

RADIATION HARD VIDICON LI501-1MK

2/3" Vidicon LI501-1MK is used in conditions of high radiation up to $5 \cdot 10^7$ rad.

A target is based on CdSe.

Vidicon has magnetic focusing and electrostatic deflection.

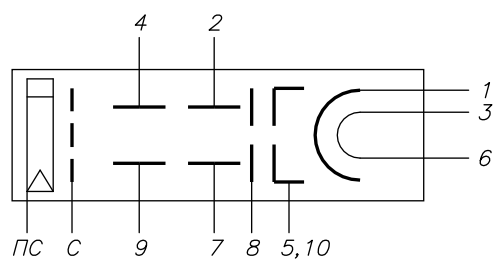
Construction design: Glass material; without base with ring outputs of signal plate and grid.



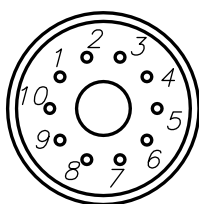
SPECIFICATIONS

Target active area, mm	6.6×8.8
Length, mm	≤ 90
Diameter, mm	$17.8_{-0.6}$
Diameter of contact rings, mm	19.6 ± 0.1
Mass, g	≤ 18
Heater voltage, V	6.3
Heater current, mA	$80 \div 115$
Anode voltage, V	250
Deflectron electrode voltage, V	220
Grid voltage, V	340
Pickup plate voltage, V	$10 \div 25$
Modulator operating voltage, V	$0 \div 15$
Modulator cut-off (negative) voltage, V	≤ 20
Target illumination, lx	1
Signal current, μA	≥ 0.15
Resolution at the center, TVL	≥ 600
Resolution in the corners, TVL	≥ 550
Modulation depth at 400 TVL (at the center), %	≥ 55
Decay lag after 40 ms, %	≤ 14
Dark current, μA	≤ 0.003
Dark noise nonuniformity, %	≤ 15
Geometric distortion, %	≤ 2.5
Target maximum illumination, lx	4
Exposure dose power, rad/h	$\leq 1 \cdot 10^5$
Capacity between pickup electrode and other electrodes connected together, pF	≤ 3.5
Warm-up time, s	≤ 30
Guaranteed life, h	1000

LI501—1MK CIRCUIT



Output connections



Output	Electrode
1	Cathode
2,7	Deflectron electrode (frames)
3,6	Heater
4,9	Deflectron electrode (lines)
5	Modulator
8	Anode
10	Switch (don't switch on!)
C	Grid
ПЧ	Pickup plate

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