32000–38000 MHz SPDT MMIC Switch Die — IL 1 dB (typical)

LCI-SW-32000-38000-SPDT · 32000–38000 MHz · SPDT MMIC Switch Die.



The RF table specifies: Insertion loss 1 dB (typical); Isolation 20 dB (typical); P0.2dB 42 dBm (typical). RF test conditions: Von = -28 V; Voff = 0 V; TA = +25 °C.

RFC integrates a DC-blocking capacitor; RF1 and RF2 have no integrated DC-blocking capacitors.

Die dimensions: 2.1 × 0.9 × 0.08 mm.

V1 (V) = -28; V2 (V) = 0; RF = RFC ↔ RF1

V1 (V) = 0; V2 (V) = -28; RF = RFC ↔ RF2

RF characteristics

Von = -28 V; Voff = 0 V; TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	32000	-	38000	MHz
Insertion loss	-	-	1	-	dB
Isolation	-	-	20	-	dB
Input power at 0.2 dB compression	-	-	42	-	dBm
Switching time	-	-	20	-	ns
Input return loss	-	-30	-20	-17	dB
Output return loss	-	-25	-20	-17	dB

Control voltages

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Control voltage in the on state	-	-	-	-	-28	V
Control voltage in the off state	-	-	-	-	0	V

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum input power	-	-	-	45	dBm
Storage temperature	-	-65	-	150	°C
Operating temperature	-	-55	-	85	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	2.1 × 0.9 × 0.08	mm
Plan-view outline tolerance	±50	µm

Bond-pad assignments

Pins	Symbol	mm
1	RFC	0.120 × 0.120
2, 3	RF1, RF2	0.120 × 0.120
4, 5	V1, V2	0.120 × 0.090

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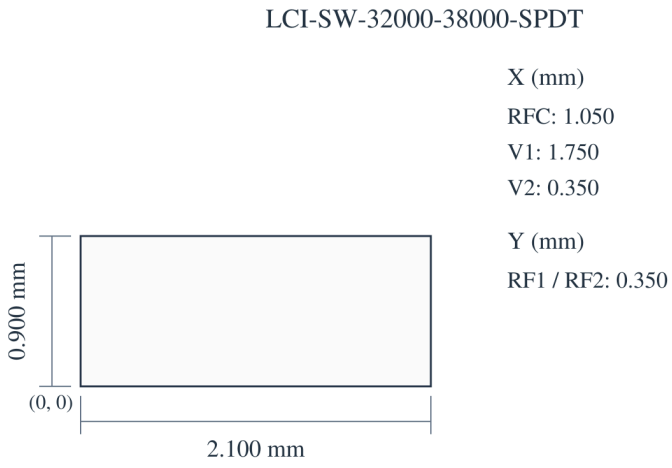
Integration notes

RFC integrates a DC-blocking capacitor; RF1 and RF2 have no integrated DC-blocking capacitors. V1 (V) = -28; V2 (V) = 0; RF = RFC ↔ RF1 V1 (V) = 0; V2 (V) = -28; RF = RFC ↔ RF2

Mechanical Outline

Outline and dimensioned coordinates in mm. Use this drawing as a dimensional reference. Fabrication and wire bonding require complete drawings.

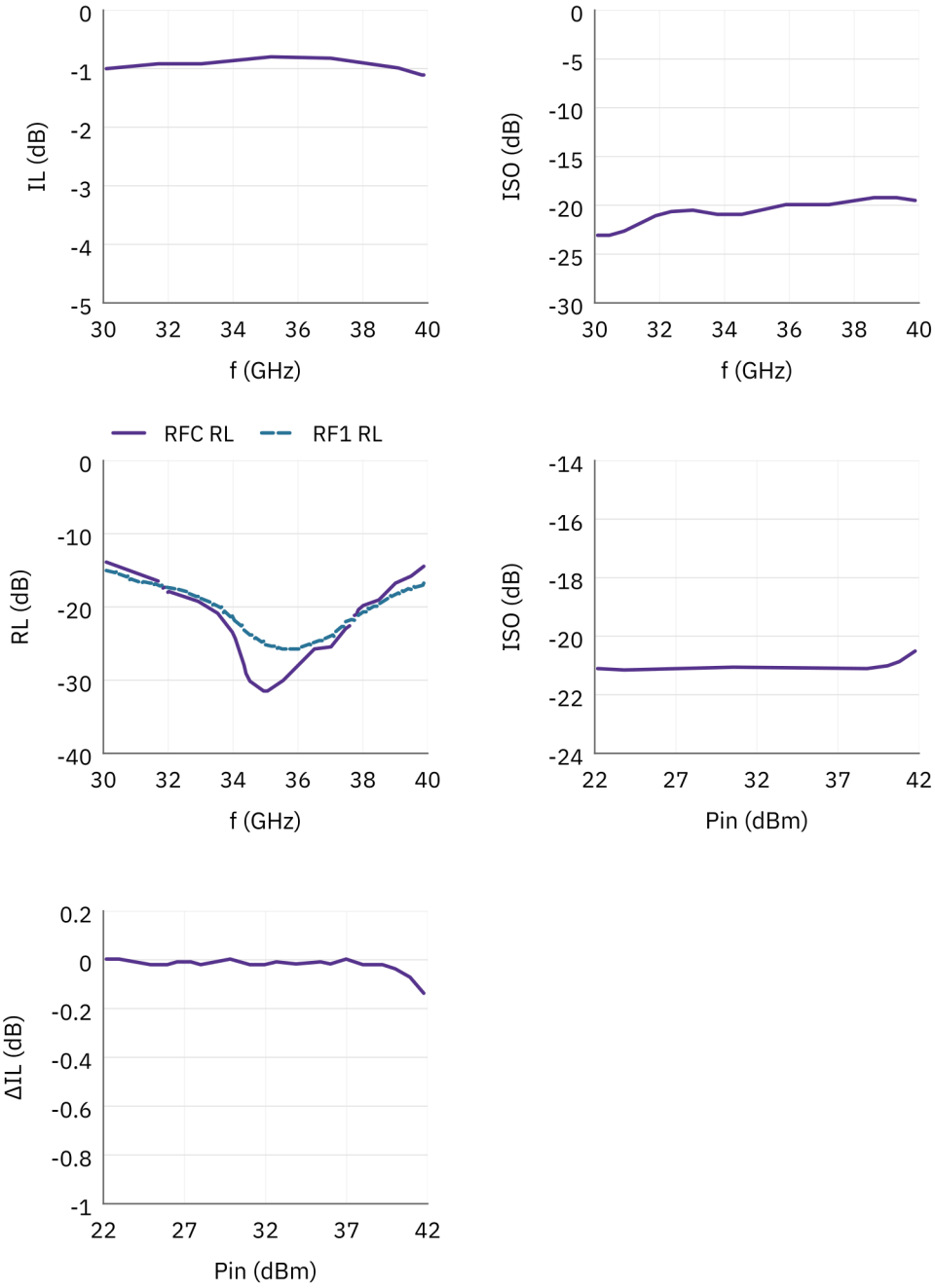


Performance curves

Each performance plot applies to its stated operating conditions.

Insertion loss; Isolation; Response versus input power.

Figure notes: TA=+25°C. Readings are approximate. V1 = −28 V; V2 = 0 V. IL / ISO / RFC RL / RF1 RL: f = 30–40 GHz; ISO(Pin) / ΔIL: f = 35 GHz.



Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.