

Gain Compression of CITCRYO1-12 Low Noise Amplifier

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The S parameters of SN906 amplifier were measured at 295K as a function of input power. The measurements were at the drain voltage and current, 1.2V and 18mA, used at cryogenic temperature and should give the same output gain compression at cryogenic temperatures. The results are as follows:

Frequency	P1dB Output	Gain at 16K	P1dB Input at 16K
2 GHz	-4.5 dBm	34 dB	-38.5 dBm
10 GHz	+2.3 dBm	36 dB	-33.7 dBm
12 GHz	+3.4 dBm	35 dB	-31.6 dBm

The S parameters at low power, -45dBm, and high power, -24dBm are shown below:

