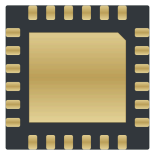
14000–18000 MHz Digital Phase Shifter IC — 6-bit; RMS 1.2° (typical)

LCI-PS-14000-18000-6B-C · 14000–18000 MHz · Digital Phase Shifter IC.



The RF table specifies: 64-state RMS phase error 1.2 ° (typical); Phase-induced amplitude variation ±0.3 dB (typical); Input VSWR 1.5 (typical); Output VSWR 1.3 (typical). RF test conditions: TA = +25 °C.

QFN24

The RF ports require external DC-blocking capacitors.

TTL: H = 5 V; L = 0 V; φref: P1–P6 = L

P1 = H → Δφ = 5.625°

P2 = H → Δφ = 11.25°

P3 = H → Δφ = 22.5°

P4 = H → Δφ = 45°

P5 = H → Δφ = 90°

P6 = H → Δφ = 180°

T_peak ≤ 260 °C

RF: 3, 16

VEE: 6

P1: 7

P2: 8

P3: 9

P4: 10

P5: 11

P6: 12

RF characteristics TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	14000	-	18000	MHz
Phase shift range	-	5.625	-	-	°
Insertion loss	-	-	-7.4	-	dB
64-state RMS phase error	-	-	1.2	-	°
Phase-induced amplitude variation	-	-	±0.3	-	dB
Input VSWR	-	-	1.5	-	-

RF characteristics TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Output VSWR	-	-	1.3	-	-

DC bias and current TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Negative supply voltage	-	-5.3	-5	-4.7	V
Negative-supply quiescent current	-	-	0.003	-	A
Input drive current [1]	-	-	0.0002	-	A
High-level input voltage	-	4	-	5	V
Low-level input voltage	-	0	-	0.4	V

[1] VIH = 5 V; TTL

Pin assignments

Symbol	Pins	Function
GND	2,4,15,17	Ground
NC	1,5,13,14,18,19,20,21,22,23,24	Not connected

Control truth table

State	P1	P2	P3	P4	P5	P6
Reference state	L	L	L	L	L	L
5.625°	H	L	L	L	L	L
11.25°	L	H	L	L	L	L
22.5°	L	L	H	L	L	L
45°	L	L	L	H	L	L
90°	L	L	L	L	H	L
180°	L	L	L	L	L	H

Integration notes

QFN24 The RF ports require external DC-blocking capacitors. TTL: H = 5 V; L = 0 V; φref: P1–P6 = L P1 = H → Δφ = 5.625° P2 = H → Δφ = 11.25° P3 = H → Δφ = 22.5° P4 = H → Δφ = 45° P5 = H → Δφ = 90° P6 = H → Δφ = 180° T_peak ≤ 260 °C RF: 3, 16 VEE: 6 P1: 7 P2: 8 P3: 9 P4: 10 P5: 11 P6: 12

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.