

ELECTRONIC TUBE REFERENCE

CONSOLIDATED TECHNICAL DATA

1C163

1 SECTION

CONSTRUCTION

Specialized - Photo Tube electronic tube

IMAGECONVERTERINTENSIFIER

Near-infrared image-converter tube using electrostatic focusing and a P20 phosphor screen to produce a visible image.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 ImageConverterIntensifier
No fixed ratings recorded.
Image-converter electron-optical structure; published voltages and performance retained in parameters.

The ITT 1C163 is a near-infrared image-converter tube with electrostatic focusing and p20 phosphor screen.

SOURCE OPERATING CONDITIONS

1962 ITT

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

1962 ITT

Section 1 · ImageConverterIntensifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-anode voltage nominal	16000 V	—
Cathode-to-anode voltage maximum	16500 V	—
Focus voltage as percent of anode voltage	13–16 %	—
Maximum cathode current	2 uA	—
Cathode luminous sensitivity	12–25 uA/lm	—
Cathode radiant sensitivity at 8000 A	0.0012–0.0025 uA/uW	—
Phosphor screen luminous efficiency at 16 kV	30–55 lm/W	—
Infrared conversion index at 16 kV	10	—
Image magnification	0.66–0.7 x	—
Resolving power center	20 lp/mm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average cathode current density	0.4 uA/cm ²	—
Useful cathode diameter	0.97 in	—
Useful phosphor screen diameter	0.75 in	—

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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