

Laser classification according to IEC 60825 – 1: 2007 Laserpen

1 Identification

1.1 Details of the Examiner

Name	Dr. Dieter Debus
Position	Vice President Engineering
Organization	Reimers & Janssen Medizintechnik GmbH
Address	Frohnacker 8 Winden

1.2 Laser Product

Manufacturer	Laserpen Reimers & Janssen Medizintechnik GmbH
Address	Frohnacker 8 Winden

Date of Examination	23-05.2010
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Signature	Dr. Debus
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A handwritten signature in blue ink, appearing to read 'Dieter Debus'.

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Art.Nr.	Power	CW/pulsed	Wavelength	Pulselength/frequ.	Average power	Laserclass Acc. Table 9
130	50mW	CW	785nm		50mW	3b
131	70mW	CW	785nm		70mW	3b
132	200mW	CW	810nm		200mW	3b
133	50mW	CW	655nm		50mW	3b
134	500mW	CW	810nm		500mW	3b
135	40W	pulsed	904nm	200nsec/<10kHz 100nsec/>10kHz max.frequ.=40kHz	160mW max.	3b

The average power of a pulsed laser is: $P_{av} = P_p [mW] \times F \times T_p$

P_p peak power [W]
 F frequency [Hz = 1/s]
 T_p pulse length [s]
 P_{av} average power [mW]

The maximum value is: $P_{av} = 40 \times 40.000 \times 0,1 \times 10^{-6} = 160 \text{ mW}$.

Bei 40.000 Hz (max Frequenz) beträgt die mittlere Leistung der Impulsdiode mit 40W Impulsleistung (200 ns Impulslänge) 160 mW.