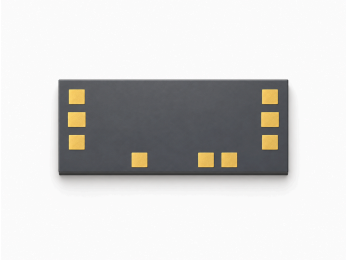
100–20000 MHz GaAs SPST MMIC Switch Die — IL ≤ 1.2 dB

100–20000 MHz; Insertion loss ≤ 1.2 dB; Isolation 60 dB (typical).



RF characteristics · TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	f	100	-	20000	100–20000	MHz
Insertion loss	-	-	-	1.2	-	dB
Isolation	-	-	60	-	-	dB
Input/output VSWR (on)	-	-	1.1	-	-	-
Input/output VSWR (off)	-	-	1.4	-	-	-

Control voltages

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Negative-supply quiescent current	-	-	0.0011	-	-	A
Input drive current	-	-	0.0002	-	TTL = +5 V	A
High-level input voltage	-	3	-	5	-	V
Low-level input voltage	-	0	-	0.4	-	V
Negative supply voltage	-	-	-	-	-5	V

Absolute limits · Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum input power	-	-	-	30	dBm
Storage temperature	-	-65	-	150	°C
Operating temperature	-	-55	-	125	°C
Minimum negative supply voltage	-	-6	-	-	V

Die dimensions

Parameter	Value	Unit
Die dimensions	1.4 × 0.6 × 0.1	mm
Plan-view outline tolerance	±100	µm

Bond-pad assignments

Pins	Symbol	mm
2	RFin	0.120 × 0.100
5	RFout1	0.120 × 0.100
7, 9	VE	0.100 × 0.100
8	VC	0.100 × 0.100
3, 4	GND	0.100 × 0.100
1, 6	GND	0.100 × 0.090

Current publication record · 1.3 · 2026-10-27. Product description or editorial content updated. Replaces revision 1.2.

Integration notes

VE (V) = -5; VC (V) = 0; RF = RFin ⇔ RFout VE (V) = -5; VC (V) = 3.3–5; RF = off

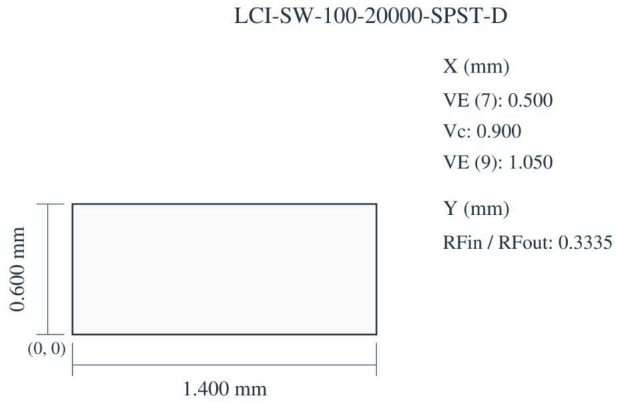
Pad connection notes

The listed GND pads are test ground pads. For VE, use one of pads 7, 9; only one is required.

Mechanical reference scope

Source-based outline and explicitly dimensioned coordinate guides in mm. Not a complete fabrication or wire-bonding drawing.

Mechanical Outline



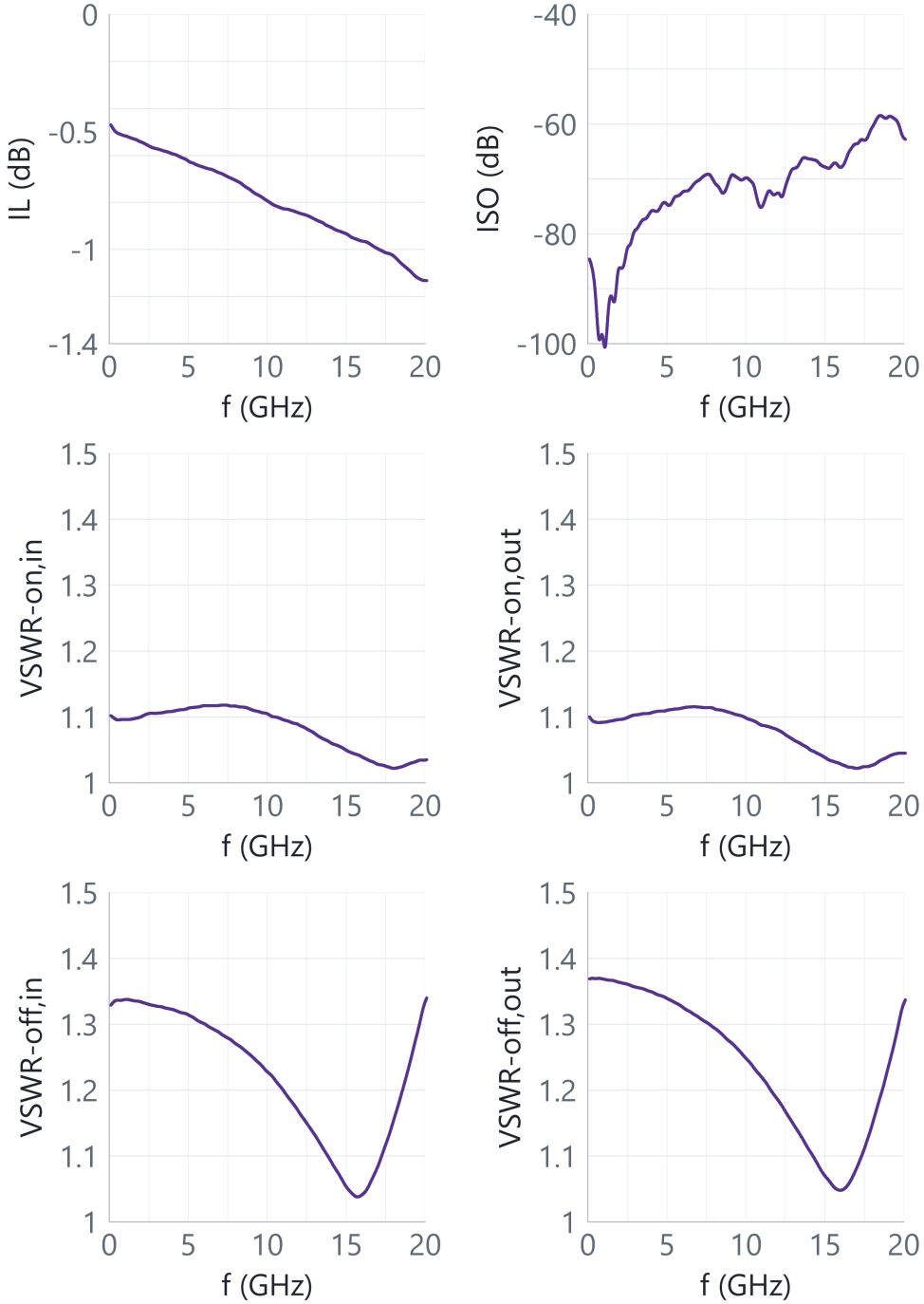
All dimensions are in mm [in].

Performance curves

Plots from the source datasheet. Read each figure with its stated operating conditions.

Output matching; Input matching; Isolation; Insertion loss.

Redrawn from the source figure; readings are approximate.



Source

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.