

AMBY-8000 is ultra-wideband low noise amplifier with flat gain frequency response and high level output. Additionally AMBY-8000 provides for RF by-pass in entire frequency range.

KEY FEATURES

- ✓ Ultra-wideband
- ✓ RF by-pass
- ✓ High and flat gain
- ✓ Low noise figure
- ✓ Small dimensions
- ✓ Low power consumption
- ✓ Compact and solid case

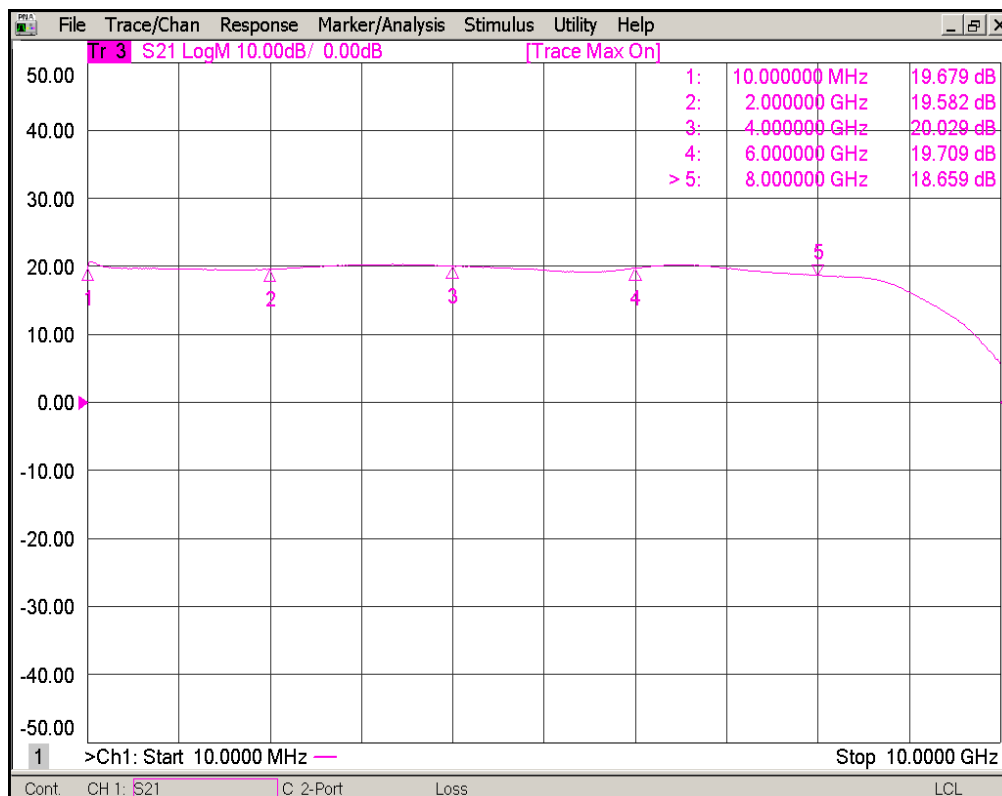
APPLICATIONS

- ✓ Radio-transmitters
- ✓ Cellular networks
- ✓ Radio-monitoring
- ✓ WLAN/Wi-Fi



AMBY-8000 mechanical enclosure.

PRODUCT DESCRIPTION



Aplifier mode 10MHz-10GHz, gain vs. frequency

Absolute maximum ratings*

Supply voltage max	+18	V
Supply voltage min	+8.5	V
Maximum RF input	+13	dBm

* Operation of this device in excess of any of the limits may cause permanent damage.

RF and DC characteristics*

Frequency	0.005	0.01	0.05	0.5	1	2	3	5	6	8	9	GHz
Gain in amplifier mode	17.3	19.5	20.6	19.8	19.8	19.7	20.4	19.6	20.0	18.5	17.0	dB
Noise figure in amplifier mode	-	5.2	3.8	3.1	2.7	1.9	1.7	1.8	2.2	3.5	4.6	dB
1dB out compression in amplifier mode	15.3	17.0	18.5	19.3	19.5	19.3	19.3	18.3	16.8	12.6	-	dBm
OIP3 in amplifier mode**	-	33 typ.						30 typ.				dBm
Insertion loss in by-pass mode***	1.7	1.0	0.9	1.0	1.1	1.3	1.7	2.4	3.2	3.9	4.8	dB
In/Out return loss in amplifier mode	10/10 typ.											dB
In/Out return loss in by-pass mode	10/10 typ.											dB
Current consumption in amplifier mode	80											mA
Current consumption in by-pass mode	5											mA
Supply voltage Vcc	+9...+15											V

* Values measured at environment temperature $T = +25^{\circ}\text{C}$

** Tested with two tones, -16dBm each and 1MHz frequency difference

*** RF by-pass is usable up to 13GHz

NB! ASK FOR OTHER SPECIFICATIONS FROM RANTELON LTD!

