

1. Scope.

This specification covers the description and tests of the voltage controlled oscillator (VCO) FG 811, which is a module in the FS 811 intended for CQP 800.

2. Description.2.1. Functional.

FG 811 is a thick-film plug-in micromodule. It generates the RF signal to be used as injection in RC 811. The frequency of the oscillator is controlled by the phase-detector in PL 801.

2.2. Circuit.

The oscillator is a Hartley-type LC-oscillator using a JFET in the grounded gate configuration as the active element.

By changing the reverse bias of a variable capacitance diode in the resonant circuit the frequency of the RF signal is changed. The frequency control input passes through a low-pass filter with a cut-off frequency of approx. 1300Hz.

3. Specifications.3.1. Interface.

Power supply 7.5 Volt ± 0.1 V.
Current consumption 2.1 mA ± 0.3 mA.

Input.

Frequency control input 0 - 7.5V DC.
Input resistance > 100 k Ω .
Input impedance 1 kHz. ~ 18 k Ω .

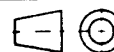
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REVISIONS

THIRD ANGLE PROJECTION



FIRST ANGLE PROJECTION



SI-METRIC

PRINTS TO

APPV	DATE	TITLE	FIRST MADE FOR
OHN	30/10 -80	TEST SPECIFICATION	FG 811
MADE BY		GENERAL ELECTRIC	19J706484
ISSUED		Storno	CONT ON SHEET 3 SH NO 2
		1980 CKT. 31	

Output.

Frequency range

120 - 160 MHz.

Output level

> - 9 dBm in 50 Ω .

Output impedance

~ 100 Ω .3.2. Mechanical.

In accordance with the 800 build standard for hybrid thickfilms.

3.3. Environmental.

Temperature range:

Operating range:

- 25°C to + 55°C.

Functioning range:

- 30°C to + 60°C.

4. Applicable drawings.

Part list

19M905114

Circuit diagram

19J706363

Component placing

Assembly drawing

19M905114P1

5. Test equipment.

1 Power supply

7.5 V \pm 5 %.

1 Milliamperemeter range

0 - 10 mA.

1 Bolo meter range

- 5 to 0 dBm in 50 Ω .1 Frequency counter range 120 - 160 MHz in 50 Ω .

1 Attenuator

6 dB in 50 Ω .

1 Voltmeter range

0 - 10 V.

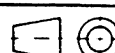
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TEST SPECIFICATION

FIRST MADE FOR FG 811

OHN

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OHN 80 JUL 2

GENERAL ELECTRIC

F.C.F.O.

19M905114

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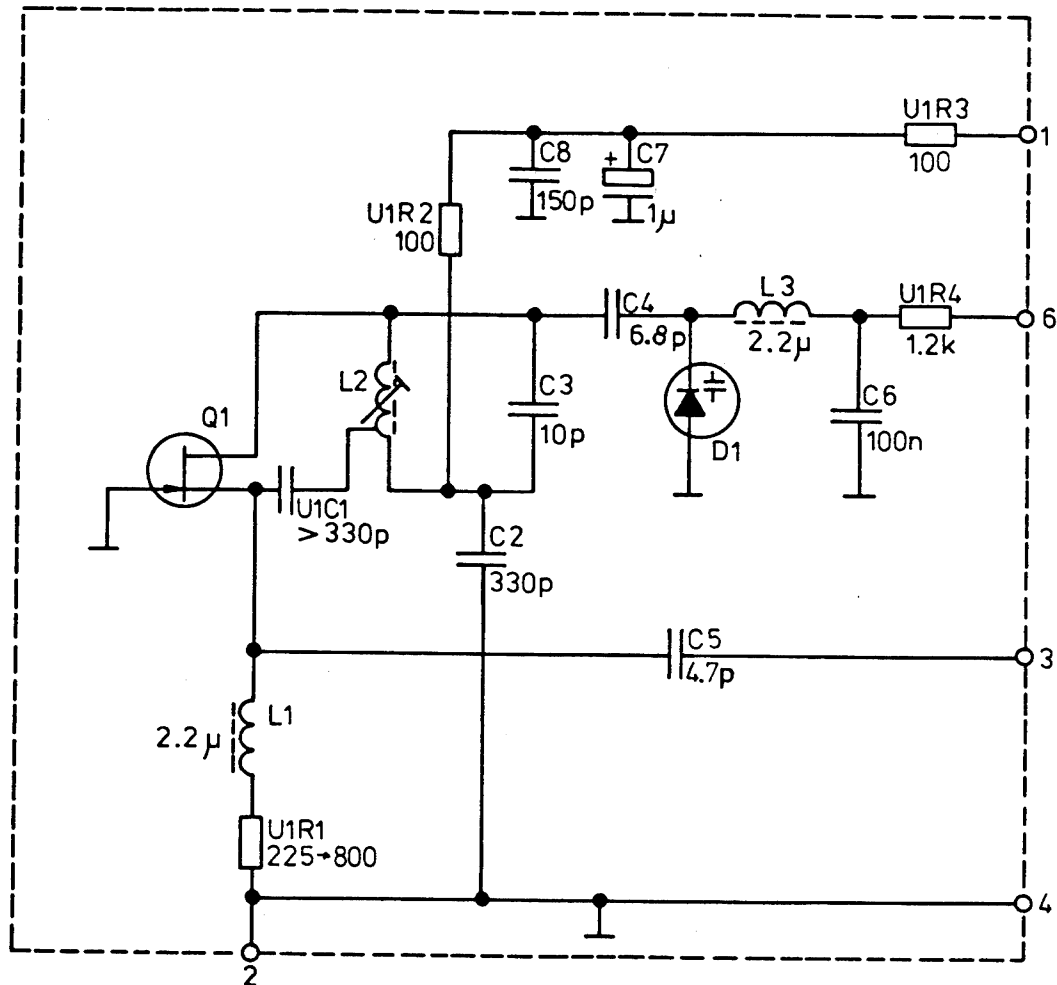
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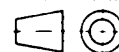


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DATE

TITLE

DIAGRAM

FIRST MADE FOR FG 811

F.C.F.O. 19M 90 5114

OHV

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SH NO 1