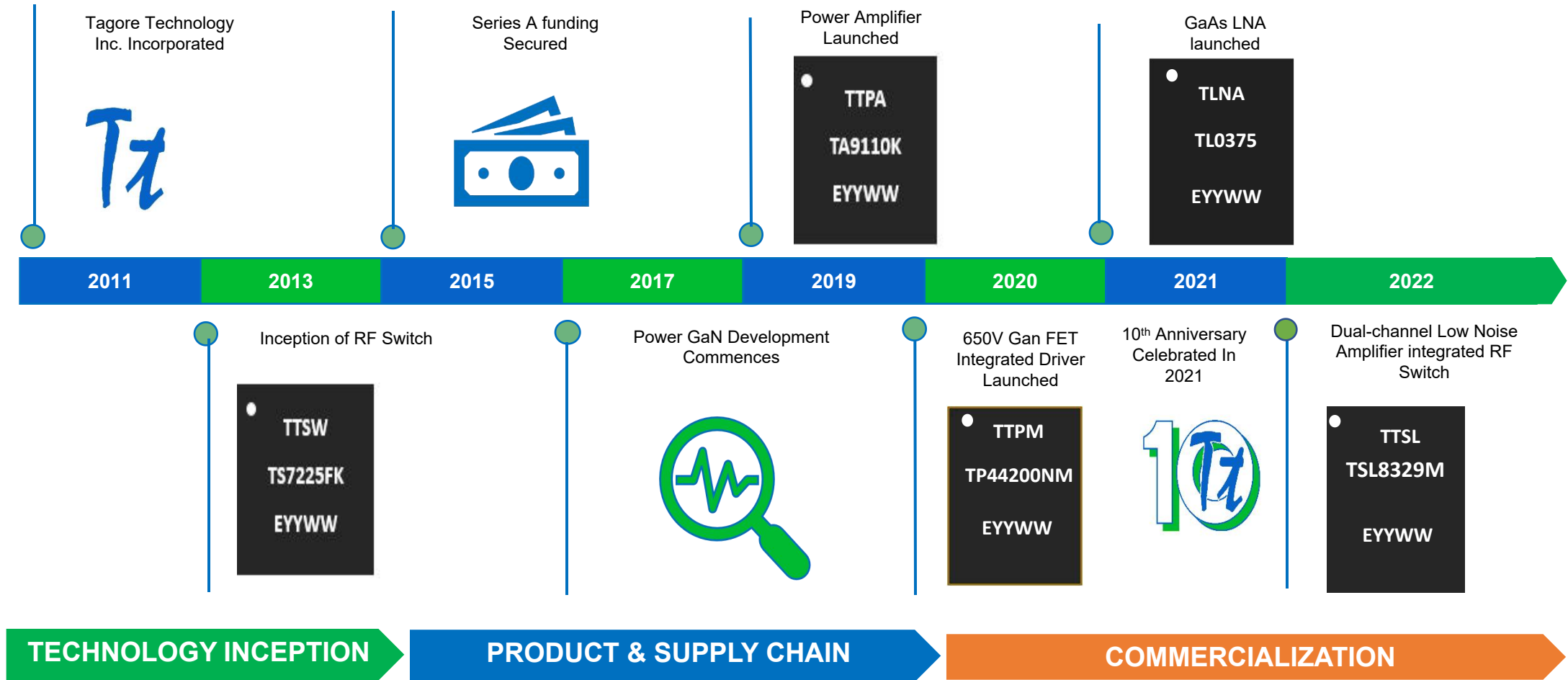


TAGORE TECHNOLOGY

TRUSTED GAN™



Tagore's Heritage



- Founded in 2011 by experienced RF & power management engineers
- Locations
 - Chicago – focused on RF IC's
 - India – focused on high-voltage power management IC's



Arlington Heights, IL, USA

- GaN-on-Si intellectual property (IP) and know-how.
- GaAs & BCD CMOS design experience.
- Fabless business model – unique high-volume supply chain relationships



Kolkata, India



❑ Our Technology Significantly Reduces :

