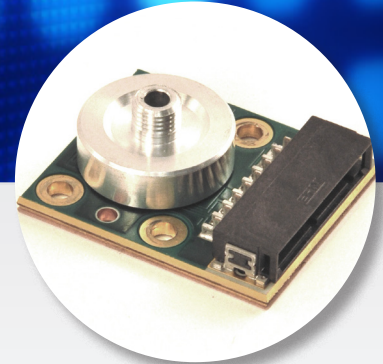


LumiBright™ FC 1700A-100

The versatile and powerful LumiBright Fiber Coupled devices are ideal for fiber optic applications in industrial, medical, and laboratory equipment. The couplers incorporate LumiBright Light Engines with interfaces for light guides or fiber bundles. Chip-on-Board LED technology with metallic PCB substrates offers excellent thermal performance.



The Model FC 1700A-100 supports up to a 2 mm fiber bundle using an SMA 905 connector. There are options for 1 to 4 LED die in single or multicolor configurations. An onboard thermistor is included allowing real-time monitoring of temperature for closed-loop control.

Benefits:

- Intense and stable optical power
- Small footprint
- Continuous high current or pulsed operation
- RoHS compliant - Environmentally friendly

VISIBLE AND IR:

- λ_p 460 nm thru near IR or white (5700K+/-400)

Features:

- Flexible fiber connector - 1mm - 2mm
- High thermal conductivity metal core PCB
- COB array technology, 1 or 4 Die
- Patent-pending technology

Options:

- Single or multi wavelength configurations
- Fiber bundles or light guides
- Heat sink and thermal pads
- Drivers and controllers

Typical Applications:

VISIBLE AND IR:

- Medical endoscopy
- General fluorescence excitation
- Microscopes
- Medical fluorescence imaging
- Phototherapy
- Machine vision
- Industrial borescopes
- High uniformity spot light
- Laser and arc lamp replacement

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SPECIFICATIONS

The LumiBright FC 1700A-100 is a fiber coupled device with a choice of a single or multi-wavelength PCB using our standard 42 mil die. Peak wavelengths available are from 460 nm thru near IR or white with up to three independent color combinations allowing for flexibility and customization.

The data below is provided as a general guideline for the 1 die configuration.

Caution: Never connect your unit to an open circuit voltage that is more than 1 Volt above the recommended maximum voltage.

Table 1

| Assembly | Max. Number of 42 mil Die | Numerical Aperture (NA) |
|-----------|---------------------------|-------------------------|
| 1700A-100 | 4 | N/A |

Products are tested using a PGR thermal pad and mounted on a heatpipe.

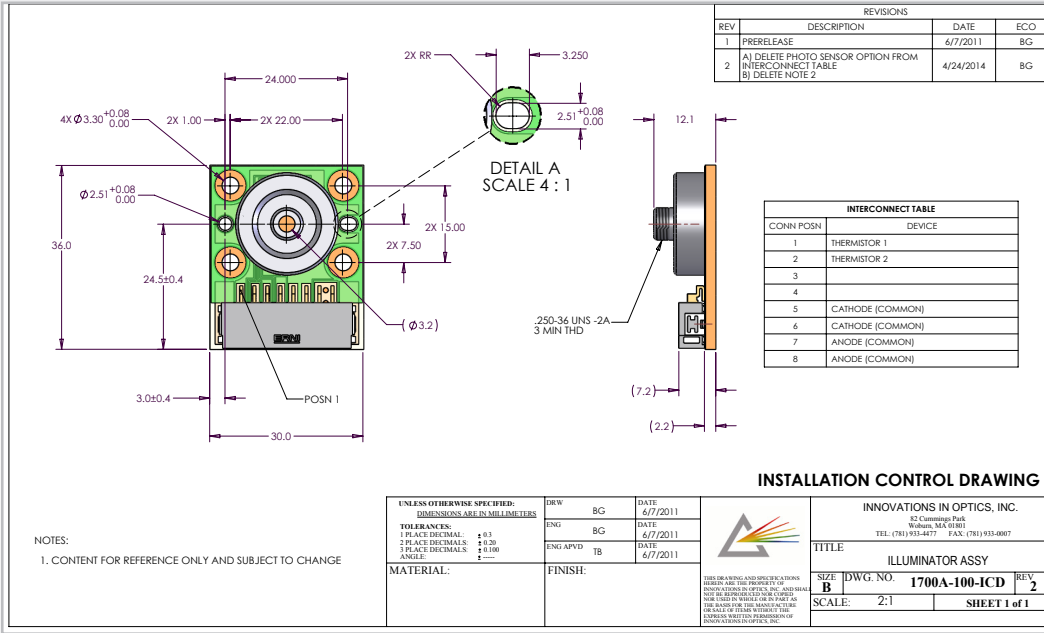
Maximum drive conditions for the LumiBright FC 1700A-100:

