HIGH BRIGHTNESS ON THE HIGH SEAS
AMPTOWN SYSTEM COMPANY USES PANASONIC PROJECTION TO HELP CREATE A UNIQUE ENTERTAINMENT SPACE FOR ROYAL CARIBBEAN INTERNATIONAL
It’s fair to say that the world of cruise liners has undergone somewhat of an image shift over recent times.

The transformation, from floating retirement home to multi-activity holiday that can entertain even the most agile of young minds, stretches to every aspect of a modern cruise ship.

Leading the industry revolution is Royal Caribbean International.

On-board its ground-breaking Quantum Class ships, guests discover an unprecedented selection of activities, sports, games and shows, that cater for every age group and interest you can think of. Quantum of the Seas and Anthem of the Seas were recently joined by Ovation of the Seas in March 2016. Each more than three times the size of the International Space Station, each ship boasts 16 guest decks and 2,090 staterooms, including 1,570 balcony rooms and 373 interior staterooms, all of which have high-tech virtual balconies.

A commitment to high-quality entertainment led to the development of Two70, the ship’s multi-level great room, which has capacity for 540 guests.

Two70 seamlessly fuses entertainment and technology to create a transformative journey from day to night. The perfect setting to connect with the sea during the day, Two70 provides a modern and comfortable living room space for guests to sit back and relax. As the sun sets and the lights go down, the dazzling space gradually reveals its evening persona, delighting guests with spectacular, mysterious and unexpected entertainment at night.

Unparalleled technology means every show at Two70 is multi-dimensional and immerses the audience through a combination of live performers, breath-taking video and digital scenery.

“The technology that we are using here,” said Richard Fain, Chairman and CEO of Royal Caribbean Cruises, “cost more than Royal Caribbean’s first vessel.”

A central pillar of Two70 is Vistarama, a floor-to-ceiling video projection mapping that allows Royal Caribbean to create any scene, real or imagined, as a backdrop to the theatre. Vistarama combines 18 high brightness projectors to create a stunning 12K resolution screen over 30m wide and 6m tall.

In addition, Two70’s troupe of six agile ABB RoboScreens® stage surprise performances throughout every cruise. Each measuring over 2m high and controlled by powerful robotic arms, the Roboscreens create scenes while soaring and twisting solo, or uniting as one.

The creative possibilities of Vistarama and Roboscreens are brought to life through Andy Flessas, robot animator and managing director at Robotic Arts, and through the imaginative and original digital content created exclusively for Royal Caribbean by Moment Factory, the internationally renowned multimedia studio in Montreal, Canada.

Simon Lupini, Producer at Moment Factory, said, “We strongly feel, and so does Royal Caribbean that the combination of technology and live performance is the way forward. Live performance can be enormously enhanced by using technology and by creating these amazing vistaramas and content.

The technological vision for Two70 belonged to Christopher Viassopoulos of Royal Caribbean, “said Leif Witte, Managing Director of Amptown System Company, the system integrator based in Hamburg, Germany and responsible for the integration and interconnectedness of media and entertainment technology for Royal Caribbean’s Quantum class ship generation. “In my mind the windows seemed like the most technical backdrop. Together with Christopher, Panasonic and coolux media systems we found a way to embed the projectors perfectly into the architectural environment and make it all happen. The idea to combine these spectacular things has created a show, the likes of which you’ve never seen before.

“We installed 18 Panasonic DZ21K2 Evo 20,000 lumen projectors, because they are small enough, bright enough and silent enough and that’s the right mix for such a theatre. It was really the perfect solution for this project.”

The Panasonic DZ21K2 is the updated version of Europe’s leading high brightness projector, which debuted at the Opening Ceremony at the 2012 Olympic Games in London.

With Panasonic’s powerful new Real Motion Processor to enable 120 Hz driving speed, Panasonic has refined the Evo series’ optical engine to enhance focus performance, resulting in improved image clarity, all from an extremely compact body.

“Reliability is very important, the room is in use throughout the day and there is a show every night, so there is very limited downtime. The Panasonic projectors play a big part in delivering a reliable solution and we have had no problems to date,” added Leif Witte. “Obviously we need to enable maintenance of the projectors without affecting the projection mapping. So we designed and built a special mounting for each projector. These allow the technical team on board to change filters and lamps in a very easy way, without changing the position of the projectors. The projectors slot back in to place, with millimetre precision.”

“There is only a short distance between the back of the robots and the screen, so we used Panasonic ET-D75LE6 short throw lenses to ensure we could create a 12K image on the screen. It is very realistic, the seascapes and nightscapes look incredibly real.”