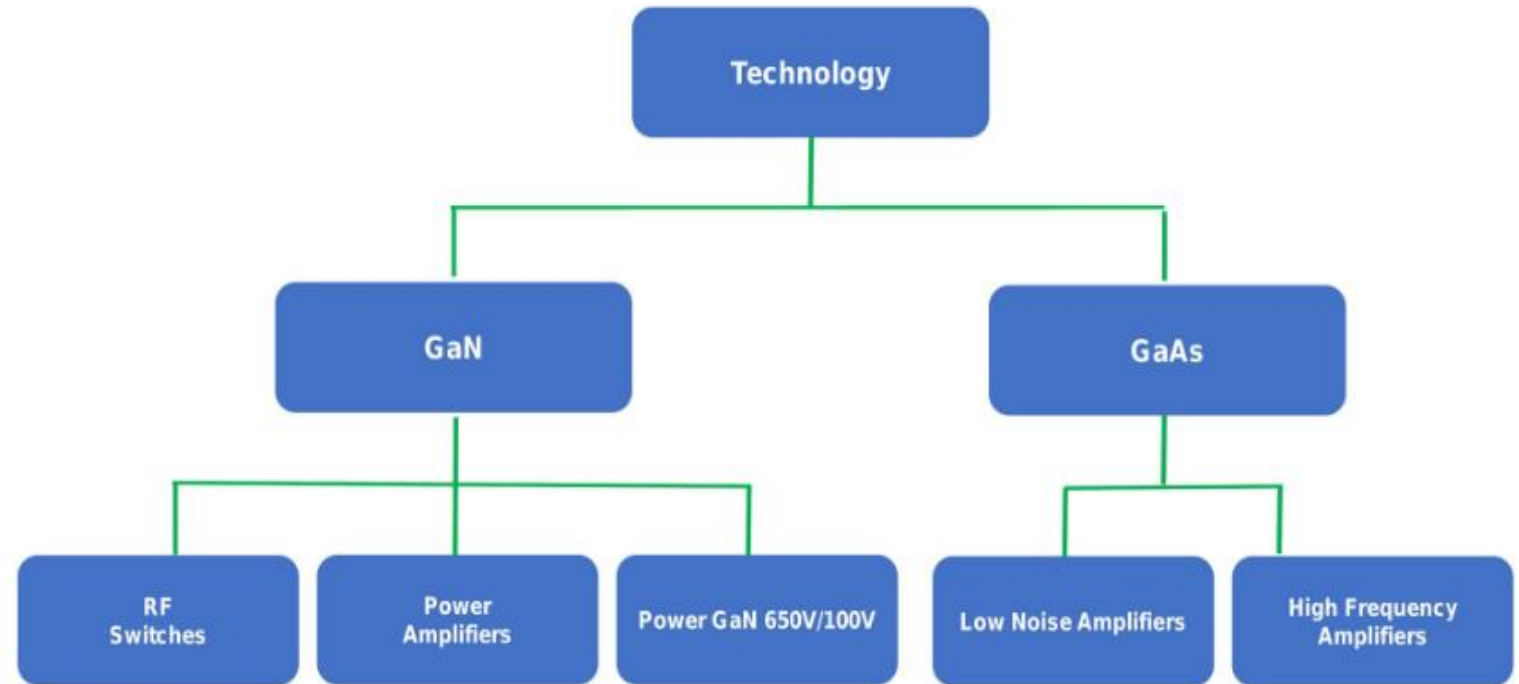
- Size
- Complexity
- Power consumption

❑ In a wide variety of applications :

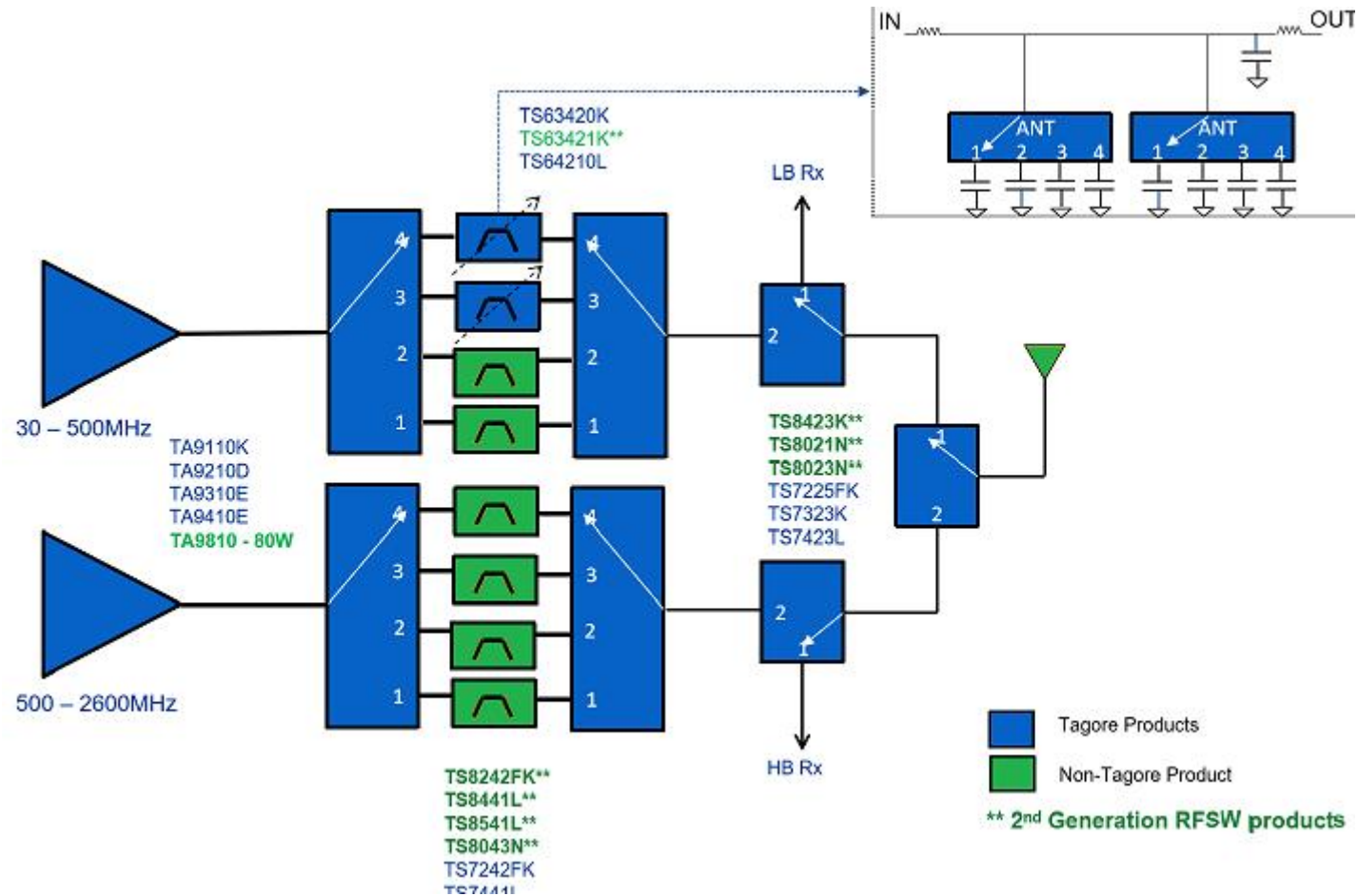
- Defense and Public Safety
- 5G infrastructure.
- Automotive
- Electronics

❑ 2nd Generation Switches provide :

