



DS INSTRUMENTS

30GHZ VARIABLE-GAIN AMPLIFIER



Description

Our latest high-frequency smart amplifier for 2021!

The wideband **GB30000** provides a compact and affordable way to amplify signals from 20-30GHz for a variety of Ka and K-band applications. Simple USB-C power input and control makes this device much faster to integrate, and more flexible than traditional multi-voltage lab-supply powered devices. All negative voltage generation, gate control biasing, current limiting, temperature monitoring, and voltage detection are done internally automatically.

K-Band Variable-Gain Amplifier Specifications:

- Frequency Range: **20 – 30GHz**
- Amplifier Max Gain Setting: **+25dB typical**
- Gain Control Step Size: **0.5dB**
- Gain Control Range: **30dB**
- p1dB: **+21dBm**
- Saturated Power: **+23dBm**
- Max input power: **+10dBm**
- IP3: **+33dBm**
- Noise Figure: **5dB**
- Return Loss: **~6dB typical**
- USB Current Requirement: **< 0.75A**

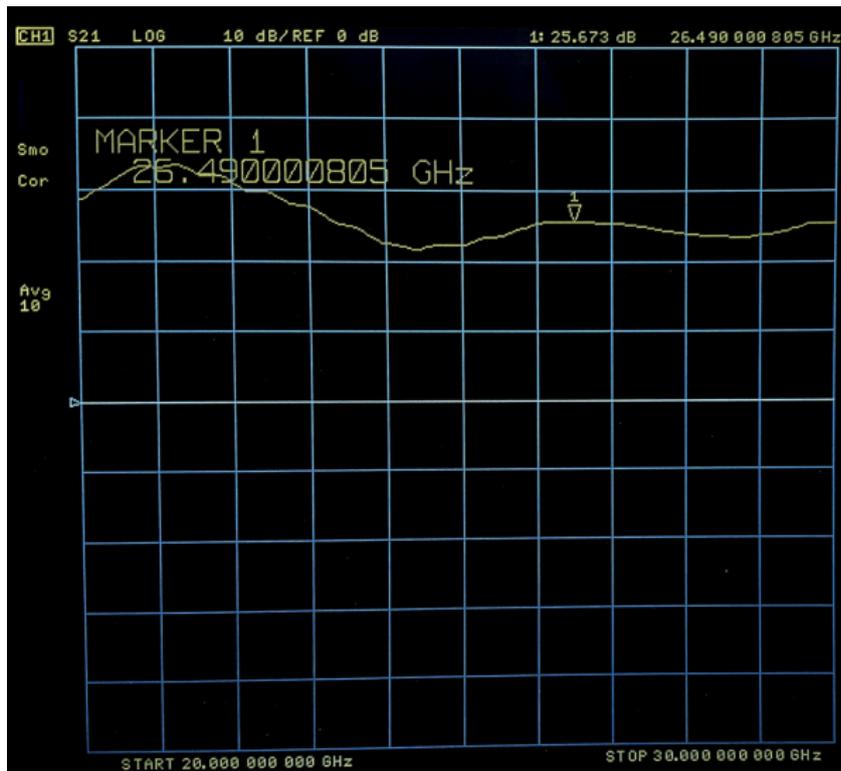
30GHz Amplifier Feature List:

- Front gain control buttons
- Precision **2.92mm** RF input and output ports
- Standard USB-C 5VDC power input
- Compact aluminum enclosure
- Status LEDs and audible alerts
- Temperature, voltage, current monitoring
- USB control

