



Attenuators

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Calibration Kit for VNA

DC Blocks

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LiConn

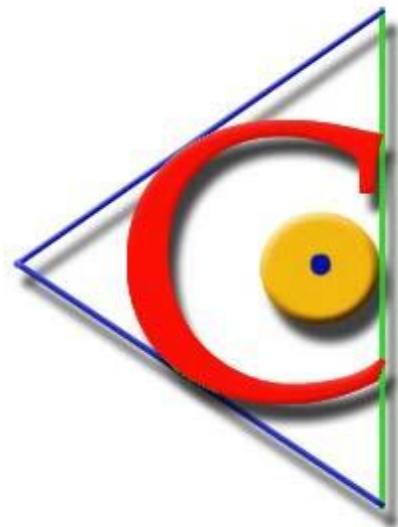
*A USA Manufacturer
Serving Global Customers since 2008*

LiConn designs, develops, and manufactures high performance, high quality, and cost competitive RF/Microwave products. The products cover frequency bands from several KHz up to 27GHz of cellular, PCS, 3G, C, X, Ku band and millimeter wave applications.

We are dedicated to serve dynamic needs of telecommunication, fiber optics, medical and defense industries globally.

COMMITMENT


- ◆ OEM Grade Performance and Quality
- ◆ Small Quantity Always In Stock
- ◆ Very Competitive Price
- ◆ Total Customer Satisfaction



KEY ADVANTAGES

- ◆ Super Wide Band, Low Noise Figure and Exceptional VSWR
- ◆ Speedy Turnaround for both Standard and Custom Products
- ◆ Flexible Order Quantity: Low or High Volume

QUALITY

- ◆ Precision Machine Housing
- ◆ MIL-STD-202g
- ◆ RoHS Compliant
- ◆ 100% Tested
- ◆ 3 Year Warranty
- ◆ Made in 

Attenuators

Part Number	Frequency (GHz)	Attenuation (dB)	VSWR Input	VSWR Output	RF Input Power Max. (W)	RF Output Power Max. (W)
LATTN04A	DC ~ 4.0	8.3	1.10:1	1.25:1	20	10
LATTN06A	DC ~ 6.0	33	1.25:1	1.25:1	35	20

Bias-Ts

Part Number	Frequency (MHz)	Insertion Loss Max. (dB)	RF/DC Isolation (dB)	RF Average Power Max. (W)	VSWR Max.	V _{dd} Max. (V)	I _{dd} Max. (mA)
LBST009A	100 ~ 9,000	0.6	40	50	1.22:1	50	170
LBST013A	200 ~ 12,700	0.8	40	20	1.3:1	50	240
LBST020A	20 ~ 20,000	1.0	40	20	1.5:1	16	250
LBST024A	20 ~ 24,000	1.0	40	20	1.5:1	16	250
LBST0760A	700 ~ 6,000	0.4	40	50	1.2:1	100	220
LBST00204000A	25 ~ 4,000	1.5	40	20	1.5:1	32	5,000
LBST00250512A	25 ~ 512	0.6	40	200	1.35:1	50	20,000
LBST09502150A	950 ~ 2,150	0.1	40	200	1.5:1	50	6,000

DC Blocks

Part Number	Frequency (MHz)	Insertion Loss (dB)	RF Power Dissipation Max. (W)	VSWR Max.	V _{dd} Max. (V)
LDCB020A	10 ~ 20,000	1	10	1.5:1	16
LDCB024A	10 ~ 24,000	1	10	1.5:1	16



Dimension: 1.0" x 1.3" X 0.4"
 Material: Aluminum 6061
 Finish: Clear Conductive Coating



Dimension: 1.0" x 0.9" X 0.4"
 Material: Brass
 Finish: Gold Plated

Limiters

Part Number	Frequency (MHz)	Insertion Loss Max. (dB)	RF Input Power Max. (W)	P _{sat} Max. (dBm)	VSWR Max.	V _{dd} Max. (V)
LLDB009A	3 ~ 90	0.2	2	10	1.22:1	50
LLDB004A	100 ~ 3,500	0.5	2	22	1.25:1	50

