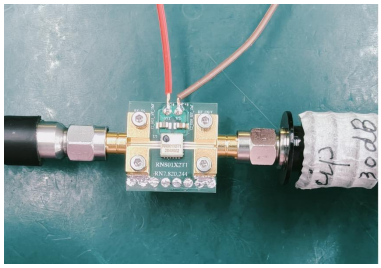
★1.Product Description

TFPA2611P is a microwave SiP-packaged power amplifier for X-band applications. It operates over 8~12 GHz in pulsed mode with a drain voltage (VDT) of +24 V or +28 V and a gate voltage (VG) of -2.25 V, at a pulse width of 100 µs and a duty cycle of 10 %. All test data has been corrected for cable losses.

TFPA2611P Package Photo



★2.Product Features

- Frequency range: 8~12 GHz
- Saturated output power: >38 dBm (6 W) @VDT=+24 V
- Saturated output power: >38.5 dBm (7 W) @VDT=+28 V
- Power-added efficiency (PAE): >38 %
- Small-signal gain: >36 dB
- Saturated power gain: >25 dB
- Gate voltage: -2.25 V; drain voltage: +24 V / +28 V
- Operation: pulsed 100 µs @ 10 %, corrected for cable losses

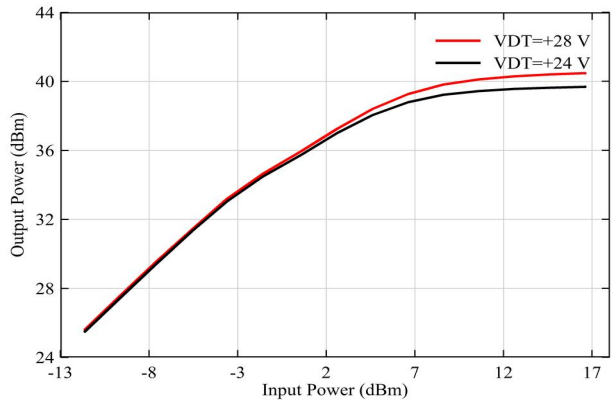
★3.Typical Electrical Characteristics

Parameter	Typ. VDT=+24 V, VG=-2.25 V	Typ. VDT=+28 V, VG=-2.25 V	Unit
Frequency Range	8~12	8~12	GHz
Saturated Output Power	>38	>38.5	dBm
Power-Added Efficiency	>38	>38	%
Small-Signal Gain	>36	>36	dB
Saturated Power Gain	>25	>25	dB
Gate Voltage	-2.25	-2.25	V
Drain Voltage	+24	+28	V

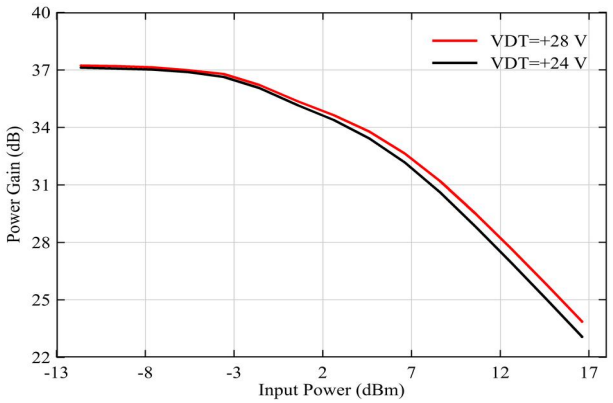
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Address: Building 16, Area C, Entrepreneurship and R&D Park, Xi'an High-tech Industrial Development Zone, China

★4.Package Test Results

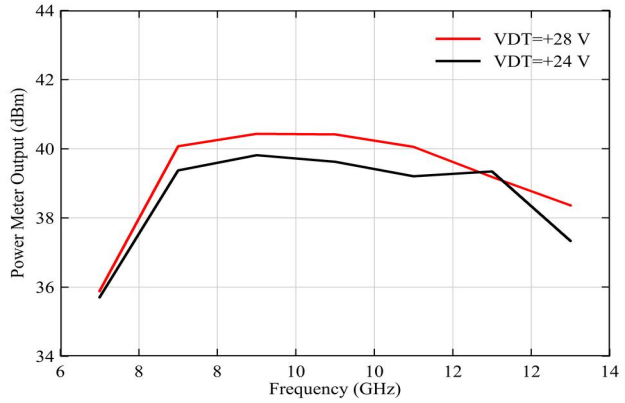
Output Power vs. Input Power (10 GHz)



