

Specification Sheet for the isiQiri Q-Screen system

isiQiri's Q-Screen system consists of the following components:

- Q-Screen sensor modules
- Q-Pointer (input device)
- Mounting system

The Q-screen system is designed to make projection screens interactive.

How does it work?

An array of Q-Screen sensor modules is mounted behind a semi-transparent projection foil. The laser beam of the Q-Pointer goes through the projection foil and is detected by the sensor modules. Those deliver an x-y-position to the computer 60 times a second.

The following pictures will give you an impression how the Q-Screen system looks like.



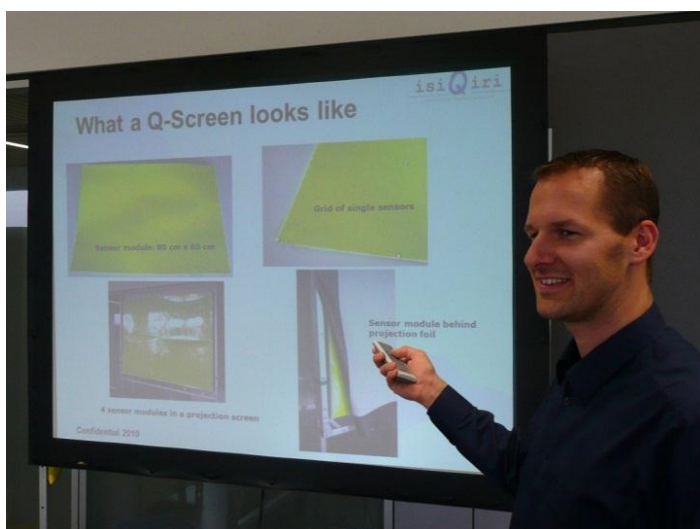
The Q-Screen sensor module is a composite film sized 84 cm x 61 cm (33 inch x 24 inch) with integrated electronics.



4 Q-Screen sensor modules form an array of sensors within the frame of a projection screen.



The projection foil is mounted in front of the sensor modules.



Using isiQiri's input device called Q-Pointer – a combination between laser pointer and mouse – you can control your computer via the projection screen from anywhere in the room.

Q-Screen sensor module specifications:

| | |
|----------------------|---|
| Size | Size of sensor module: 84,4 cm x 60,7 cm (33,23 inch x 24,88 inch). Sensor modules can be combined vertically and horizontally to any size wanted. |
| Thickness | 2 mm |
| Bendability | Min. bending radius 20 cm |
| Weight | 1 kg (2 pounds) |
| Mounting | With isiQiri's patented mounting system (part of the deal) |
| Accuracy | +/- 8 mm |
| Number of users | Max. 4 simultaneously clearly identified by frequency coded laser |
| Connection to PC | USB |
| Read-out-rate | 58 Hz |
| Distance from screen | Interaction possible within a 25 m range, no minimum distance |
| Angle to screen | Interaction possible from 5° to the screen or larger |
| Power supply | USB |
| Packing | Max. 6 units per box |
| Disposal | Remove readout electronics and dispose the electronics and the rest separately according to your local rules |

Q-Pointer specification sheet:

| | |
|------------------|--|
| Size and weight | Comparable to any remote control (168 mm x 38 mm x 27 mm) |
| Laser wavelength | 405 nm (blue) |
| Power supply | 2 AA batteries |
| Laser power | 0.93 mW +/- 0.05 mW (class 2), Do not stare into the beam. |

Q-Screen standard sizes:

The size of the Q-Screen sensor modules was carefully chosen in order to be able to combine them to useful larger sizes.

The following table shows a number of popular combinations and sizes, that almost equal 4:3 or 16:9 aspect ratios. For final sizes you have to add the size of the frame of your projection screen that varies from supplier to supplier.

| number of modules horizontally | number of modules vertically | orientation of modules (H ... horizontal V... vertical) | width sensor area (meters) | height sensor area (meters) | width sensor area (inch) | hight sensor area (inch) | aspect ration of sensor area | orientation of sensor area | deviation from 4 by 3 | deviation from 16 by 9 | deviation from 16 by 10 | number of modules used |
|--------------------------------|------------------------------|---|----------------------------|-----------------------------|--------------------------|--------------------------|------------------------------|----------------------------|-----------------------|------------------------|-------------------------|------------------------|
| 2 | 2 | H | 1,69 | 1,21 | 66,46 | 47,76 | 1,39 | horizontal | 4% | -22% | -13% | 4 |
| 3 | 3 | H | 2,53 | 1,82 | 99,70 | 71,65 | 1,39 | horizontal | 4% | -22% | -13% | 9 |
| 4 | 3 | H | 3,38 | 1,82 | 132,93 | 71,65 | 1,86 | horizontal | 39% | 4% | 16% | 12 |
| 4 | 4 | H | 3,38 | 2,43 | 132,93 | 95,53 | 1,39 | horizontal | 4% | -22% | -13% | 16 |
| 5 | 4 | H | 4,22 | 2,43 | 166,16 | 95,53 | 1,74 | horizontal | 30% | -2% | 9% | 20 |
| 5 | 5 | H | 4,22 | 3,03 | 166,16 | 119,41 | 1,39 | horizontal | 4% | -22% | -13% | 25 |
| 6 | 5 | H | 5,06 | 3,03 | 199,39 | 119,41 | 1,67 | horizontal | 25% | -6% | 4% | 30 |
| 6 | 6 | H | 5,06 | 3,64 | 199,39 | 143,29 | 1,39 | horizontal | 4% | -22% | -13% | 36 |
| 7 | 6 | H | 5,91 | 3,64 | 232,63 | 143,29 | 1,62 | horizontal | 22% | -9% | 1% | 42 |
| 7 | 7 | H | 5,91 | 4,25 | 232,63 | 167,17 | 1,39 | horizontal | 4% | -22% | -13% | 49 |
| 5 | 2 | V | 3,03 | 1,69 | 119,41 | 66,46 | 1,80 | horizontal | 35% | 1% | 12% | 10 |

Please contact us if you need other sizes or you want us to help integrate our sensors into your projection screen. If you wish to buy a whole system including the projection screen itself, isiQiri is able to design the whole system for you.

Q-Screen system and digital projectors:

The Q-Screen system works with all kinds of common digital projectors (LCD, LCOS, DLP, ...).

The Q-Screen system has a built-in auto-calibration feature automatically adjusting screen coordinates to computer coordinates. For this procedure the projector has to deliver at least 800 Lumen / m² screen and ambient light should not change during that time. The procedure will take 1 to 2 minutes depending on screen size and has to be carried out only once.

Luminous flux should be below 3.000 Lumen / m² screen in order to ensure proper operation of the sensors.

Data valid as per August 17th, 2011. Specifications are subject to change without prior notice due to technical advances.

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