

## Distributed Amplifiers

Altum RF offers a wide range of distributed amplifiers. We are designing custom components, along with catalog products. We continue to expand our product portfolio, so if you do not see a component you need, please inquire as it may be in development.

### Products Features:

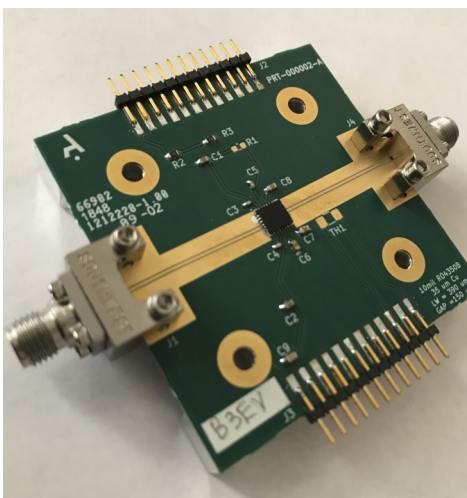
- DC-20, 30, 40 GHz
- GaAs technology for up to 1 W  $P_{sat}$
- GaN technology for 3-10 W  $P_{sat}$
- Internally matched to 50 $\Omega$
- QFN packaged, MSL level 3
- ESD protected

### Benefits:

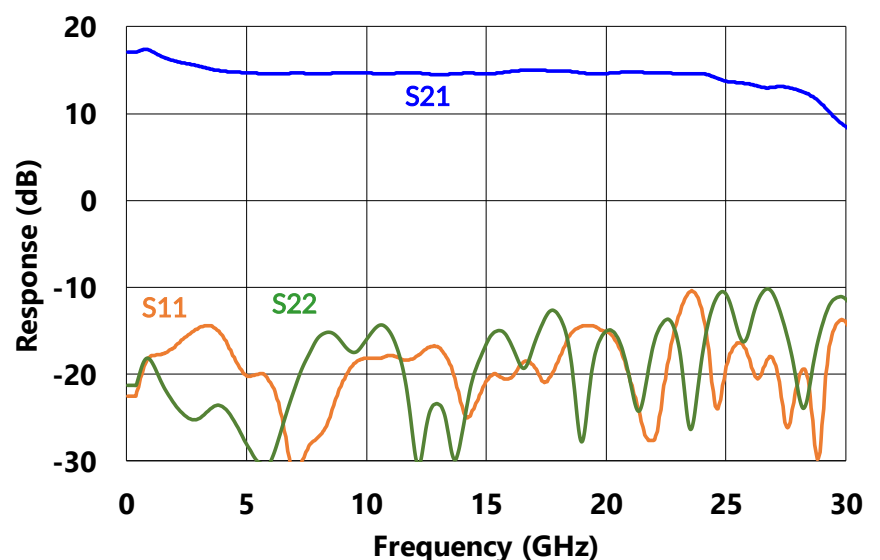
- Qualified and proven solutions
- Robust supply from one of the world's leading GaAs foundries
- 100% DC and RF tested
- EU export (non-ITAR) products
- Derivative product possibilities

