	✓	✓	✓	✓	✓	✓	✓	✓	✓
Centroid & edge measurement	✓	✓	✓	✓	✓	✓	✓	✓	✓
Feature based correlation algorithm	✓	✓	✓	✓	✓	✓	✓	✓	✓
Moving object detection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Adaptive background removal	✓	✓	✓	✓	✓	✓	✓	✓	✓
Automatic coast	✓	✓	✓	✓	✓	✓	✓	✓	✓
Grey level invariant algorithms	✓	✓	✓	✓	✓	✓	✓	✓	✓
Robust clutter rejection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Platform filters	-	✓	✓	✓	✓	✓	✓	✓	✓
Optional Features									
Electronic image stabilisation	-	✓	✓	✓	✓	✓	✓	✓	✓
Video Streaming	-	✓	✓	✓	✓	✓	✓	✓	✓

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