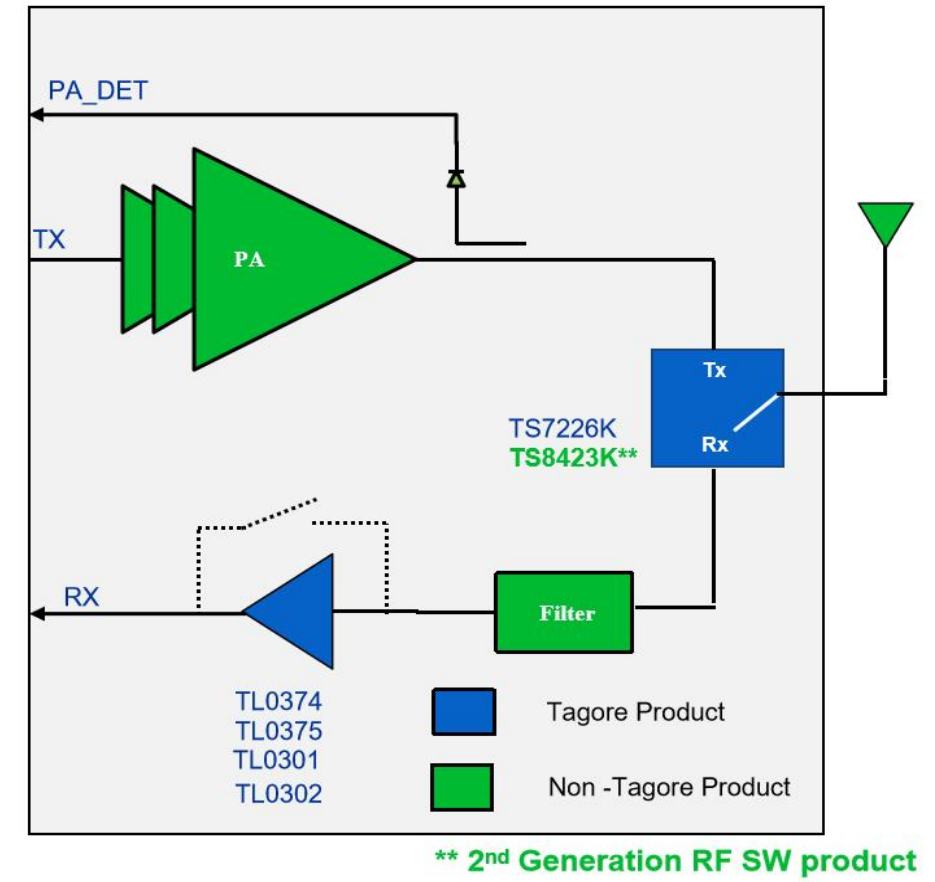
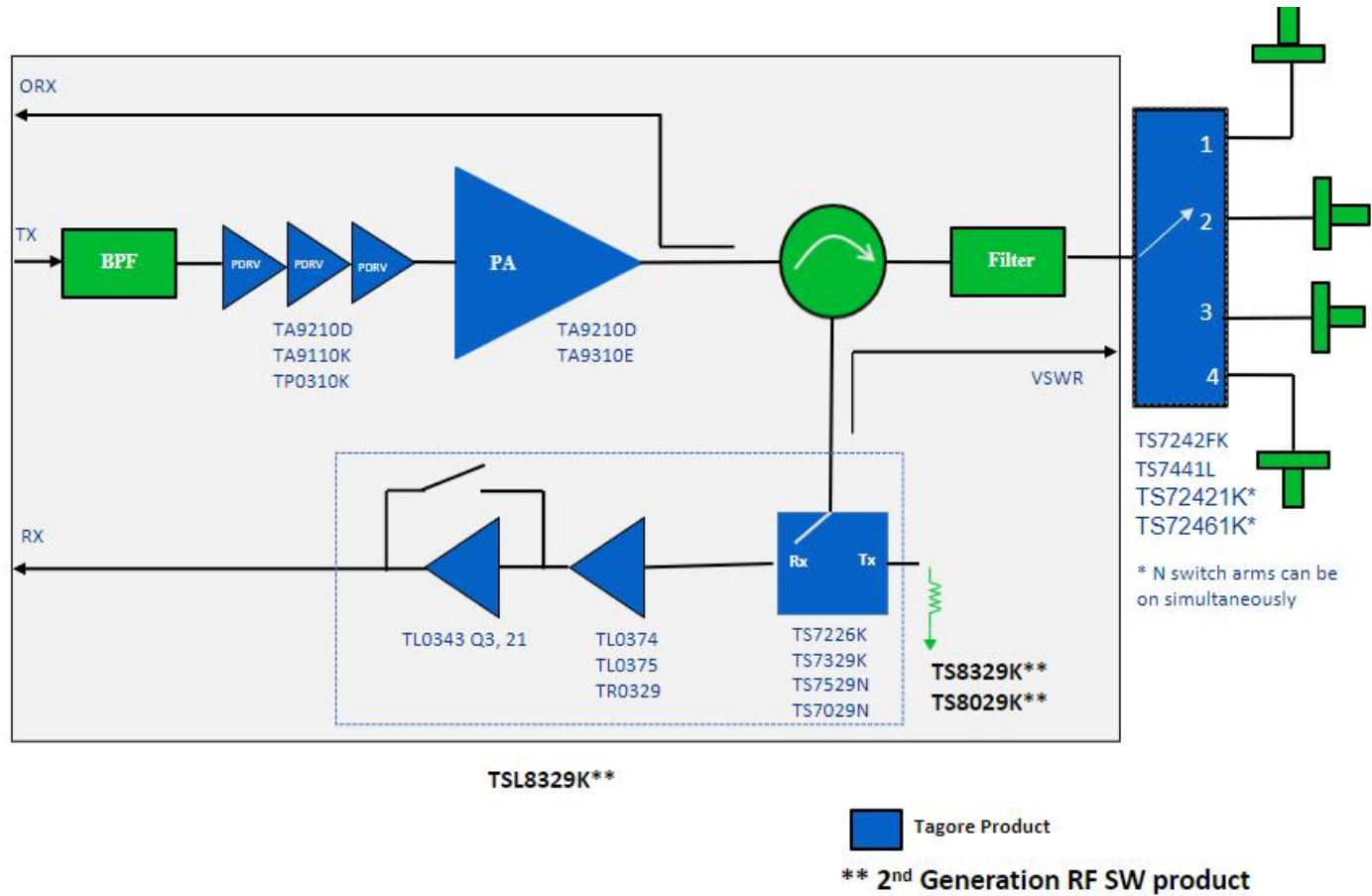
- Lower insertion loss
- Higher RF power handling
- Other improvements



