

## NEC's High Sensitive Camera Captures Moving Colour Images in Darkness



NEC NC-R550 (Lens not included)

**New Delhi, November 23, 2010** - NEC India, a leading network, communications and IT solutions provider, is unveiling a High Sensitive Camera (NC-R550) amongst a range of public security solutions at IFSEC India 2010 from 23 - 25 November 2010 at the Bombay Exhibition Centre (Booth B17) in Mumbai.

Surveillance technologies have evolved to meet the demanding security and monitoring needs of businesses and transportation hubs. NEC's High-Sensitivity Camera (HSC) is the world's first 3-Chip EM-CCD<sup>1</sup> (Electron Multiplying charge-coupled device) colour camera for surveillance, based on 30 years of achievements and experience in the broadcasting scene. Leveraging on cutting-edge digital process circuit technology, this high performance camera, with a minimum subject luminance of 0.0003lx for video, is capable of recording action with full-colour clarity in full darkness, under starlight and new moon lighting conditions.

Cameras with the CCD (charge-coupled device) chip are designed to work in low light conditions to produce a high dynamic range image with few light photons. NEC has designed its HSC to serve as a night-time surveillance tool in a variety of applications, including critical high security installations like securing facilities and utility plants, as well as tracking illegal activities at sea or in seaports, allowing authorities to better monitor and detect irregularities in operations at night.

When combined with NEC's CCTV and integrated surveillance systems, these cameras automatically detect intruders, illegal marine trade and the access of unregistered vessels by displaying these images on a monitor screen, enabling large-scale surveillance and protection of seaports and cargos, whether stored or in transit. NEC can also customize an optimum solution for operators by adding one-touch image playback, touch-panel controlled zoom, and various other functions.

NEC offers a comprehensive suite of integrated security solutions including multi-biometric identification, access gates, video surveillance and behavior pattern analysis. Having been in development for more than three decades, NEC's fingerprint and facial recognition solutions are recognized as the world's fastest and most accurate biometric technologies for identification.

The IFSEC India is a platform that brings together the leading Indian and international homeland security solution providers with the key decision makers and influencers from the Indian Government and private industry looking to source the latest homeland security innovations and technology. Mr Sunny Ho, Sales Director at NEC Asia Pacific, will be speaking on “NEC High Sensitivity Camera – Power of Seeing in Darkness” at the IFSEC, FIREX & HOMELAND SECURITY INDIA 2010: Technical Seminar, on 23 November 2010, at Hall 1, Bombay Exhibition Centre, Mumbai.

### **Features of NEC NC-R550**

- 3 EMCCD (electron-multiplying charge-coupled device) chip creates a high sensitivity image with efficient use of light
- Full-colour video capture in full darkness, such as starlight and new moon lighting conditions
- Excellent night-time surveillance tool
- Fully automatic white balance
- Automatic sensitivity control

### **Specifications**

|   |  |
|---|--|
| Colour system   | NTSC   |
| Image pickup device   | Electron multiplying frame inter-line transfer method CCD  |
| Imaging method  | 3-panel (R, G, B) method   |
| Sensitivity (typical)   | F11/2000lx (reflectance ratio of 89.9%)  |
| Lowest subject illuminance  |  |
| Moving image  | 0.0003lx (F1.4, gain + 90 dB, D.GAIN × 2)  |
| Still image   | 0.000003lx (F1.4, gain + 90 dB, D.GAIN × 2, storage 128 times)   |
| SN ratio (typical)  | 65 dB (NR ON)  |
| Resolving power (typical)   | 800 TV lines (typical)   |
| Sensitivity changeover  | Gain           0 to +90 dB   |
|   | Storage time   ×2 to ×128  |
|   | D.GAIN        OFF, ×2  |
| Electronic shutter  | OFF, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000  |
|   | VAR     1/61.70 to 1/1967  |
| Electronic zoom   | ×10  |
| Color bar   | Built-in   |
| Contour correction  | Horizontal: 2H, Vertical: 2H   |
| Linear matrix   | Built-in   |
| Auto white balance  | Operable in both standard and storage modes (except for low level)<br>Equipped with full-auto balance that follows normal imaging conditions |
| Auto black balance  | Operable in both standard and storage modes  |
| Electrical color temperature conversion   | 3200 K, 5600 K   |
| Power supply  | +12 VDC ±10% (50 W or higher)  |
| Operating temperature   | -10°C to +45°C   |
| Outside dimensions  | 110 (W) × 115 (H) × 219 (D) (mm). See the appearance diagram below.  |
| Weight  | Approximately 2 kg   |
| Note: Some function names and control methods are subject to change for improvement of operability. |  |

For more information on HSC, please log on to:

[http://www.nec.com/global/solutions/security/technologies/3chip\\_em\\_ccd.html](http://www.nec.com/global/solutions/security/technologies/3chip_em_ccd.html). For enquiries on public safety solutions and services, please contact [bizdevt@nec.com.sg](mailto:bizdevt@nec.com.sg) or call (+65) 6278 1818.

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## Notes:

<sup>1</sup> “EM-CCD” refers to the breakthrough CCD that causes impact ionization by applying a high voltage to an electron multiplying register to amplify signal charges on chip, using generated secondary electrons. The super-ultrasensitive camera contains three of those CCD panels for R, G, and B.

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### **About NEC Corporation**

NEC Corporation is a leader in the integration of IT and network technologies that benefit businesses and people around the world. By providing a combination of products and solutions that cross utilize the company’s experience and global resources, NEC’s advanced technologies meet the complex and ever-changing needs of its customers. NEC brings more than 100 years of expertise in technological innovation to empower people, businesses and society. For more information, visit NEC at <http://www.nec.com> .

### **About NEC Asia Pacific Pte Ltd (NEC APAC)**

Singapore-based NEC Asia Pacific is the regional headquarters for NEC Corporation (HQ: Japan) in the Asia Pacific region (South and Southeast Asia, and Oceania). As a leading infocomm technology provider and systems integrator offering regional sales and services support and consultancy, NEC APAC develops solutions on carrier network, global identity, RFID, enterprise server, unified communications, multimedia display, and contact centre, as well as provides outsourcing and managed services.

To leverage on its technological expertise in the field of public safety, NEC APAC has established a regional competency centre (public safety) to expand its capabilities and expertise to support businesses in the Asia Pacific region.

In line with the NEC Group Vision to realize an information society friendly to humans and the earth, NEC also embarks on corporate social responsibilities (CSR) initiatives to support and “make a difference” to the **Nature** (environment), **Education** and **Community**. For more information, please visit [www.nec.com.sg](http://www.nec.com.sg)

### **About NEC India Pvt. Ltd.**

NEC India Pvt. Ltd, a joint venture between NEC Asia Pacific Pte Ltd (90%; HQ: Singapore) and NEC Corporation (10%; HQ: Japan), was established in New Delhi, India, in August 2006. Leveraging on NEC's unique capabilities in integrating IT and networking technologies for a diverse customer base across governments, businesses, individuals and society worldwide, NEC India provides and develops solutions for Carrier Network, Unified Communications, Retail, Security and Surveillance Systems, IT and Multimedia Products to cater to the rapidly expanding Indian market.

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