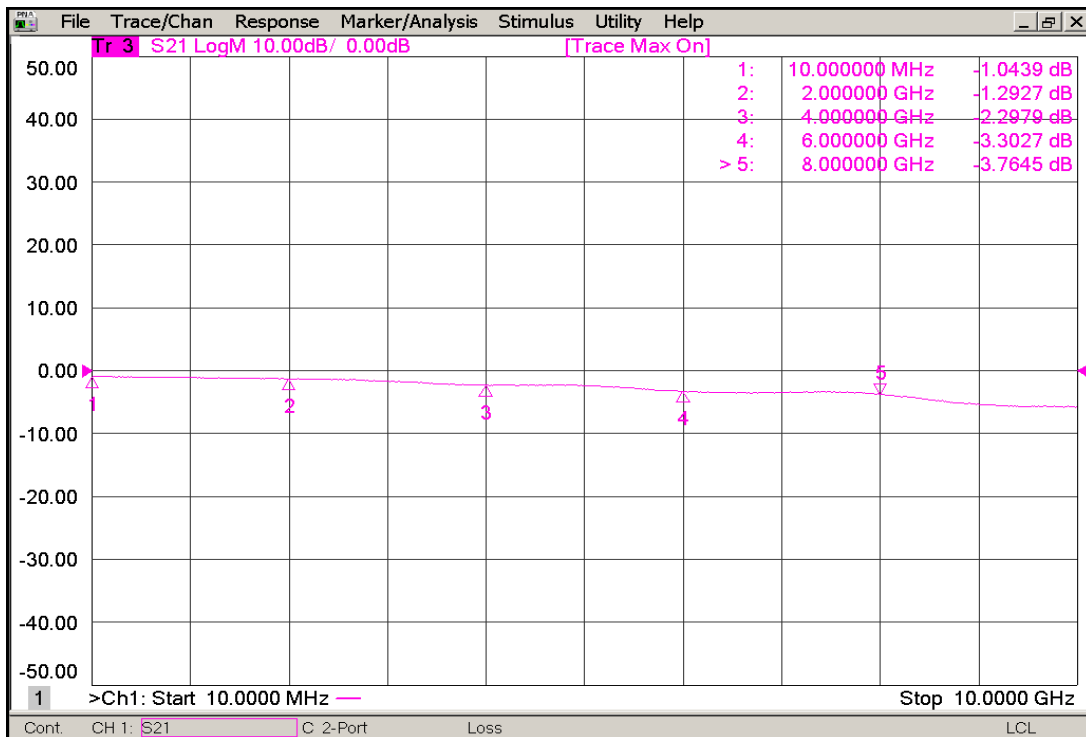
Mechanical specifications

RF Input/output connectors	SMA-female 50 Ω /SMA-female 50 Ω
DC connector	Soldering pin
By-pass control connector	Soldering pin
Dimensions	50x40x13 mm, aluminum

