

## FACT SHEET

### *Revamped Omni-Theatre with Digital Fulldome System*

#### ABOUT OMNI-THEATRE

The newly upgraded Omni-Theatre offers an immersive experience with dual technologies within the same dome theatre:

1. Existing IMAX Dome projection system
2. Latest digital fulldome system

IMAX movies offer the highest resolution in 70mm film format, while the new digital fulldome system delivers a distinctly immersive experience with a choice of digital fulldome movies and “live” shows with topical, real-time presentations on space science conducted by Science Centre Singapore science educators; using the Digistar 5 software and 8K projection system that delivers unrivalled digital resolution and brightness.

With Southeast Asia’s largest seamless dome screen, specially designed seating configuration, surround-sound effects, and the world’s latest and brightest 8K digital theatre system, the Omni-Theatre is set to offer the most immersive learning experiences.

The revamped Omni-Theatre opens to the public on 30 May 2015.

#### QUICK FACTS OF OMNI-THEATRE

Dome screen	<ul style="list-style-type: none"> <li>• Southeast Asia’s largest seamless dome screen: 23m in diameter</li> <li>• Nanoseam dome screen is made of 376 pieces of powder-coated aluminium panels, covering a surface of 625m<sup>2</sup> <ul style="list-style-type: none"> <li>○ Material specially chosen to achieve 38% reflectivity on the hemispheric screen, thus ensuring the clarity of the images</li> </ul> </li> <li>• The screen stretches 180° horizontal from wall to wall and tilted at a 30° angle to the horizon, the screen “wraps” over the audience to cover 80% of a hemisphere – which far exceeds a person’s field of vision</li> <li>• There are 43.54 million perforations that allows sound from the speakers and air from the air-conditioners to pass through to the audience</li> </ul>
Seating capacity	<ul style="list-style-type: none"> <li>• 221 seats (new)</li> </ul>

#### QUICK FACTS OF DIGITAL FULLDOME SYSTEM

Projectors	Five Christie Boxer 4K30 projectors are mounted in the theater cove and in the upper projection room. The five images are blended together to create a seamless ultra-high resolution image.
Projector’s brightness	30,000 lumens, 6 x 450W lamp
Current records <sup>1</sup>	<ol style="list-style-type: none"> <li>1. World’s latest and brightest 8K digital fulldome system</li> <li>2. Largest seamless dome screen (NanoSeam) in Southeast Asia</li> </ol>

<sup>1</sup> Accurate as of launch date 30 May 2015.

The digital fulldome system is supplied and installed by Evans and Sutherland, the world's leading provider of complete fulldome digital theater systems and producer of fulldome shows. Its flagship Digistar system offers fulldome video playback, real-time computer graphics and a complete 3D digital astronomy package.

For more information, please visit <http://www.es.com>

## DIGISTAR 5 SOFTWARE

Digistar 5 puts the system's vast amount of astronomical data at one's fingertips, including zodiacal constellations, Messier objects, shows, trailers and more. Digistar comes with a revolutionary built-in cloud sharing capability, with a library to find and share images, models, shows, videos and more.

With the Show Builder software, a visual approach to creating exciting sequences using a storyboard and content snapshots, shows can be created quickly and snapshots can also be saved for real-time presentations. The user can define the area of the flight path and preload the needed resolution textures for seamless travel from space to a few thousand feet above ground, and fly down to the surface of Earth and other planets in the solar system for spectacular high-resolution detail and 3D terrain with smooth transitions.

The Digistar user interface contains a searchable library of content, drag and drop interactivity, and a fully interactive dome view window. Digistar's dataset contains multiple stars, variable stars, and exoplanets to explore, while new sophisticated algorithms allow Digistar to represent the positions and sizes of astronomical bodies accurately across the enormous range of astronomical scales. Cloud, nebulae and the Milky Way galaxy can be displayed in volumetric form in real time, while the particle system rendering generates weather, volcano, geyser, fire, and other effects.

## QUICK FACTS OF IMAX DOME PROJECTION SYSTEM

The IMAX system screens educational films covering genres such as science, space, nature, animals, marine life, culture, natural disasters, and more. Visitors can enjoy crystal clear images and surround sound that supports an unforgettable, closer-to-reality IMAX experience.

