CORNING

Varioptic® Lenses

Application Notes

Corning® Varioptic® A-PE series hardware

This document aims at giving all necessary information to drive the A-PE series. A full description of the hardware of the A-PE board.

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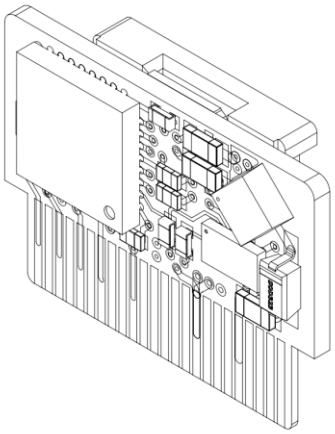
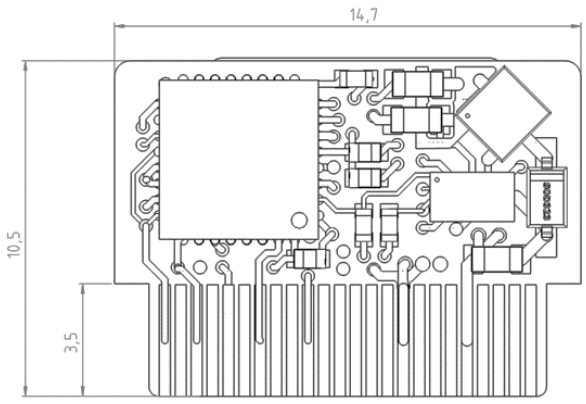
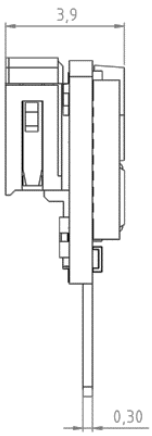
Mechanical dimensions





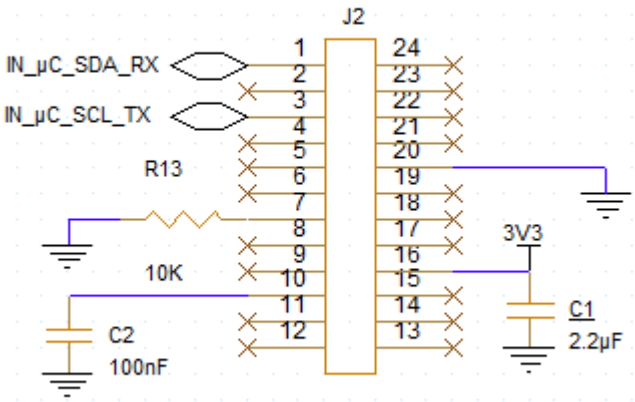


General Description Of The Board

The A-PE electronics embeds a 32 bits microcontroller. The chip contains V-Temp temperature compensation algorithm, V-Speed response time optimization algorithm and individual lens thermal calibration parameters.

Connector Pinout

Pin Number	PCB I/O name
1	OUT_I2C_RS232_SDA_RX
2	NC
3	OUT_I2C_RS232_SCL_TX
4	NC
5	SWDIO
6	NC
7	BOOT0
8	NC
9	NC
10	NRST
11	NC
12	NC
13	NC
14	NC
15	NC
16	3,3V
17	NC
18	NC
19	NC
20	GND
21	NC
22	NC
23	NC
24	NC



Notes:

(1) The many unused pin on J2 connector are designed for improving PCB mechanical retention into the customer SMT connector.
(2) Recommended connector for A-PE Series board is 24 pins ZIF connector 24FLT-SM2-TB(LF)(SN) from JST
(3) IN_µC_SDA_RX/IN_µC_SCL_TX: Those pins can be used either in I2C or RS232, for I2C pull-ups are already present on the board.
(4) R13 pull down resistor on pin 7(BOOT0) and C2 decoupling capacitor on pin 10 (Reset) can be optional depending of EMC conditions.

Absolute Maximum Ratings

Parameter	*Symbol*	*Min*	*Typ*	*Max*	*Unit*	*Notes*
Operating Temperature	T	-30	..	85	°C	
Storage Temperature	T_{stg}	-40	..	85	°C	
Input Voltage	Vin	2.8	3.3	3.6	V	

Important note:

Corning Varioptic Lenses and electronic boards are sensitive to electrostatic discharge (ESD). Use caution when handling.