

Stationary Mode (not feasible)		
<b>Class 1</b>		
AEL (pulse energy) 50 mm	fulfilled	11%
AEL (mean power) 50 mm	fulfilled	11%
AEL (pulse energy) 7 mm	fulfilled	3%
AEL (mean power) 7 mm	exceeded	14051%
<b>Class 1M (7 mm aperture, 100 mm distance)</b>		
AEL (pulse energy)	fulfilled	3%
AEL (mean power)	exceeded	14051%
<b>Class 3R</b>		
AEL (pulse energy) 50 mm	fulfilled	2%
AEL (mean power) 50 mm	exceeded	2156%
AEL (pulse energy) 7 mm	fulfilled	1%
AEL (mean power) 7 mm	exceeded	2740%
<b>Class 3B</b>		
AEL (pulse energy) 50 mm	fulfilled	0%
AEL (pulse energy) 7 mm	fulfilled	0%
AEL (mean power)	fulfilled	55%
If stationary operation of the VQ580 would be feasible it would have to be classified as <b>LASER CLASS 3B</b>		
according to IEC 60825-1:2001. Note that stationary operation is not accessible for an operator.		
Margin to the accessible emission limits of the specified laser class:		45%
NOHD:		378 m

Scanned Mode		
<b>Class 1</b>		
AEL (pulse energy) 7 mm	fulfilled	2%
AEL (mean power) 7 mm	exceeded	390%
AEL (single pulse train)	exceeded	
<b>Class 3R</b>		
AEL (pulse energy) 7 mm	fulfilled	0%
AEL (mean power) 7 mm	fulfilled	76%
AEL (single pulse train)	exceeded	6836%
<b>Class 3B</b>		
AEL (pulse energy) 7 mm	fulfilled	0%
AEL (mean power)	fulfilled	2%
AEL (single pulse train)	fulfilled	
Consequently, the VQ580 operated in scanning mode has to be classified as <b>LASER CLASS 3B</b>		
according to IEC 60825-1:2001.		
Margin to the accessible emission limits of the specified laser class:		43%
NOHD:		143 m

Conclusion
The VQ580 can only be operated in the scanned mode. In the case the scanner motor stops, the laser is switched off instantaneously. Therefore, the VQ580 has to be classified as
<b>CLASS 3B LASER PRODUCT</b>