

T-Ray® 5000 HTS4002 Transmitter (Type 2)

The HTS4002 Transmitter Type 2 for the T-Ray® 5000 balances high output power with high spectral



bandwidth and minimizes features following the pulse to allow high quality images and detection of multiple layers in reflection without the need for post processing of the waveform.

Coupled with an HRS4001 receiver, the HTS4002 provides bandwidth over 3.5 THz and signal to noise ratio above 70 dB. By balancing bandwidth and power, the HTS4002 is ideal for applications where

both high resolution imaging and broad spectral range are desired.

APPLICATIONS

- Terahertz Time Domain Spectroscopy; solid, liquid, gas phase; polymorph discrimination; explosive detection
- Terahertz Imaging: high resolution (150 microns); high speed (800 pixels per second); THz CT imaging
- Art Conservation: identify construction; image through pottery; view previous repairs; non-destructive
- Security Research: baggage screening; personnel screening; shoe screening; anomaly detection

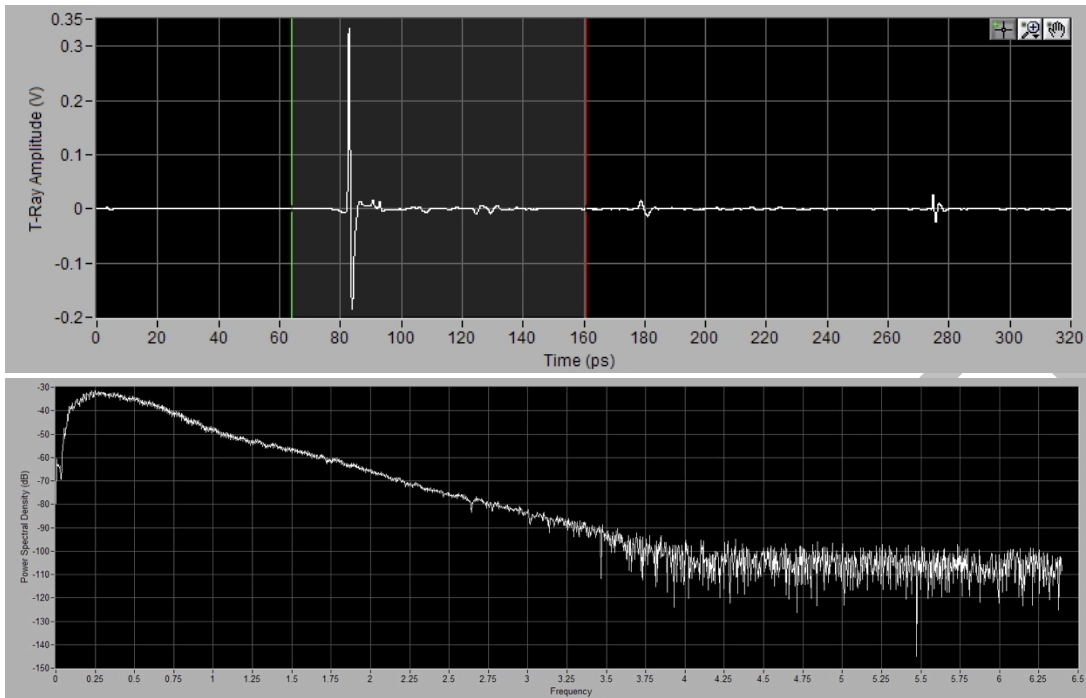
FEATURES

- Fiber coupled to allow movement
- Ultra-broadband measurement
- Transmitted or reflected data collection
- Mates with collinear adapter (AXA4001)
- High signal to noise ratio
- Hot swappable with other transmitters
- Low noise to enable rapid data collection
- Adjustable lens tube for focusing
- Multiple lens configurations available

BENEFITS

- Rapid reconfiguration of measurement
- Perform transmission or reflection spectroscopy
- No need for multiple transmitters
- Easy collinear reflection configuration
- Speed data collection, less averaging
- Quickly optimize performance
- Use for high speed imaging
- Easily obtain maximum bandwidth
- Save money by changing lenses, not transmitters

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INCLUDED

1.5 in diameter lens (1, 3, or 6 in working distance)
Adjustable lens tube

TYPICAL CONFIGURATION

Terahertz Controller
Umbilical pair (2, 5, 10, 30 m)
Transmitter and Receiver

SPECIFICATIONS

Polarization Extinction Ratio	>20:1		Horizontal
Standard Lens	25, 75, 150	mm	Collimating lens also available
Beam Diameter	38	mm	
Mounting configuration	1/4-20		threaded mounting hole
Size	7.5x7.5x15	cm	
Weight	275	gm	

QUALITY VISION

As a leader in terahertz instrumentation, Advanced Photonix, Inc is committed to providing the highest quality ultrafast products on the market. This quality vision commits us to continually improving our product designs and manufacturing processes in order to ensure the highest level of customer satisfaction. The company maintains a stringent quality control program to ensure that all products meet or surpass customer requirements



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