

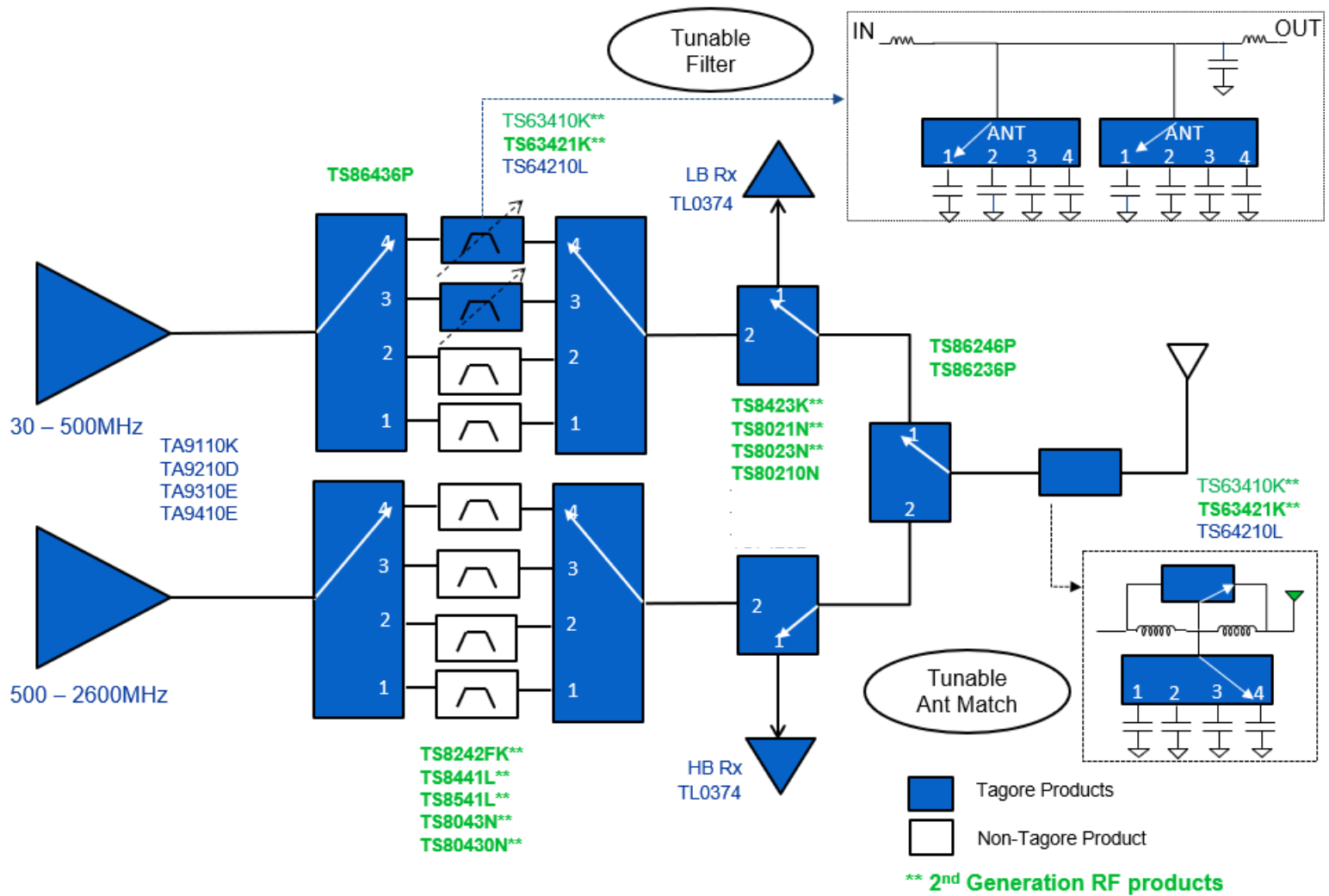


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DISRUPTING SWaP



