

ELECTRONIC TUBE REFERENCE

WF45

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
MICROWAVETR SWITCH

Self-operating broadband X-band TR gas-discharge cell covering approximately 8.49–9.58 GHz for radar duplexers, equivalent to American type 1B63A.

GENERAL CHARACTERISTICS

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

SECTION RATINGS

SECTION1 MicrowaveTRSwitch
No fixed ratings recorded.
Microwave T.R. gas-discharge cell; device-specific primer, breakdown, leakage, recovery, frequency and power data are retained in parameter rows.

Ferranti WF45 is a self-operating broadband X-band T.R. gas-discharge cell for branched or balanced duplexers. It covers about 8.49-9.578 GHz, is rated to 200 kW, and is equivalent to American type 1B63A.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Ferranti

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

1963 FERRANTI

Section 1 · MicrowaveTRSwitch

FREQUENCY		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency range	8490–9578 Mc/s	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum transmitter line power	200 kW	Peak
Minimum transmitter line power	4 kW	—
Primer supply voltage	-1500--650 V	Negative D.C.
Primer current	100–180 uA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum VSWR, central band	1.4	8565-9487 Mc/s
Maximum VSWR, full band	1.9	8490-9578 Mc/s; OCR reads 1.9
Maximum insertion loss	0.9 dB	Primer energized
Total leakage power	70 mW	200 kW peak
Spike leakage energy	0.2 erg/pulse	200 kW peak
Maximum primer breakdown power	250 mW	—
Maximum recovery time to -6 dB	4 us	—
Maximum arc loss at 4 kW	0.8 dB	—
Primer operating voltage	200–375 V	—