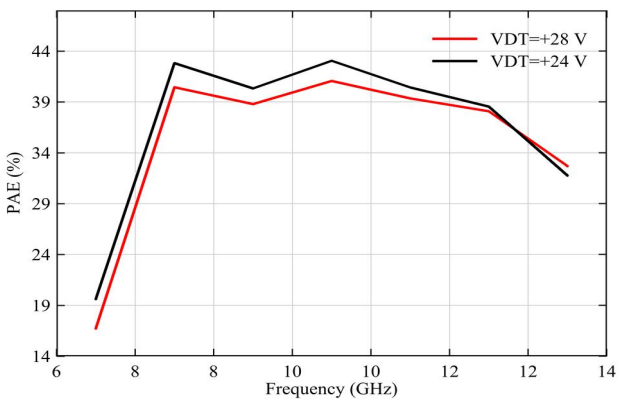
Power Gain vs. Input Power (10 GHz)



Power Meter Output vs. Frequency (14.5 dBm Input)



PAE vs. Frequency



★5.Measured Sweep Data at 10 GHz

Input Power (dBm)	-11.62	-9.6	-7.6	-5.58	-3.58	-1.57	0.61	2.62	4.62	6.63	8.62	10.62	12.61	14.61	16.61
Output Power (dBm) VDT=+28 V	25.6	27.59	29.53	31.4	33.2	34.64	35.96	37.25	38.4	39.26	39.81	40.11	40.29	40.4	40.47
Output Power (dBm) VDT=+24 V	25.49	27.46	29.41	31.3	33.05	34.48	35.75	37	38.04	38.79	39.22	39.43	39.56	39.63	39.68
Power Gain (dB) VDT=+28 V	37.22	37.19	37.13	36.98	36.78	36.21	35.35	34.63	33.78	32.63	31.19	29.49	27.68	25.79	23.86
Power Gain (dB) VDT=+24 V	37.11	37.06	37.01	36.88	36.63	36.05	35.14	34.38	33.42	32.16	30.6	28.81	26.95	25.02	23.07

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★6.Frequency-Band Sweep Measured Data

Test Frequency (GHz)	7	8	9	10	11	12	13
Power Meter Output (dBm) VDT=+28 V, Source Input 8.5 dBm	34.15	39.09	39.56	39.89	39.59	38.54	37.56
Power Meter Output (dBm) VDT=+28 V, Source Input 10.5 dBm	34.8	39.52	40.02	40.13	39.84	38.91	38.01
Power Meter Output (dBm) VDT=+28 V, Source Input 12.5 dBm	35.37	39.87	40.29	40.3	39.98	39.07	38.24
Power Meter Output (dBm) VDT=+28 V, Source Input 14.5 dBm	35.88	40.07	40.43	40.41	40.05	39.18	38.36
PAE (%) VDT=+28 V	16.72	40.44	38.78	41.05	39.34	38.08	32.69
Power Meter Output (dBm) VDT=+24 V, Source Input 8.5 dBm	34.44	38.64	39.06	39.2	38.77	38.04	36.67
Power Meter Output (dBm) VDT=+24 V, Source Input 10.5 dBm	34.85	38.97	39.5	39.41	38.99	38.21	37.03
Power Meter Output (dBm) VDT=+24 V, Source Input 12.5 dBm	35.33	39.26	39.71	39.54	39.12	38.65	37.22
Power Meter Output (dBm) VDT=+24 V, Source Input 14.5 dBm	35.7	39.37	39.81	39.62	39.2	39.34	37.33
PAE (%) VDT=+24 V	19.61	42.81	40.32	43.04	40.42	38.54	31.76

★7.Precautions



This product is an ESD-sensitive device; take appropriate ESD precautions to avoid performance degradation or permanent failure.

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