



Northrop Grumman Begins Sampling New Compact Indium Phosphide Ultra-Low-Noise Amplifiers for Commercial, Military Use

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REDONDO BEACH, Calif., May 28, 2014 /PRNewswire/ -- A pioneer in the design and fabrication of advanced semiconductors, Northrop Grumman Corporation (NYSE: NOC) has developed two high performance Monolithic Microwave Integrated Circuit (MMIC) broadband ultra-low-noise amplifiers (LNA) that are in production for immediate delivery.

The Northrop Grumman logo, featuring the company name in a bold, blue, sans-serif font. Below the text is a blue curved line that starts under the 'N' and sweeps upwards and to the right, ending under the 'M'.

The cost-effective indium phosphide (InP) high electron mobility transistor (HEMT) LNAs are for use in E-band and W-band commercial, civil and military applications such as communication links, sensors, millimeter-wave imaging, radars and digital microwave radios.

The compact die design of each LNA considerably reduces footprint size and exhibits unmatched ultra-low-noise performance and high gain.

"The LNAs are the initial release of products designed with the company's indium phosphide process, a powerful semiconductor technology that has successfully been used in Northrop Grumman's advanced military communication systems," said Frank Kropschot, general manager, Microelectronics Products and Services at Northrop Grumman. "For the first time, Northrop is offering products for similarly demanding commercial applications."

Product descriptions:

ALP283:

- The ALP283 is a W-band 1.7 mm² InP HEMT low-noise amplifier that operates between 80 and 100 GHz
- The power amplifier provides 29 dB of linear gain, 2.5 dB typical Noise Figure and 1dB gain compression power (P1dB) of 3 dBm (2 mw)
- A 2 dB typical average noise figure from 80-100 GHz
- Excellent for W-Band millimeter-wave imaging applications, sensors and communication links

ALP275:

- The ALP275 is W-band 2.125 mm² InP HEMT ultra-low-noise amplifier that operates between 71 and 96 GHz
- The power amplifier provides greater than 26 dB of linear gain, 3 dB typical Noise Figure and P1dB of 4 dBm (2.5 mw)
- Ideal for E-Band and W-Band communications links

To ensure rugged and reliable operation, both LNAs are fully passivated. Both bond pad and backside metallization are Ti/Au, which is compatible with conventional die attach, thermocompression and thermosonic wire bonding assembly techniques.

Detailed datasheets on both LNAs can be found at www.northropgrumman.com/mps

Northrop Grumman manufactures the LNAs at its state-of-the-art microelectronics wafer fabrication facility in Manhattan Beach. A Department of Defense Trusted Foundry, the facility uses advanced gallium nitride, gallium arsenide and indium phosphide semiconductor manufacturing processes.

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in unmanned systems, cyber, C4ISR, and logistics and modernization to government and commercial customers worldwide. Please visit www.northropgrumman.com for more information.

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