

| Beamline | BL44XU | BL41XU | | BL45XU | BL32XU |
|---|--|--|--|---|--|
| | | normal mode | high-energy mode | | |
| Available wavelength (Å) | 0.7-1.9 | 0.7 - 1.9 | 0.35 - 0.65 | 0.775-1.9 | 0.8 - 1.24 |
| Available beam size (w×h, μm) | 20 x 20 - 70 x 70 | 4 × 10 - 22 × 36 (4 × 4, 22 × 46 available on request) | 30 × 30 - 300 × 300 | 5 × 5 - 50 × 50 (5 × 5, 10 × 10, 20 × 20, 10 × 50, 50 × 50) | 1 × 1 - 10 × 15 |
| Photon flux (photons/sec) | 6.5×10 ¹² (@0.9 Å: 50 μm pinhole) | 2.6×10 ¹² - 1.3×10 ¹³ (@1 Å) | 1.7×10 ¹⁰ - 2.3×10 ¹² (@0.4133 Å) | 5.7×10 ¹² - 1.7×10 ¹³ (@1 Å) | 9.0×10 ¹⁰ /μm ² @1 Å (constant flux density) |
| Detector | EIGER X 16M | EIGER X 16M | Hamamatsu C10158DK-11(X) | PILATUS3 6M | EIGER X 9M |
| type | PAD | PAD | CMOS | PAD | PAD |
| active area (wxh, mm ²) | 311.2 x 327.8 | 311.2 x 327.8 | 117.6 × 117.6 | 423.6 x 434.6 | 233.2 × 245.2 |
| pixel size (μm ²) | 75 x 75 | 75 x 75 | 50 × 50 | 172 × 172 | 75 × 75 |
| pixel number (wxh) | 4150 x 4371 | 4150 x 4371 | 2352 × 2352 | 2463 x 2527 | 3110 × 3269 |
| readout time | 3 μs | 3 μs | 14 μs/line | 0.95 ms | 3 μs |
| max frame rate (Hz) | 133 | 133 | 3 | 100 | 238 |
| Detector distance (mm) | 115 - 1200 | 180 - 800 (110 - 800 if beam size is limited to 22 × 36 & 12 × 36) | 55 - 400 | 140 - 650 | 125 - 500 |
| Detector offset | Vertical: +150 mm | Vertical: 0 - 200 mm | Horizontal: ±40 mm Vertical: ±50 mm | - | - |
| Maximum resolution (Å) | 1.00 @λ=0.9 Å, w/o offset 0.78 @λ=0.7 Å, w/o offset | 1.39 @λ=1 Å, dist=180mm 0.77 @λ=0.7 Å, dist=120mm | 0.44 @λ=0.35 Å, dist=55mm | 1.05 @λ=1 Å 0.81 @λ=0.775 Å | 1.36 @λ=1 Å |
| Sample changer | SPACE-II (twin arm) 15 sec for exchange | SPACE-II (twin arm) 15 sec for exchange | Currently adjusting | SPACE-II (twin arm) 15 sec for exchange | SPACE |
| Max. no. of unipucks | 8 | 8 | 4 | 8 | 8 |
| Cryostream | N ₂ : 90 - 100 K He: 20 - 100 K | N ₂ : 90 - 100 K He: 20 - 100 K | N ₂ : 90 - 100 K He: 20 - 100 K | N ₂ : 100 K | N ₂ : 100 K |
| Available software for experiment | BSS | BSS, KUMA, SHIKA | BSS | BSS, KUMA, SHIKA | BSS, KUMA, SHIKA |
| Automatic data collection | | ZOO system (contact us prior to use) | | ZOO system | ZOO system |
| Remarks | | | | | ~10 ¹² photons/μm ² /s available on request |
| Contact person (email; add @spring8.or.jp) | Eiki Yamashita | Kazuya Hasegawa kazuya | | Seiki Baba baba | Kunio Hirata kunio.hirata(@riken.jp) |
| Last update | 2018-04-19 | 2021-11-16 | 2021-11-16 | 2020-04-02 | 2020-04-02 |

| Beamline | BL26B1 | BL26B2 | BL12B2 | BL38B1 (SAXS) |
|---|--|--|--|--|
| Available wavelength (Å) | 0.75 - 1.9 | 0.7 - 1.9 | 0.6 - 1.9 | Currently adjusting |
| Available beam size (w×h, μm) | 30 x 30 - 300 x 300 | 60 x 60 - 120 x 120 | 200 x 200 | Currently adjusting |
| Photon flux (photons/sec) | 1.6×10 ¹⁰ - 2.5×10 ¹¹ (@1 Å) | 2×10 ¹⁰ - 6×10 ¹⁰ (@1 Å) | 5×10 ¹⁰ (@1 Å) | Currently adjusting |
| Detector type | EIGER X 4M PAD | MX225HS CCD | MX225HE CCD | PILATUS3X 2M PAD |
| active area (wxh, mm ²) | 155.2 x 162.5 | 225 x 225 | 225 x 225 | 253.7 x 288.8 |
| pixel size (μm ²) | 75 x 75 | 78.1 x 78.1 | 73.2 x 73.2 | 172 x 172 |
| pixel number (wxh) | 2070 x 2167 | 2880 x 2880 | 3072 x 3072 | 1475 x 1679 |
| readout time | 3 μs | 10 ms | 1.9 s | 0.95 ms |
| max frame rate (Hz) | 750 | 10 | - | 250 |
| Detector distance (mm) | 45 - 265 | 70 - 800 | 85 - 800 | 450 - 3500 |
| Detector offset | - | - | Horizontal: ±50 mm Vertical: -10 - +95 mm | - |
| Maximum resolution (Å) | 1.00 @λ=1 Å | 1.06 @λ=1 Å | 1.12 @λ=1 Å, w/o offset | q range: 0.005 - 2.6 Å ⁻¹ (@λ=1 Å) |
| Sample changer | SPACE | SPACE-II (twin arm) | SPACE | GILSON 223 sample changer |
| Max. no. of unipucks | 8 | 8 | 2 | - |
| Cryostream | N ₂ : 100 - 270 K | N ₂ : 100 - 270 K | N ₂ : 90-270 K | - |
| Available software for experiment | BSS | BSS | BSS | Data Collector |
| Automatic data collection | | | | |
| Remarks | | | | |
| Contact person (email; add @spring8.or.jp) | Hideo Okumura okumurah | Go Ueno ueno | Masato Yoshimura yoshimur | Takaaki Hikima hikima |
| Last update | 2019-06-20 | 2017-10-30 | 2016-09-27 | 2019-06-20 |