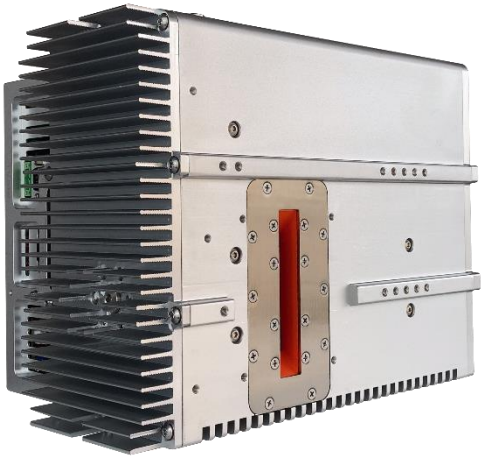
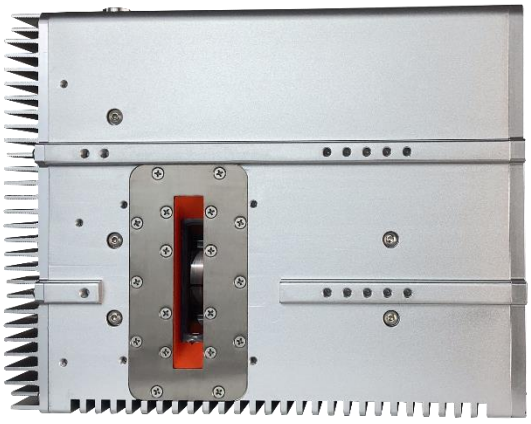
2.HVC80502 X-Ray Source





Introduction:

The HVC80502X X-ray source is an integrated X-ray generator with self-cooling and self-protecting features, with an output of up to 80kV/150W. It is characterized by its compact structure, portable installation, and reliable operation. Within the allowable working temperature range, it can operate continuously at 150W without additional cooling. The HVC80502X X-ray source consists of an X-ray chamber and a control box, and remote control, status monitoring, and firmware upgrades can be achieved via a standard RS232 interface.

Features:

1. Integrated design, compact appearance, and easy installation
2. Good electromagnetic compatibility
3. High system integration with self-circulating cooling system
4. Versatile installation options
5. Standard digital interface for easy application

Application:

Food testing, Shoes and clothing detection, fluorescence analysis application and other fields, mostly used for X-ray machines.

Specification:

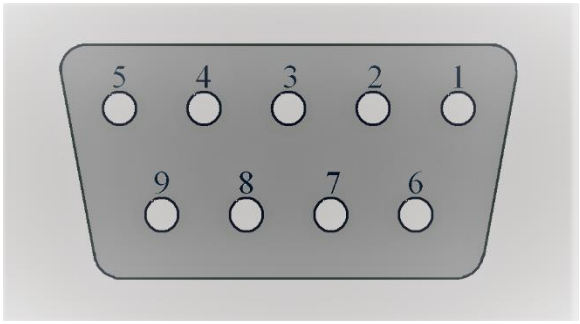
Item	Specification
Input voltage	230VAC±10%, 50/60Hz, 2Amps
Output power of X ray tube	Max continuous output power 150W（30kV/5mA or 80kV/1.8mA ）
Output voltage	Rated output voltage：Continuously adjustable voltage range 20kV---80kV
	Output voltage ripple：±0.5%（peak to peak）

	Output voltage accuracy：±1% of voltage setting value
	line regulation：±0.1%
	load regulation：±0.1%
Tube current	Rated tube current：Continuously adjustable current range 0.2mA-5.0mA
	Tube current accuracy：±1% mA of current setting value
	line regulation：±0.5%
	load regulation：±0.5%
Rise time of output voltage	The kV rise time is <0.4 Sec from 10% to 90% of the output voltage.
Filament power supply:	input voltage：24VDC
	filament voltage：2.0 to 3.0Vac
	filament：3.0 to 3.5 Amps RMS
	preheating time：3sec
Tube feature	Tube type：fixed anode、 glass envelope 、tungsten target
	focus：0.8mm
	inherent filtration：0.8mm Be，0.7mm Al
	radiation angle：80°*16°, fan beam
	target angle：25°
Cooling	Transformer oil medium, natural heat dissipation
Working temperatures	-10℃---40℃
Storing temperature	-20℃---60℃
System temperature protection	60±3℃ of oil temperature
Humidness	98%，Non-condensation
Weight	23kg
Installation direction	Installation in any direction
Radiation angle	16°×80°
X-ray leakage	Less than 0.5mR/hr at 5cm from the surface of the HVC80502 Integrated X-Ray Source.

JB1/AC~, (AC Input Power Connector)

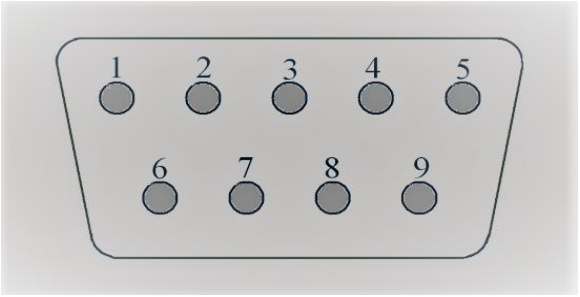
Pin	Signal	Parameter
1	L	live wire
2	N	Neutral line
3	G	PE

JB2/COM, (DMR-9S interface definitions)



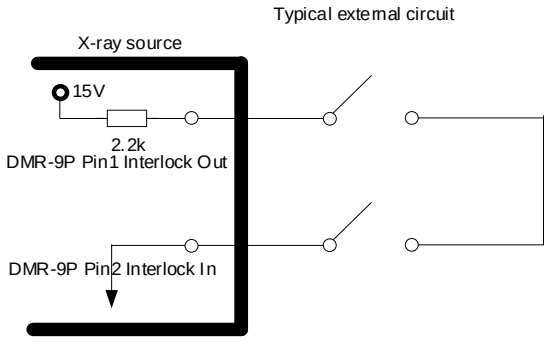
Pin	Signal	Parameter
1.4.6.7.8.9	N/C	No connect
2	TXD	Data transmit
3	RXD	Data receive
5	GND	Signal gnd

JB3/Interlock, (DMR-9P interface definitions)



Pin	Signal	Parameter
3/4/5/6/7/8/9	N/C	No connect
1	Interlock Out	
2	Interlock In	

Short connect pin1 and pin2 make X ray source normal operation. Typical connection：



Led indicator

ID	Color	Meaning
XrayOn	Yellow	indicate X ray on
ARC	Red	Arcing in oil tank
OT	Red	Over temperature
EP_Err	Red	Tube voltage error
IP_Err	Red	Tube current error
Power	Green	Power on

Tank size

HVC80502
Unit: mm