

TAGGORE

TagoreTech Inc

Sampling now X-Band

Peak Performance in Every Wave

2026 Product Catalog



Unique RF switch technology to replace PIN diodes

Replacing Apollo era technology with modern GaN RF technology for RF switches

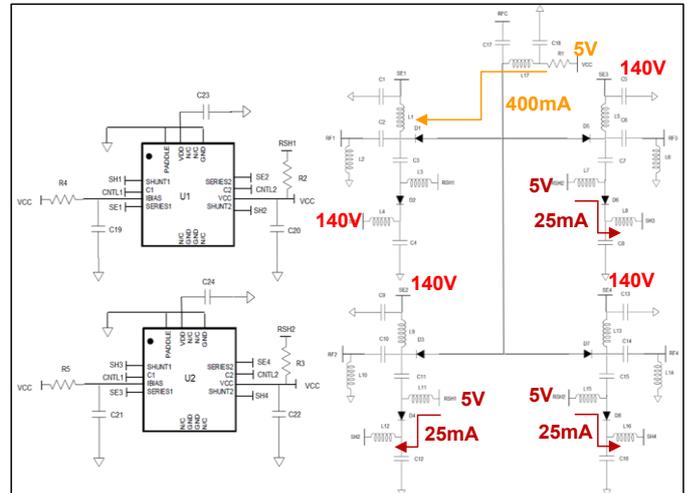
RF switching in Apollo era during 1960s was based on the PIN diode solution, technology which is still in use today. PIN diodes require complex biasing network consisting multiple passive components as well high voltage generation upto 200V and high voltage controller. TagoreTech RF GaN switches offer modern integrated RF solution with minimal number of components and 1000x smaller power consumption. Time to change your RF design to year 2025 with RF GaN.

PIN diode solution:

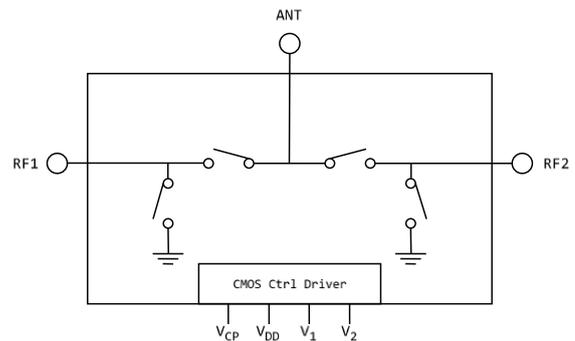
- 55 components
- 300mm² board space
- 2500 mW power consumption
- Complex design
- Performance variation in production

Tagore RF GaN Switch

- 2...4 components
- Less than 30mm² board space
- Less than 1mW power consumption
- Simple RF design, no need to spend time for switch design
- No high voltage present on board, less EMI/EMC issues
- Stable production, no yield loss



Example of SP4T PIN diode schematics and voltages & currents present. Totally more than 50 components needed to realize RF switch.

