



Blue Tops RF Modules > Dividers > Low Noise Programmable Divide-By-N LNPDN

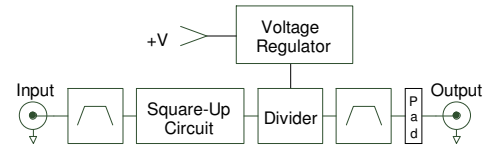
**Features:**

- Ultra-low Phase Noise to 200 MHz
- Low Phase Noise to 700 MHz
- Internal Regulator
- Optional Output BPF

**Applications:**

- RF Systems Component
- Down Conversion
- System Integration

The LNPDN is a frequency divider module with a customer-specified division factor of up to 256 for input frequencies to 700 MHz for the high frequency model and to 200 MHz for the ultra-low phase noise model which includes a noise "clean-up" circuit. Input and output pads allow easy modification of levels and an optional filter provides a sinewave output for single frequency applications. The high frequency model may be specified with inputs as low as 0 dBm to 700 MHz and the unique ultra-low noise model may be specified with inputs down to 10 dBm. The optional fixed-frequency output filter may be specified down to 5 MHz. Customer connector sex allows for direct connection with other Blue Tops, saving the cost of a cable.



LNPDN Block Diagram

Typical Specifications:	
Input Frequency	To 700 MHz
Input Signal Level	+12 to +15 dBm
Output Waveform	Sine or Square
Phase Noise	
Noise Floor (No Noise Clean-up)	-150 dBc/Hz 500 MHz / 5
Noise Floor (Noise Clean-up)	-170 dBc/Hz 100 MHz / 10
Harmonics	<-30 dBc (sine)
Supply Voltage	+15 VDC
Current	<200 mA
Dimensions	3 x 2 x 0.8"
Connectors	Power Feed-thru Capacitor
	Ground Turret Terminal
	RF Input / Output Female SMA Standard
	BNC, TNC Optional

D: The division factor is set by internal jumpers which are factory set to the specified N value. They are easily changed using a programming guide (see inside lid).

I: The input level must be at least 0 dBm for the 700 MHz, no clean-up version and 10 dBm for the 200 MHz, clean-up version.

O: Output Options:

No Clean-up:

- A - Positive Voltage ECL (PECL)
- B - AC-Coupled ECL
- E - Sinewave (0 dBm)

Clean-up:

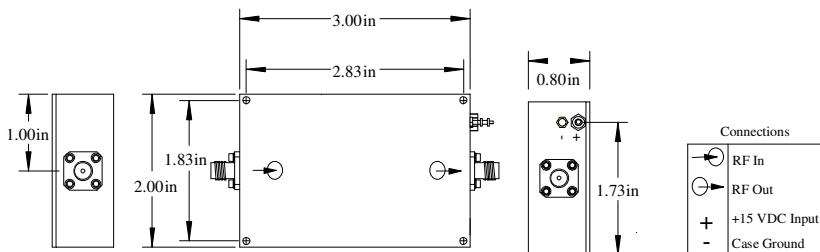
- C - CMOS
- D - AC-Coupled CMOS
- F - Sinewave (10 dBm)

N: Noise Clean-up Circuit (200 MHz in and 50 MHz out, max.):

- 0 - No Noise Clean-up (<-150 dBc floor when dividing 500 MHz by 5)
- 1 - Noise Clean-up (<-170 dBc floor when dividing 100 MHz by 10)

F: Output Frequency:

- B - Broadband - No output filter
- # - Sinewave frequency (in MHz), 5 MHz minimum



**Ordering Information:**