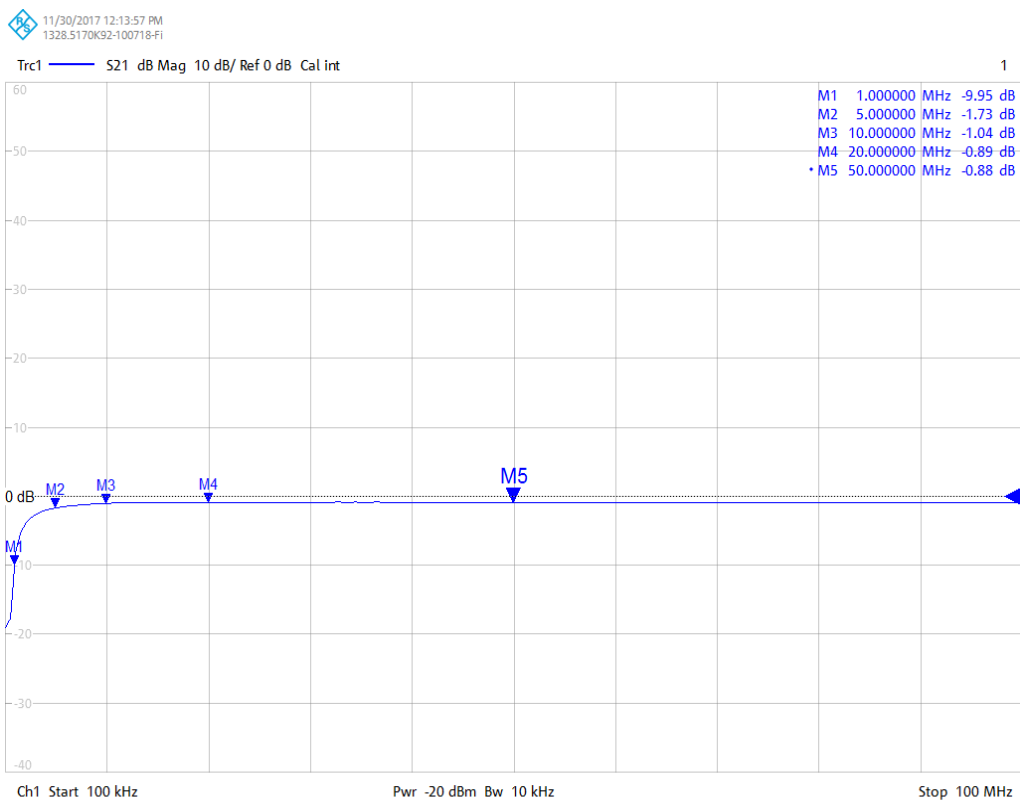
RF by-pass control

By-pass mode is OFF (about 20dB gain)	BY-PASS ON/OFF pin is open (or tied to +3V), Vcc must be applied
By-pass mode is ON (about 2dB insertion loss)	BY-PASS ON/OFF pin is grounded (or tied to 0V), Vcc must be applied

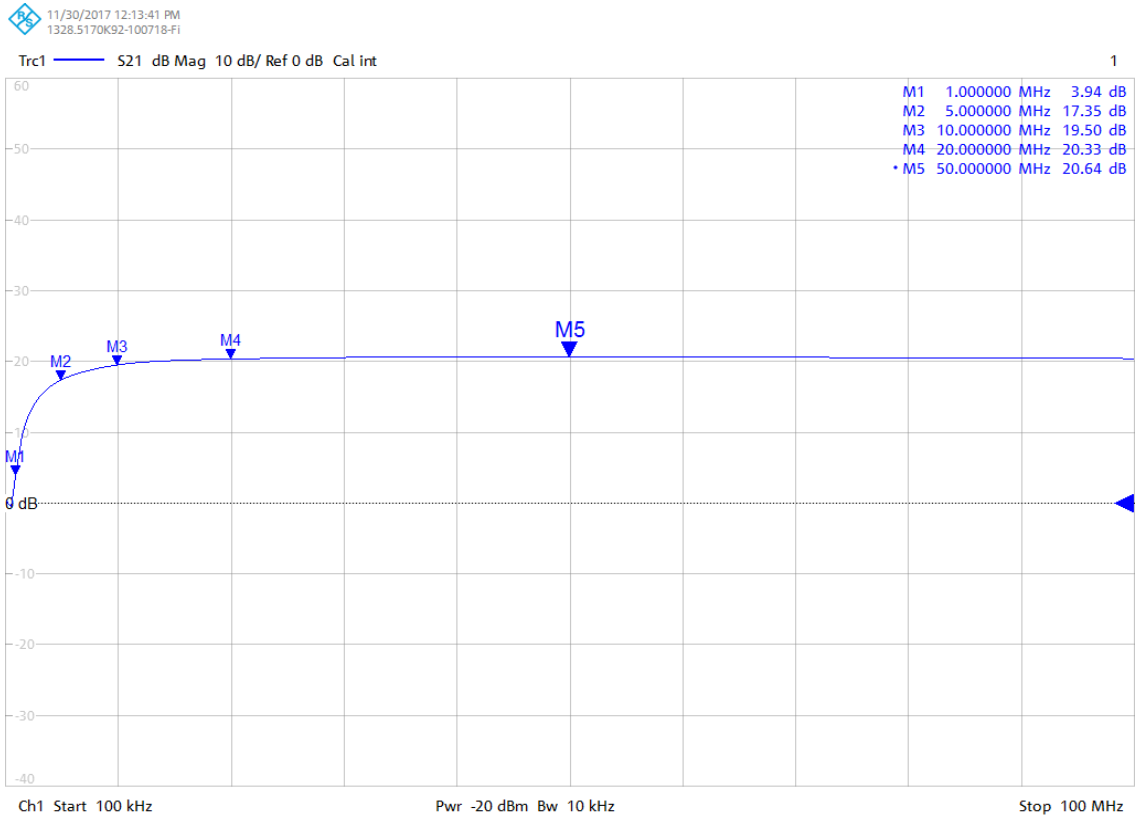
By-pass mode 10MHz-10GHz, insertion loss vs. frequency



By-pass mode 100kHz-100MHz, insertion loss vs. frequency



Amplifier mode 100kHz-100MHz, gain vs. frequency



Rantelon reserves the right to change the specification without notice.