

Re: Stupid question about magnification

Source: <http://sci.tech--archive.net/Archive/sci.astro.amateur/2006-01/msg01777.html>

- *From:* "nick" <svla@xxxxxxx>
 - *Date:* 19 Jan 2006 20:25:56 -0800
-

Stephen Paul wrote:

> "Chris L Peterson" <clp@xxxxxxxxxxxxxxxxxxxx> wrote in message
> news:63dts11316ls9qer6j715u8c4d19bu02eq@xxxxxxxxxxx
>> So tell me: I have an SCT with a 2700mm focal length. What is its
>> magnification?
>
> I guess I'm thinking it's the ratio of the angular size of the aerial image
> it creates at the focal plane, to the angular size of the real image on the
> sky.

It's easy: it is given by the apparent size of image it creates
observed from
the least distance of distinct vision vs. apparent size of the object.
That makes
it $(h/d)/(h/f)=f/d$, "h" being the image height, "f" the objective f.l.
and "d" the least
distance of distinct vision. With the latter being conventionally
accepted as 250mm,
magnification given by 2700mm is $2700/250=10.8$ for an average observer.

Note that this stands only for relatively distant objects. The general
apparent
magnification formula is $M=of/(o-f)d$, "o" being the object distance.

Vlad

Vlad

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- *Follow-Ups:*
 - ◆ ***Re: Stupid question about magnification***
◇ *From:* Chris L Peterson
 - *References:*
 - ◆ ***Re: Stupid question about magnification***

Re: Stupid question about magnification

◇ *From:* Chris L Peterson

◆ **[Re: Stupid question about magnification](#)**

◇ *From:* nick

◆ **[Re: Stupid question about magnification](#)**

◇ *From:* Brian Tung

◆ **[Re: Stupid question about magnification](#)**

◇ *From:* Chris L Peterson

◆ **[Re: Stupid question about magnification](#)**

◇ *From:* nick

◆ **[Re: Stupid question about magnification](#)**

◇ *From:* Chris L Peterson

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◆ **[Re: Stupid question about magnification](#)**

◇ *From:* Stephen Paul

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