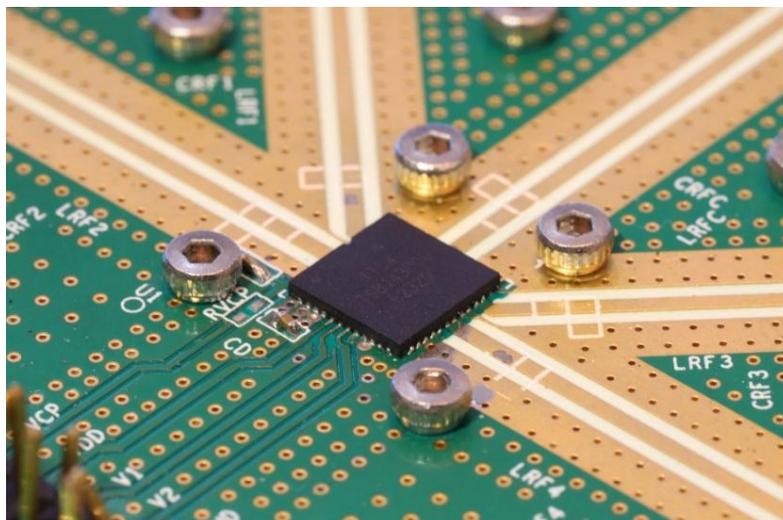
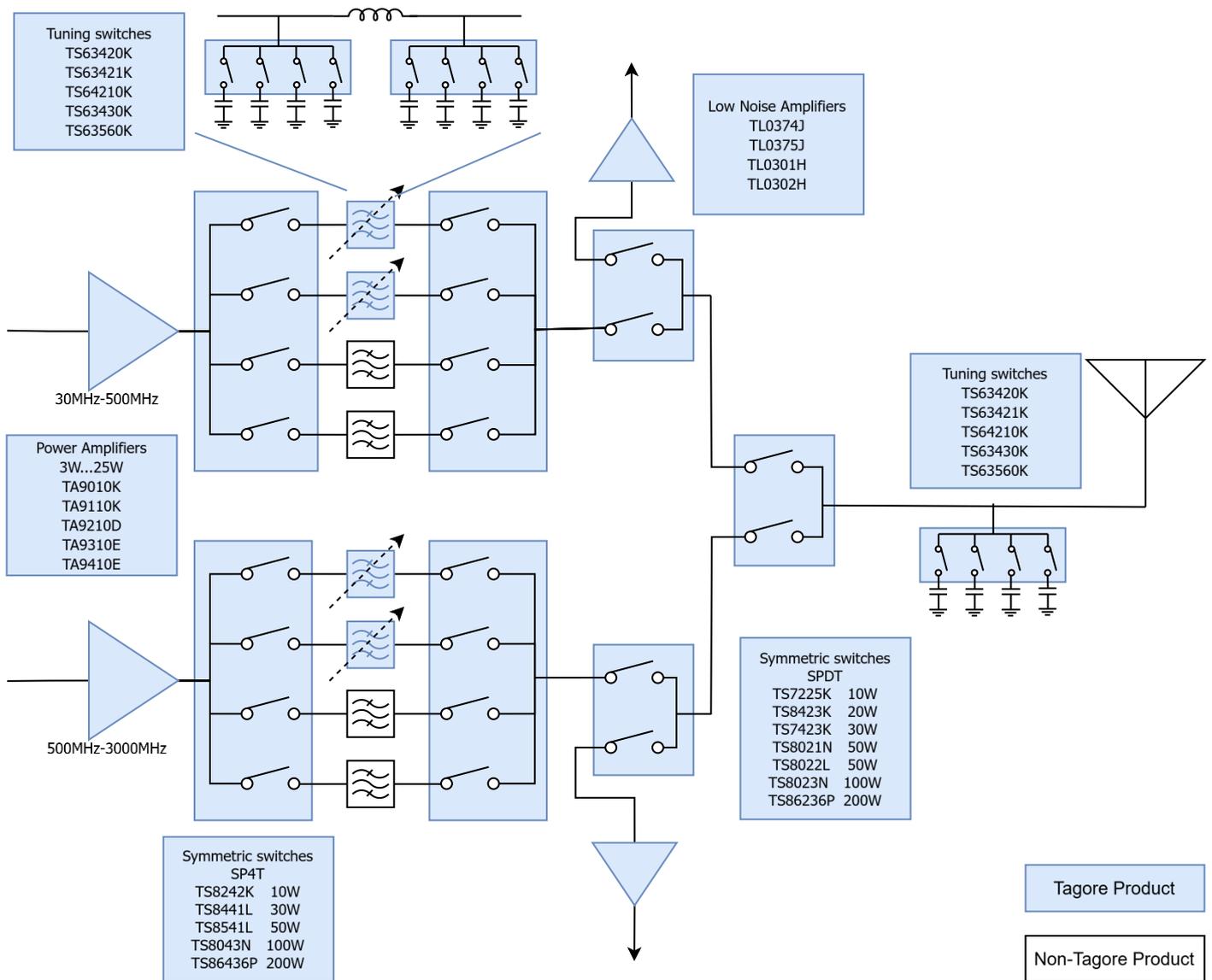


TagoreTech RF GaN function diagram, RF switch requires only a few passives, 5V Vdd and simplifies your RF design

Time to Switch to RF GaN

TagoreTech RF GaN enables modern RF switching from 1MHz to 14GHz, supporting power levels from 10W to 200W P_{avg} . Do not struggle complex design with PIN diodes, use TagoreTech RF switches to simplify your design.

