Figure 1. Schematic of the 0.1um L-gate InP HEMT device.

Figure 2. Photo of a 4-stage coplanar-deisgn InP HEMT MIC LNA whose dimension is 0.8x2.1 mm.

Figure 3. Measured noise temperature and gain performance of the 4-band 4-stage, coplanar designdef HEMT MIC LNA measured at 20K at a drain bias of 0.75 V and local current of 8.1 mA.

Figure 4. Measured and modeled noise temperature and gain of the X-band, 3-stage, InP HEMT MIC LNA measured at 12K.

Frequency (GHz)

Gain (dB), Noise (K)

Figure 5