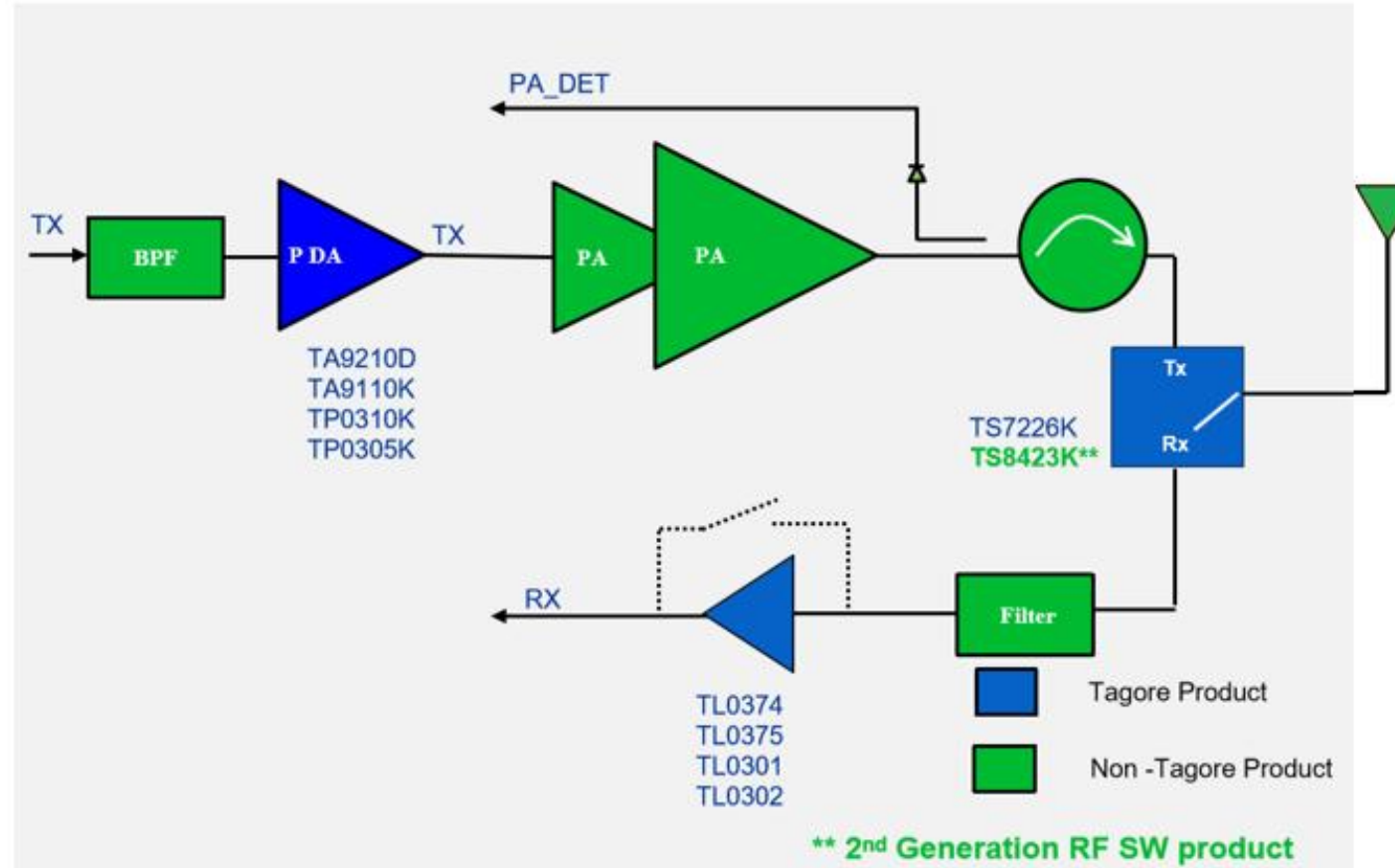
LMR/PMR, Tactical & MIL Comm Radio Applications



Cellular Infrastructure & 5G Applications



Phased Array RADAR & EW Systems Applications

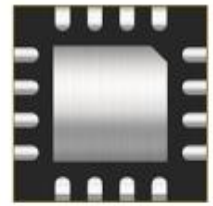


- **Switches Power:** up to 100 W CW
- **Driver Amplifiers:** 6 to 25 W O/P
- **LNA Gain:** up to 37 dB

RF Switch

SPDT 3T, 4T

- Antenna Tuning Switches
- High Power symmetric RF Switches
- Independently Controlled RF Symmetric Switch -16 possible Sates
- Bypass Symmetric charge pump disables for very low noise application

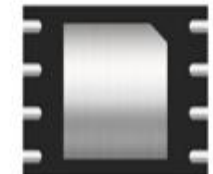


(16 Pin 3×3×0.8mm QFN Package)

Power Amplifier

6W, 12.5W, 20W, 25W

- Low Power amplifiers up to 12.5W CW
- High Power amplifiers up to 25W CW



(8 Pin 6×5×0.8mm QFN Package)

LNA

Gain Block

- Wideband Low Noise Amplifiers
- Dual channel 2.0 – 4.2 GHz 20Watt Receiver Front End
- High-linearity, ultra-low noise 2-stage gain block amplifier Receiver Front End



(8 Pin 2×2×0.75mm QFN Package)

RF Switch Portfolio - Symmetric Switches



Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/3 (35dBm)	Switching Time	Package	VDD Supply	Recommended for new system designs Y/N?	More Details
10 W												
TS7225FK	2T	Reflective	0.03-6GHz	10W	0.35/0.9dB	40/15dB	81dBc	0.7us	3x3	2.6 - 5.5V		Data Sheets
TS7224FK	2T	Reflective	0.03-6GHz	50W _{pk}	0.35/0.9dB	40/15dB	81dBc	0.7us	3x3	2.6 - 5.5V		Data sheets
TS7226K	2T	Reflective	0.5-7.5GHz	10W	0.4/1.0dB	48/19dB	78/73dBc	0.50us	3x3	2.6 - 5.5V		Data Sheets
TS7232FK	3T	Reflective	0.03-3GHz	10W	0.4/0.6dB	35/25dB	78dBc	0.70us	3x3	2.6 - 5.5V		Data Sheets
TS7242FK	4T	Reflective	0.03-3GHz	10W	0.4/0.8dB	35/23dB	77dBc	0.65us	3x3	2.6 - 5.5V	No - see TS8242FK	Data Sheets
TS7246K	4T	Reflective	0.001-3GHz	10W	0.4/0.8dB	36/23dB	82dBc	1.2us	3x3	2.6 - 5.5V	No - See TS8242FK	Data Sheets
TS8242FK (New)	4T	Reflective	0.03-5GHz	10W	0.30/1.0dB	40/18dB	Pin=40dBm -86/-89 dBc	0.6us	3x3	2.6 - 5.5V		Data Sheets
20 W												
TS7321FK	2T	Reflective	0.03-6GHz	20W	0.35/0.9dB	40/15dB	81dBc	0.8us	3x3	2.6 - 5.5V		Data Sheets
TS7323K	2T	Reflective	0.001-4GHz	20W	0.30/0.5dB	42/24dB	86dBc	1.5us	3x3	2.6 - 5.5V	No - see TS8423K	Data Sheets
TS8423K (New)	2T	Reflective	0.03-5GHz	20W	0.2/0.5dB	46/22dB	Pin=40dBm -92/-95 dBc	0.9us	3x3	2.6 - 5.5V		Data Sheets
30 W												
TS7421L	2T	Reflective	0.5-5GHz	30W	0.40/0.8dB	42/22dB	85dBc	0.8us	4x4	2.6 - 5.5V	No - contact factory	Data Sheets
TS7423L	2T	Reflective	0.001-3GHz	30W	0.4/0.6dB	40/30dB	85dBc	2.0us	4x4	2.6 - 5.5V	No - contact factory	Data Sheets
TS7441L	4T	Reflective	0.001-2.7GHz	30W	0.45/0.9dB	32/23dB	80dBc	2.0us	4x4	2.6 - 5.5V	No - see TS8441L	Data Sheets
TS8441L (New)	4T	Reflective	0.03-4GHz	30W	0.23/1.0dB	37/20dB	Pin=42dBm -81/-90 dBc	0.8us	4x4	2.6 - 5.5V		Data Sheets

