record specs

for scientific applications

TeraFlash pro

Versatile time-domain terahertz platform

- 95 dB dynamic range & 6 THz bandwidth in < 20 s
- Flexible path length setting: 15 – 110 cm

Broadband spectroscopy

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Imaging

Convince yourself and apply for your own free live demo!

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### Specifications*

| Components                  | One femtosecond laser  
|                            | SM/PM fiber delivery  
|                            | 2 mechanical delay stages (stationary / moving)  
|                            | 2 InGaAs photoconductive switches  
|                            | Electronics for data acquisition  
| Laser wavelength           | 1560 nm  
| Laser pulse width          | typ. 80 fs  
| Laser repetition rate      | 100 MHz  
| External fiber length      | 2.5 m  
| Terahertz emitter          | #EK-000978: InGaAs/InP photoconductive switch with 100 µm strip-line antenna, 2.5 m fiber pigtail  
| Terahertz receiver         | #EK-000980: InGaAs/InP photoconductive switch with 25 µm dipole antenna, 10 µm gap, 2.5 m fiber pigtail  
| Antenna package            | Cylindrical, 25 mm, integrated Si lens and SM/PM fiber pigtail  
| Scan range                 | 5 .. 200 ps  
| Scan speed                 | 166 traces/s (5 ps)  
|                            | 95 traces/s (20 ps)  
|                            | 60 traces/s (50 ps)  
|                            | 6 traces/s (200 ps)  
|                            | Intermediate settings possible  
| Spectral range             | 0.1 – 6 THz, in < 20 s  
| Average terahertz power    | typ. 30 µW  
| Time-domain dynamic range  | typ. 70 dB in < 40 ms  
|                            | 100 dB in < 20 s  
| Spectral peak dynamic range| typ. 70 dB in < 40 ms  
|                            | 95 dB in < 20 s  
| Useable terahertz path length | 15 – 110 cm, adjustable via software (stationary delay)  
| Frequency resolution @ max. scan range | < 5 GHz  
| Computer interface         | Ethernet  
| Computer software          | LabView-based GUI, included  
| Size (H x W x D)            | 180 x 450 x 560 mm³  
| System weight              | 20 kg  
| Operating voltage          | 110 / 220 V AC  
| Accessories                | Transmission optomechanics, Reflection head, Imaging extension  

*) Subject to change without notice