LMR/PMR, Tactical & MIL-COM Radio Applications



Tagore TS86236P SPDT 200W CW switch mounted on PCB

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
10 W										
TS8223K NEW	2T	Reflective	500MHz-8.5GHz	10W	0.35/0.6dB	47/22dB	Pin=40dBm tbd	0.25us	3x3	2.6 - 5.5V
TS7225FK	2T	Reflective	30MHz-6GHz	10W	0.35/0.9dB	40/15dB	Pin=40dBm -81 dBc	0.7us	3x3	2.6 - 5.5V
TS8242FK	4T	Reflective	30MHz-5GHz	10W	0.30/0.8dB	40/18dB	Pin=40dBm -86 / -89 dBc	0.6us	3x3	2.6 - 5.5V
20 W										
TS8423K	2T	Reflective	1MHz-7.2GHz	20W	0.2/0.5dB	46/22dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5V
30 W										
TS7423L	2T	Reflective	1MHz-6.0GHz	30W	0.2/0.6dB	42/18dB	Pin=40dBm -81 / -86 dBc	0.9us	4x4	2.6 - 5.5V
TS8441L	4T	Reflective	30MHz-4.5GHz	30W	0.23/1.0dB	37/20dB	Pin=42dBm -81 / -90 dBc	0.8us	4x4	2.6 - 5.5V
50 W										
TS8021N	2T	Reflective	1MHz-5GHz	50W	0.25/0.5dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	5x5	2.6 - 5.5V
TS8022L	2T	Reflective	1MHz-6GHz	50W	0.2/0.6dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	4x4	2.6 - 5.5V
TS8541L	4T	Reflective	30MHz-4.3GHz	50W	0.26/0.5dB	45/24dB	Pin=40dBm -84 / -86dBc	2.3us	4x4	2.6 - 5.5V
100 W										
TS8023N	2T	Reflective	30MHz-3.5GHz	100W	0.2/0.4dB	42/27dB	Pin=47dBm -88 / -85 dBc	12us	5x5	2.6 - 5.5V
TS8043N	4T	Reflective	30MHz-2.5GHz	100W	0.4/0.45dB	36/36 dB	Pin=45dBm -76 / -79 dBc	12us	5x5	2.6 - 5.5V
200 W										
TS86246P	2T	Reflective	1MHz-1GHz	200W	0.08dB @30MHz	49dB @30M	Pin=50dBm -93 / -94 dBc	72us	7x7	2.6 - 5.5V
TS86236P	2T	Reflective	30MHz-1.7GHz	200W	0.11dB @200MHz	38dB @1GHz	Pin=50dBm -88 / -91 dBc	26us	7x7	2.6 - 5.5V
TS86436P	4T	Reflective	30MHz-1.3GHz	200W	0.13dB @200MHz	36dB @1GHz	Pin=50dBm -88 / -91 dBc	12us	7x7	2.6 - 5.5V

X-band High Power Switch Portfolio

Samples available

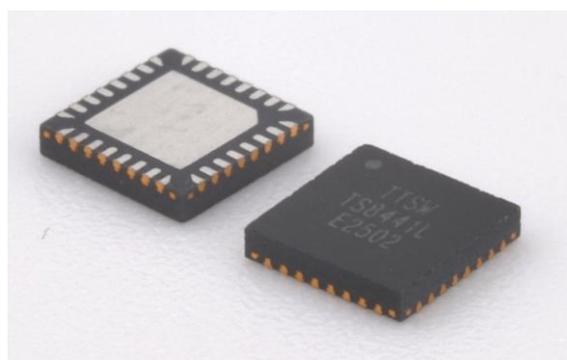
Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/H3	Switching Time	Package	VDD Supply
TSX221K NEW	2T	Reflective	500MHz-14.0GHz	10W	0.2/1.2dB	40/20dB	Pin=40dBm TBD dBc	50ns	3x3	2.6 - 5.5V

