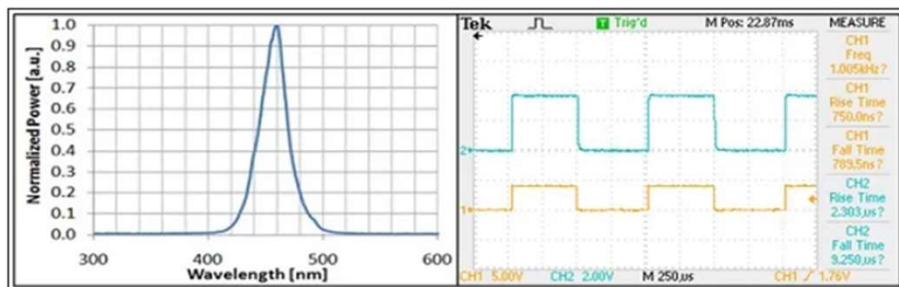
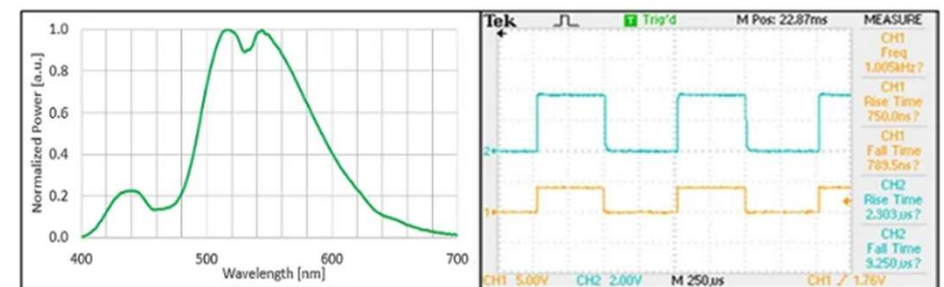


Optogenetics LEDs

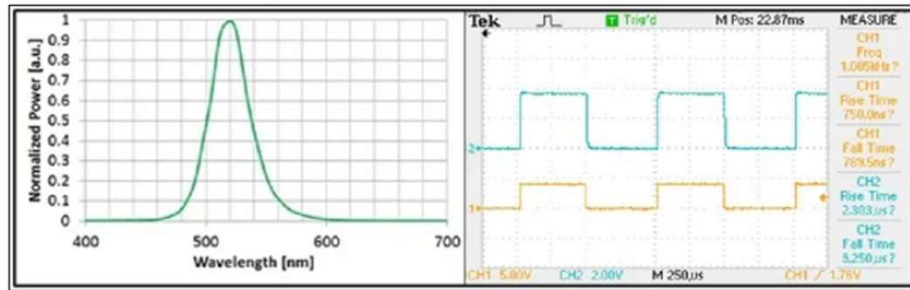
| 型番 | | Optogenetics-LED-Violet | Optogenetics-LED-Blue | Optogenetics-LED-Lime-Green | Optogenetics-LED-Green | Optogenetics-LED-Yellow | Optogenetics-LED-Orange-Red | Optogenetics-LED-Deep-Red | Optogenetics-LED-NIR-820 | |
|--|-------------------------------|-------------------------|-----------------------|-----------------------------|------------------------|-------------------------|-----------------------------|---------------------------|--------------------------|-------|
| 波長 | nm | 405 | 460 | スペクトルグラフ参照 | 520 | 595 | 625 | 655 | 820 | |
| ピーク波長レンジ | nm | 402-412 | 450-465 | スペクトルグラフ参照 | 520±7 | 595±7 | 625±7 | 655±7 | 820±10 | |
| 半値幅 | nm | 27 | 27 | ~90 | 40 | 73 | 22 | ~25 | ~34 | |
| コア径/NA別ファイバ端出 | 200µm NA0.66 fiber (1m) | mW | > 18 | > 23 | > 36 | > 9 | > 4 | > 17 | > 7 | > 7 |
| | 250µm NA0.66 fiber (1m) | | > 24 | > 34 | > 60 | > 13 | > 6 | > 28 | > 10 | > 10 |
| | 500µm NA0.63 fiber (1m) | | > 120 | > 125 | > 180 | > 50 | > 25 | > 90 | > 40 | > 45 |
| | 1000µm NA0.63 fiber (1m) | | > 480 | 550 | > 700 | > 230 | > 100 | > 300 | > 160 | > 160 |
| | 1500µm NA0.63 fiber (1m) | | - | 1000 | > 1250 | - | - | - | - | - |
| カニューラ径別出力 (※) | 200µm cannula | mW | > 12 | > 12 | > 15 | > 5.5 | > 2.5 | > 8 | > 4 | > 4 |
| | 250µm cannula | | > 18 | > 20 | > 25 | > 8.5 | > 4.5 | > 12 | > 6 | > 6.5 |
| | 500µm cannula | | > 66 | > 80 | > 100 | > 32 | > 13 | > 50 | > 20 | > 20 |
| | Irradiance from 200µm cannula | mW/cm2 | > 380 | > 380 | > 470 | > 170 | > 80 | > 250 | > 120 | > 120 |
| ※ LED光源 → ファイバー → ロータリージョイント → ファイバー+カニューラの接続時 | | | | | | | | | | |
| 該当Opsin例 | | | ChR1, ChR2 | Arch | Arch | NpHR, eNpHR3.0 | Jaws, Jaws-ER2 | | | |



