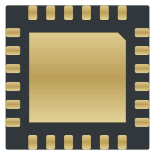
14000–18000 MHz Digital Step Attenuator IC — 6-bit; 0.5 dB

LCI-ATT-14000-18000-6B-C · 14000–18000 MHz · Digital Step Attenuator IC.

The RF table specifies: Attenuation range 0.5–31.5 dB; Attenuation accuracy 0.3 dB (typical); Insertion loss 2 dB (typical). RF test conditions: TA = +25 °C.



QFN24

The RF ports require external DC-blocking capacitors.

TTL: H = 5 V; L = 0 V; Aref: A1–A6 = L

A1 = H → ΔA = 0.5 dB

A2 = H → ΔA = 1 dB

A3 = H → ΔA = 2 dB

A4 = H → ΔA = 4 dB

A5 = H → ΔA = 8 dB

A6 = H → ΔA = 16 dB

T_peak ≤ 260 °C

RF: 4, 15

VEE: 6

GND: 3, 5, 14, 16

A1: 12

A2: 11

A3: 10

A4: 9

A5: 8

A6: 7

RF characteristics TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	14000	-	18000	MHz
Insertion loss	-	-	2	-	dB
Attenuation range	-	0.5	-	31.5	dB
Attenuation accuracy	-	-	0.3	-	dB
Attenuation-induced phase variation	-	-	±2	-	°
Input VSWR	-	-	1.75	-	-

RF characteristics TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Output VSWR	-	-	1.5	-	-

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	-	-	0.006	-	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
NC	1,2,13,17,18,19,20,21,22,23,24	Not connected

Control truth table

State	A1	A2	A3	A4	A5	A6
Reference state	L	L	L	L	L	L
0.5dB	H	L	L	L	L	L
1dB	L	H	L	L	L	L
2dB	L	L	H	L	L	L
4dB	L	L	L	H	L	L
8dB	L	L	L	L	H	L
16dB	L	L	L	L	L	H

Integration notes

QFN24 The RF ports require external DC-blocking capacitors. TTL: H = 5 V; L = 0 V; Aref: A1–A6 = L A1 = H → ΔA = 0.5 dB A2 = H → ΔA = 1 dB A3 = H → ΔA = 2 dB A4 = H → ΔA = 4 dB A5 = H → ΔA = 8 dB A6 = H → ΔA = 16 dB T_peak ≤ 260 °C RF: 4, 15 VEE: 6 GND: 3, 5, 14, 16 A1: 12 A2: 11 A3: 10 A4: 9 A5: 8 A6: 7

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.