

Re: IR LED to repair remote control

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- *From:* James Arthur <dagmargoodboat@xxxxxxxxx>
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On Sep 25, 3:57 am, Andrew <xxrag...@xxxxxxxxx> wrote:

Unfortunately my Logitech harmony 880 remote stopped working. When pointing it into a digital camera, I can no longer see the IR LEDs lighting up (there are two). Logitech tech support has confirmed that the IR LEDs are probably dead, but they have been less than helpful.

[...] I bought [...] part number 276-142 [...]
The remote worked great [...] but [...] died again.
[...] I was wondering if I
could get a few pointers in trying to order some IR LEDs[...]
The wavelength of the emitter that worked from radioshack was 940nm.
On digikey I see that there are LEDs ranging from 860nm to 950nm.
[...] does that mean that I should stick with that
wavelength?[...]

And what ratings should I pay particularly close attention to when trying to spec an LED for this purpose? I'm thinking a combination of the highest pulse forward current and highest continuous current? For that purpose I saw the LITE-ON LTE-5228A, digikey part no 160-1062-ND. 250mW power dissipation, 3A peak forward current, 150mA cont current, 7.2V reverse voltage, and 940nm wavelength. It seems to be the highest ratings in all categories for the 940nm wavelength LEDs digikey stocks, and is my top choice right now. It also uses a clear package like the original emitters, if that even matters.

Any thoughts overall on the matter?

Measure it. Put a couple 1n4001 rectifiers in series with a 0.1 ohm resistor, then operate the remote. View waveforms with an oscilloscope.

Or just get DigiKey's hardest IRLEDs (one of each wavelength), salvage some LEDs from another cast-off remote.

Might help us to know if the failed LEDs failed open, shorted, etc.

Cheers,

Re: IR LED to repair remote control

James Arthur

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