

SC1894 Wideband Performance results with NXP A2I25D025N

NXP A2I25D025N Power Amplifier Data

- Amplifier Data

- > NXP A2I25D025N, Doherty, LDMOS
- > Operating Frequency: 2100-2900 MHz
- > Frequency tested: 2660 MHz
- > Gain = $\sim 29\text{dB}$; $P_{\text{sat}} = P_{3\text{dB}} = \sim 45\text{dBm}$
- > NXP driver between SC1894-EVK2400 and NXP A2I25D025N: MMG20241H
- > NXP driver between MXG and SC1894-EVK2400: MMG3014N
- > $V_{\text{dd}}=28\text{V}$

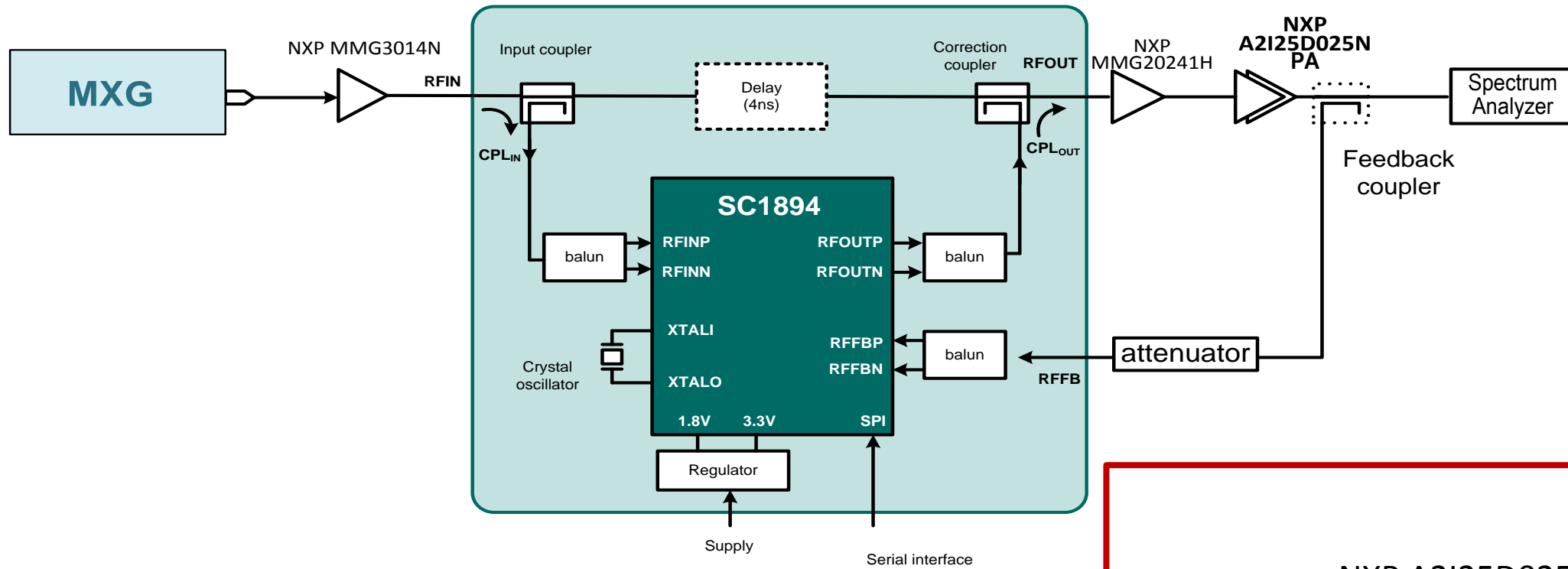
NXP A2I25D025N Performance Data Summary at 2660MHz

- Requirement is -50dBc

	Output Power (dBm) @-50dBc ACLR	PAE (%)	PAR (dB)
20 MHz LTE	38	40	7
2x20 MHz LTE	37	37.5	7
2x20 MHz LTE	35	32	10
3x20 MHz LTE	35	32	7.5

