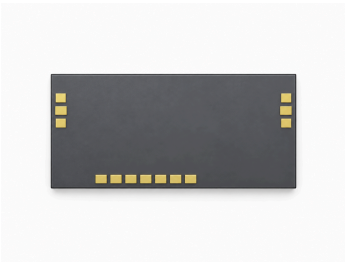


1200–1600 MHz 6-Bit GaAs MMIC Digital Phase Shifter Die

RMS phase error: 0.8 ° (typical); Insertion loss: 4.3 dB (typical); Phase shift range: 5.625 ° (minimum) / 354.375 ° (maximum). Die dimensions: 3.3 × 1.6 × 0.1 mm.



RF characteristics · TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	-	1200	-	1600	1200–1600	MHz
Insertion loss	-	-	4.3	-	-	dB
Phase shift range	-	5.625	-	354.375	-	°
RMS phase error	-	-	0.8	-	-	°
Phase-induced amplitude variation	-	-	±0.4	-	-	dB
Input VSWR	-	-	1.4	-	-	-
Output VSWR	-	-	1.4	-	-	-

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Negative supply voltage	-	-	-	-	-5	V
Control voltage	-	-	-	-	0 / +5	V
Phase step	-	-	-	-	5.625	°

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Minimum negative supply voltage	-	-6	-	-	V
Maximum control voltage	-	-	-	6	V
Input drive current	-	-	-	0.3	mA
Maximum input power	-	-	-	25	dBm

Bond-pad assignments

Pins	Symbol	Function	Notes
13	VE	DC bias	−5 V

Control truth table

State	P1	P2	P3	P4	P5	P6
Reference state	0 V	0 V	0 V	0 V	0 V	0 V
5.625°	5 V	0 V	0 V	0 V	0 V	0 V
11.25°	0 V	5 V	0 V	0 V	0 V	0 V
22.5°	0 V	0 V	5 V	0 V	0 V	0 V
45°	0 V	0 V	0 V	5 V	0 V	0 V
90°	0 V	0 V	0 V	0 V	5 V	0 V
180°	0 V	0 V	0 V	0 V	0 V	5 V

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

Die integration and bias sequencing

Control interface: Parallel TTL control.

Mechanical reference scope

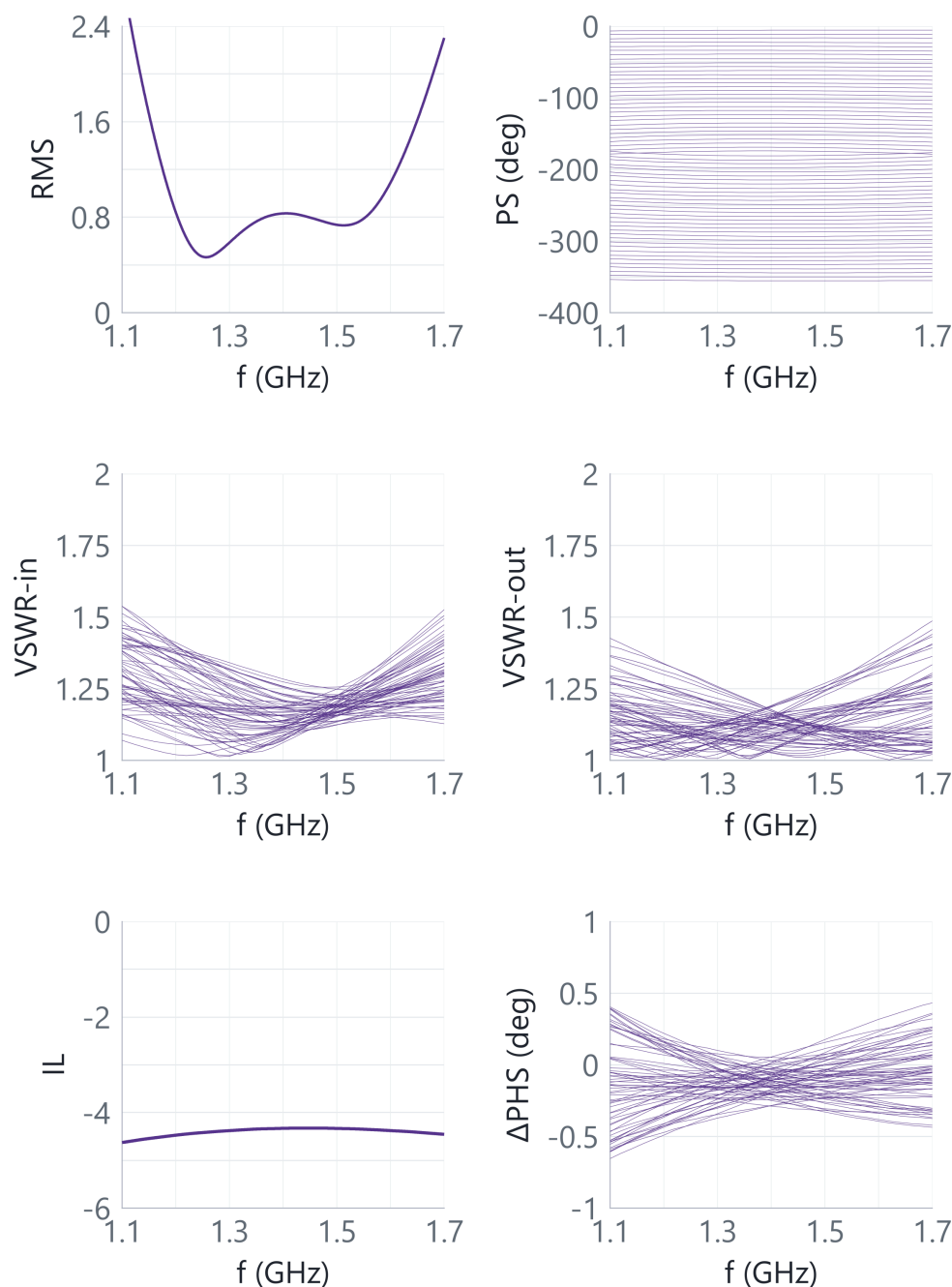
Source-based dimensional guide in mm. Partial information; not a complete fabrication or wire-bonding drawing.

Performance curves

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

Insertion loss; Input matching; Output matching; Phase shift; RMS phase error; Δ PHS.

Redrawn from the source figure; readings are approximate. The source does not state units for the RMS or IL ordinates. Source label mismatch: the final plot heading describes amplitude variation, but its ordinate is delta_PHS (deg). The degree axis is retained.



[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.