Wenzel Associates, Inc.

"Quietly the Best"

LNDC

Blue Tops RF Modules > Low Noise Directional Coupler

Features:

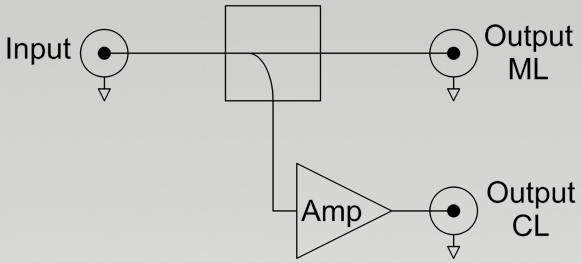
- Input Frequency to 1 GHz
- Couple Output Level to +20 dBm
- Intrinsic Phase Noise to -165 dBc/Hz
- Integral Amplifier and Attenuators

Applications:

- Synthesizer Building Block
- Communication Systems
- Radar Systems
- Electronic Warfare Systems

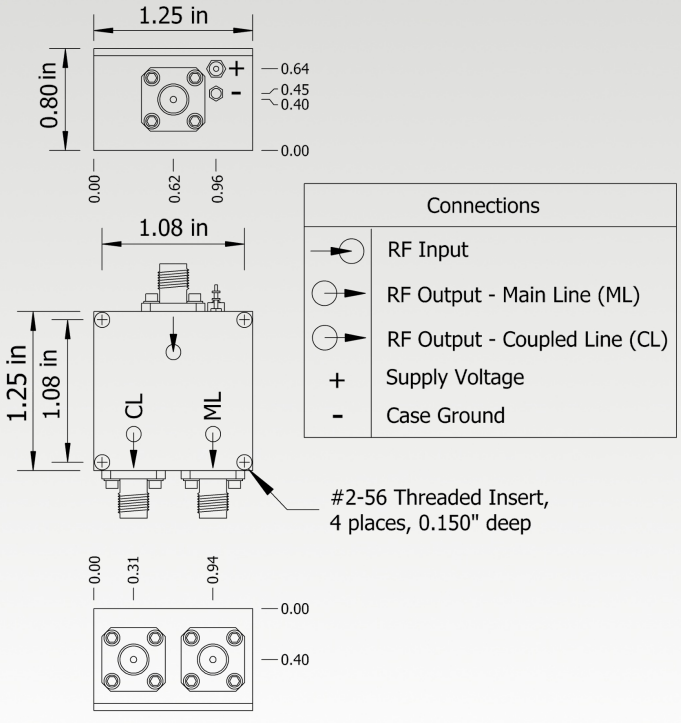
Description:

The LNDC is a standard coupler which is integrated with a low noise amplifier on the coupled port for added output power and port-to-port isolation. A wide selection of amplifiers and customized input/output attenuators provide flexibility in setting gain and power levels. The integrated design makes the LNDC module an excellent space saving option, eliminating the need for an external amplifier and splitter. Please consult our technical staff for assistance in configuring an LNDC module to meet your needs.



Electrical Specifications	
Input Frequency Range	5 MHz to 1 GHz, fixed
Input Level	+10 dBm to +20 dBm, fixed (±1 dB)
Output Level - Main Line (ML)	1.5 dBm < Input Level
Output Level - Coupled Line (CL)	to +20 dBm (consult factory)
VSWR	≤ 1.2:1
Port-to-Port Isolation	≥ 20 dB
Phase Noise Floor (Intrinsic, Input Referred)	≤ -165 dBc/Hz (100 kHz offset)
Supply Voltage (Specify)	+8, +12 or +15 VDC (±2%)
Current Draw	≤ 80 mA
Operating Temperature	0 to +50°C
Storage Temperature	-40 to +85°C
Mechanical	
Dimensions	1.25" x 1.25" x 0.8"
Package	Nickel-Plated Machined Alumiunum
DC Supply	Feed Thru Capacitor Solder Pin
Ground	Turret Terminal Solder Pin
RF Input / Output	SMA female *

* SMA female connectors are used unless otherwise specifed. Other options include SMA male, right angle SMAs, BNC female and others. Contact factory for custom configurations.



Wenzel Associates, Inc. • 2215 Kramer Lane, Austin, Texas 78758-4002 • www.wenzel.com
Phone: 512-835-2038 • Fax: 512-719-4086 • sales@wenzel.com

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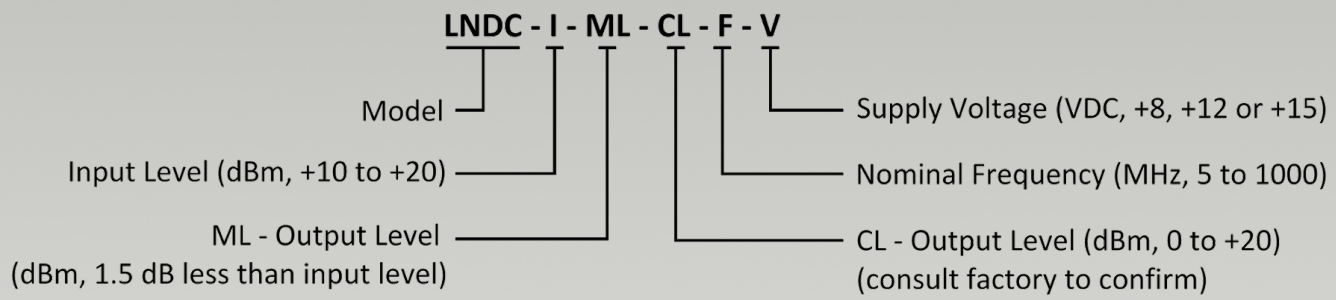
Ordering Information:



Standard P/N	Input Frequency	Input Level	Main Line Output Level	Coupled Line Output Level	Input Referred Residual Phase Noise (100 kHz offset)	Supply Voltage
LNDC-10-8.5-10-10-8	10 MHz	+10 dBm	+8.5 dBm	+10 dBm	≤ -165 dBc/Hz	+8 VDC
LNDC-13-11.5-15-10-15	10 MHz	+13 dBm	+11.5 dBm	+15 dBm	≤ -165 dBc/Hz	+15 VDC
LNDC-15-13.5-13-10-12	10 MHz	+15 dBm	+13.5 dBm	+13 dBm	≤ -165 dBc/Hz	+12 VDC
LNDC-10-8.5-10-100-12	100 MHz	+10 dBm	+8.5 dBm	+10 dBm	≤ -165 dBc/Hz	+12 VDC
LNDC-13-11.5-13-100-15	100 MHz	+13 dBm	+11.5 dBm	+13 dBm	≤ -165 dBc/Hz	+15 VDC
LNDC-15-13.5-13-100-15	100 MHz	+15 dBm	+13.5 dBm	+13 dBm	≤ -165 dBc/Hz	+15 VDC
LNDC-10-8.5-7-1000-8	1000 MHz	+10 dBm	+8.5 dBm	+7 dBm	≤ -165 dBc/Hz	+8 VDC
LNDC-13-11.5-13-1000-15	1000 MHz	+13 dBm	+11.5 dBm	+13 dBm	≤ -165 dBc/Hz	+15 VDC
LNDC-18-16.5-10-1000-8	1000 MHz	+18 dBm	+16.5 dBm	+10 dBm	≤ -165 dBc/Hz	+8 VDC

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