- IMAX projectors are the most advanced, powerful and highest-precision film projectors in the world
- The IMAX projector incorporates a unique 180° Leitz wide-angle lens, which uses a powerful 15,000-Watt water-cooled xenon lamp, similar to the one used to light NASA's launching pads!
- The Quick Turn Reel Unit has 5 platters which holds up to four typical 40-minute large format films or a maximum of two 40-minute films and two 150-minute films to be in a ready state at any one time
- The projector uses the largest film size format (15 perf/70mm) in the history of motion picture - 10 times larger than the conventional 35mm film
- A full reel of 60-minute film weighs 100kg!
- Other features
  - Theatre designed to ensure that it is soundproof to external noise
  - Entire structure of theatre is designed to achieve a noise criterion of not more than NC 25 (between 30 dBA to 32 dBA)
  - 1,528 acoustics panels, each measuring 1.2m by 1.2m, are used to cover 2,271m<sup>2</sup> of the entire inner surface of the theatre. This is enough to cover half a football field

- Theatre has 12 complete sound reproduction channels, of which 6 at a time can be fed from the sound reproducer
- 72 amplifiers in the theatre with a total power output of 20,000 Watts, which is more than the power produced by 250 75-Watt home stereo sets

**SEATING PLAN**

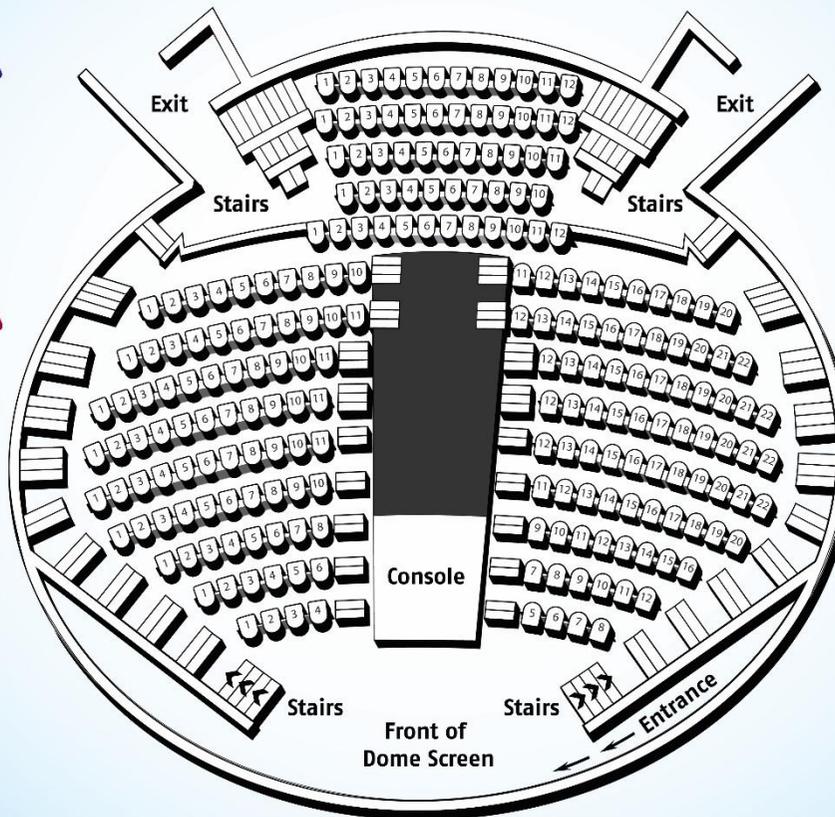
**Omni-Theatre Seating Plan**

**SECTION: TOP LEFT**

- NL 1-6
- ML 1-6
- LL 1-6
- KL 1-6
- JL 1-6

**SECTION: LEFT**

- IL 1-10
- HL 1-11
- GL 1-11
- FL 1-11
- EL 1-11
- DL 1-10
- CL 1-8
- BL 1-6
- AL 1-4



**SECTION: TOP RIGHT**

- NR 7-12
- MR 7-12
- LR 7-11
- KR 7-10
- JR 7-12

**SECTION: RIGHT**

- IR 11-20
- HR 12-22
- GR 12-22
- FR 12-22
- ER 12-22
- DR 11-20
- CR 9-16
- BR 7-12
- AR 5-8

## MOVIE LISTINGS

### DIGITAL FULLDOME MOVIES

Movie	Duration	Synopsis
Back to the Moon for Good	Approx. 40 minutes	<p>Immerse yourself in a race to the Moon 40 years after the historic Apollo landings. Learn about the history of lunar exploration, and the Moon's resources.</p> <p>This movie chronicles teams around the world competing for the largest international incentivised prize in history, by landing a robotic spacecraft on the Moon to win. They must land a robotic spacecraft on the Moon, navigate 500 metres over the lunar surface, and send video, images and data back to Earth.</p> <p>See how the competition is ushering in a new era of lunar exploration and catch a glimpse of our future on the Moon!</p>
		<p>Awards</p> <ul style="list-style-type: none"> <li>• Best Planetarian Choice 2014 at IPS International Fulldome Festival</li> <li>• Producers Choice 2014 at 8th Annual Fulldome Festival</li> </ul>