## Demoboard and RF Performance

Demoboard ARF1304Q5



Measured RF Performance ARF1304Q5

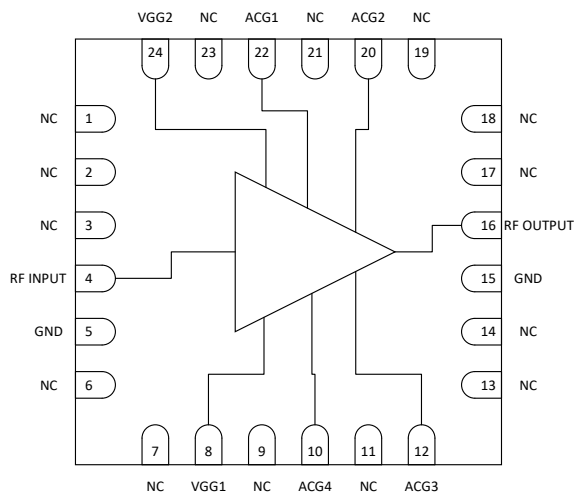


# GaAs PHEMT Distributed Amplifiers

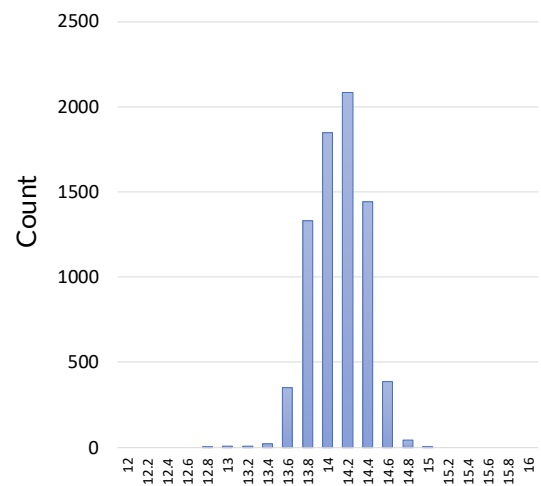
Amplifiers	Frequency	Gain	P <sub>sat</sub>	Bias	Package
ARF1300Q4	0–24 GHz	13 dB	23.6 dBm	8 V, 130 mA	4×4 mm QFN
ARF1301Q5	0–18 GHz	12.5 dB	30 dBm	12 V, 310 mA	5×5 mm QFN
ARF1303	0–40 GHz	12 dB	21 dBm	8 V, 130 mA	Bare Die
ARF1304Q5	0–26.5 GHz	15 dB	25.0 dBm	10 V, 150 mA	5×5 mm QFN

ARF1300Q4

Pinning ARF1300Q4 (4x4)

