



Blue Tops RF Modules > Low Noise Signal Translator

Features:

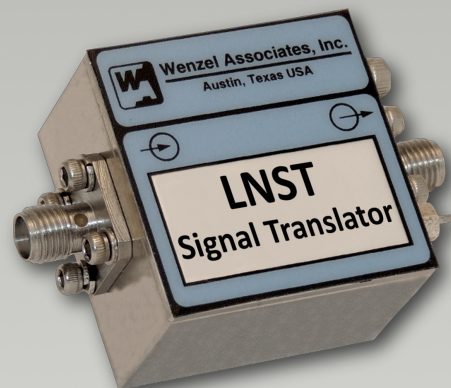
- Input Frequency to 160 MHz
- Sine to Square Conversion
- Square to Sine Conversion
- Differential LVDS Output Option

Applications:

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

Description:

The LNST is a signal translator module which can be configured to convert a sine wave signal to square wave or square wave signal to sine wave. A differential LVDS option is also available with outputs provided on solder pins. The LNST module works well when combined with Wenzel oscillators and other Blue Tops modules. Other signal translator configurations may be available including various logic family conversions and packaging options. Please consult technical staff to discuss your specific requirement.



Electrical Specifications

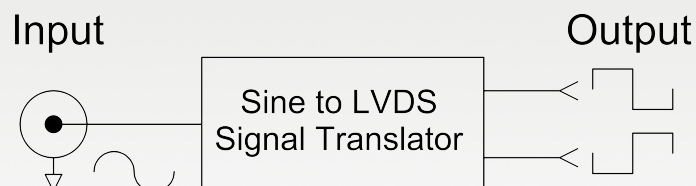
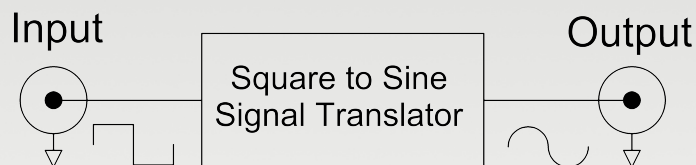
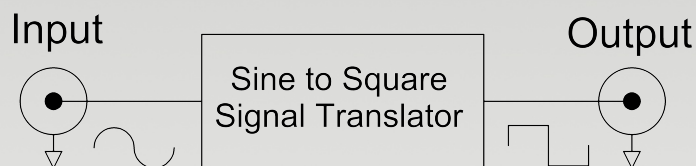
Input Frequency	5 MHz to 160 MHz, fixed
Input Type **	Sine or TTL (5V, 3.3V, 2.5V or 1.8V)
Input Level (sine only)	+10 dBm to +13 dBm, fixed (± 1 dB)
Input Impedance	into 50 ohm load or high Z load
Input VSWR (sine only)	$\leq 2.0:1$
Output Type **	Sine, TTL (5V, 3.3V, 2.5V or 1.8V) or LVDS
Output Duty Cycle (TTL and LVDS only)	50 $\pm 5\%$ (measured at 50% Vpp)
Output Level (sine only)	+10 dBm to +13 dBm, fixed (± 2 dB)
Output Impedance	into 50 ohm load or high Z load
Output VSWR (sine only)	$\leq 2.0:1$
Phase Noise Floor (Intrinsic, Input Referred, 100 kHz offset)	Sine: ≤ -165 dBc/Hz, typical TTL: ≤ -165 dBc/Hz, typical LVDS: ≤ -145 dBc/Hz, typical
Supply Voltage	+5 VDC, +12 VDC or +15 VDC ($\pm 2\%$)
Current Draw	≤ 150 mA
Operating Temperature	0 to +50°C
Storage Temperature	-40 to +85°C

Mechanical

Dimensions **	A or B: 1.25" x 1.25" x 0.8"
Package	Nickel-Plated Machined Aluminum
DC Supply	Feed Thru Capacitor Solder Pins
Ground	Turret Terminal Solder Pin
RF Input/Output (Sine and single-ended TTL)	SMA female *
RF Output (TTL or Differential LVDS only)	Feed Thru Capacitor Solder Pins

