

# 28/32V LDMOS IDDE technology boost efficiency & robustness



## The new IDDE Power RF LDMOS technology improves gain, efficiency, and load mismatch ruggedness

Combining a short conduction-channel length with a high breakdown voltage, LDMOS devices are well suited for RF power amplifiers where they can be used in commercial or industrial systems. Our innovative IDDE technology expands the range of applications that ST can address, giving power RF designers a competitive edge for cost-efficient solutions in addition to superior performance.

### KEY FEATURES

- High efficiency
- Low thermal resistance
- Optimized power RF packages

### KEY BENEFITS

- Power consumption savings
- First-in-class reliability
- Cost-effective solutions

### KEY APPLICATIONS

- Industrial Scientific & Medical (ISM)
- Land-based mobile RF communications
- Commercial & Defense HF/VHF/UHF radios
- Airband and VHF avionics

## IDDE TECHNOLOGY

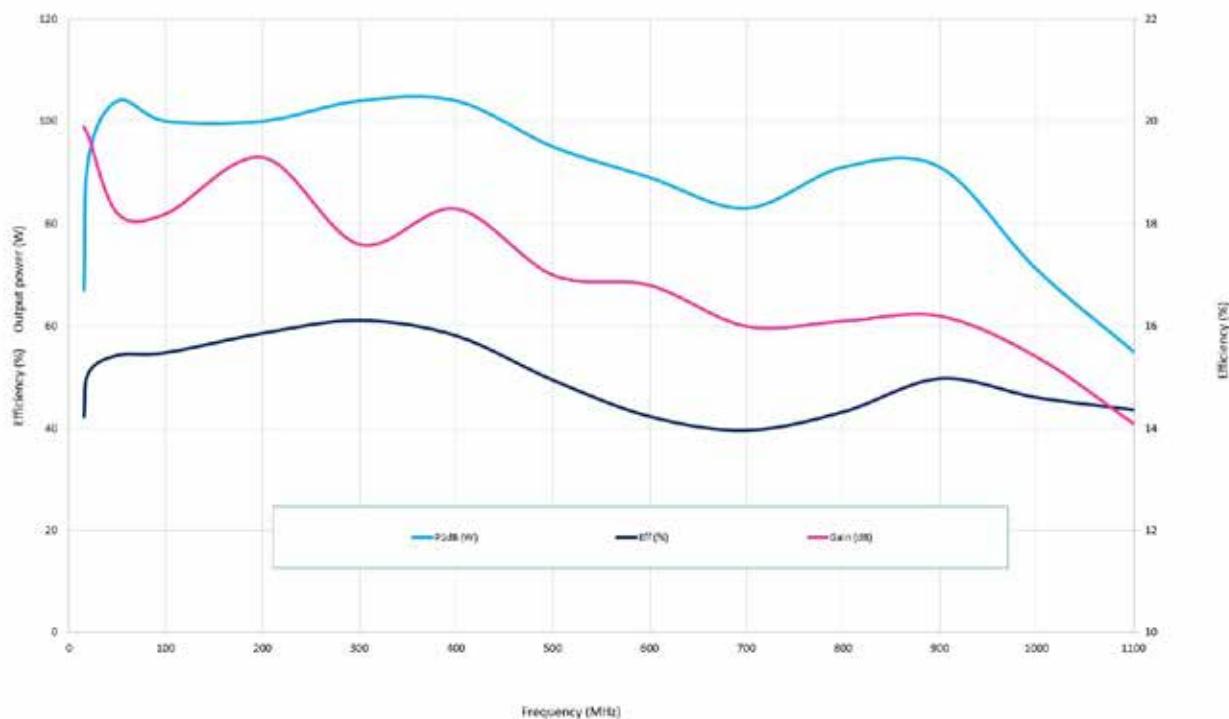
### 28/32V operating voltage up to 1.5 GHz

IDDE is a 28/32 V common-source, N-channel-enhancement-mode, lateral field-effect, RF power transistor technology.

With output power from 10 to 400 W, our IDDE portfolio is specifically designed for broadband commercial, avionics and

industrial devices at frequencies up to 1.5 GHz for all typical modulation formats including Class A, AB, and C.

### POWER GAIN AND EFFICIENCY VERSUS OUTPUT POWER AT $V_{DD} = 28V$ (ST05150 TYPICAL BROADBAND PERFORMANCES)



Part number	Package	Frequency (MHz)	Output Power (W)	Power Gain (dB)	Supply Voltage (V)	Efficiency (%)
ST16010	MM	930	12	21	28	63
ST9045C	M243	945	63	18.5	28	70
ST9060C	M243	945	80	17	28	70
RF3L05150CB4*	LBB	945	150	16	28	60
RF3L05200CB4*	LBB	945	200	16	28	60
ST05250	B4E	945	250	14	28	55
RF3L05250CB4*	LBB	945	250	16	28	55
RF3L05400CB4*	LBB	500	380	17	28	60
RF4L10700CB4*	D4E	915	700	15	40	68
RF4L15400CB4*	D4E	1500	400	16	40	60

\* in development: contact marketing for engineering samples



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