

Linwave High Power I.F. Switch

Description

Linwave Technology have utilised their RF design capability to develop a small and highly integrated Transmit and Receive switch for high power TACSAT frequency applications. The design incorporates a logic interface and driver circuitry to appropriately bias a matrix of high power PIN diodes enabling simple TTL high/low switching of transmit or received signals from a common antenna interface.



Figure 1. TX / RX Switch

Figure 1 shows the switch and its three SMA interfaces configured with a cable harness for application of power and the logic switching signal.

The switch operates from 30-100MHz with power levels up to 50W. Switching speeds are better than 50us.

Impedance matched to 50Ω.

Linwave reserves the right to make changes, without notice, in the products, including circuits, standard cells, and/or software, described or contained herein in order to improve design and/or performance.

Data sheet Iss 01, dated 22/02/18 DS00-793496-01, SAP Activity No. 3305 .

*For price, delivery and to place orders please contact
Linwave Technology Ltd, Marlin Building, Sadler Road, Lincoln, LN6 3RS
Company Reg No 4478971 (England)
Phone:+44 (0) 1522 681811 Fax:+44 (0) 1522 681911
Email enquiries@linwave.co.uk Website www.linwave.co.uk
© 2018 Linwave Technology*

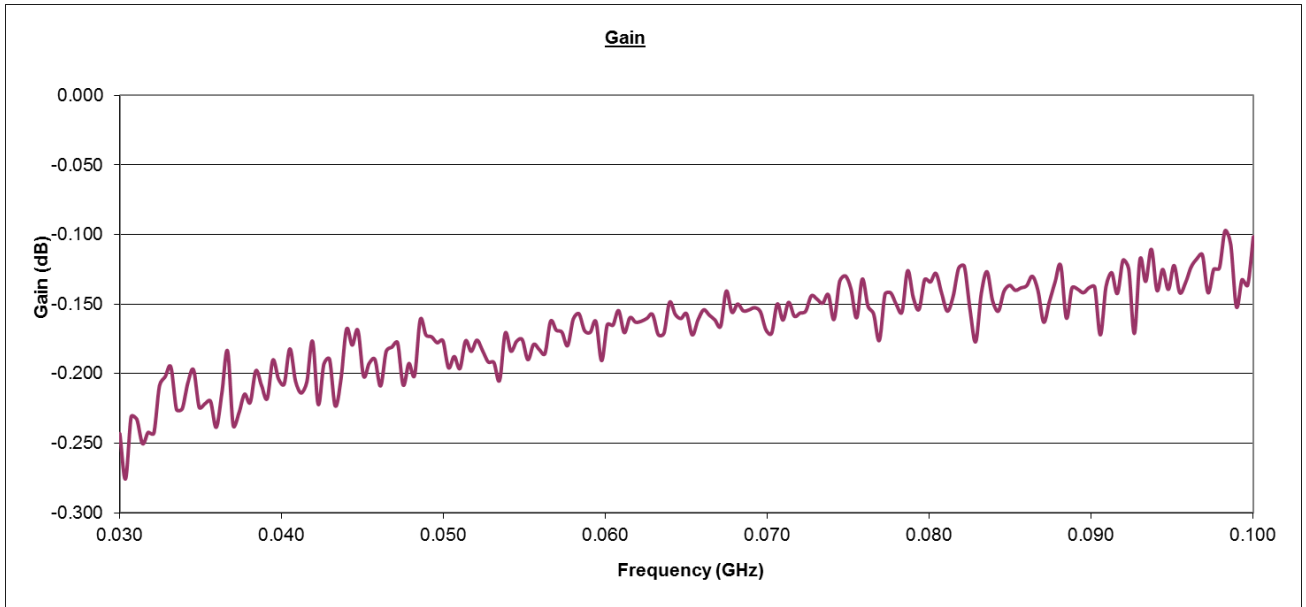


Figure 2. TX Insertion loss

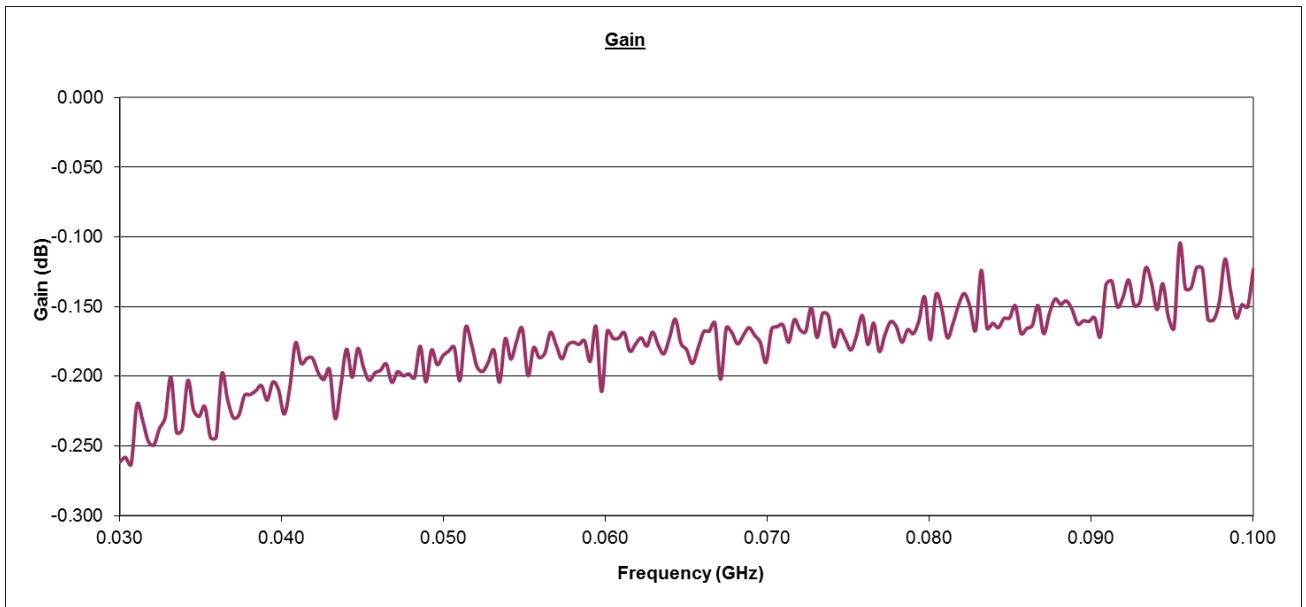


Figure 3. RX Insertion loss

Linwave reserves the right to make changes, without notice, in the products, including circuits, standard cells, and/or software, described or contained herein in order to improve design and/or performance.

Data sheet Iss 01, dated 22/02/18 DS00-793496-01, SAP Activity No. 3305 .

For price, delivery and to place orders please contact
 Linwave Technology Ltd, Marlin Building, Sadler Road, Lincoln, LN6 3RS
 Company Reg No 4478971 (England)
 Phone:+44 (0) 1522 681811 Fax:+44 (0) 1522 681911
 Email enquiries@linwave.co.uk Website www.linwave.co.uk
 © 2018 Linwave Technology