LMR/PMR, Tactical & MIL-COM Radio Applications



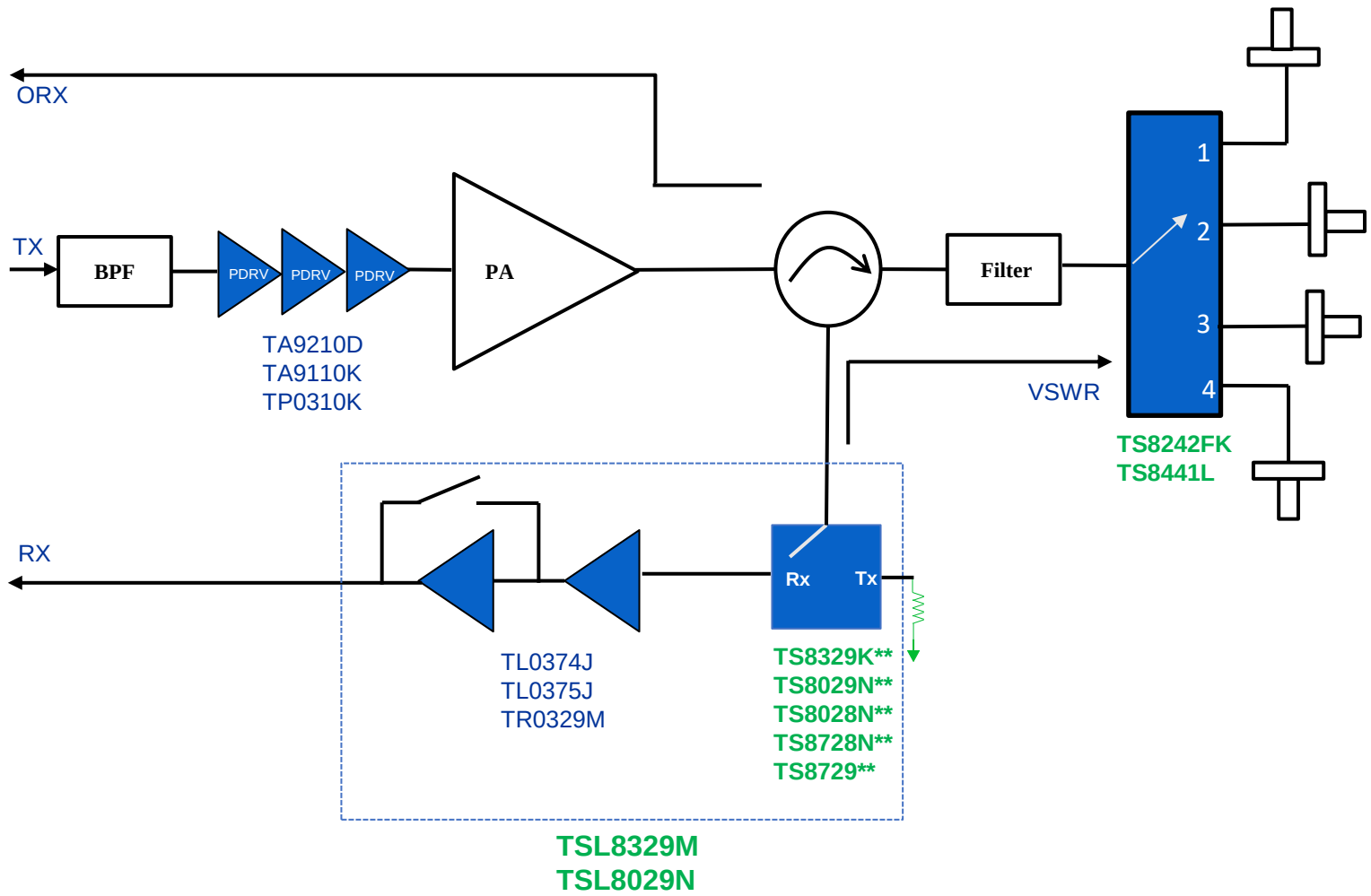
High Power Switch Portfolio - Symmetric Switches

Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/H3	Switching Time	Package	VDD Supply	Logic
10 W											
TS7225FK	2T	Reflective	30MHz-6GHz	10W	0.35/0.9dB	40/15dB	Pin=40dBm -81 dBc	0.7us	3x3	2.6 - 5.5V	1.1- VDD
TS8242FK	4T	Reflective	30MHz-5GHz	10W	0.30/1.0dB	40/18dB	Pin=40dBm -86 / -89 dBc	0.6us	3x3	2.6 - 5.5V	1.1- VDD
20 W											
TS8423K	2T	Reflective	30MHz-6GHz	20W	0.2/0.5dB	46/22dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5V	1.1- VDD
30 W											
TS8441L	4T	Reflective	30MHz-4GHz	30W	0.23/1.0dB	37/20dB	Pin=42dBm -81 / -90 dBc	0.8us	4x4	2.6 - 5.5V	1.1- VDD
50 W											
TS8021N	2T	Reflective	30MHz-4GHz	50W	0.2/0.5dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	5x5	2.6 - 5.5V	1.1- VDD
TS8022L	2T	Reflective	30MHz-6GHz	50W	0.2/0.6dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	4x4	2.6 - 5.5V	1.1- VDD
TS8541L	4T	Reflective	30MHz-3GHz	50W	0.26/0.52dB	45/24dB	Pin=40dBm -84 / -86dBc	2.3us	4x4	2.6 - 5.5V	1.1- VDD
100 W											
TS8023N	2T	Reflective	30MHz-3.5GHz	100W	0.2/0.4dB	42/27dB	Pin=47dBm -88 / -85 dBc	12us	5x5	2.6 - 5.5 V	1.1- VDD
TS8043N	4T	Reflective	30MHz-1.0GHz	100W	0.37/0.37dB	36/36 dB	Pin=45dBm -76 / -79 dBc	12us	5x5	2.6 - 5.5 V	1.1- VDD
200 W											
TS86246P	2T	Reflective	1MHz-1GHz	200W	0.08dB at 30MHz	49dB at 30MHz	Pin=50dBm -93 / -94 dBc	75us	7x7	2.6 - 5.5V	1.1- VDD
TS86236P	2T	Reflective	30MHz-1.4GHz	200W	0.11dB at 200MHz	38dB at 1GHz	Pin=50dBm -88 / -91 dBc	38us	7x7	2.6 - 5.5V	1.1- VDD
TS86436P	4T	Reflective	30MHz-1.3GHz	200W	0.13dB at 200MHz	36dB at 1GHz	Pin=50dBm -88 / -91 dBc	40us	7x7	2.6 - 5.5V	1.1- VDD

Bypass Symmetric Switches

Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/H3	Switching Time	Package	VDD VCP Supply	Logic
Application Note: High power switch solution for ultra-low switch spur noise (<-134 dbm) requirement											
10 W											
TS82420K	4T	Reflective	30MHz-5GHz	10W	0.30 / 1.0dB	40 / 18dB	Pin=40dBm -86 / -89 dBc	0.6us	3x3	2.6 - 5.5 V, -18 V	1.1 – VDD
20 W											
TS82250K	2T	Reflective	30MHz-5GHz	20W	0.2 / 0.5 dB	46 / 22 dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5 V, -18 V	1.1 – VDD
TS84230K	2T	Reflective	30MHz-6GHz	20W	0.2 / 0.5 dB	46 / 22 dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5 V, -18 V	1.1 – VDD
30 W											
TS84410L	4T	Reflective	30MHz-4GHz	30W	0.23 / 1.0 dB	37 / 20dB	Pin=40dBm -81 / -90 dBc	0.8us	4x4	2.6 - 5.5 V, -18 V	1.1 – VDD
50 W											
TS80210N	2T	Reflective	30MHz-4GHz	50W	0.2 / 0.5 dB	40 / 20 dB	Pin=45dBm -87 / -95 dBc	5.2us	5x5	2.6 - 5.5 V, -18 V	1.1 – VDD
TS80220L	2T	Reflective	30MHz-4GHz	50W	0.2 / 0.5 dB	40 / 20 dB	Pin=45dBm -87 / -95 dBc	5.2us	4x4	2.6 - 5.5 V, -18 V	1.1 – VDD
TS85410L	4T	Reflective	30MHz-3GHz	50W	0.2 / 0.5 dB	40 / 20 dB	Pin=40 dBm -84 / -86 dBc	2.3us	4x4	2.6 - 5.5 V, -18 V	1.1 – VDD
100 W											
TS80430N	4T	Reflective	30MHz-1GHz	100W	0.37 / 0.37 dB	36 / 36 dB	Pin=45dBm -76 / -79 dBc	12us	5x5	2.6-5.5 V, -18 V	1.1 – VDD

