

# TeraSys<sup>®</sup> - AiO

## The flexible solution for THz spectroscopy

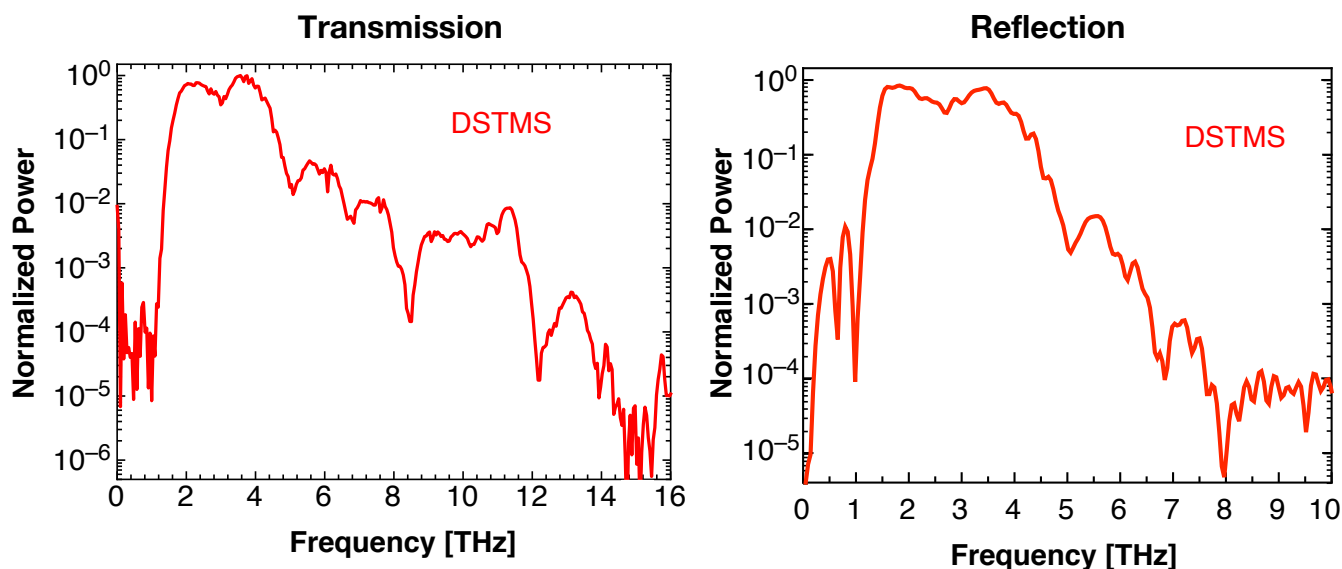
The **TeraSys<sup>®</sup> - AiO** provides a flexible solution for laboratory THz spectroscopy and imaging. It offers maximum flexibility with measurement capabilities in transmission and reflection without realignment of the optics. It is based on organic crystals, to allow access to terahertz frequencies not available with conventional antennas. The **TeraSys<sup>®</sup> - AiO** includes all optical, mechanical and electronic components for the generation and detection of THz waves such as delay line, terahertz generator, terahertz detector, pump source optics, electronics, humidity sensor, purge chamber, dedicated software, and laptop.



**TeraSys<sup>®</sup> - AiO** (55 cm x 45 cm x 28 cm)

<b>TeraSys<sup>®</sup> - AiO Specifications</b>	
THz generator / detector	DSTMS
Spectral range	0.3 – 14 THz (in transmission) 0.3 – 8 THz (in reflection)
<b>Options</b>	
◆ THz imaging with a scanning range of 50 x 50 mm <sup>2</sup> for transmission or reflection operation	

Frequency domain spectrum measured with the **TeraSys® - AiO** using DSTMS as terahertz generator/detector in transmission and reflection.



<b>TeraSys® - AiO</b>	<b>Transmission</b>	<b>Reflection</b>
Spectral range	0.3 - 14 THz	0.3 - 8 THz
Dynamic range	> 70 dB	> 40 dB
Signal to Noise (@4 THz)	> 60 dB	> 35 dB
Scan range	up to 60 ps	up to 60 ps
Frequency resolution	< 100 GHz	< 100 GHz
Dimensions (including the pump source)	55 cm x 45 cm x 28 cm	
<b>Pump Source (high power ultrafast Erbium fiber laser)</b>		
Pulse length	< 20 fs	
Total average power	> 200 mW	
Peak power	> 120 kW	
Central wavelength	1565 nm	
Repetition rate	80 MHz	

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