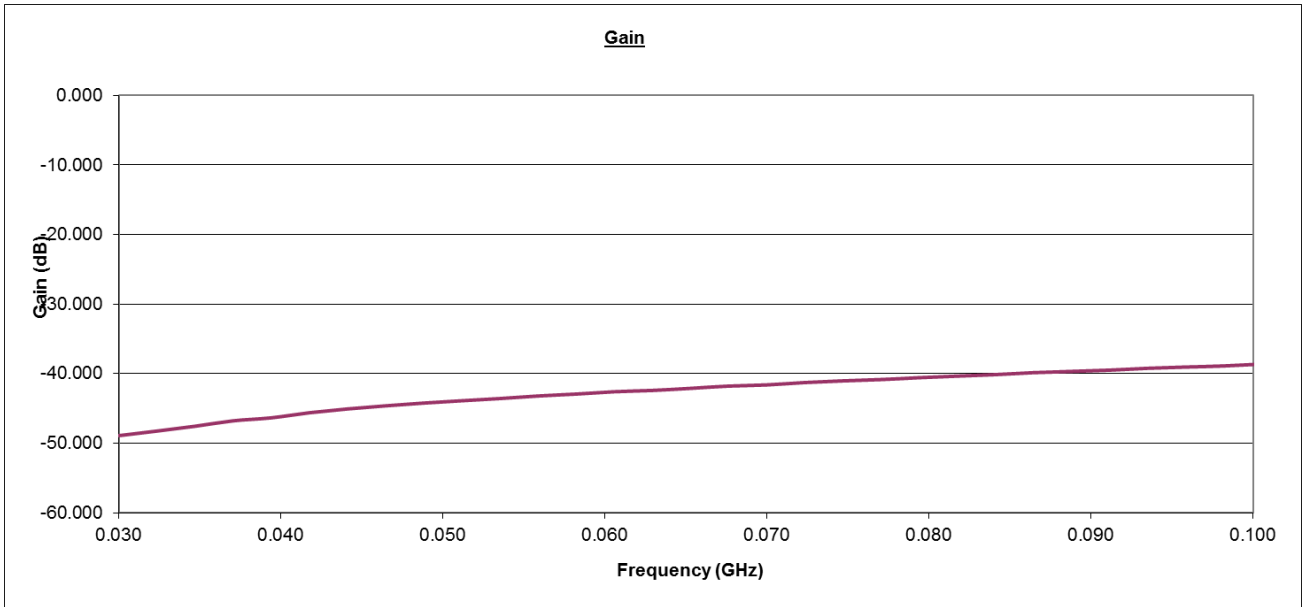


Figure 4. TX/RX Isolation

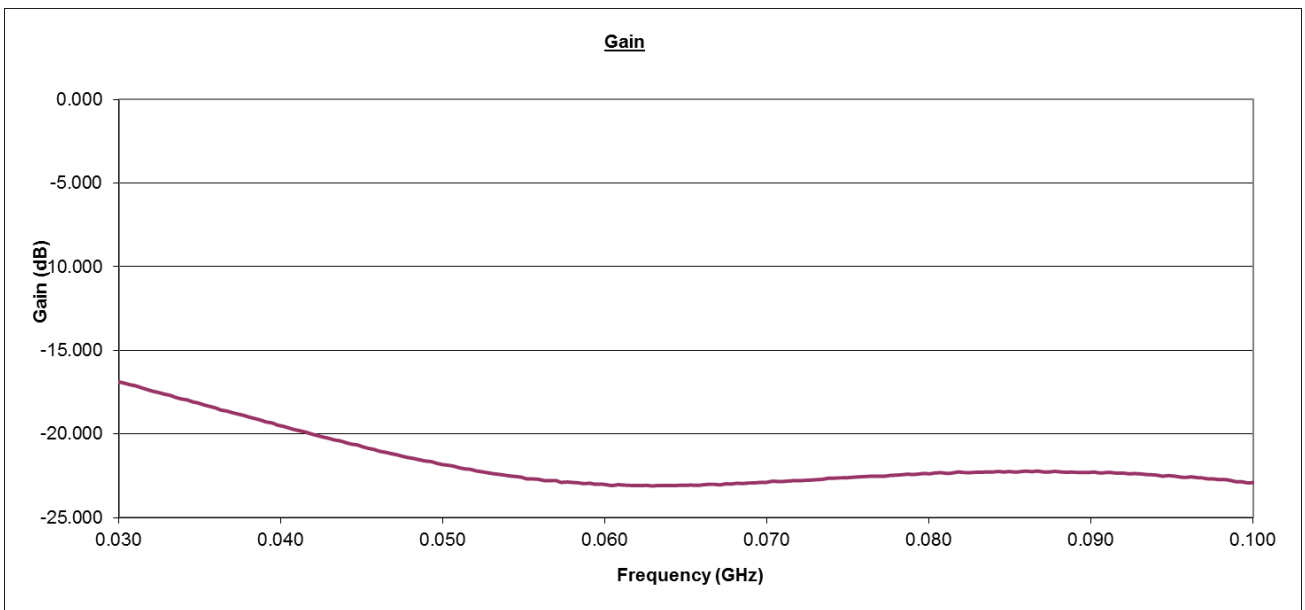


Figure 5. ANT/ RX Return Loss

Linwave reserves the right to make changes, without notice, in the products, including circuits, standard cells, and/or software, described or contained herein in order to improve design and/or performance.

Data sheet Iss 01, dated 22/02/18 DS00-793496-01, SAP Activity No. 3305 .

