

record resolution.

for frequency-domain spectroscopy



TeraScan

Frequency-domain

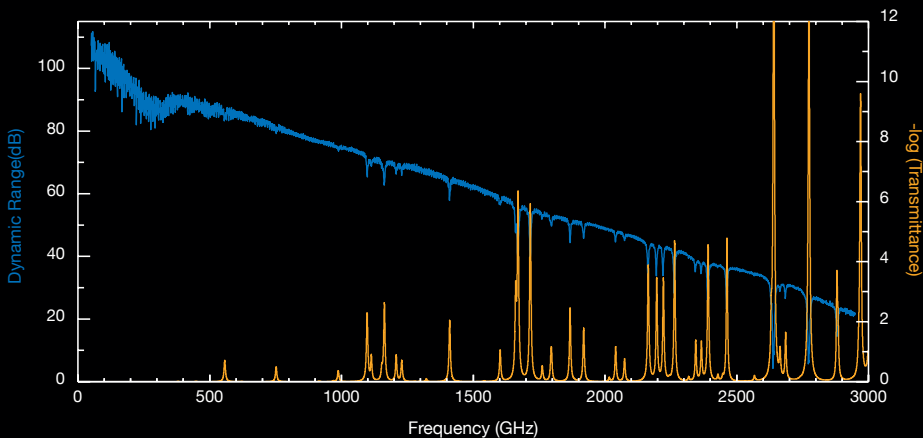
terahertz platform



- Tunable, monochromatic emission up to 3 THz
- Single-MHz frequency resolution

High-res spectroscopy

Component testing



Convince yourself
and apply for your
own free live demo!



www.toptica.com/record-resolution



Specifications*		
System	TeraScan 780	TeraScan 1550
Difference frequency tuning	1.8 THz (typ. 2.0 THz)	1.2 THz (up to 2.7 THz with Tuning Range Extension)
Tuning speed	Up to 0.1 THz/s	
Frequency accuracy	< 2 GHz	
Minimum frequency step size	< 10 MHz	
Terahertz emitter	PCA-FD-0780-100-TX-1, GaAs photomixer	PCA-FD-1550-100-TX-1, InGaAs photodiode
Terahertz receiver	PCA-FD-0780-130-RX-1, GaAs photomixer	PCA-FD-1550-130-RX-1, InGaAs photomixer
Antenna type	Log-spiral	Bow-tie
Terahertz polarization	Circular	Linear
Emitter and receiver package	Cylindrical, ϕ 1" Integrated Si lens and SM/PM fiber pigtail	Cylindrical, ϕ 25 mm Integrated Si lens and SM/PM fiber pigtail
Terahertz power (typ.)	2 μ W @ 100 GHz, 0.3 μ W @ 500 GHz	100 μ W @ 100 GHz, 10 μ W @ 500 GHz
Terahertz dynamic range (300 ms integration time)	80 dB @ 100 GHz 70 dB @ 500 GHz	90 dB @ 100 GHz 70 dB @ 500 GHz
Laser size (H x W x D) and weight	Two DFB pro L laser heads, each with dimensions 90 x 90 x 244 mm ³ (H x W x D), weight 2.8 kg	Two DFB pro BFY laser heads, each with dimensions 60 x 120 x 165 mm ³ (H x W x D), weight 1 kg
Control unit	DLC smart	
Controller size (H x W x D) and weight	50 x 480 x 290 mm ³ , 4 kg	
Computer interface	Ethernet	
Software	Control software with GUI + Remote command interface	
Key advantages	High bandwidth with one set of lasers	High terahertz power, compact laser units

*) Subject to change without notice