Bypass Symmetric Switches

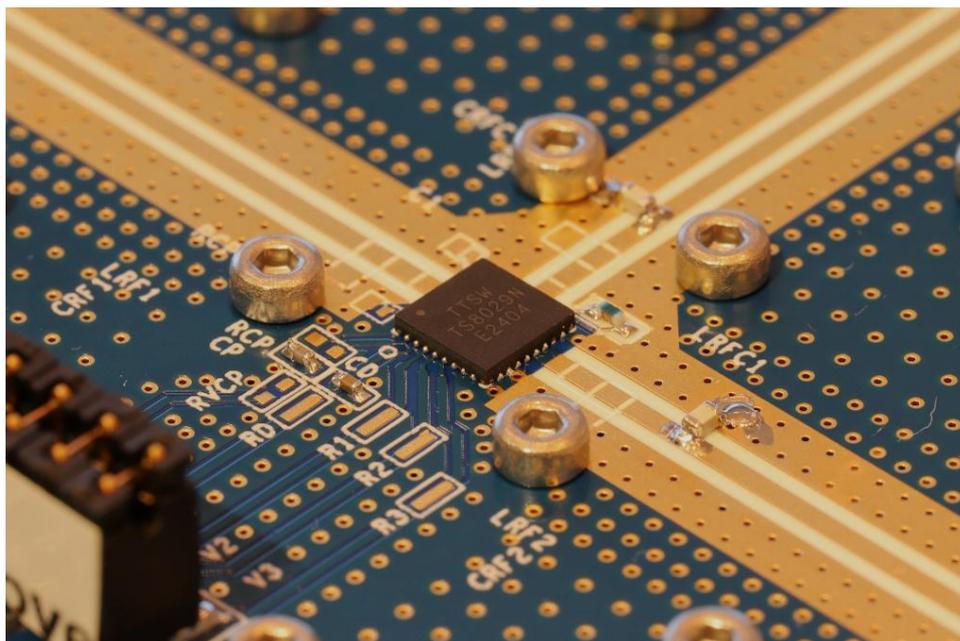
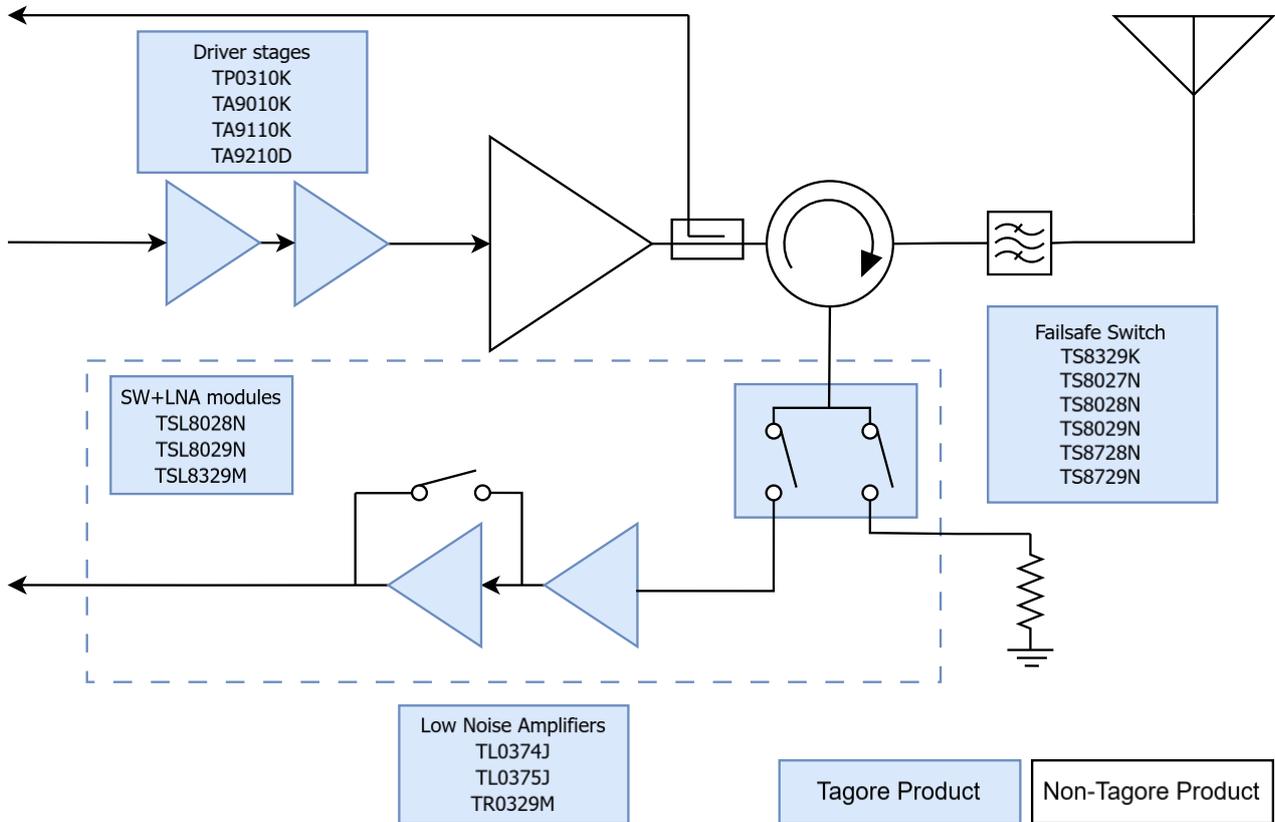
Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/H3	Switching Time	Package	VDD VCP Supply
Application Note: High power switch solution for ultra-low switch spur noise										
10 W										
TS82420K	4T	Reflective	30MHz-5GHz	10W	0.25/0.8dB	40/18dB	Pin=40dBm -86 / -89 dBc	0.6us	3x3	2.6 - 5.5V, -18 V
20 W										
TS82250K	2T	Reflective	30MHz-5GHz	20W	0.2/0.5dB	46/22dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5V, -18 V
TS84230K	2T	Reflective	1MHz- 7.2GHz	20W	0.2/0.5dB	46/22dB	Pin=40dBm -92 / -95 dBc	0.9us	3x3	2.6 - 5.5V, -18 V
30 W										
TS84410L	4T	Reflective	30MHz- 4.5GHz	30W	0.23/1.0dB	37/20dB	Pin=40dBm -81 / -90 dBc	0.8us	4x4	2.6 - 5.5V, -18 V
50 W										
TS80210N	2T	Reflective	1MHz-5GHz	50W	0.25/0.5dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	5x5	2.6 - 5.5V, -18 V
TS80220L	2T	Reflective	1MHz-6GHz	50W	0.2/0.5dB	40/20dB	Pin=45dBm -87 / -95 dBc	5.2us	4x4	2.6 - 5.5V, -18 V
TS85410L	4T	Reflective	30MHz- 4.3GHz	50W	0.2/0.5dB	40/20dB	Pin=40 dBm -84 / -86 dBc	2.3us	4x4	2.6 - 5.5V, -18 V
100 W										
TS80430N	4T	Reflective	30MHz- 2.5GHz	100W	0.37/0.5dB	36/36dB	Pin=45dBm -76 / -79 dBc	12us	5x5	2.6-5.5V, -18 V