For price, delivery and to place orders please contact
 Linwave Technology Ltd, Marlin Building, Sadler Road, Lincoln, LN6 3RS
 Company Reg No 4478971 (England)
 Phone:+44 (0) 1522 681811 Fax:+44 (0) 1522 681911
 Email enquiries@linwave.co.uk Website www.linwave.co.uk
 © 2018 Linwave Technology

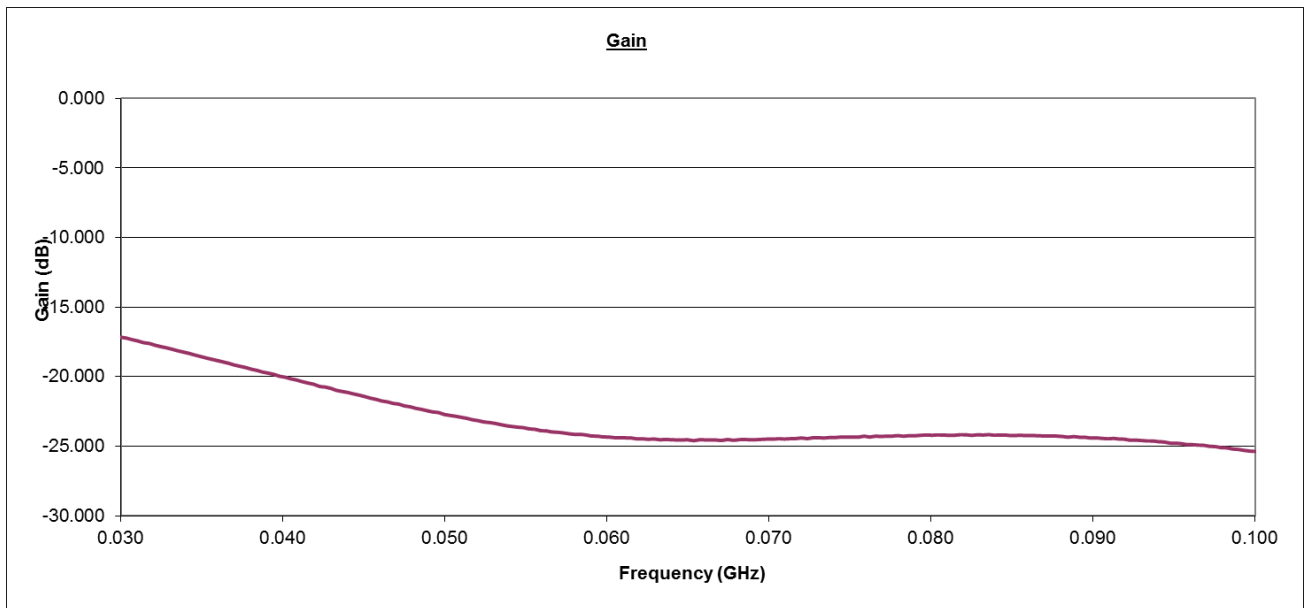


Figure 6. TX/ ANT Return Loss

DC Supplies:

+5V \pm 10% for the logic driver @ less than 20mA (Yellow wire)

+28V \pm 10% for the high power switching @ less than 20mA (Red wire)

GND (Green wire)

An external solder tag is available to provide an earth return path and grounding of the chassis

Logic control (White wire)

TTL High for TX mode (2.8V to 5V)

TTL low or O/C for RX mode (<0.8V)

Operating temperature range

-30 deg C to +60 deg C.

Notes:

Options are available for filtered DC pin connections instead of a cable harness.

Wider frequency range options are available for frequencies from 20 to 520MHz

Hermetic sealing as an option.

Linwave reserves the right to make changes, without notice, in the products, including circuits, standard cells, and/or software, described or contained herein in order to improve design and/or performance.

Data sheet Iss 01, dated 22/02/18 DS00-793496-01, SAP Activity No. 3305 .

For price, delivery and to place orders please contact
 Linwave Technology Ltd, Marlin Building, Sadler Road, Lincoln, LN6 3RS
 Company Reg No 4478971 (England)
 Phone:+44 (0) 1522 681811 Fax:+44 (0) 1522 681911
 Email enquiries@linwave.co.uk Website www.linwave.co.uk
 © 2018 Linwave Technology