Data Sheets are accessible: <https://tagoretech.com/page.php?page-id=10>

High Power Switch Portfolio - Symmetric Switches



Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 500M/max GHz	Isolation 0.5/max GHz	H2/3 (43dBm)	Switching Time	Package	VDD Supply	Recommended for new system designs Y/N?	More Details
50 W												
TS7521N	2T	Reflective	0.5-3.8GHz	50W	0.35/0.70dB	45/25dB	67dBc	0.8us	5x5	2.6 - 5.5V	No - see TS8021N	Data Sheets
TS7523N	2T	Reflective	30M- 4GHz	50W	0.30/0.60dB	52/20dB	-71/67dBc	5.2us	5x5	2.6 - 5.5V	No - see TS8023N	Data Sheets
TS7541L	4T	Reflective	30M-1.2GHz	50W	0.35/0.50dB	40/32dB	72dBc	2.0us	4x4	2.6 - 5.5V	No - see TS8541L	Data Sheets
TS8021N (New)	2T	Reflective	0.03-4GHz	50W	0.2/0.5dB	40/20dB	Pin=45dBm -87/-95 dBc	5.2us	5x5	2.6 - 5.5V		Data Sheets
100 W												
TS7021N	2T	Reflective	0.5-2.7GHz	100W	0.45/0.70dB	50/33dB	74dBc	1.5us	5x5	2.6 - 5.5V	No - see TS8021N	Data Sheets
TS8023N (New)	2T	Reflective	0.03-3.5GHz	100W	0.22/0.87dB	42/27dB	88dBc(Pin 47dBm)	12us	5x5	2.6 – 5.9V		Data Sheets
TS8043N (New)	4T	Reflective	0.03-1.0GHz	100W	0.24/0.37dB	44/20dB	76dBc (Pin 47dBm)	12us	5x5	2.6 – 5.9V		Data Sheets

Data Sheets are accessible: <https://tagoretech.com/page.php?page-id=10>

Bypass & Independently Controlled RF Symmetric Switches



Bypass RF Switches : Charge Pump Disabled for Very Low-noise Applications

Part Number	SPnT	Type	Frequency	P0.1dB (CW)	IL 1/max GHz	Isolation 1/max GHz	H2/3 (35dBm)	Switching Time	Package	VDD Supply	VCP Supply	Recommended for new system designs Y/N?	More Details
10 W													
TS72250K	2T	Reflective	0.03-6GHz	10W	0.35/0.9dB	40/15dB	81dBc	0.7us	3x3	2.6 - 5.5V	-18V		Data Sheets
TS82250FK (New)	2T	Reflective	0.03-5GHz	20W	0.2/0.5dB	46/22dB	-92/-95 dBc	0.9us	3x3	2.6 - 5.5V	-18V		Data Sheets
TS72420K	4T	Reflective	0.03-3GHz	10W	0.4/0.8dB	35/23dB	77dBc	0.65us	3x3	2.6 - 5.5V	-18V	No – see TS82420FK	Data Sheets
TS82420FK (New)	4T	Reflective	0.03-5GHz	10W	0.30/1.0dB	40/18dB	-86/-89 dBc	0.6us	3x3	2.6 - 5.5V	-18V		Data Sheets
30 W													
TS74230L	2T	Reflective	0.001-3GHz	30W	0.4/0.6dB	40/30dB	85dBc	2.0us	4x4	2.6 - 5.5V	-18V		Data Sheets
TS84410L (New)	4T	Reflective	0.03-4GHz	30W	0.23/1.0dB	37/20dB	-81/-90 dBc	0.8us	4x4	2.6 - 5.5V	-18V		Data Sheets

Independently Controlled RF Symmetric Switches – 16 possible states

Part Number	SPnT	Type	Frequency	P0.1dB CW/Peak	IL 1/max GHz	Isolation 1/max GHz	H2/3 (35dBm)	Switching Time	Package	VDD Supply	Recommended for new system designs Y/N?	More Details
10 W												
TS72421K	4T	Reflective	0.7-3.8GHz	10/60W	0.4/1.3dB	35/15dB	77dBc	0.65us	3x3	2.6 - 5.5V		Data Sheets
TS72461K	4T	Reflective	0.4-3.8GHz	10/60W	0.4/0.9dB	40/22dB	77dBc	1.2us	3x3	2.6 - 5.5V		Data Sheets

Data Sheets at <https://tagoretech.com/page.php?page-id=10>

Fail - Safe Receiver Protection Switches

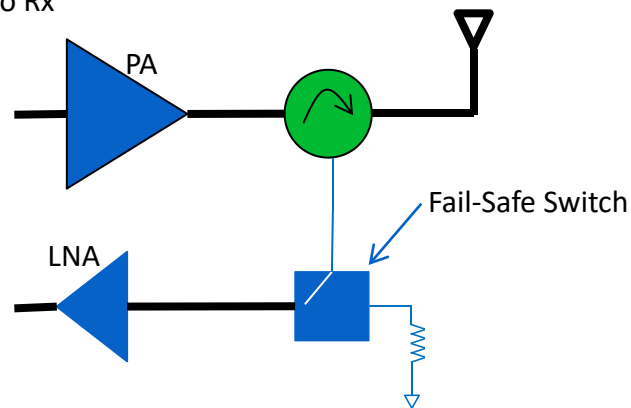
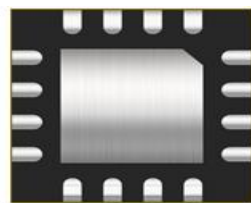


Part Number	SPnT	Type	Frequency	P0.1dB (CW)	Peak Power	IL TX (2.7GHz)	IL RX (2.7GHz)	Isolation RX (2.7GHz)	Switching Time	Package	Supply	Recommended for new system designs Y/N?	More details
TS7226K**	2T	Reflective	0.5-7.0GHz	10W	50W	0.50dB	0.50dB	35dB	0.50us	3x3	2.6 - 5.5V		Data Sheets
TS7329K	2T	Reflective	0.7-5.0GHz	20W	100W	0.35dB	0.60dB	38dB	0.35us	3x3	2.6 - 5.5V		Data Sheets
TS8329K (New)	2T	Reflective	0.7-5.0GHz	20W	100W	0.35dB	0.45dB	38dB	0.35us	3x3	2.6 - 5.5V		Data Sheets
TS7529N	2T	Reflective	0.7-3.8GHz	50W	316W	0.55dB	0.65dB	45dB	2.0us	5x5	2.6 - 5.5V		Data Sheets
TS7029N	2T	Reflective	0.7-2.7GHz	100W	630W	0.7dB	1.1dB	48dB	2.0us	5x5	2.6 - 5.5V		Data Sheets

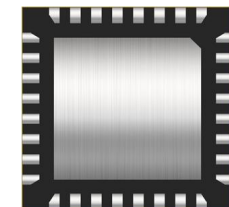
** TS7226K is a symmetric switch. All others here are asymmetric Tx to Rx



16Pin 3x3mm QFN



32Pin 5x5mm QFN



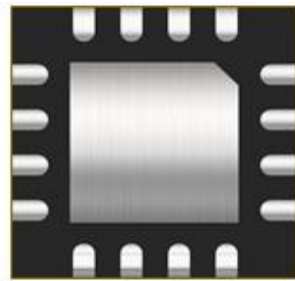
Data Sheets at <https://tagoretech.com/page.php?page-id=10>

Filter/Antenna Tuning Switches: High Peak Voltage, Low Ron

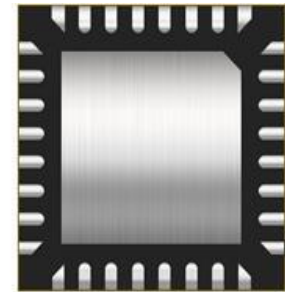


Part number (3x3x0.75mm)	SPnT	Reflective Off Ports	Ron (Ω)	Peak RF Voltage (V)	More Details
TS64210L	2T	Open	1.0	120	Data Sheets
TS63210K	2T	Open	1.4	100	Data Sheets
TS63420K	4T	Open	1.9	100	Data Sheets
TS63421K*	4T	Open	1.9	100	Data Sheets

Internal Charge Pump Disabled



16Pin 3x3mm QFN



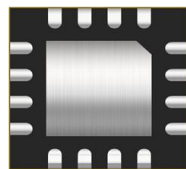
32Pin 4x4mm QFN

Data Sheets are accessible: <https://tagoretech.com/page.php?page-id=10>

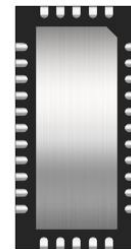
GaN Transistors For Broad Band PA Applications



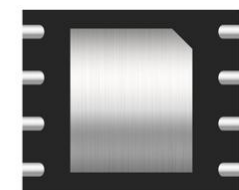
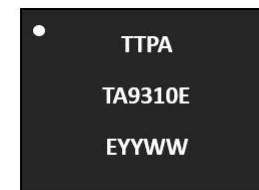
Part Number	Frequency	Linear Gain at 0.9 GHz	P _{SAT} @ 0.9GHz	PAE @ 0.9 GHz	Voltage	Test Signal	Package	Samples	More Details
TA9110K	0.03 – 4.0 GHz	17 dB	6 W	55 %	28-32V	CW	3x3 QFN	Now	Data Sheets
TA9210D	0.03 – 4.0 GHz	18 dB	12.5 W	55 %	28-32V	CW	6x3 DFN	Now	Data Sheets
TA9310E	0.03 – 4.0 GHz	17.5 dB	20 W	55 %	28-32V	CW	6x5 DFN	Now	Data Sheets
TA9410E	0.03 – 4.0 GHz	20 dB	25 W	>55 %	50V	CW	6x5 DFN	Now	Data Sheets



