



XCAM Headboards for XCU-A Type Systems

Introduction

XCAM have developed an XCAM Controller Unit (XCU-A) which operates almost any type of e2v Technologies CCD imaging sensor; it is perfect for use for CCD evaluation studies, or used as the basis for a custom CCD camera system.

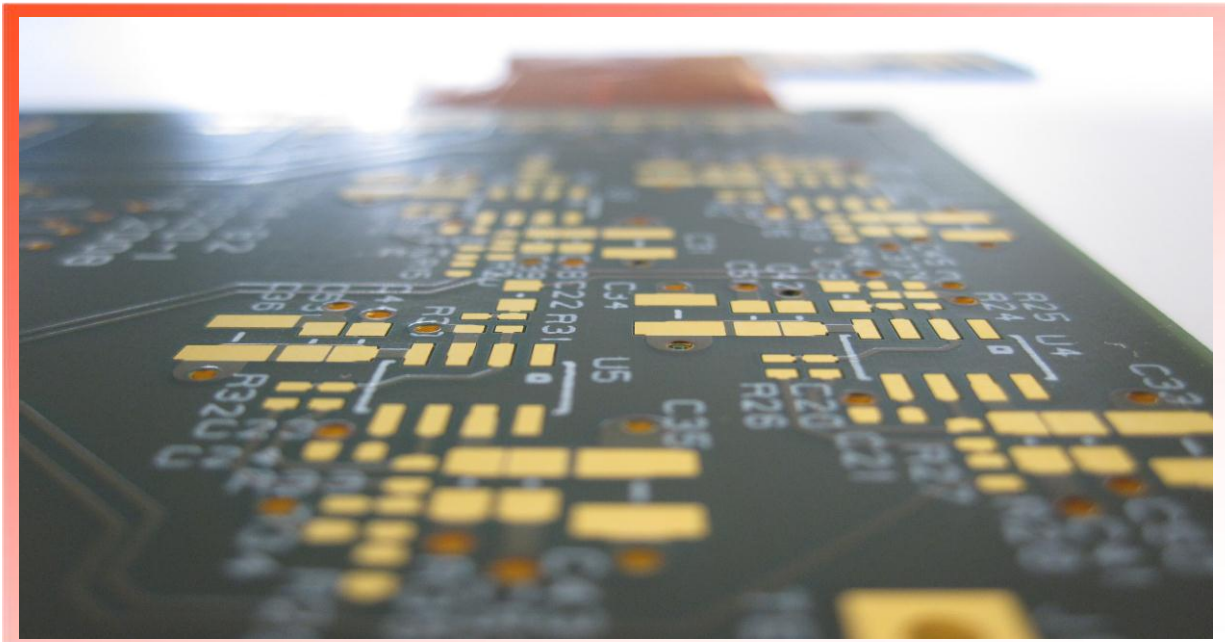
In order to construct a full working system, the CCD must be attached to a headboard, which provides local supply decoupling and preamplification of the signal prior to transmission down a coaxial cable, and also ensures that the different pin-outs of the many types are appropriately interfaced to the control box.

Some headboard formats are designed to enable the CCD to directly plug-in and provide a cut-out which enables a peltier cooler to be inserted beneath the CCD; other headboards require separate connection to the CCD

Care should be taken if the CCD is to be cooled outside a vacuum chamber, to avoid atmospheric condensation from forming on the delicate detector surface. You should ensure that your CCD is either in a dry atmosphere or a vacuum, or alternatively ensure that cooling keeps the CCD at a temperature above the dew-point.


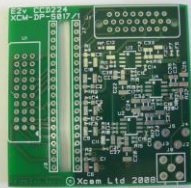

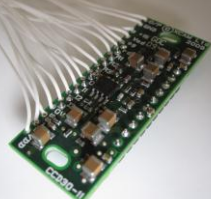


A number of different headboards already exists for various types of CCD as shown below.

Where headboards do not exist already, then we will quote for design and manufacture of a new type if required.







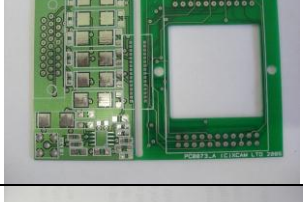
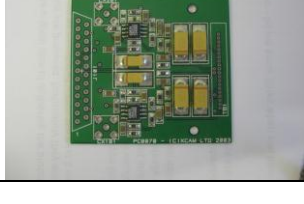


XCAM Headboards for XCU-A Type Systems

E2v technologies CCD204-22	Square board; CCD to be mounted and cooled separately	
E2v technologies CCD224	Square board; CCD to be mounted and cooled separately	
E2v technologies CCD30-11	Round board; CCD plugs in and TEC mounted underneath	
E2v technologies CCD30-11	Small format headboard; CCD and TEC to be mounted separately	
E2v technologies CCD38	As shown for this encapsulated dental CCD	
E2v technologies CCD4210	Round headboard; CCD plugs in and cut-out underneath for peltier cooler	

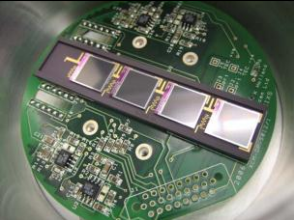
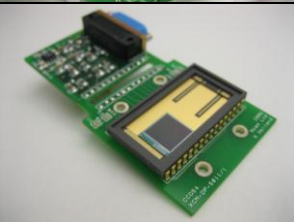
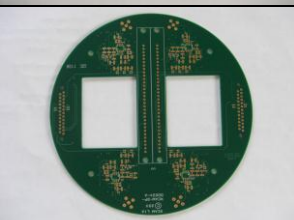
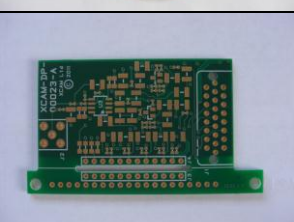
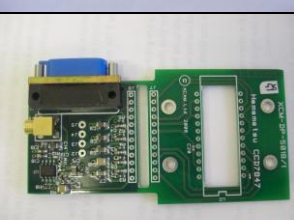


XCAM Headboards for XCU-A Type Systems

E2v technologies CCD4210	Dual CCD4210 board; headboard designed to drive two CCD4210, but separately mounted and cooled	
E2v technologies CCD44-82	For use with CCD44-82 custom ZIF socket supplied by e2v technologies; CCD and TEC to be mounted separately	
E2v technologies CCD47-20	Round headboard; CCD plugs in and cut-out underneath for peltier cooler	
E2v technologies CCD47-20	Board as shown – CCD mounted and cooled separately	
E2v technologies CCD55-30	Board as shown; CCD plus in and cut-out for peltier	
E2v technologies CCD57-10	Board as shown – CCD mounted and cooled separately. This board could be used for other CCD types	



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<p>E2v technologies Swept Charge Device</p>	<p>CIXS</p>	<p>CCD plugs into board; TEC cut-out underneath</p> 
<p>E2v technologies Swept Charge Device</p>	<p>CCD54</p>	<p>SCD plugs into board and TEC cut out beneath</p> 
<p>E2v technologies Swept Charge CCD236</p>	<p>Quad Device</p>	<p>SCD plugs into central ZIF socket on board; two TECs used at cut-outs for this large device</p> 
<p>E2v Technologies Swept Charge CCD236</p>	<p>Single Device</p>	<p>CCD236 mounted and cooled separately and connected to this board</p> 
<p>Hamamatsu 7847</p>		<p>CCD plugs into board; TEC cut-out underneath</p> 
<p>Atmel CCD</p>		<p>CCD plugs into board; TEC cut-out underneath</p> 