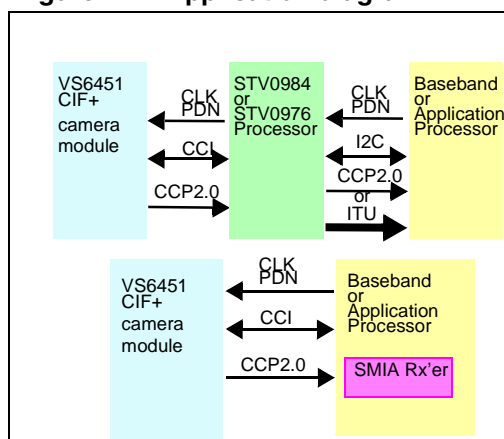
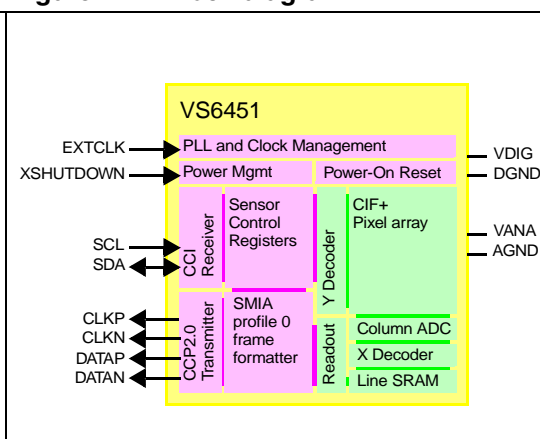
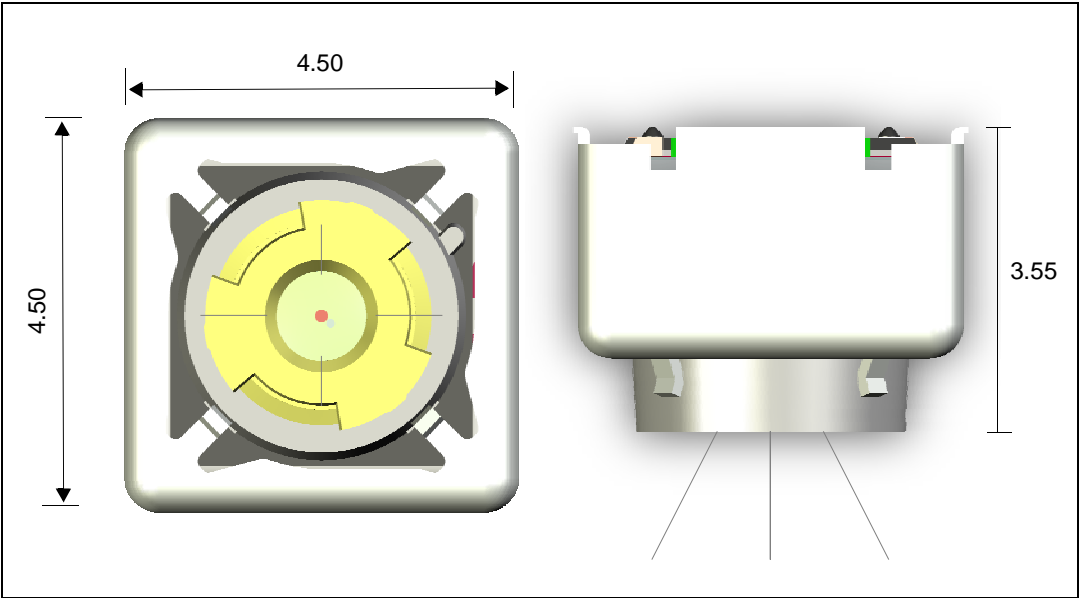


**Figure 1. Application diagram****Figure 2. Block diagram****Table 1. Technical specifications**

Parameter	Values
Pixel array	CIF+ portrait and landscape
Sensor technology	0.18 $\mu\text{m}$ HCMOS8i shrink
Pixel size	3.6 $\mu\text{m}$ x 3.6 $\mu\text{m}$
Exposure control	+8 dB
Analogue gain	+24 dB (max)
Dynamic range	61 dB
Signal to noise	34 dB (@ 100 lux)
Minimum illumination	< 7lux
Supply voltage	Analogue: 2.4V to 2.9V Digital: 1.8V $\pm$ 0.1V
Average power consumption @ 30fps	<60 mW
Module size (XYZ) max	4.5 mm x 4.5 mm x 3.55 mm
Lens HFOV	45°+/- 2° (CIF+, CIF equiv. 45°)
F number	2.8
Lens SFR	On axis 45% (typ) Horizontal field (70%) 25% (typical)
Lens TV distortion	< 5%
Relative illumination	60% (typ)
System connectivity	Lead free reflowable BGA
Storage temperature	[-40; +85]°C
Functional operating temperature	[-30; +70]°C
Normal operating temperature	[-25; +55]°C
Optimal operating temperature	[+5; +30]°C

Figure 3. Module outline



Ordering information

Table 2. Order codes

Part number	Package	Packing
VS6451R0BA/TR	USM- CIF - 4.5x4.5x3.55mm	Tape and reel

Revision history

Table 3. Document revision history

Date	Revision	Changes
27-Apr-2006	1	Initial release.
13-Mar-2007	2	Updated the ordering information and module outline

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