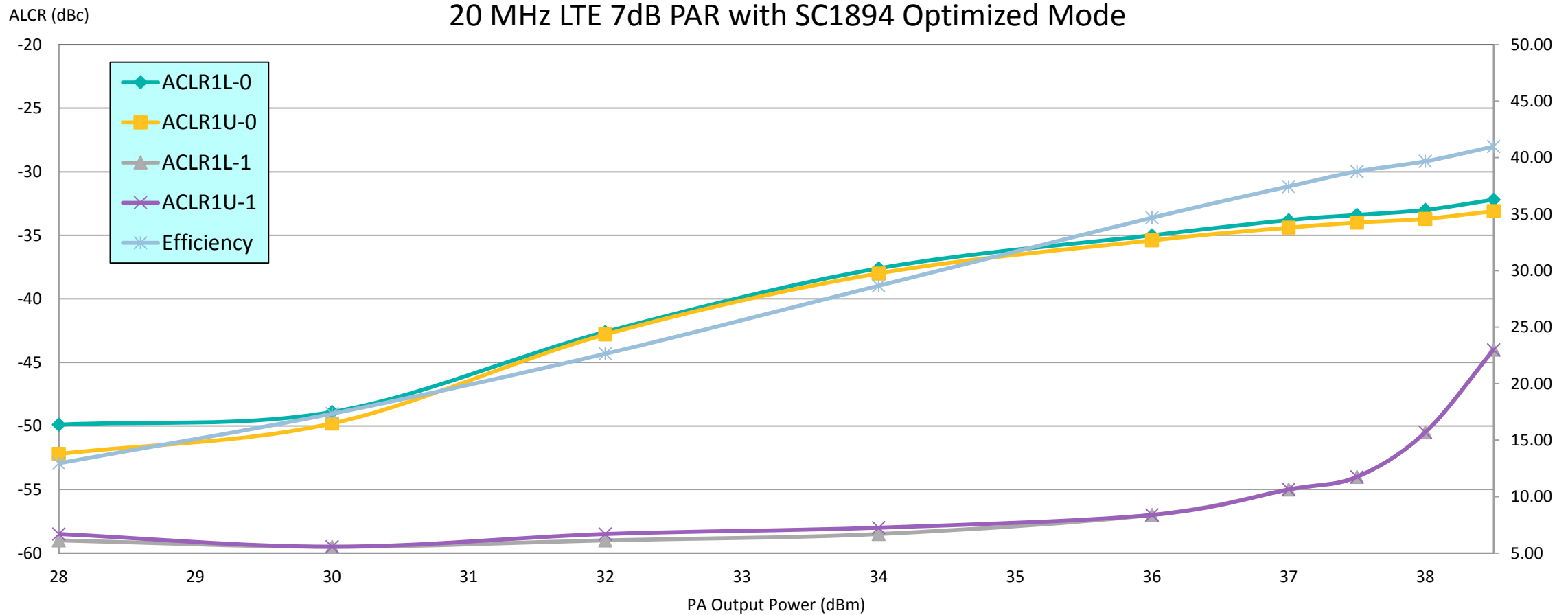
- PAE numbers for complete module with 29dB gain and bias supplies included.

