

# STMicroelectronics increases presence in RF power market with new device family leveraging advanced proprietary technology



STMicroelectronics has announced new radio-frequency (RF) power transistors built using an advanced technology that increases performance, ruggedness and reliability in vital demanding applications such as government communications, private mobile radio as used by emergency services, and L-band satellite uplink equipment.

Equipment such as wireless base stations and repeaters used by organizations such as security and emergency services, as well as commercial communications companies, must

achieve high RF power output at high frequencies while at the same time producing low distortion. These conflicting targets can complicate design and impose extra costs. LDMOS technology has proved successful in enabling designers to meet these targets, and ST has now advanced the technology further to enable equipment designers to increase system performance even further.

"LDMOS is a key enabling technology for high-speed, robust wireless communications, and our next-generation devices will help equipment designers boost RF power without compromising important system metrics, including linearity, ruggedness and reliability," said Serge Juhel, RF Product Marketing and Application Support Manager. "The advanced products we are announcing today will deliver benefits in critical applications such as private mobile radio, government wideband communications, avionics systems and satellite uplink radio."

The **LET family** of RF transistors uses ST's latest STH5P LDMOS technology to achieve increased power saturation capability, which minimizes distortion at higher power levels. The devices can operate at frequencies up to 2GHz with major linearity, ruggedness and reliability improvements. Efficiency is also increased by 10-15% compared to devices using earlier LDMOS processes.

In addition, the devices have 3dB higher gain than their predecessors, which simplifies amplifier design and minimizes parts count. Additional enhancements include an increase in breakdown voltage to 80V from 65V and improved thermal performance, leading to greater reliability, as well as significantly increased load mismatch capability.

Six devices belonging to the LET family are currently in full production and five more will be released to production in Q4 2011.

Available in the industry-standard, bolt-down or eared package styles with devices in cost saving Power-SO 10RF surface mount plastic packages with formed or straight leads are currently under qualification.

For further information please visit [www.st.com/rf](http://www.st.com/rf)

For more information, or details on the full range of STMicroelectronics products available from Anglia, please email [info@anglia.com](mailto:info@anglia.com)

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