| Bin | Current (Amps) | Voltage (V _r) | Electrical Power (Watts) | Optical Power (mW) |
|------------------------------------|----------------|---------------------------|--------------------------|--------------------|
| G3 | | | | |
| RED (λ_p 660 nm) | - | - | - | - |
| D6 | | | | |
| GREEN (λ_p 527nm) | - | - | - | - |
| C4 | | | | |
| BLUE (λ_p 470 nm) | - | - | - | - |
| WH | | | | |
| WHITE (5700K) | - | - | - | - |

| Parameter | Nominal Drive Conditions | | Comment |
|-------------------------------|--------------------------|-----------|---|
| | Min | Max | |
| Available peak λ's | 445 nm | 1720 nm | Not all λ's in stock (Contact Sales Engineer) |
| Thermal impedance | - | <1.0 °C/W | Typical for 1 die |
| Thermistor B _{25/85} | 3574 | 3646 | For 10 kΩ |
| Thermistor impedance | - | 10 kΩ | Others available upon request |
| Available die size | 11 mils | 60 mils | Standard size 42 mil |
| Operating temperature | -40 °C | 85 °C | Depending on drive conditions |
| Lifetime (Hours) | - | - | Depends on drive conditions |

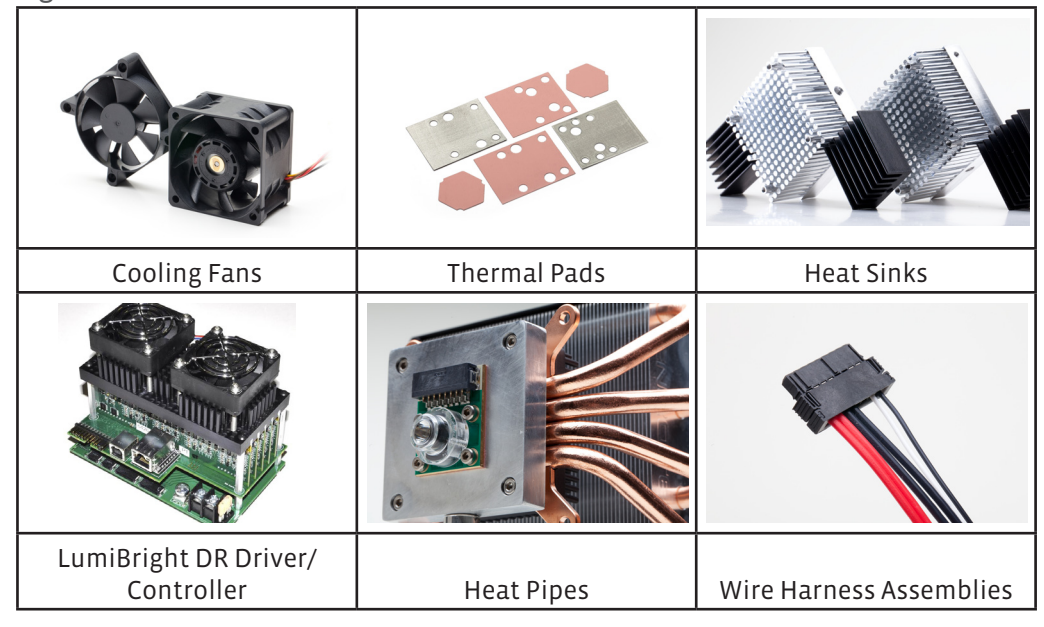
INSTALLATION CONTROL DRAWING

Figure 1



ACCESSORIES

Figure 2



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