5G Cellular Infrastructure & Radar Applications



Independently Controlled and Fail-Safe Switches

Independently Controlled RF Symmetric Switches

Part Number	SPnT	Type	Frequency	P0.1dB (CW)/Peak Power	IL 1/max GHz	Isolation 1/max GHz	H2/3 (35dBm)	Switching Time	Package	VDD Supply	Logic
10 W											
TS72461K	4T	Reflective	0.4-3.8GHz	10 / 60 W	0.4/0.9dB	40/22dB	-77dBc	1.2us	3x3	2.6 - 5.5V	1.1 -VDD

Fail-Safe Receiver Protection Switches

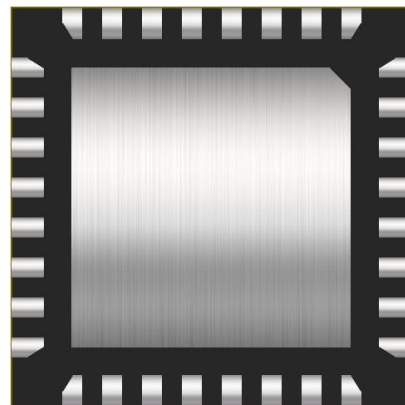
Part Number	SPnT	Type	Frequency	P0.1dB (CW)/Peak Power	IL TX (2.7GHz)	IL RX (2.7GHz)	Isolation RX (2.7GHz)	Switching Time	Package	VDD Supply	Logic
TS7226K	2T	Reflective	0.5-7.0 GHz	10/50 W	0.50 dB	0.50dB	35dB	0.50us	3x3	2.6 - 5.5V	1.1 -VDD
TS8329K	2T	Reflective	0.7-8.5 GHz	20/100 W	0.35 dB	0.45dB	38dB	0.35us	3x3	2.6 - 5.5V	1.1 -VDD
TS8028N	2T	Reflective	0.7-5.0 GHz	100/500 W	0.37 dB at 2.6GHz	0.48dB at 2.6GHz	38dB at 2.6GHz	1.6us	5x5	2.6 - 5.5V	1.1 -VDD
TS8029N	2T	Reflective	0.7-5.0 GHz	100/630 W	0.41 dB at 2.4GHz	0.62dB at 2.4GHz	40dB at 2.4GHz	1.2us	5x5	2.6 - 5.5V	1.1 -VDD
TS8728N	2T	Reflective	0.5-4.0 GHz	250/ >400 W	0.39dB at 3.55GHz	0.77dB at 3.55GHz	33dB at 3.55GHz	0.7us	5x5	2.6 - 5.5V	1.1 -VDD
TS8729N	2T	Reflective	0.5-2.0 GHz	300/ >550 W	0.2 dB at 1.3GHz	0.6 dB at 1.3GHz	47dB at 1.3GHz	1.6us	5x5	2.6 - 5.5V	1.1 -VDD

