

ELECTRONIC TUBE REFERENCE

D7191GH

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION  
CONSTRUCTION  
CATHODERAY

Seven-centimeter flat-faced monoaccelerator instrument CRT with D7-190-family deflection performance and a low-consumption 6.3 V, 95 mA heater, intended for compact oscilloscopes and monitors.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 14            |
| NOMINAL HEATER      | 6.3 V / 95 mA     | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                                                                                  |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| SECTION1 Cathode Ray                                                                                                                             |        |
| MAXIMUM PLATE VOLTAGE                                                                                                                            | 2200 V |
| MAXIMUM HEATER-CATHODE VOLTAGE                                                                                                                   | 100 V  |
| Published ratings and characteristics promoted where a locked-schema field is semantically applicable; additional values retained as parameters. |        |

Philips D7191GH is a 7 cm flat-faced monoaccelerator instrument cathode-ray tube equivalent in deflection performance to the D7-190 family but using a low-consumption 6.3 V, 95 mA heater.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1999 Philips 0-D

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS 0-D

## Section 1 · Cathode Ray

| OTHER                                      |                       |                           |
|--------------------------------------------|-----------------------|---------------------------|
| PARAMETER                                  | PUBLISHED VALUE       | CONDITION / NOTE          |
| Accelerator voltage typical                | 1000 V                | Published datasheet value |
| Accelerator voltage maximum                | —2200 V               | Published datasheet value |
| Accelerator voltage minimum                | 900— V                | Published datasheet value |
| Focusing electrode voltage typical         | 100–180 V             | Published datasheet value |
| Focusing electrode voltage maximum         | —2200 V               | Published datasheet value |
| Deflection linearity deviation maximum     | —1 %                  | Published datasheet value |
| Control grid circuit resistance maximum    | —1 MΩ                 | Published datasheet value |
| Control grid drive average maximum         | —20 V                 | Published datasheet value |
| Screen dissipation maximum                 | —3 mW/cm <sup>2</sup> | Published datasheet value |
| Cathode-to-heater voltage positive maximum | —100 V                | Published datasheet value |
| Cathode-to-heater voltage negative maximum | —15 V                 | Published datasheet value |

| CHARACTERISTICS                           |                 |                           |
|-------------------------------------------|-----------------|---------------------------|
| PARAMETER                                 | PUBLISHED VALUE | CONDITION / NOTE          |
| Horizontal deflection coefficient         | 29 V/cm         | Published datasheet value |
| Horizontal deflection coefficient maximum | —31 V/cm        | Published datasheet value |
| Vertical deflection coefficient           | 11.5 V/cm       | Published datasheet value |
|                                           |                 |                           |

| PARAMETER                               | PUBLISHED VALUE   | CONDITION / NOTE          |
|-----------------------------------------|-------------------|---------------------------|
| Vertical deflection coefficient maximum | <b>—12.6 V/cm</b> | Published datasheet value |
| Useful scan horizontal minimum          | <b>60— mm</b>     | Published datasheet value |
| Useful scan vertical minimum            | <b>50— mm</b>     | Published datasheet value |
| Line width                              | <b>0.28 mm</b>    | Published datasheet value |
| X1 to all except X2 capacitance         | <b>4 pF</b>       | Published datasheet value |
| X2 to all except X1 capacitance         | <b>4 pF</b>       | Published datasheet value |
| Y1 to all except Y2 capacitance         | <b>3.5 pF</b>     | Published datasheet value |
| Y2 to all except Y1 capacitance         | <b>3 pF</b>       | Published datasheet value |
| X1-X2 capacitance                       | <b>1.6 pF</b>     | Published datasheet value |
| Y1-Y2 capacitance                       | <b>1.1 pF</b>     | Published datasheet value |
| Control grid capacitance                | <b>5.5 pF</b>     | Published datasheet value |
| Cathode capacitance                     | <b>2.3 pF</b>     | Published datasheet value |

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