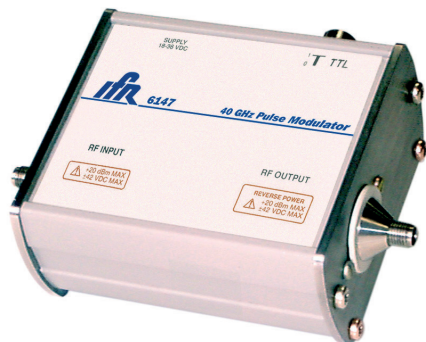


Microwave

6147 40 GHz Pulse Modulator



AEROFLEX
A passion for performance.

A 40 GHz pulse modulator for radar and EW system testing

- Wide frequency coverage 70 MHz to 40 GHz
- Rise and fall times of <150 ns
- Standard TTL levels
- Suitable for use with 6800 series microwave systems analyzers or 6200B series microwave test sets
- Small and rugged for field use

The 6147 Pulse Modulator is ideal for modulating RF and Microwave signals to enable testing of radar and EW systems. Its wide frequency range of 70 MHz to 40 GHz means it can test both the RF and IF performance of the radar.

Modulation is controlled by a TTL input. Any suitable pulse generator can be used to drive the 6147.

The 6147 is a small lightweight and rugged package. It can be connected directly onto the output of a signal source and has 2.92 mm connectors. When used with the 6200B series Microwave Test Set it is powered with the supplied lead which connects directly onto the 6200B auxiliary output. For use with other signal sources an optional AC power supply is available.

The combination of 6147 and a 6800 microwave system analyzer or 6200B microwave test set fitted with an internal attenuator forms the basis of an excellent solution for testing radar systems. The fundamental radar tests of minimum discernible signal, 1 dB compression and subclutter rejection are made simple.

SPECIFICATION

Frequency Range

70 MHz to 40 GHz

ON/OFF Ratio

>23 dB

Rise/Fall Time

<150 ns

Pulse Width Compression

<150 ns

Minimum Pulse Width

500 ns

Maximum PRF

1 MHz

Insertion Loss

<10 dB

Minimum Output Power

(with +5 dBm input power) \geq -5 dBm

Reverse Power Damage Level

+20 dBm, \pm 42 VDC

Input Damage Level

+20 dBm, \pm 42 VDC

Modulation Input Type

Standard TTL, BNC input for RF ON when logic level low

Modulation Input Impedance

>10 k Ω

For the very latest specifications visit www.aeroflex.com

Input/Output Return Loss

7 dB typ

RF Input/Output Connectors

2.92 mm (f)

Electromagnetic Compatibility

Conforms with the protection requirements of the EEC Council Directive 89/336/EEC. Conforms with the limits specified in the follow standards.

IEC/EN61326-1: 1997 Conducted emission Class A.
Radiated emission Class B. Immunity Table 1 Performance Criterion B

Safety

Conforms with the requirements of EEC Council Directive 73/23/EEC (as amended) and the product safety standard IEC / EN 61010-1 : 2001 + C1 : 2002 + C2 : 2003 for class 1 (or 3) portable equipment, for use in a Pollution Degree 2 environment. The instrument is designed to be operated from an Installation Category 2 (or / and 1) supply.

Operating Temperature

0°C to +50°C

Dimensions and Weight

112 mm x 86 mm x 41 mm, 450g

Supply Voltages

+12 V DC 400 mA & -12 V DC 70 mA
Available from the optional AC adapter

Optional Accessory

54441/019 Mains Power Supply
Input 100 V to 240 V AC, 50 Hz to 60 Hz 48 Watts maximum
Output 24 VDC at 2.0 A maximum

VERSIONS AND ACCESSORIES

6147 Pulse Modulator 70 MHz to 40 GHz

Supplied with

46882/211 Instruction Manual
43138/399 Power Supply lead for use with 6200 Auxiliary Output

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.

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