

MSM Test Report:		Date:	23.07.2009	Checked by:	Kh
Detector:	UltraFast-20 FS				
Serial number	0219				
Optical Input:	Free space				
Aperture hole diameter	1 mm				
Numerical aperture	0.07	<p>(For other wavelengths please loosen the allen screw and adjust focus position)</p>			
Lens distance	optimized for 820 nm				
Lens focal length	6 mm				
Test Measurements:					
Setup:		<p>Oscilloscope for o-e detector: HP54750 + 54752B, 50 GHz channel (Hewlett-Packard).</p> <p>The average power of the source is measured with the HP8152A+ 81520A and 81521B optical average power meter detectors (Hewlett-Packard).</p>			
Bias-voltage for the detector:	6V				
Pulse Measurement:					
Optical reference source	A.L.S. PiLas-System Wavelength: 820 nm (PiLas082Q) Repetition Rate 1 MHz				
Result:		<p>Oscilloscope pulse measurement of a PiLas System PiLas082Q.</p>			
Risetime (10%-90%)	12 ps				
Pulsewidth (FWHM)	20 ps				
Sensitivity @ 820 nm	0.15 mA/mW				
Conversion gain (820nm) 50Ω	7 mV/mW				
Dark current (DC) @ 6V	0.7 μA				
Enclosed Views:					

Pulse response of the MSM photodetector UltraFast-20-FS, Source: PiLas 082Q, $f=1\text{MHz}$
module S/N 0219, UltraFast-FO