In bypass switches, internal charge pump has been turned off to ensure minimal possible noise floor for HF and VHF bands. User needs to provide external -18V voltage to device, current consumption less than 100µA.

200W switches, TS86246P, TS86236P, and TS86436P have a quiet charge pump, noise level better than -140dBm/kHz.



5G Cellular Infrastructure & Radar Applications



TS8029N Receiver protection switch in 5.0 x 5.0 mm² QFN

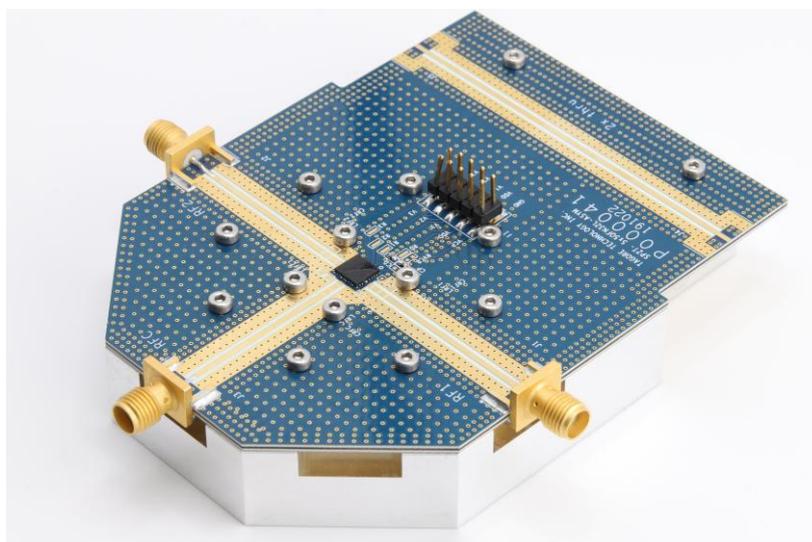
Independently Controlled and Fail-Safe Switches

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
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

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
TS8329K	2T	Reflective	0.7-8.5 GHz	20/100 Wp	0.35dB	0.45dB	38dB	0.35us	3x3	2.6 - 5.5V
TS8028N	2T	Reflective	0.7-5.0 GHz	100/500Wp	0.37dB at 3.6GHz	0.5dB at 3.6GHz	38dB at 2.6GHz	1.6us	5x5	2.6 - 5.5V
TS8029N	2T	Reflective	0.7-5.0 GHz	100/630Wp	0.41dB at 2.4GHz	0.6dB at 2.4GHz	40dB at 2.4GHz	1.2us	5x5	2.6 - 5.5V
TS8728N	2T	Reflective	0.5-4.0 GHz	250/>400Wp	0.39dB at 3.55GHz	0.8dB at 3.55GHz	33dB at 3.55GHz	0.7us	5x5	2.6 - 5.5V
TS8729N	2T	Reflective	0.5-2.0 GHz	300/>550Wp	0.2dB at 1.3GHz	0.6dB at 1.3GHz	47dB at 1.3GHz	1.6us	5x5	2.6 - 5.5V



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

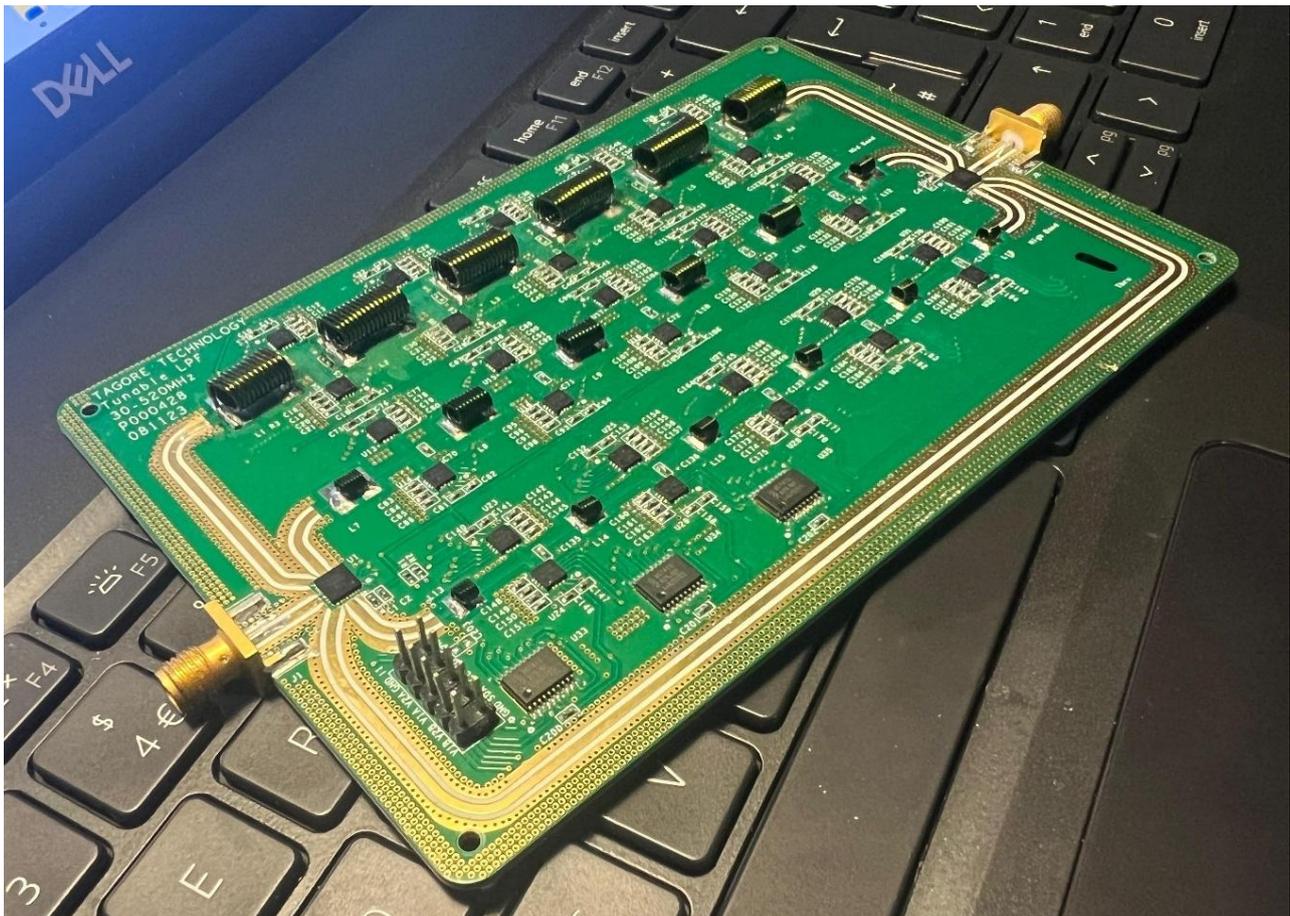
Antenna Tuning Switches



Part Number	SPnT	Reflective Off Ports	Ron (Ω)	Peak RF Voltage (V)
TS64210L	2T	Open	1.1	120
TS63421K*	4T	Open	1.1	100
TS63410K	4T	Open	1.1	100
TS63430D NEW	4T	Open	0.5	100
TS63560D NEW	4T/5T	Open	0.25 / 0.5 / ... Binary weighted	100

*Internal Charge Pump Disabled

Samples available



Tunable Low Pass Filter with 30-520MHz passband realized with SP4T tuning switches

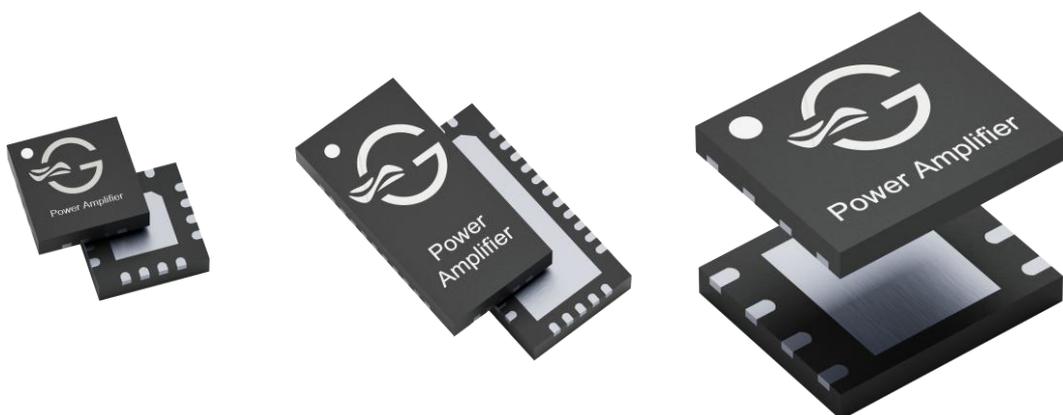
GaN Power Transistors / Power Amplifiers

Power Amplifiers

Part Number	Frequency	Linear Gain at 0.9 GHz	P _{SAT} @ 0.9GHz	PAE @ 0.9 GHz	Voltage	Test Signal	Package
<u>TA9010K</u> NEW	0.03 – 4.0 GHz	17.0 dB	3 W	55 %	32 V	CW	3x3 QFN
<u>TA9110K</u>	0.03 – 4.0 GHz	17.0 dB	6 W	55 %	32 V	CW	3x3 QFN
<u>TA9210D</u>	0.03 – 4.0 GHz	18.0 dB	12.5 W	55 %	32 V	CW	3x6 QFN
<u>TA9310E</u>	0.03 – 4.0 GHz	17.5 dB	20 W	55 %	32 V	CW	6x5 DFN
<u>TA9410E</u>	0.03 – 4.0 GHz	20.0 dB	25 W	>55 %	50 V	CW	6x5 DFN

- New low power driver stage TA9010K, to simplify DC rails, making extra 12V power rail obsolete in RF
- Many application boards developed for LMR/PMR/MILCOM bands & power levels.
- Application EVBs available for verification of performance.
- Application support for customer radio board.
- Design support for custom band and power.
- BOMs for bias circuit available.

- Tunable Power Amplifier EVB available for tactical radios
- Unheard efficiency for 30MHz to 2.5 GHz range
- More information contact TagoreTech



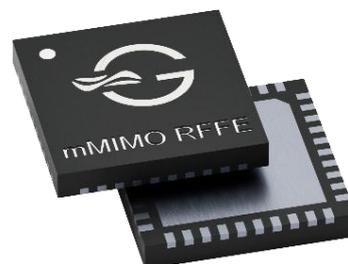
Low Noise Amplifiers & Front-End ICs

Low Noise Amplifiers and Gain Blocks

Part Number	Frequency	Test Freq	Gain (dB)	LNA NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package
TL0374J	0.03 – 3.0 GHz	2.6 GHz	19.0	0.37	19.5	36.5	5.0 V	2x2 DFN
TL0375J	2.0 – 5.0 GHz	3.6 GHz	17.5	0.40	19.5	33.0	5.0 V	2x2 DFN
TP0310K	0.03 – 3.8 GHz	2.5 GHz	14.0	1.10	27.0	37.0	5.0 V	3x3 DFN
TL0301H	5.1-6.0 GHz	5.5 GHz	17.5	0.90	12.0	17.0	3.3 V	1.5X1.5 DFN
TL0302H	5.9-7.2 GHz	6.6 GHz	13.5	1.4	12.0	16.0	3.3 V	1.5X1.5 DFN
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
			High gain mode:32.0	0.50	20.0	35.0		

Switch LNA modules / Massive MIMO Front-End ICs

Part Number	Frequency	Test Frequency	Power Handling	Gain Rx Mode (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package
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
				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
				High gain mode:33.0	1.4	22.0	31.0		
TSL8028N NEW	2.0 – 5.0 GHz	3.6 GHz	100W avg, 630W peak	Low gain mode:14.5	1.1	13.0	24.0	5.0 V	5x5 QFN
				High gain mode:33.0	1.2	21.0	33.0		



EVKs available for all our products



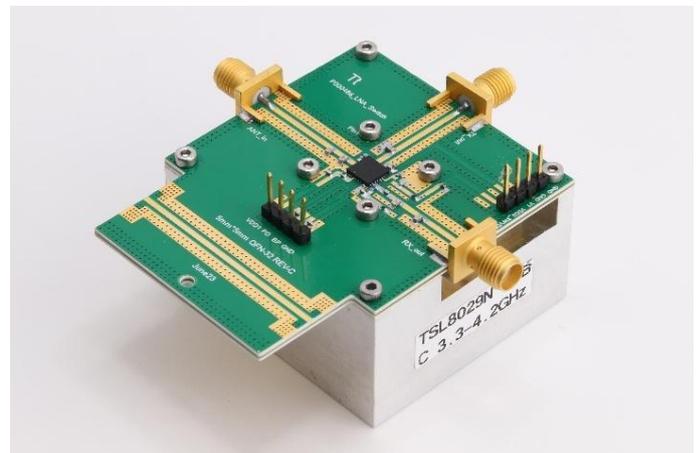
TagoreTech TA9210D Power Amplifier Evaluation board



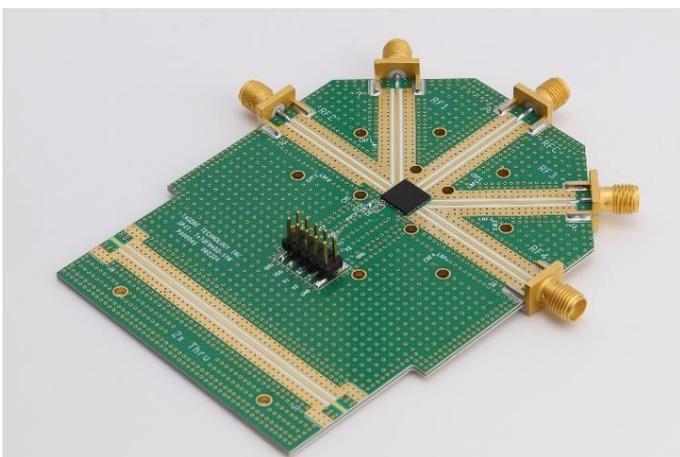
TagoreTech Fail safe switch evaluation board without heat sink



TagoreTech Front end module TSL8329M for TDD mMIMO applications, SW+LNA



TagoreTech Front end module TSL8029N for TDD basestation applications, SW+LNA



TS86436P 200W SP4T switch EVB



TL0374J LNA EVB 30MHz-3GHz

Here are a few examples of TagoreTech EVBs.
Please contact us or our representatives for more information.

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