



FEATURES

- Fiber coupled to allow movement
- Ultra-broadband measurement
- Transmitted or reflected data collection
- Mates with collinear adaptor (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

T-Ray[®] 5000 HRS40n1 Receiver

The T-Gauge[®] is the first compact pulsed terahertz measurement system that is robust enough to be deployed in an industrial environment and has all of the flexibility provided by our fiber coupled sensor heads in a rack mount package. By having replaceable sensor heads, the T-Gauge[®] can be configured to fit your specific application.



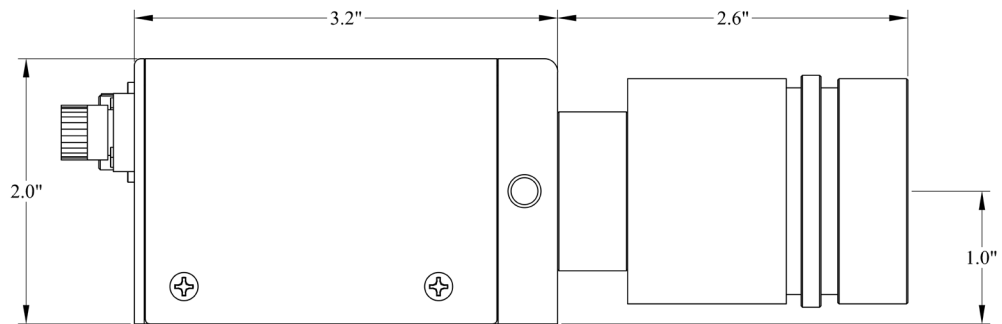
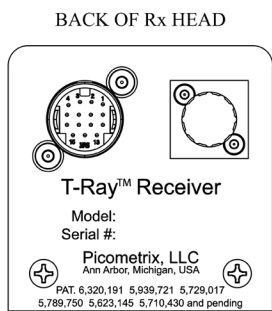
Operating in reflection or transmission mode, the fiber coupled sensor heads deliver a picosecond duration time-domain terahertz pulse, allowing high speed, scanned images to be easily produced.

The HRS40n1 Receiver for the T-Ray[®] 5000 provides high spectral bandwidth when coupled with any of the HTS40nm transmitters. The HRS40n1 provides bandwidth over 3.5 THz and signal to noise ratio above 70 dB. By embedding amplification close to the signal source, the receiver is able to produce high signal to noise, and eliminate the need for a lock-in amplifier.

APPLICATIONS

- Gas, liquid and solid spectroscopy
- Nondestructive materials inspection
- Package inspection
- Semiconductor wafer inspection
- Reaction kinetics monitoring
- Medical and biological imaging research
- Remote threat detection
- Sub-surface corrosion detection
- Homeland Security capabilities

T-Ray[®] 5000 HRS40n1 Receiver



Typical performance with an HTS40n2 Transmitter (Type 2) one-minute average

FREQUENCY	SIGNAL NOISE	UNITS
0.10 THz	94.5	dB
0.3 THz	93	dB
0.5 THz	89	dB
1.0	75	dB
2.0	56	dB
3.0	37	dB

PARAMETER	SPECIFICATION	UNITS	COMMENTS
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 holes
Size (W x H x D)	7 x 6.4 x 7	cm	
Weight	275	gm	