Test Set-up with SC1894 and NXP A2I25D025N



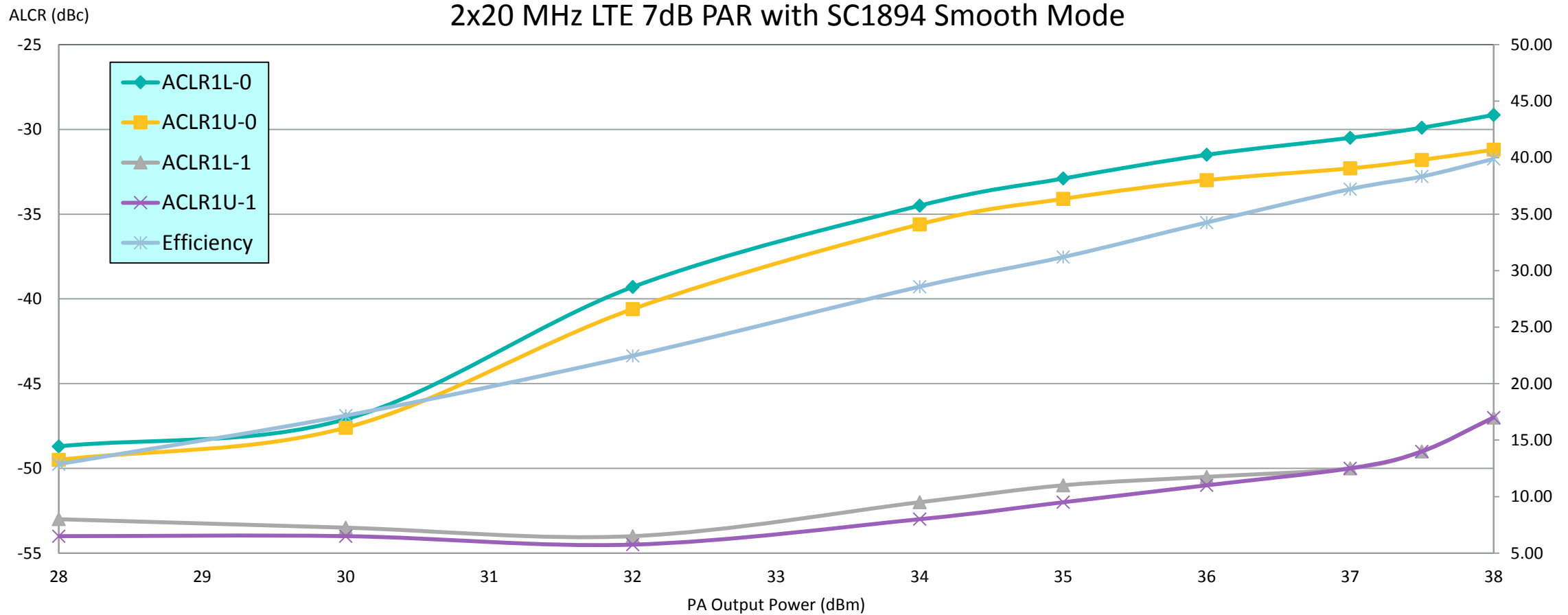
NXP A2I25D025N
25 Watt Peak, Doherty PA
With NXP MMG20241H driver

