

ELECTRONIC TUBE REFERENCE

WF43

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA  
1 SECTION  
CONSTRUCTION  
MICROWAVETR SWITCH

Broadband X-band TR gas-discharge cell for branched or balanced radar duplexers, designed for high reliability and long life at substantial transmitter line power.

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 WF43 is a broadband X-band T.R. gas-discharge cell for branched or balanced duplexer systems. It was specially developed for high reliability and long life, with a 200 kW maximum transmitter line-power rating.

## 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 · Microwave TR Switch

| FREQUENCY       |                 |                  |
|-----------------|-----------------|------------------|
| PARAMETER       | PUBLISHED VALUE | CONDITION / NOTE |
| Frequency range | 8500–9300 Mc/s  | —                |

  

| OTHER                          |                 |                  |
|--------------------------------|-----------------|------------------|
| PARAMETER                      | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum transmitter line power | 200 kW          | Peak             |
| Minimum transmitter line power | 4 kW            | —                |
| D.C. primer supply voltage     | -1500--950 V    | Negative D.C.    |
| Main primer current            | 100–185 $\mu$ A | —                |
| Auxiliary primer current       | 50–80 $\mu$ A   | —                |
| Storage ambient temperature    | -40–100 C       | —                |

  

| CHARACTERISTIC           |                 |                              |
|--------------------------|-----------------|------------------------------|
| PARAMETER                | PUBLISHED VALUE | CONDITION / NOTE             |
| VSWR                     | —1.3            | 8500-9300 Mc/s average/limit |
| Insertion loss           | —0.8 dB         | Average/limit                |
| Total leakage power      | —100 mW         | 200 kW peak                  |
| Spike leakage energy     | —0.3 erg/pulse  | 200 kW peak                  |
| Primer breakdown power   | —250 mW         | —                            |
| Recovery time to -6 dB   | —3 $\mu$ s      | —                            |
| Maximum arc loss at 4 kW | 0.8 dB          | —                            |
| Primer operating voltage | 180–280 V       | Typical around 210 V         |