

One Stage Low Noise Amplifier 100-6000MHz

AM1006000-1ST is indoor wideband low noise amplifier intended for precision measurements of RF-signals up to 6GHz. Thanks to very low noise AM1006000-1ST helps to receive weak signals in wide frequency band.

Features:

- Low noise
- Wideband
- Flat gain
- Compact and reliable
- Wide voltage range

Applications:

- Radio-monitoring
- Small signals receiving
- IF-systems
- Cable loss compensation

RF characteristics*

| Frequency range | 100-6000 | | | | | | | | | | | MHz |
|---|----------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| IN/OUT impedance | 50/50 | | | | | | | | | | | Ohm |
| | 0.03 | 0.05 | 0.1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | GHz |
| Gain | 8.5 | 11.0 | 12.5 | 14.0 | 12.5 | 11.5 | 11.0 | 10.0 | 8.5 | 6.5 | 4.5 | dB |
| Noise fig. | - | - | 4.2 | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 2.4 | 2.9 | dB |
| Return loss IN | - | - | >5 | >5 | >5 | >7 | >7 | >7 | >7 | - | - | dB |
| Return loss OUT | - | - | >10 | >10 | >7 | >7 | >7 | >10 | >10 | - | - | dB |
| Isolation | - | - | >28 | >25 | >25 | >24 | >23 | >21 | >21 | - | - | dB |
| Out 1dB | - | - | 14 | 14 | 14 | 14 | 14 | 15 | 15 | - | - | dBm |
| Out IP3 ($\Delta f=1\text{MHz}$, -10dBm) | - | - | 26 | 26 | 26 | 27 | 27 | 28 | 28 | - | - | dBm |

* Measured at temperature $T=+25^{\circ}\text{C}$

DC and mechanical characteristics

| | | |
|---------------------|---------------------|----|
| Device current | 25 | mA |
| Device voltage (DC) | +5.5...+17 | V |
| RF IN/OUT Connector | N female/ N female | |
| DC connector | Soldering terminals | |
| Enclosure type | Indoor**, aluminium | |
| Dimensions | 122x58x30 | mm |

** In case of special need, outdoor type enclosure can be ordered also. Ask Rantelon for more details.

Absolute maximum ratings

| | | |
|-------------------|-----------|--------------------|
| Device voltage | +17 | V |
| CW RF input power | +17 | dBm |
| Temperature | -40...+85 | $^{\circ}\text{C}$ |

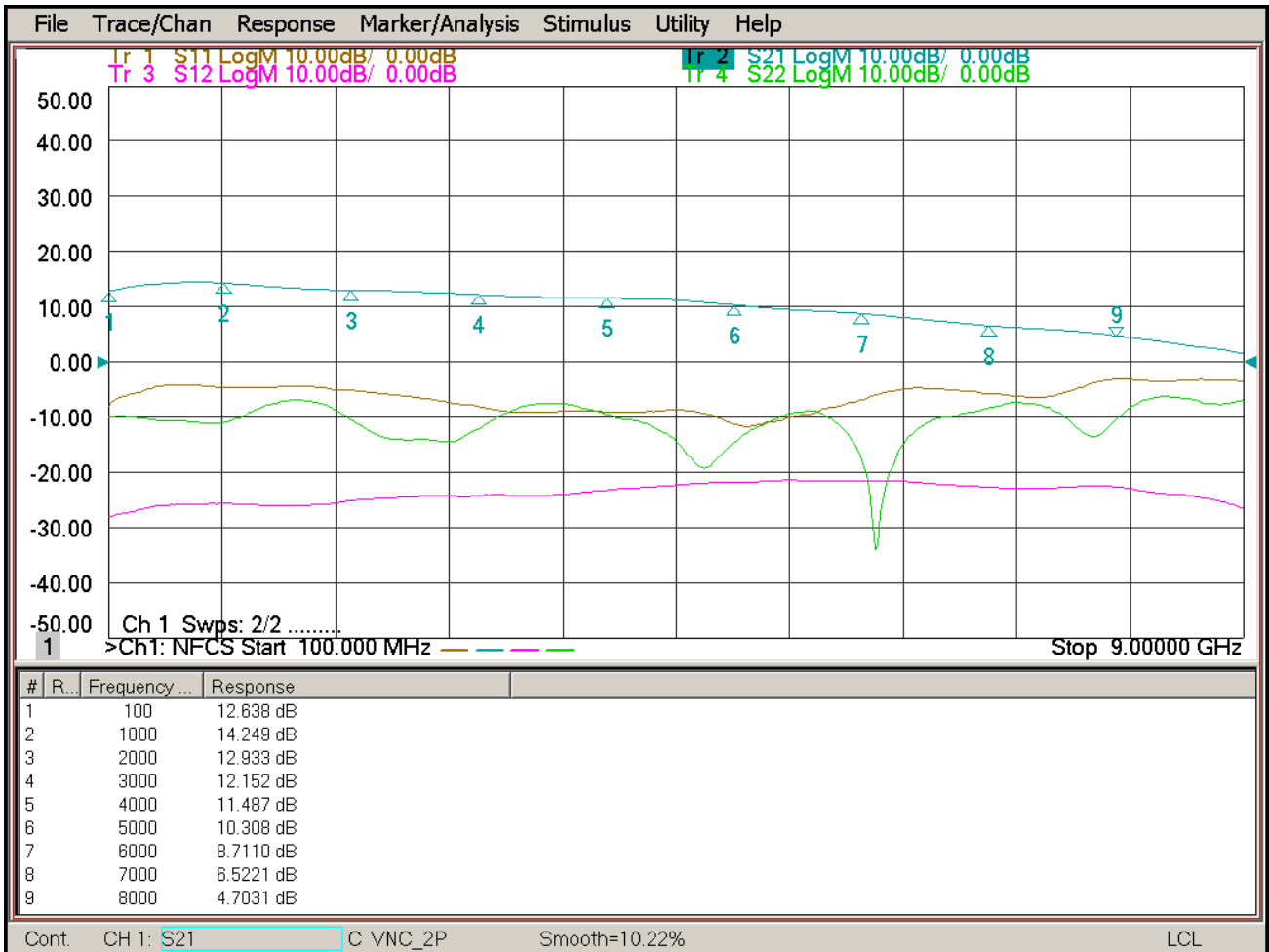


Figure 1: S21-response example.