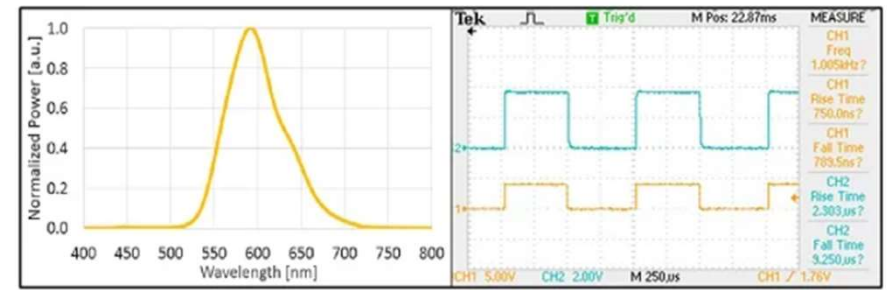
[Left]: Optogenetics-LED-Blue
 [Right]: Optogenetics-LED-Blue Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement



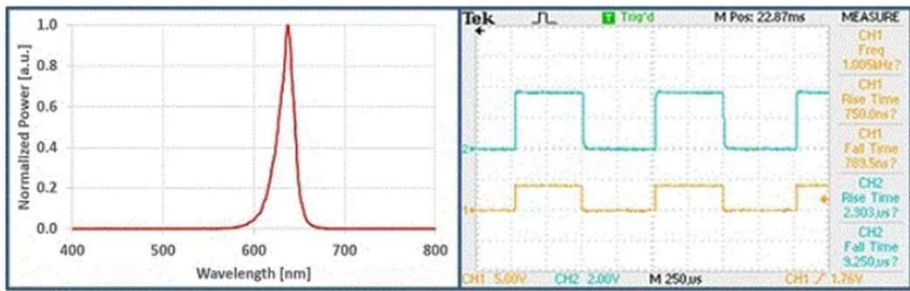
[Left]: ;Optogenetics-LED-Lime-Green spectrum
 [Right]: Optogenetics-LED-Lime-Green Rise/Fall Time.. Ch1 - TTL input , Ch2 Photodiode measurement.



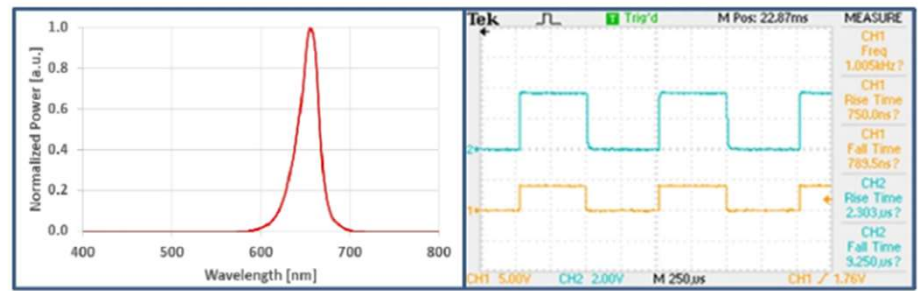
[Left]: Optogenetics-LED-520 spectrum
 [Right]: Optogenetics-LED-520 Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement.



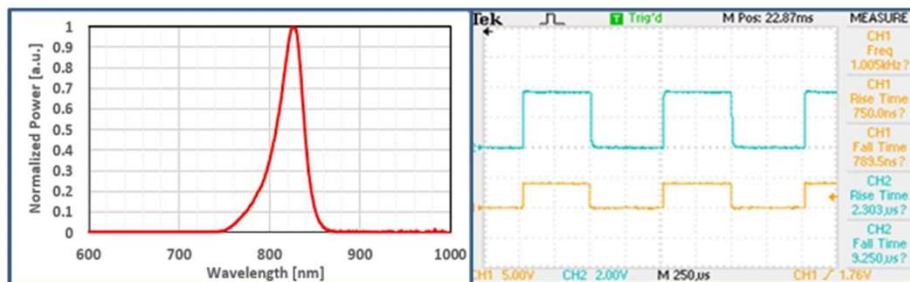
[Left]: Optogenetics-LED-Yellow spectrum
 [Right]: Optogenetics-LED-Yellow Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement.



[Left]: Optogenetics-LED-Orange-Red spectrum
 [Right]: Optogenetics-LED-Orange-Red Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement.



[Left]: Optogenetics-LED-Deep-Red spectrum
 [Right]: Optogenetics-LED-Deep-Red Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement.




[Left]: Optogenetics-LED-IR-820 spectrum
 [Right]: Optogenetics-LED-IR-820 Rise/Fall Time. Ch1 - TTL input , Ch2 Photodiode measurement.

Electrical Specifications

| | | |
|------------------------------------|----|---------------------------|
| Digital modulation input | | Optically isolated TTL |
| Connector for TTL and Analog input | | BNC |
| Digital modulation frequency | Hz | DC-30000 |
| Rise / Fall time (10% - 90%) | μs | <10 |
| Analog input voltage range | V | 0-5 |
| Input Voltage | V | 12 |
| Power Adaptor Input | | 85-264 VAC, 47-63Hz, 1.5A |

General Specifications

| | | |
|---|-----|---|
| Operation temperature range | °C | 10-35 |
| Storage Temperature range | °C | -10-35 |
| Operating relative humidity Non condensing | % | <90 |
| Dimensions (L x W x H) | mm | 197 x 174 x 80 |
| Weight | g | 750 |
| Power Adaptor Dimensions (L x W x H) | mm | 125 x 50 x 31.5 |
| Power Adaptor Weight | g | 270 |
| Power Adaptor Safety | |  |
| Fan Noise | dBA | 28.4 |