Modulator

Part Number	Frequency (GHz)	Rising Time (ns)	Falling Time (ns)	Insertion Loss (dB)	VSWR Input	VSWR Output	RF Input Power Max. (W)
LPM0535A	0.5 ~ 3.5	90	70	0.2	1.22:1	1.22:1	2

Filter

Part Number	Center Frequency (MHz)	0.5 dB Bandwidth (MHz)	Max. Insertion Loss (dB)	Stop Band Attenuation (dB)			Power Handling (W)
				DC ~ 260MHz	360 MHz ~ 400 MHz	800 MHz ~ 1100 MHz	
LBPF0310B*	310	± 6.5	3.6 (Typ.) 5.6 (Max)	-35 (Min.)	-35 (Min.)	-70 (Typ.)	1.0

* SMT Packaging 0.65" x 0.26" x 0.2"

Terminators

Part Number	Frequency (GHz)	RF Power Average (W)	VSWR Max.
LR010A	DC ~ 6	10	1.22:1
LR010C	DC ~ 15	10	1.5:1
LR020A	DC ~ 6	20	1.22:1
LR020C	DC ~ 15	20	1.5:1
LR018A	DC ~ 18	5	1.5:1
LR018B	DC ~ 18	10	1.5:1



Dimension: 0.5" x 0.7" X 0.4"
Material: Brass
Finish: Gold Plated



(Actual Size)

Low Noise Amplifiers

Part Number	Frequency (MHz)	Gain (dB)	Gain Flatness (\pm dB)	NF (dB)	P _{1dB} (dBm)	IP ₃ (dBm)	VSWR Input/Output	V _{dd} (V)	I _{dd} (mA)
LNA05004000A	500 ~ 4,000	26	1.0	1.2	14	27	1.8:1/1.5:1	5	65
LNA06002500A	600 ~ 2,500	30	1.5	1.0	14	26	1.4:1/1.4:1	5	50
LNA02004000A	200 ~ 4,000	29	0.5	1.3	13	26	1.6:1/1.6:1	5	50
LNA09001300B	900 ~ 1,300	18	0.5	0.6	15	30	1.5:1/1.5:1	5	50
LNA20002600A	2,000 ~ 2,600	26	0.75	0.7	12.5		1.4:1/1.4:1	5	55
LNA20006000B	2,000 ~ 6,000	25	1.5	1.0	12	22	1.8:1/1.5:1	5	40
LNA08001400A	800 ~ 1,400	35	1.0	0.6	20	30	1.35:1/1.35:1	5	85
LNA08001400B	800 ~ 1,400	35	1.0	0.6	20	30	1.35:1/1.35:1	12	85
LNA00203500A	20 ~ 3,500	15	1.0	1.2	12	26	1.35:1/1.35:1	12	25
LNA12001600A	1,200 ~ 1,600	33	0.7	0.5	7	17	1.3:1/1.3:1	12	25
LNA50007000A	5000 ~ 7,000	22	1.0	0.9	10	21	1.5:1/1.35:1	12	40
LNA800018000A	8,000 ~ 18,000	21	1.0	2.2	10		1.8:1/1.5:1	12	60
LNA01006000A	100 ~ 6,000	14		1.1	15	27	1.25:1/1.5:1	5	30
LNA100012000A	1,000 ~ 12,000	13	2.0	3.1	17	27	1.35:1/1.25:1	5	65
LNA12009000A	1,200 ~ 9,000	24	3.0	3.0	17.5	29	1.43:1/1.7:1	5	110

Power Amplifiers

Part Number	Frequency (MHz)	Gain (dB)	Gain Flatness (\pm dB)	NF (dB)	P _{1dB} (dBm)	IP ₃ (dBm)	VSWR Max. Input/Output Max.	V _{dd} (V)	I _{dd} (mA)
LPA00010150B	0.1 ~ 150	17	0.2	3.0	30	45	2.0:1/1.5:1	12	200
LPA00010150A	1 ~ 150	17	0.2	3.0	30	45	2.0:1/1.5:1	12	200
LPA00010600A	1 ~ 600	16	0.5	3.0	30	45	2.0:1/2.0:1	12	200
LPA00011500A	1 ~ 1,500	14	0.5	5.0	29	45	2.2:1/2.2:1	12	200
LPA600018000A	6,000 ~ 18,000	12	1.0	4.5	19	28	2.2:1/2.0:1	12	110