16Pin 3x3mm QFN



32Pin 6x3mm QFN



8Pin 5x6mm QFN

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

Connectorized Tuned PA – Existing Designs/Eval Boards



Part Number	Package	Frequency	Linear Gain (dB)	P _{SAT}	PAE	Voltage	Test Signal(CW if not specified)	Notes	More Details
TA9110K	3x3 QFN	0.03 – 4.0GHz							
TA9110K-EVB-A		30 - 2700MHz	16	10W	53%	32V	2GHz	See TA9110K Datasheet for more info	Data Sheets
TA9110K-EVB-B		30 - 512MHz	21	9W	60%	32V	300MHz	Data also available at 28V on App Note	Data Sheets
TA9110K-EVB-C		3300 - 3800MHz	@ 3700MHz : 13.5dB		50%	15V, Class A	Proprietary Signal with 9dB PAPR	25dBm linear Pout meeting Spectrum Mask and EVM	Data Sheets
TA9110K-EVB-D		1.5 - 1.8GHz	16	37dBm at 1.7GHz	60% at 37dBm	30V	1.7GHz	See TA9110K Datasheet for more info	Data Sheets
TA9110K-EVB-F		0.95-1.8GHz	16.7	39dBm	50% Pout=39dBm	30V	1.4GH	See TA9110K Datasheet for more info	Data Sheets
TA9110K-EVB-G		0.2-2GHz	16	39dBm	60% Pout=39dBm	28V	1.0GH	See TA9110K Datasheet for more info	Data Sheets
TA9210D	6x3 DFN	0.03 – 4.0GHz							Data Sheets
TA9210D-EVB-A		30 - 2600MHz	15.5	>12.5W	48%	32V	2.4GHz	See TA9210D Datasheet for more info	Data Sheets
TA9210D-EVB-B		1.8 - 2.7GHz	@ 2700MHz : 16dB	>4W	>45%	32V	LTE, 10MHz BW, 9.5dB PAPR	See TA9210D Datasheet for more info	Data Sheets
TA9210D-EVB-C		30-512MHz	@ 300MHz : 21dB	2W		28V	LTE, 4.5MHz BW, 8dB PAPR	Resistive Feedback tune, low NF	Data Sheets
TA9210D-EVB-D		30-1000MHz	@ 500MHz : 19.5dB	2W		28V	LTE, 4.5MHz BW, 8dB PAPR	Resistive Feedback tune, low NF	Data Sheets
TA9210D-EVB-E		30-512MHz	19	12.5W	70%	32V	300MHz	Tune : 30-512MHz	Data Sheets
TA9210D-EVB-F		200-2700MHz	@ 2100MHz : 15.5dB	10W	40%	20V	CW,LTE	Class A and AB bias	Data Sheets
TA9210D-EVB-G		700-3700MHz	13	10W	45%	28V	3.1GHz	Tune : 700-3700MHz	Data Sheets
TA9210D-EVB-H		1200-2600MHz	15	12.5W	55%	28V	2.4GHz	Tune : 1200-2600MHz	Data Sheets
TA9210D-EVB-I		3300 - 3800MHz	@ 3700MHz : 14dB			36V, Class AB	Proprietary Signal with 9dB PAPR	>28dBm linear Pout meeting Spectrum Mask and EVM	Data Sheets
TA9210D-EVB-J		3000 - 3500MHz	13.5	>10W	>50%	28V	3.2GHz	24V data also included in app note	Data Sheets
TA9210D-EVB-K		2.1-2.5GHz	17	41dBm	52% Pout=40dBm	28V	2.3GHz	See TA9210D Datasheet for more info	Data Sheets
TA9210D-EVB-L		2.4-2.5GHz	18	41dBm	65% Pout=41dBm	28V	2.4GHz	See TA9210D Datasheet for more info	Data Sheets
TA9210D-EVB-M		0.2-2GHz	15	40dBm	50% Pout=40dBm	28V	1.0GHz	See TA9210D Datasheet for more info	Data Sheets

Please contact sales if you seek a different frequency band. Data Sheets and applications information at <https://tagoretech.com/page.php?page-id=11>

Connectorized Tuned PA – Existing Designs/Eval Boards



Part Number	Package	Frequency	Linear Gain (dB)	P _{SAT}	PAE	Voltage	Test Signal(CW if not specified)	Notes	More Details
TA9310E	6x5 DFN	0.03 – 4.0GHz							
TA9310E-EVB-A		500 - 2700MHz	14	>25W	>55%	32V	2.7GHz	See TA9310E Datasheet for more info	Data Sheets
TA9310E-EVB-B		950-1250MHz	@ 1000MHz : 19.5dB	30W Peak	75%	28V	DC=15%, PW= 10usec	Tune : 950-1250MHz	Data Sheets
TA9310E-EVB-C		1.5 - 1.8GHz	14.6dB	43dBm	50% Pout=42dBm	30V	1.7GHz	See TA9310E Datasheet for more info	Data Sheets
TA9310E-EVB-D		2.1-2.5GHz	17	44dBm	62% Pout=44dBm	32V	2.3GHz	See TA9310E Datasheet for more info	Data Sheets
TA9310E-EVB-E		2.2-2.4GHz	17.3	44dBm	60% Pout=44dBm	28V	2.3GHz	See TA9310E Datasheet for more info	Data Sheets
TA9310E-EVB-F		0.95-1.8GHz	16	44dBm	57% Pout=44dBm	30V	1.2GHz	See TA9310E Datasheet for more info	Data Sheets
TA9310E-EVB-G		2.7-3.5GHz	14.7	44dBm	65% Pout=44dBm	32V	3.3GHz	See TA9310E Datasheet for more info	Data Sheets
TA9410E	6x5 DFN	0.03 – 4.0 GHz							
TA9410E-EVB-A		20 - 525MHz	21	>25W	70%	50V	350MHz	See TA9410E Datasheet for more info	
TA9410E-EVB-B		20 - 1000MHz	21	>25W	>55%	50V	525MHz	See TA9410E Datasheet for more info	Data Sheets
TA9410E-EVB-C		1.4-2.4GHz	16.5	46dBm	55% Pout=46dBm	50V	1.6GHz	See TA9410E Datasheet for more info	Data Sheets
TA9410E-EVB-D		30-800MHz	23	46dBm	70% Pout=46dBm	50V	800MHz (20% Pulsed)	See TA9410E Datasheet for more info	Data Sheets
TA9410E-EVB-E		5.1-5.3GHz	11.5	43dBm	39% Pout=43dBm	50V	5.3GHz	See TA9410E Datasheet for more info	Data Sheets
TA9410E-EVB-F		3.4-3.8GHz	15	44dBm	53% Pout=44dBm	36V	3.6GHz	See TA9410E Datasheet for more info	Data Sheets

Please check Tagore website for the latest matching information Or please contact sales if you seek a different frequency band.

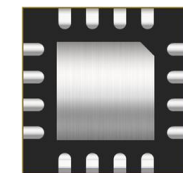
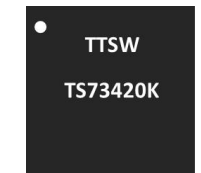
Data Sheets and applications information at <https://tagoretech.com/page.php?page-id=11>

Low Noise Amplifiers and Driver

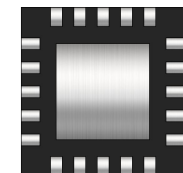
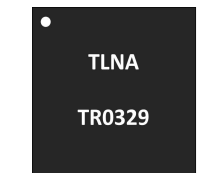
Part Number	Frequency	Test Freq	Gain (dB)	LNA NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package	Samples	More Details
TL0374J	0.6 – 3.0 GHz	2.6GHz	19	0.37	19.5	36.5	5V	2x2 QFN	Now	Data Sheets
TL0375J	2.0 – 5.0 GHz	3.6GHz	17.5	0.40	19.5	33	5V	2x2 DFN	Now	Data Sheets
TP0310K	0.1 – 3.8 GHz	2.5GHz	14	1.10	27.0	37	5V	3x3 DFN	Now	Data Sheets
TL0301H	5.125 - 5.925G	5.5G	17.5	0.90	12.0	17	3.3V	1.5X1.5 DFN	Now	Data Sheets
TL0302H	5.925 - 7.125G	6.5G	13.5	1.4	12.0	16	3.3V	1.5X1.5 DFN	Now	Data Sheets
TR0329M	3.3G - 4.2G	3.6G	Low gain mode:15	0.50	10.0	23	5V	3.5X3.5 QFN	Now	Data Sheets
			High gain mode:34	0.50	20.0	35				



