

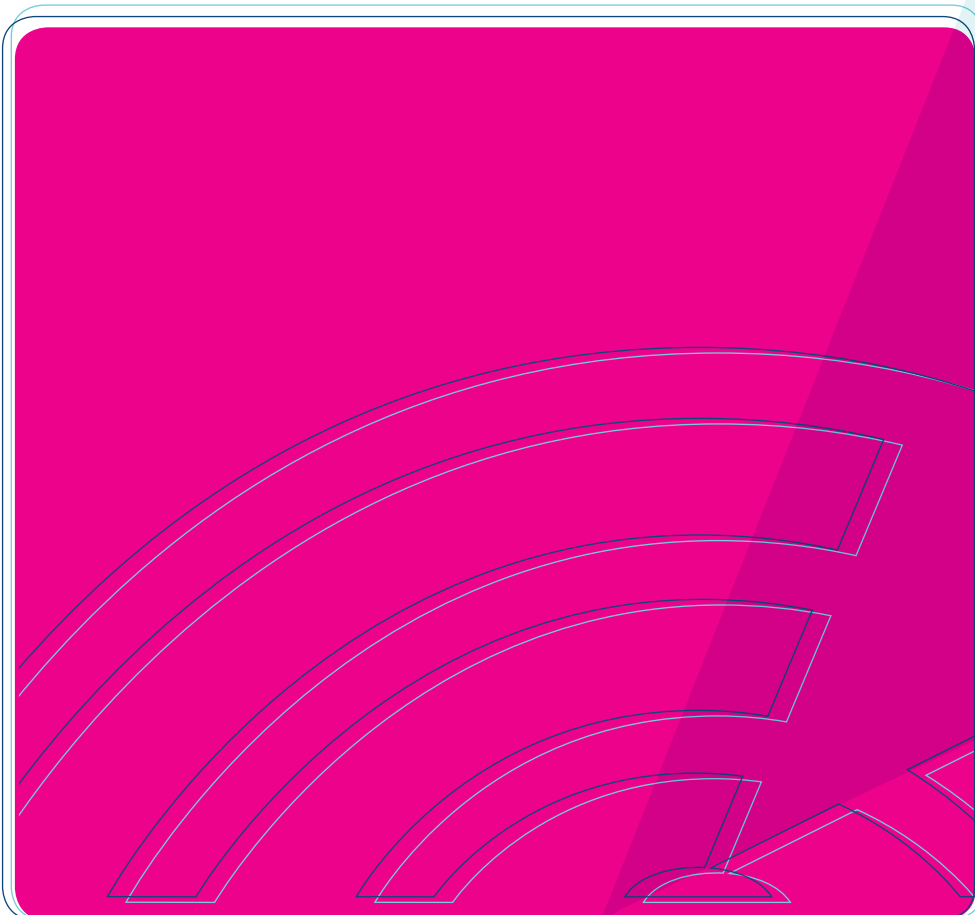


Microwave tubes: Continuous Wave TWTs

The traveling wave tube (TWT) is used as a driver or output tube in advanced radar systems and test equipment. Each tube delivers a peak output power in frequency range without adjustment. A ceramic-metal construction provides exceptional mechanical strength. Electron beam is focused by periodic permanent magnet (PPM) structure. Due to the type they are cooled by forced liquid or air circulation. Some types requires mixed, air-liquid cooling or conducts heat to the base.

Wroclaw Division of PIT-RADWAR S.A. manufactures the following types of TWTs:

- continuous wave tubes
- L-band pulsed tubes
- S-band pulsed tubes
- C-band pulsed tubes



Continuous Wave TWTs

Wroclaw Division of PIT-RADWAR S.A. produces four types of CW TWTs:

- **L22C** – L-band
- **S401C** – S-band
- **C52C** – C-band
- **LO-500** – C-band

CW TWT can be used as as a driver for high power traveling wave tubes or as an output tube in test equipment. The tubes have a helix slow wave circuit, metal-ceramic vacuum envelope and periodic permanent magnet focusing structure. The heat is discharged by conduction to the base.

Technical parameter specification of CW TWTs

Type of TWT	Frequency range [GHz]	Output power [W]	Gain [dB]	Cooling
L22C	1,1÷1,9	25	32	conduction
S401C	2,6÷3,4	30	33	conduction
C52C	4,0÷6,5	15	34	conduction
LO-500	4,4÷5,0	400	30	conduction