Part Number	Frequency (MHz)	Gain (dB)	NF (dB)	P _{sat} (dBm)	VSWR Input/Output Max.	Reverse Isolation Min. (dB)	V _{dd} (V)	I _{dd} (mA)
LPA00206000A	20 ~ 6,000	18	3.5	33	2.4:1/2.4:1	30	28	120



DC ~ 6.0 GHz SMA Precision Calibration Kit for Vector Network Analyzer (VNA)

High precision SMA calibration Kits LCAL06A (Female Connection), LCAL06B (Male Connection) and LCAL06C (Female and Male Connections) for the calibration of DC-6GHz Vector Network Analyzer (VNA).

The Calabrian kit can be used for:

- ◆ Short-Open-Load-Thru (SOLT)
- ◆ Line-Reflect-Match (LRM)
- ◆ Full-Two-Port Calibration



Dimension: 4.12" x 3.45" x 1.5"
Material: Oak



Dimension: 2.56" x 2.56" x 0.5"
Material: ESD Safe Plastic

Summary of the electrical specifications of a sample LCAL06A at 21°C:

Index	Testing Item	Symbol	Test Constraints	Min.	Nom.	Max.	Unit
1	Load Return Loss	$S_{11,L}$	DC-3.0GHz	40			dB
			3.0-6.0GHz	35			
2	Thru Return Loss	$S_{11,T}$	DC-3.0GHz	40			dB
			3.0-6.0GHz	35			
3	Thru Insertion Loss	$S_{21,T}$	DC-6.0GHz			0.05	dB
4	Thru Offset	T_{to}			55.7		pS
5	Load Offset	T_{Lo}			0		pS
6	Short Offset	T_{so}			55.7		pS
7	Open Offset	T_{oo}			55.7		pS
8	Open Capacitance	C_0			45		$10^{-15}F$
		C_1			6		$10^{-27}F/Hz$
		C_2			-2.5		$10^{-36}F/Hz^2$
		C_3			0		$10^{-45}F/Hz^3$

* Each Calibration Kit will be measured for its own parameters.

DC ~ 9.0 GHz SMA Precision Calibration Kit for Vector Network Analyzer (VNA)

High precision SMA calibration Kits LCAL09A (Female Connection) for the calibration of DC ~ 9 GHz Vector Network Analyzer (VNA). The Calibration kit can be used for:

- ◆ Short-Open-Load-Thru (SOLT) ◆ Line-Reflect-Match (LRM) ◆ Full-Two-Port Calibration



Dimension: 4.12" x 3.45" x 1.5"
Material: Oak



Dimension: 2.56" x 2.56" x 0.5"
Material: ESD Safe Plastic

Summary of the electrical specifications of a sample LCAL09A at 21°C:

Index	Testing Item	Symbol	Test Constraints	Min.	Nom.	Max.	Unit
1	Load Return Loss	$S_{11,L}$	DC ~ 3.0 GHz	40			dB
			3.0 ~ 9.0 GHz	35			
2	Thru Return Loss	$S_{11,T}$	DC ~ 3.0 GHz	40			dB
			3.0 ~ 9.0 GHz	35			
3	Thru Insertion Loss	$S_{21,T}$	DC ~ 9.0 GHz			0.10	dB
4	Thru Offset	T_{to}			56.57		pS
5	Load Offset	T_{Lo}			0		pS
6	Short Offset	T_{so}			56.57		pS
7	Open Offset	T_{oo}			56.57		pS
8	Open Capacitance	C_0			45		$10^{-15}F$
		C_1			6		$10^{-27}F/Hz$
		C_2			-2.5		$10^{-36}F/Hz^2$
		C_3			0		$10^{-45}F/Hz^3$

* Each Calibration Kit will be measured for its own parameters.