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

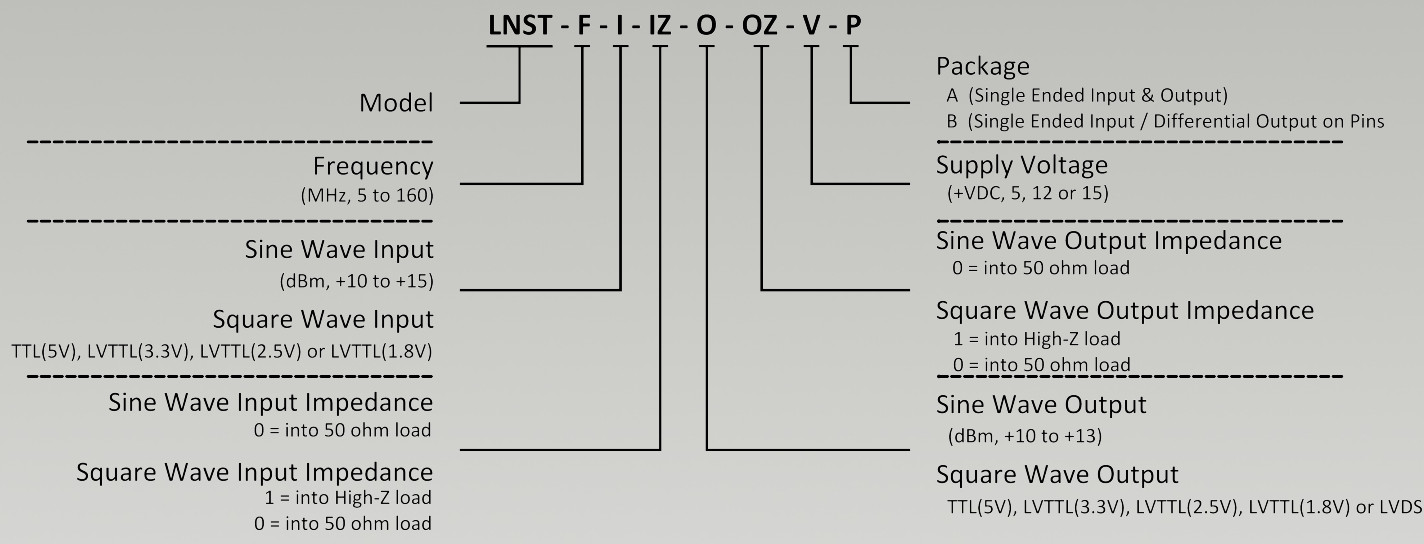
** Other signal translator and package configurations may be available. Please consult technical staff to discuss your specific requirement.





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Ordering Information:



NOTE: Other LNST configurations may be available including various logic family conversions and packaging option. Please consult our technical staff to discuss your specific requirement.

