



# AN32xx

## Warm White Acriche hits CRI 90

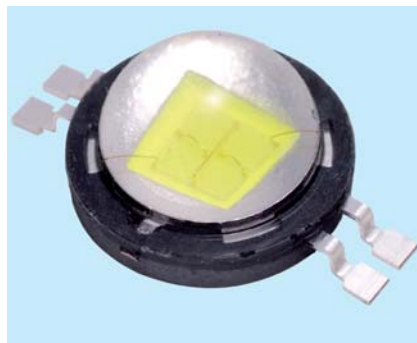
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Seoul Semiconductor recently released a warm white Acriche with a colour rendering index (CRI) rating of 90. The CRI measures the ability of a light source to produce vibrant colours in objects. A CRI rating of 100 implies that the light source is equivalent to daylight, while a low CRI rating tending towards 0 suggests that colours will appear unnatural under that particular light source.

The need for this colour recognition is most apparent in applications where the differentiation of colour hues initiates differing reactions. These are most commonly found in medicinal fields where for example damaged tissues are primarily diagnosed based on optical recognition. For many years, the ability to produce a warm white semiconductor lighting source that can also offer a high quality CRI rating had appeared illusive. Now, that hurdle has been successfully negotiated.

Acriche is a semiconductor light source that operates directly from AC power without the need for ballasts or drivers. It offers improved power efficiency compared to incandescent and halogen lamps and exceeds fluorescent lamps in terms of life span, power usage and convenience.

Acriche lasts 35,000 hours compared to 1,000 hours for incandescent lamps, 3,500 hours for halogen lamps and 8,000 hours for



fluorescent lamps. From the environmental point of view, Acriche does not contain harmful substances such as mercury, nitrogen or lead like other conventional light sources.

The new A3 units which now has a 12mm diameter body and a height of 7.3mm, with the customary silicon dome covering the die, enables high voltage (230V AC) light engines with extremely low profiles to be built. Integration into mood lighting becomes simple due to the resistive characteristics and logarithmic response.

### Key Features

- AC direct operating without additional equipment or circuit
- Operating voltage: 100/110/220/230V
- Long life time: more than 35,000hrs
- Operating Frequency Freq.: 50Hz/60Hz

### Key Applications

- Medical
- Research laboratories in conjunction with microscopic analysis, whereby the greatly reduced heat emission also plays a role
- Retail
  - Food; whereby the colour indicates a subconscious degree of freshness
  - Non food; Fashionable clothing is dependant upon its capability to mix and match, therefore the closer the colours are to reality the better they can be selected
- Cultural; where exhibits such as graphics, paintings, scripts etc. become vibrant whilst not being depleted by emitted IR or UV radiation

Service available or already delivered T&R from Manufacturer.  
Tapes are available, but not stocked at Avnet Logistics due to low demand.  
Device supported by or programming equipment, but the socket for this package must be provided by customer.

P/N	Package	Programming	Taping & Reeling	Marking
AN3200	N/A			
AN3220	N/A			