LTE20MHz 7dB PAR: 38dBm out; 38% efficiency

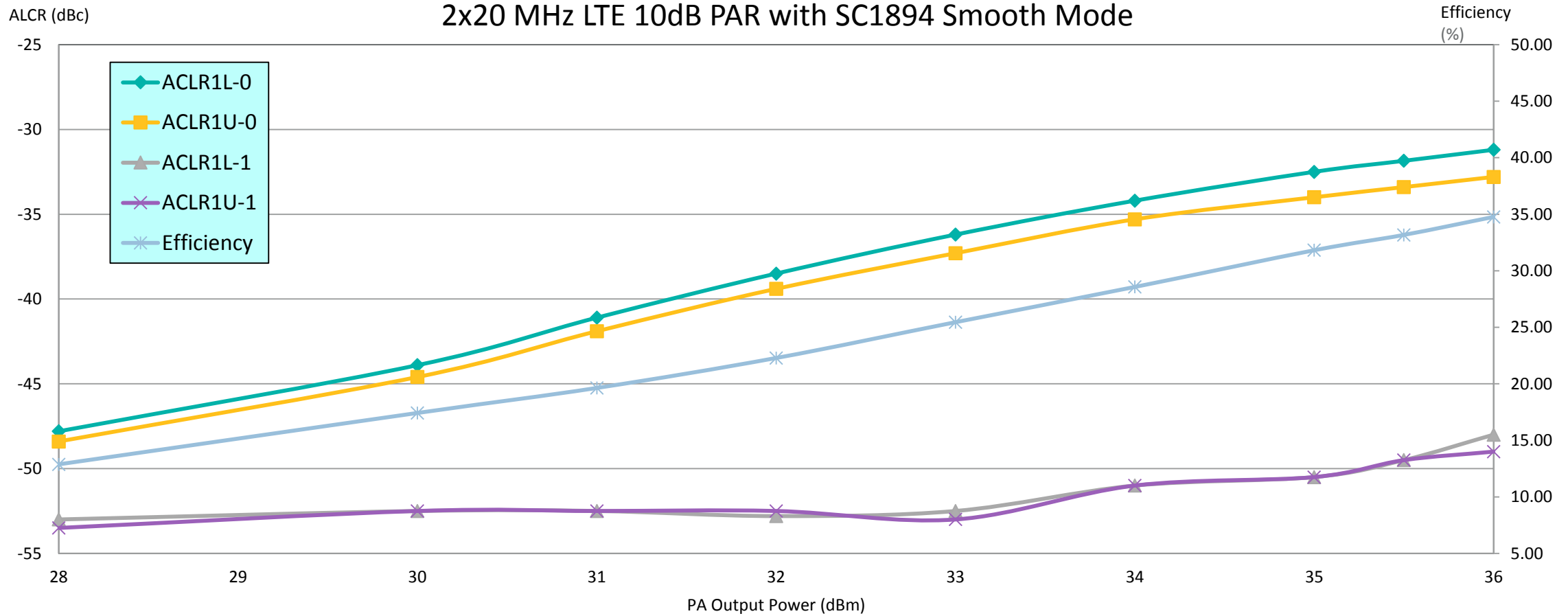


Note: Rise in ACLR in back-off due to noise floor of spectrum analyzer.

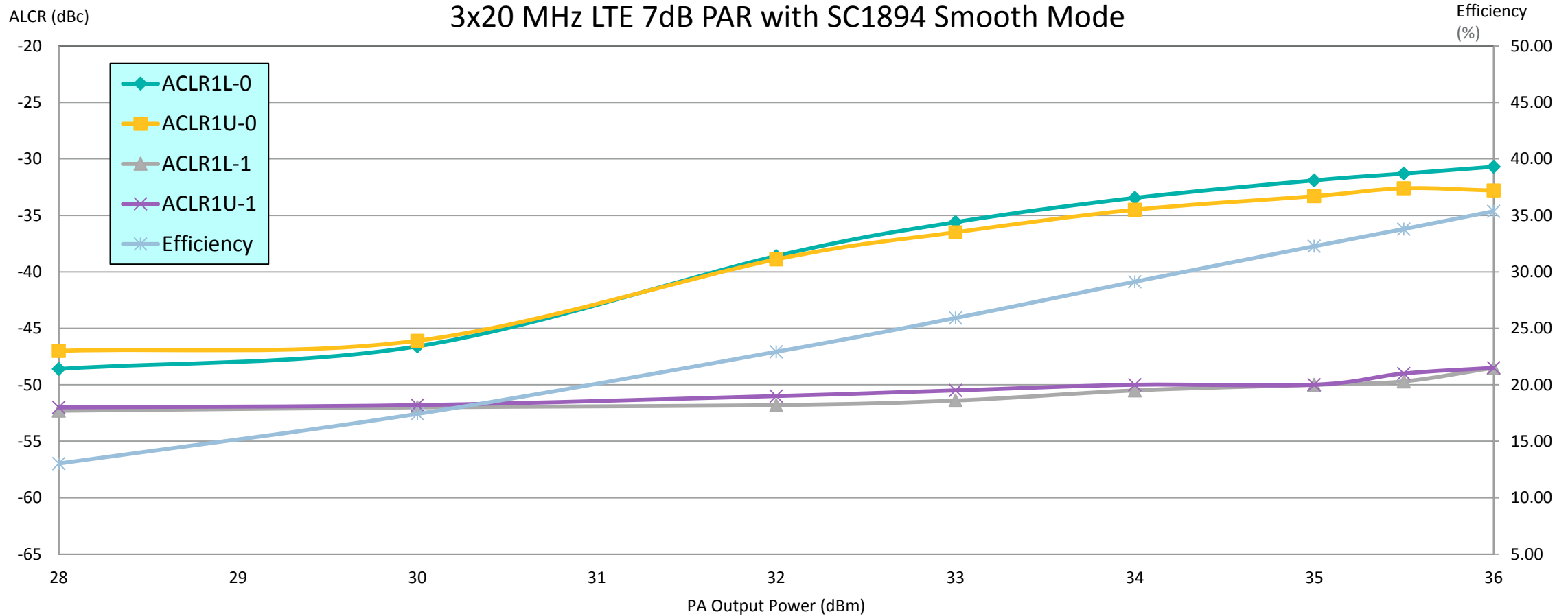
LTE2x20MHz 7dB PAR: 37dBm out; 37.5% efficiency



LTE2x20MHz 10dB PAR: 35dBm out; 32 efficiency



LTE3x20MHz: 35dBm out; 32% efficiency





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