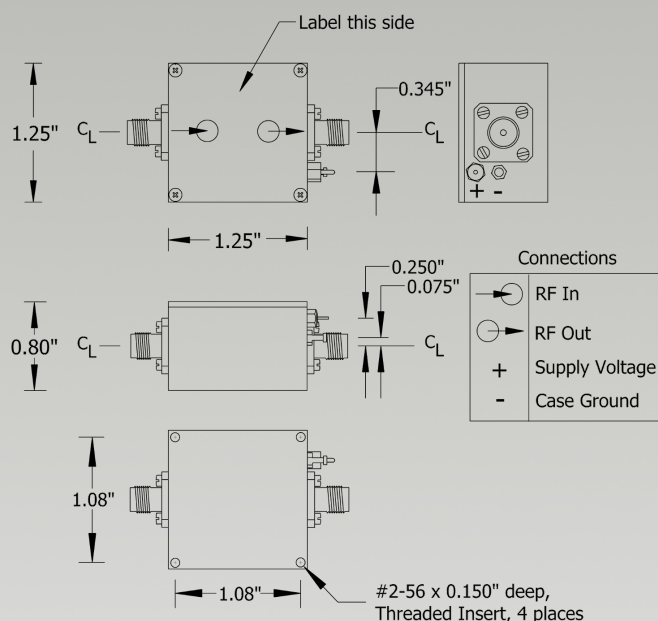
Standard P/N	Input Frequency	Input Type or Level (Sine)	Input Impedance	Output Type or Level (Sine)	Output Impedance	Supply Voltage	Package
LNST-160-15-0-TTL(5V)-0-12-A	160 MHz	+15 dBm	into 50 ohm load	TTL(5V)	into 50 ohm load	+12 VDC	A
LNST-100-13-0-TTL(5V)-1-15-A	100 MHz	+13 dBm	into 50 ohm load	TTL(5V)	into high Z load	+15 VDC	A
LNST-100-10-0-LVTTTL(2.5V)-0-12-A	100 MHz	+10 dBm	into 50 ohm load	LVTTTL(2.5V)	into 50 ohm load	+12 VDC	A
LNST-100-10-0-LVDS-1-5-B	100 MHz	+10 dBm	into 50 ohm load	LVDS	into high Z load	+5 VDC	B
LNST-80-13-0-LVDS-1-12-B	80 MHz	+13 dBm	into 50 ohm load	LVDS	into high Z load	+12 VDC	B
LNST-64-TTL(5V)-1-LVDS-1-12-B	64 MHz	TTL(5V)	into high Z load	LVDS	into high Z load	+12 VDC	B
LNST-50-10-0-LVTTTL(1.8V)-1-5-A	50 MHz	+10 dBm	into 50 ohm load	LVTTTL(1.8V)	into high Z load	+5 VDC	A
LNST-25-TTL(5V)-0-7-0-5-A	25 MHz	TTL(5V)	into 50 ohm load	+7 dBm	into 50 ohm load	+5 VDC	A
LNST-10-10-0-TTL(5V)-1-12-A	10 MHz	+10 dBm	into 50 ohm load	TTL(5V)	into high Z load	+12 VDC	A
LNST-10-LVTTTL(3.3V)-1-10-0-12-A	10 MHz	LVTTTL(3.3V)	into high Z load	+10 dBm	into 50 ohm load	+12 VDC	A



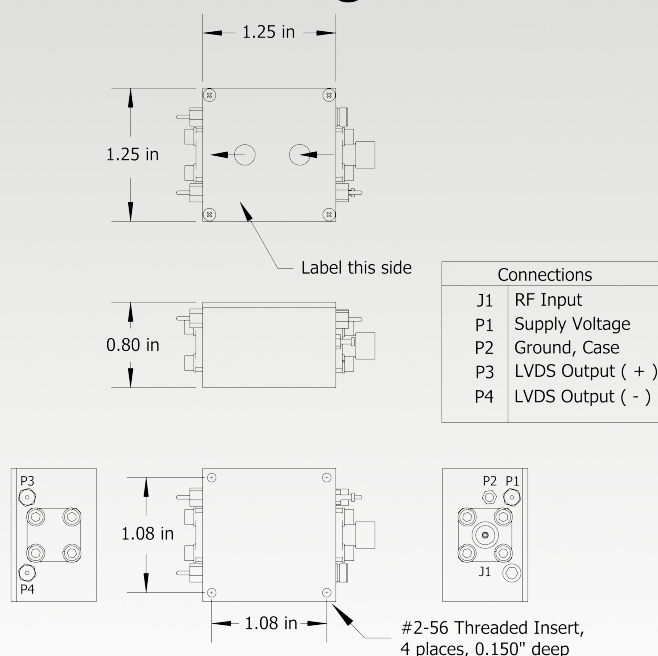


Blue Tops RF Modules > Low Noise Signal Translator

Package A



Package B



Crystal Oscillators

• **RF Modules**

• Frequency Sources

• IMAs

• Military

• Space