### "LIVE" SHOWS (IN DIGITAL FULLDOME)

Show	Duration	Synopsis
Cosmic Surfing	Approx. 30 minutes	8 minutes – that's how long a beam of light takes to travel from the Sun to the Earth! That may sound like a huge distance, but it's only a small step compared to the size of our entire Solar System. Yet, the Solar System itself is but a small blip compared to the Milky Way Galaxy. But how big is our Galaxy compared to the rest of the Universe? Join our Science Educator on this faster-than-light trip from Earth, right out to the edge of the Universe!
What's Up There?	Approx. 30 minutes	<p>What stars, planets and constellations are in the skies tonight? As the Earth spins around the Sun, we will see different portions of the night sky. Every week brings a slightly different visual spectacle to the skies overhead. In this "Live" show, our Science Educator will bring you on a tour of the current night sky, point out the beautiful sights and share fascinating stories about the stars.</p> <p>Note: Show content will vary depending on time of the year</p>
Exploring the Planets	Approx. 30 minutes	From the Earth, most planets look simply like bright stars moving across the night sky. But as you get up close, they are all as different as you and me! What lies below the clouds of Venus? What does it look like to stand on Mars? What makes up the beautiful rings of Saturn? Let our Science Educator bring you on an interplanetary journey through our Solar System!

## IMAX DOME MOVIES

Movie	Duration	Synopsis
Pandas: The Journey Home	Approx. 45 minutes	<p>Journey to the Wolong Panda Center in China and marvel at the extraordinary efforts of the Chinese to secure the panda's future in the wild.</p> <p>After decades of its captive breeding programme, the Center has hit its target number of 300 giant pandas and must now tackle the challenge of re-introducing breeding populations to the wild. The filmmakers were given unprecedented access to film the release of pandas bred in captivity and to follow a group of wild pandas in their mountain habitat.</p> <p>Meet all of the pandas at the Center as they get ready for their new lives in various parts of the world, and learn about their fascinating habits as you chuckle at their hijinks. Follow one panda in particular, Tao Tao, as he is released into the bamboo forest to begin his adventure "living wild."</p> <p>You will surely fall in love with this iconic, delightful creature!</p>
Animalopolis	Approx. 30 minutes	<p>ANIMALOPOLIS will take you on a voyage into the magical world of animals. A bit fanciful, a bit "Seussian" perhaps, a place of good natured humour, beauty and just plain fun for kids and their parents. Whether going nose to nose with hippos as they graze upon nature's massive salad bar, or eye to eye with dancing bears, sea lions turning somersaults, an otter that prays, we are reminded that nature provides us with humour and wonder, everywhere. ANIMALOPOLIS takes a light-hearted and imaginary look at a variety of animals including cheetahs that race like a Ferrari, bears that run their own fishing school, an operatic lion, scary crabs that hold a town hostage and even attempt to cuddle with children, and much more. ANIMALOPOLIS will provide kids and their adults with a journey of smiles and chuckles.</p>

## SHOW TIMES

Date	30 May - 28 June	29 June onwards		
Day	School holidays	Monday-Thursday	Friday	Weekends, School & Public Holiday
12pm	Pandas: The Journey Home		Animalopolis	Pandas: The Journey Home
1pm	Back to the Moon for Good			
2pm	Pandas: The Journey Home			
3pm	Cosmic Surfing	Exploring the Planets	Cosmic Surfing	
4pm	Back to the Moon for Good			
5pm	Back to the Moon for Good			
6pm	Pandas: The Journey Home			
8pm			What's Up There?	

Key

IMAX Movie

Fulldome "Live" Show

Digital Fulldome Movie

## TICKET PRICING

	Public Door Rates	School Group Rates
<b>Digital Fulldome Movie or Fulldome Live Show</b>	\$14.00/ pax \$12.00/ senior citizen	\$8.00/ student \$10.00/ additional teacher*
<b>IMAX Movie</b>	\$12.00/ pax \$10.00/ senior citizen	\$6.00/ student \$8.00/additional teacher*

\*Free admission for two teachers with minimum group size of 20 students