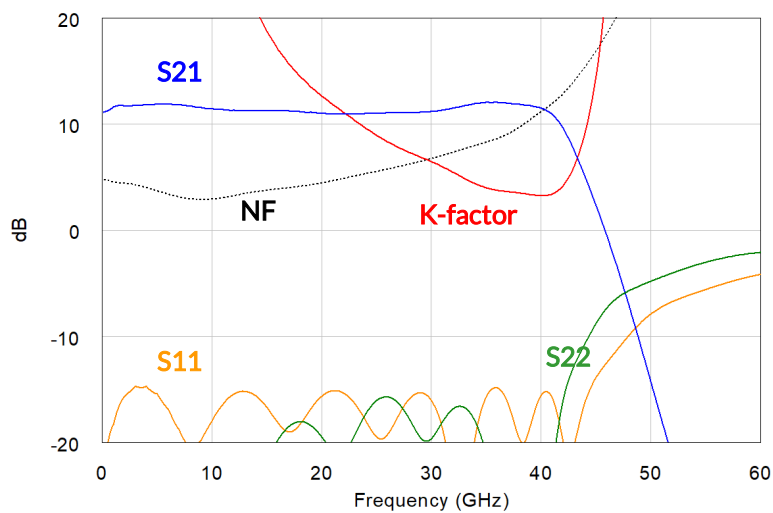


Production data measured on 7.5 K devices

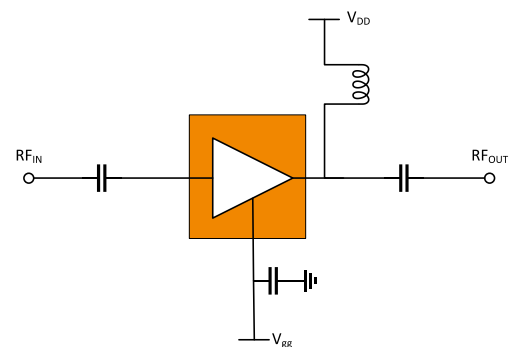
Gain @ 18 GHz: 3 $\sigma$  0.77dB

Gain @ 18 GHz

RF Performance ARF1303



Block Diagram ARF1300Q4

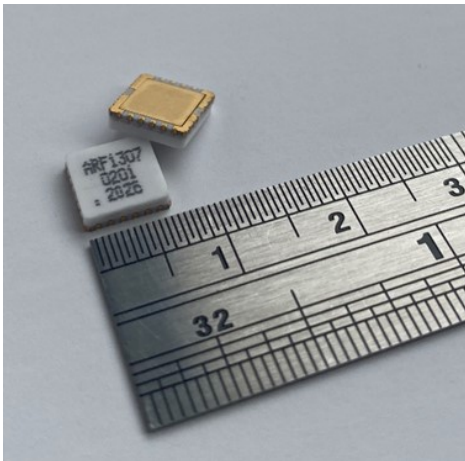


## GaN High Power Distributed Amplifiers

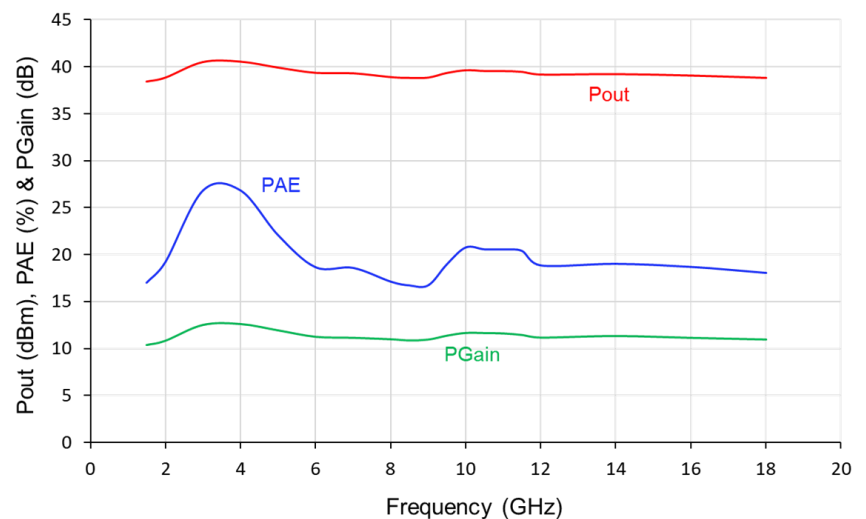
Amplifiers	Frequency	Gain	P <sub>sat</sub>	PAE	Bias
ARF1306C5	2–20 GHz	16 dB	3 W	> 20%	24 V
ARF1307C7	1–20 GHz	18 dB	10 W	> 20%	28 V
ARF1308	6–40 GHz	TBC	3 W	TBC	20 V
ARF1310	10–40 GHz	TBC	5 W	TBC	20 V
ARF1311	10–40 GHz	TBC	10 W	TBC	20 V

## Demoboard and RF Performance

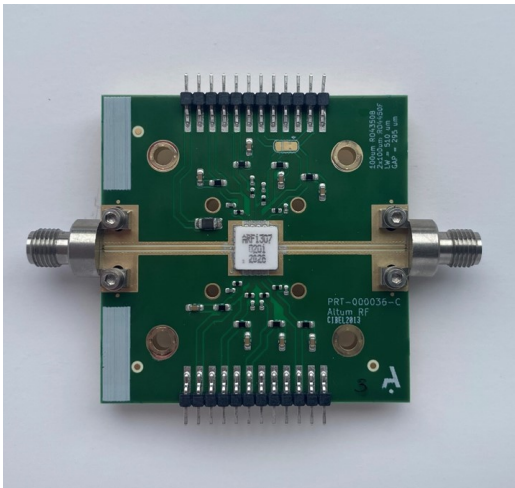
ARF1307C7



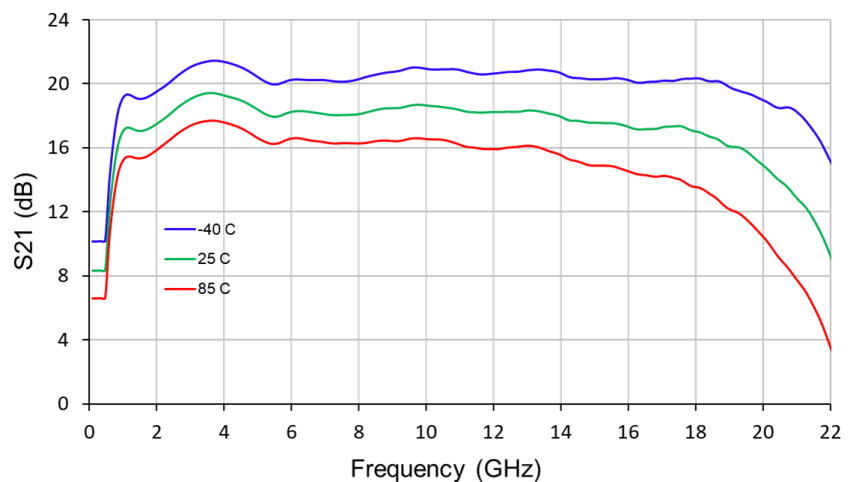
Measured RF Performance ARF1307C7



Demoboard ARF1307C7



Measured RF Performance ARF1307C7 over Temperature





# ALTUM RF

## About Altum RF

Inspired by leading experts in the RF/microwave industry, Altum RF transforms how partnerships work to develop high-performance products with a focus on superior technical support and customer service. Our engineers use decades of modeling expertise and system applications knowledge to define the right products for the most challenging requirements.

With the help of our exceptional global partners, we can significantly shorten the product development cycles by managing the entire supply chain from design to packaging, testing and qualification. For development of GaAs, GaN, SiGe or RF CMOS components, discover Altum RF as your next RF semiconductor partner.

## Contact Altum RF

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