Filter/Ant Tuning Switch: High Peak Voltage, Low Ron

Antenna Tuning Switches

Part Number	SPnT	Reflective Off Ports	Ron (Ω)	Peak RF Voltage (V)
TS64210L	2T	Open	1.1	120
TS63421K*	4T	Open	1.0	100
TS63410K	4T	Open	1.1	100

*Internal Charge Pump Disabled



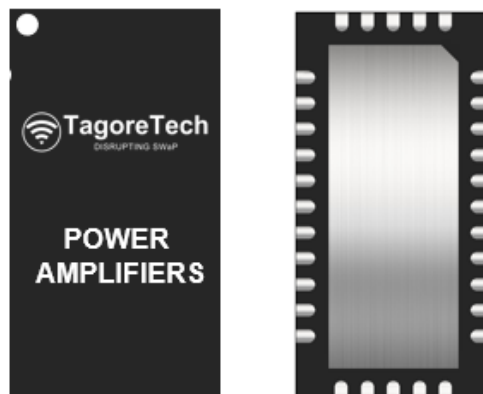
GaN Power Transistors / Power Amplifiers

Power Amplifiers

Part Number	Frequency	Linear Gain at 0.9 GHz	P _{SAT} @ 0.9GHz	PAE @ 0.9 GHz	Voltage	Test Signal	Package	Samples
TA9110K	0.03 – 4.0 GHz	17.0 dB	6 W	55 %	32 V	CW	3x3 QFN	Available
TA9210D	0.03 – 4.0 GHz	18.0 dB	12.5 W	55 %	32 V	CW	3x6 QFN	
TA9310E	0.03 – 4.0 GHz	17.5 dB	20 W	55 %	32 V	CW	6x5 DFN	
TA9410E	0.03 – 4.0 GHz	20.0 dB	25 W	>55 %	50 V	CW	6x5 DFN	

Contact: rfgan@tagoretech.com for samples.

- Many application circuits developed for common LMR/PMR/MILCOM bands & power.
- Application EVBs available for verification of performance.
- Application support for customer radio board.
- Design support for custom band and power.
- BOM for bias circuit.



Low Noise Amplifiers & Front-End ICs

Low Noise Amplifiers and Gain Block

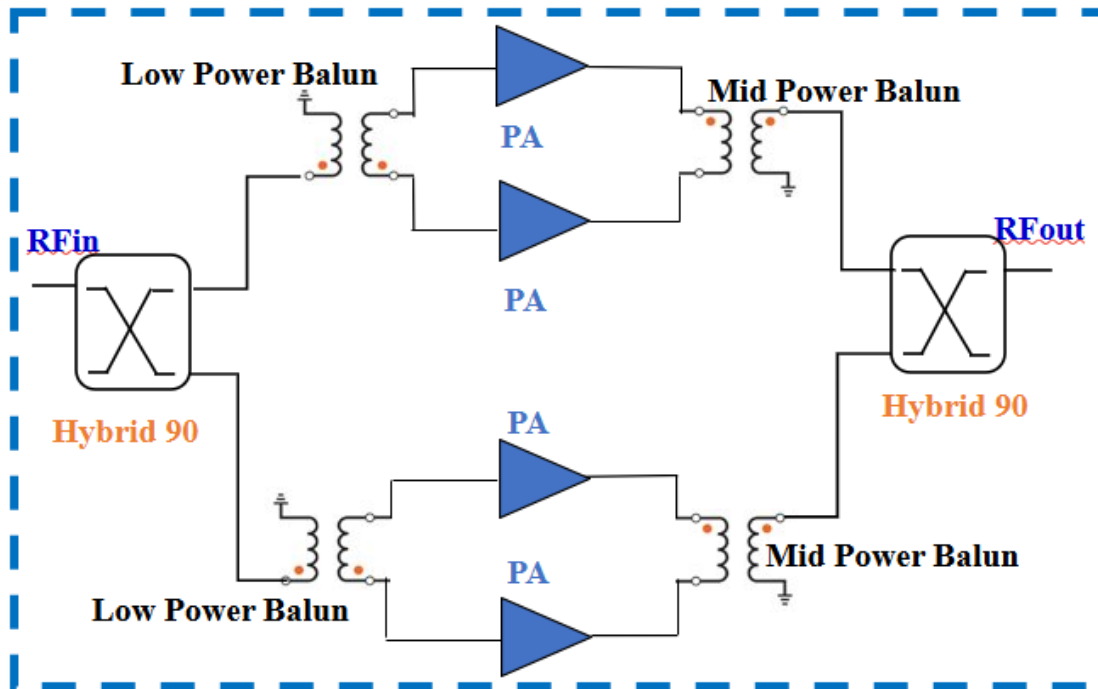
Part Number	Frequency	Test Freq	Gain (dB)	LNA NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package	Samples
TL0374J	0.03 – 3.0 GHz	2.6 GHz	19.0	0.37	19.5	36.5	5.0 V	2x2 QFN	Available
TL0375J	2.0 – 5.0 GHz	3.6 GHz	17.5	0.40	19.5	33.0	5.0 V	2x2 DFN	Available
TP0310K	0.03 – 3.8 GHz	2.5 GHz	14.0	1.10	27.0	37.0	5.0 V	3x3 DFN	Available
TL0301H	5.125-5.925 GHz	5.5 GHz	17.5	0.90	12.0	17.0	3.3 V	1.5X1.5 DFN	Available
TL0302H	5.925-7.125 GHz	6.6 GHz	13.5	1.4	12.0	16.0	3.3 V	1.5X1.5 DFN	Available
TR0329M	2.0 - 4.2 GHz	3.6 GHz	Low gain mode:15.0	0.50	10.5	22.0	5.0 V	3.5 X 3.5 QFN	Available
			High gain mode:32.0	0.50	20.0	35.0			

