

170PO-1-50 S – MID-IR (1700 nm) Tunable OPO Source

short laser pulses of a wavelength ideal for cardiovascular photoacoustic imaging

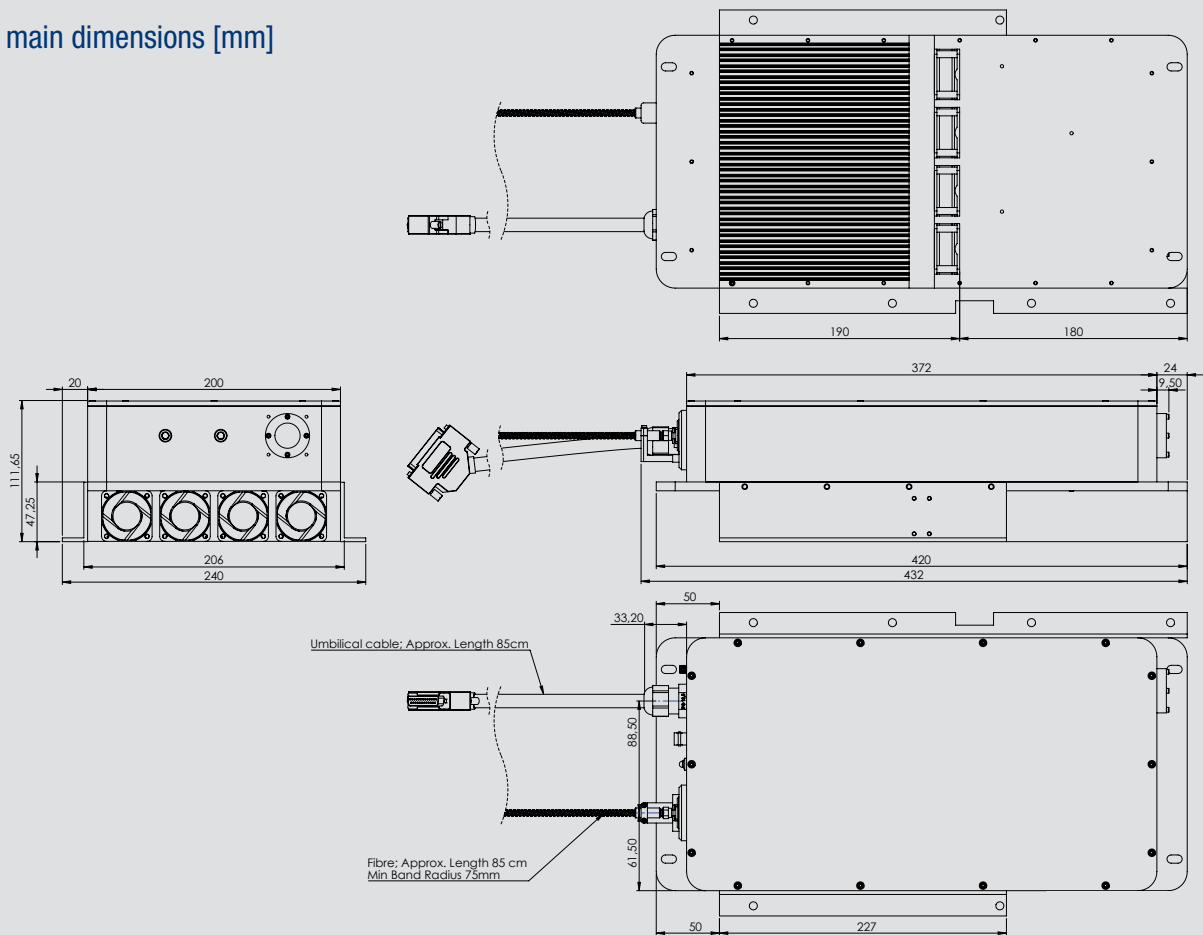
AMS Technologies' 170PO-1-50 S MID-IR tunable (optical parametric oscillator) source generates laser pulses in the 1700 nm range – the applications for such wavelengths are mainly in the field of photoacoustic imaging, in addition to gas chromatography and other analysis tasks.

The OPO's wavelength can be tuned in an extended range from 1700 nm to 1750 nm. Using an electro-optical Q-switch, very short pulses with typical pulse widths of 2 ns to 5 ns are generated.

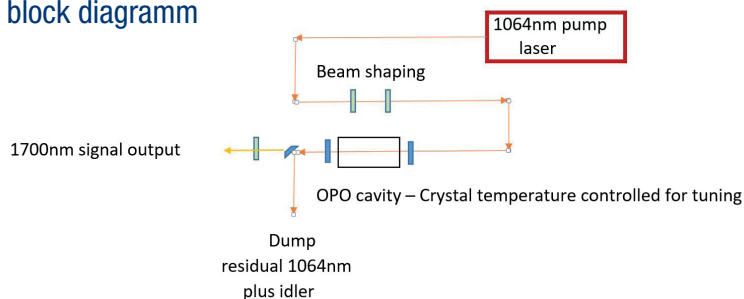
- ☀ tunable wavelength range: 1700 nm to 1750 nm (1500 nm to 2000 nm also available)
- ☀ ideal for cardiovascular photoacoustic imaging
- ☀ pulsed operation
- ☀ short pulses (pulse width 2 ns to 5 ns) for hi-res ultrasound images
- ☀ pulse repetition rate: up to 10 kHz
- ☀ pulse energy: 50 μ J @1 kHz, 30 μ J @5 kHz
- ☀ pump laser and OPO in single rugged housing

main specifications	
tunable wavelength range	1700 nm to 1750 nm (1500 nm to 2000 nm on request)
operation mode	pulsed
pulse width	2 ns to 5 ns
pulse repetition rate	up to 10 kHz
pulse energy	50 μ J @1 kHz, 30 μ J @5 kHz
beam quality	close to TEM ₀₀ , M ₂ < 1.3. (capable of launch into multimode optical fiber)
beam profile	circular
triggering	external laser pulse trigger option (input trigger signal 5 V)
control	RS232 interface with: switch laser on/off, set laser energy, enable/disable emission
power supply	110 VAC to 240 VAC, 50/60 Hz, ~ 200 W
safety features	redundant interlock, warning outputs

main dimensions [mm]



block diagramm



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