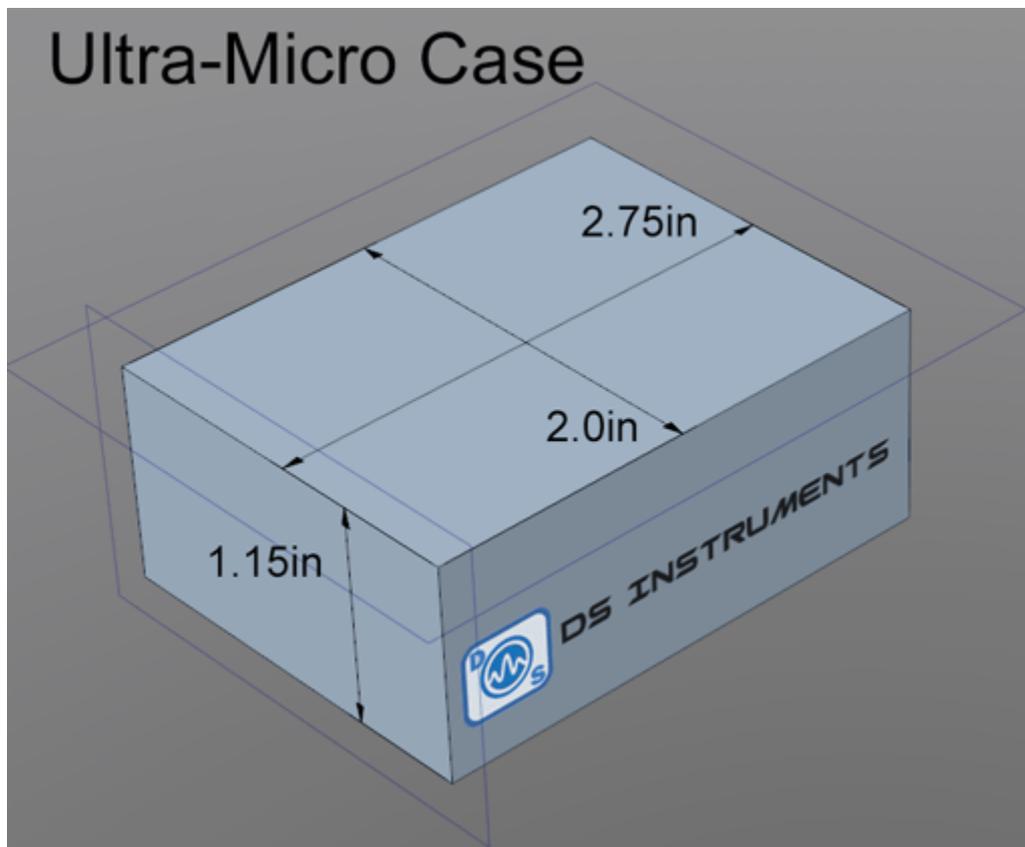
GB30000 Applications

- Automated testing environments
- Satellite signal amplification
- Production verification
- Educational / university lab use
- Aerospace / defense research
- Wireless infrastructure
- Antenna research
- Communication link design

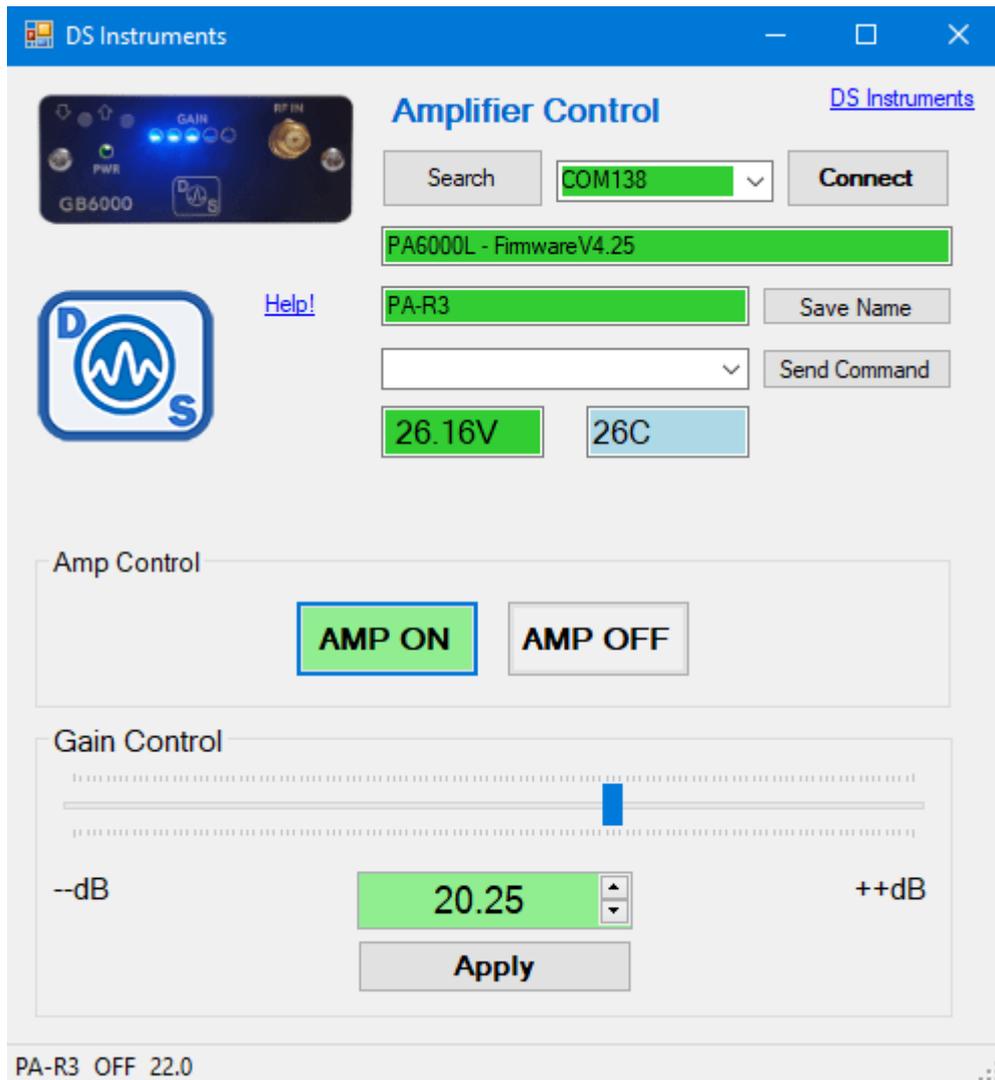
Small Signal Gain (Max Setting):



Compact Enclosure:



Free PC Control Software:



40GHz Rated 2.92mm Connectors:

