

# Low Noise Amplifier

820-020005-001

The 310-010152-002 Low Noise Pre-Amplifier and companion external low noise amplifier (LNA) are used to amplify low level microwave signals. The Pre-Amplifier contains an AC/DC power supply, internal low noise amplifier, and a bias tee to source a DC bias voltage on the RF input connector.

To overcome cable loss between the test antenna and the Pre-Amplifier assembly, a remote low noise amplifier (LNA) is mounted directly onto the 10 GHz antenna. A bias tee inside the Pre-Amplifier chassis powers the remote LNA through the coax cable interconnecting the pre-amplifier and the 10 GHz test antenna.

The 10 GHz signal is amplified, travels through the coax cable and then is applied to the Pre-Amplifier at the RF input connector. Using this configuration, the Pre-Amplifier can be interfaced to the 10 GHz test antenna with cables having insertion loss as high as 20 dB without significantly degrading the overall system sensitivity. Low noise amplifiers are available with N-type female connectors (820-020005-001) or SMA jacks (310-010091-001).



## 820-020005-001 Low Noise Amplifier

Frequency Range	9.5—10.5 GHz
Gain	25—30 dB
	27 dB typical
Input VSWR	2.2:1 max
Noise Figure	2.0 dB max
Output P1dB	+10 dBm
Supply Power	11.0 - 16.0V at 80mA, Powered through RF output connector
RF Connectors	N-Type Female