Massive MIMO Front-End ICs

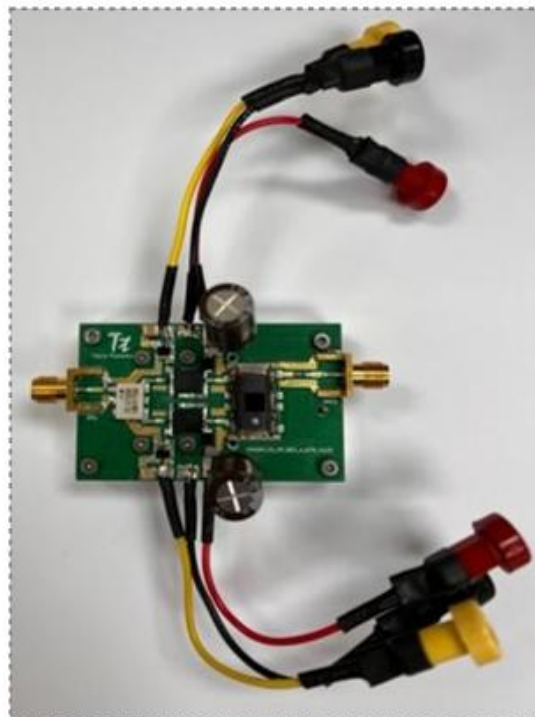
Part Number	Frequency	Test Frequency	Power Handling	Gain Rx Mode (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package	Samples
TSL8329M	3.3 – 4.2 GHz	3.6 GHz	43 dBm LTE avg, 8 dB PAR	Low gain mode:13.0	0.9	10.5	18.0	5.0 V	6x6 QFN	Available
				High gain mode:32.0	1.0	20.0	35.0			
TSL8029N	2.0 – 5.0 GHz	3.6 GHz	100W avg , 630W peak	Low gain mode:14.5	1.3	12.0	20.0	5.0 V	5x5 QFN	Available
				High gain mode:33.0	1.4	22.0	31.0			



A High-Power Push Pull PA Module



Two Push-Pull PA combined using Hybrid 90



15W Push-Pull PA Module

Contact Information



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DISRUPTING SWaP