

AK00-03A

12~18GHz Gain 47dB LNA module

General Description

The AK00-03A is a general LNA module that have high linearity & gain performance. The module features a best gain, noise figure, power and excellent current consumption. It stages ensure quick time to market for custom specification.



Applications

- Scientific measurement system
- EMC/EMI test
- Ku-band system gain block

Electrical Specification

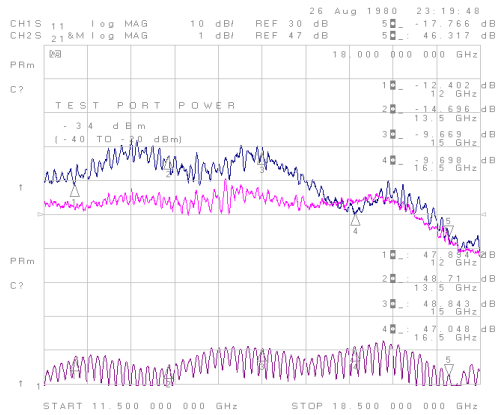
| Parameter | Specification | Comment |
|---------------------|---------------|----------------------|
| Frequency | 12 ~ 18GHz | |
| Output Power | 10dBm | P1dB |
| Gain Flatness | ± 2 dB | P1dB |
| Gain | 47dB | |
| Input Return Loss | -10 dB | |
| Noise Figure | 4dB | |
| Current Consumption | 0.06A | Typ. @P1dB |
| IIP3 | 20dBm | IP3=P1dB/Tone +IMD/2 |

Power Connector, Feed Through, 4300-005LF

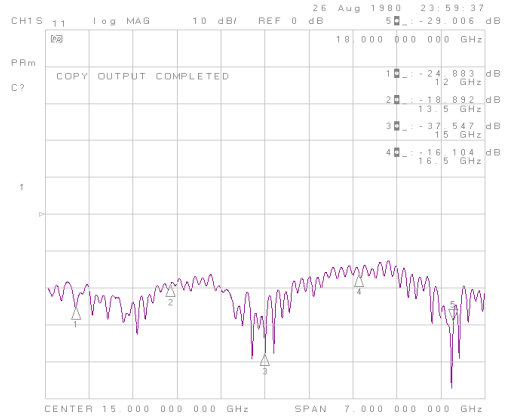
| Pin | Specification | Comment |
|-----|---------------|--------------------|
| 1 | VDD | +15V _{DC} |

Performance Plot

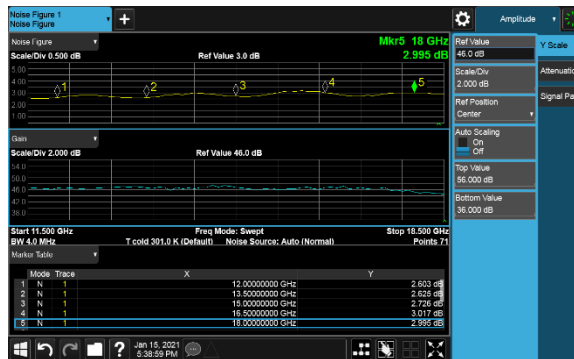
Plot 1 - Small Signal and P_{SAT}
 Top Curve: Small Signal Gain @ $P_{IN} = -40\text{dBm}$
 Middle Curve: P_{1dB} @ $P_{IN} = -34\text{dBm}$
 Reference: 47dB, 1dB/div.
 Bottom Curve: Input Return Loss
 Reference: 30dB, 10dB/div.



Plot 2 - Output Return Loss
 Curve: Output Return Loss
 Reference: 0dB, 10dB/div



Plot 3 - Noise Figure and Gain
 Top Curve: Noise Figure
 Reference: 3dB, 0.5dB/div
 Bottom Curve: Gain
 Reference: 46dB, 2dB/div



AK00-03A

12~18GHz Gain 44dB LNA module

Mechanical specification