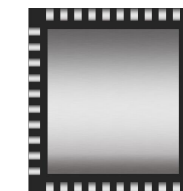
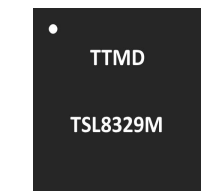
8Pin 2x2mm QFN



16Pin 3x3mm QFN



20 Pin 3.5x3.5mm QFN

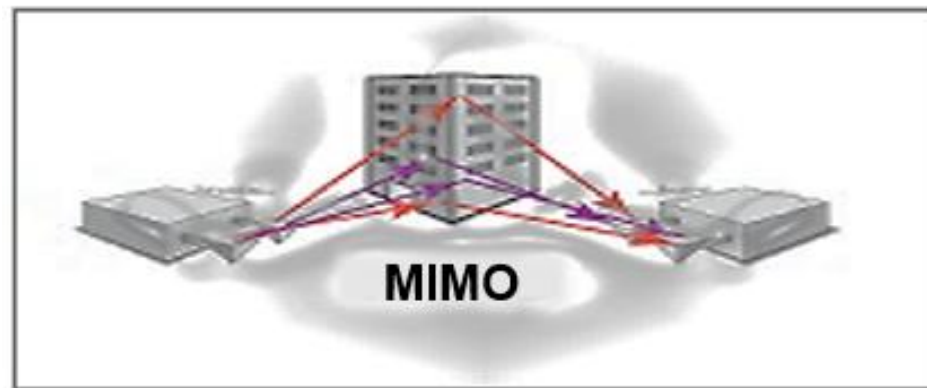


40Pin 6.0x6.0mm QFN

MIMO Receiver Front End Devices



Part Number	Frequency	Power Handling (dBm)	Gain Rx Mode (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Voltage	Package	Samples	More Details
TSL8329M <i>Switch with LNA</i>	3.3G - 4.2G	43 LTE Avg, 8dB PAR	Low gain mode:15	1.0	10.0	23.0	5.0V	6x6 QFN	Q3 2022	Data Sheets
			High gain mode:34	1.0	20.0	35.0				



Connectorized Tuned LNA & Driver – Existing Designs



Part Number	Package	Frequency	Gain	NF (De-embedded)	OP1	OIP3	Bias	Test Signal	Notes
TL0374J	2X2 DFN	0.6 – 3.0 GHz							
TL0374J-EVB-A		1.8 - 2.1 GHz	20dB @ 2.1 GHz	0.40dB @ 2.1 GHz	18dBm @ 2.1 GHz	35dBm @ 2.1 GHz	5V,60mA	CW	See TL0374J Datasheet
TL0374J-EVB-B		2.5 - 2.7 GHz	19dB @ 2.6 GHz	0.4dB @ 2.6GHz	19dBm @ 2.6GHz	35dBm @ 2.6GHz	5V,60mA	CW	See TL0374J Datasheet
TL0374J EVB-C		0.03-1GHz	24@0.5GHz	0.5dB@0.5GHz	14.7	2870%	3.3V,30mA	CW	See TL0374J Datasheet
TL0374J EVB-D		0.03-2.6GHz	13.8@1.5GHz	0.6	14.4	2740%	3.3V,30mA	CW - 3.3V	See TL0374J Datasheet
TL0374J EVB-D		0.03-2.6GHz	15 @1.5GHz	0.7	15.6	3000%	5V,55mA	CW -5V	See TL0374J Datasheet
TL0374J EVB E		1-2GHz	22@ 1.5GHz	0.4	16.5dBm	32dBm	5V,60mA	CW - 3.3V	See TL0374J Datasheet
TL0375J	2x2 DFN	2 – 5.0 GHz							
TL0375J-EVB-A		3.3 - 3.8 GHz	17.5dB @ 3.6 GHz	0.4dB @ 3.6 GHz	19.5dBm @ 3.6GHz	33dBm @ 3.6 GHz	5V,60mA	CW	See TL0375J Datasheet
TL0375J-EVB-B		3.7-4.2GHz	16.5dB @ 3.9 GHz	0.55dB @ 3.9 GHz	19dBm @ 3.9GHz	34dBm @ 3.9 GHz	5V,60mA	CW	See TL0375J Datasheet
TL0375J-EVB-C		4.4-5GHz	16.0dB @ 4.7 GHz	0.65dB @ 4.7 GHz	18.5dBm @ 4.7GHz	34.5dBm @ 4.7 GHz	5V,60mA	CW	See TL0375J Datasheet
TL0375J-EVB-D		2.9-3.3GHz	18dB @ 3.3GHz	0.4dB @ 3.3GHz	19.2dBm @ 3.3GHz	34.5dBm @ 3.3GHz	5V,60mA	CW	See TL0375J Datasheet
TP0310K	3x3 QFN	0.1 – 3.8 GHz							
TP0310K-EVB-A		1.7 - 2.0 GHz	16.5 dB @ 1.85GHz	1 dB @1.85 GHz	27dBm @ 1.85GHz	39dBm @ 1.85 GHz	5V,140mA	CW	See TP0310K Datasheet
TP0310K-EVB-B		2.5-2.7GHz	14dB @ 2.6GHz	1.05 dB @2.6 GHz	27dBm @ 2.6GHz	37dBm @ 2.6 GHz	5V,140mA	CW,LTE	See TP0310K Datasheet
TP0310K-EVB-C		3.3-3.8GHz	11.5dB @3.6 GHz	1.1 dB @3.6 GHz	27.5dBm @ 3.6GHz	42dBm @ 3.6 GHz	5V,140mA	CW	See TP0310K Datasheet
TP0310K-EVB-D		130-950MHz	21.5dB @ 700MHz	1.65 @ 700MHz	27dBm @ 700MHz	36dBm @ 700MHz	5V,140mA	CW	See TP0310K Datasheet

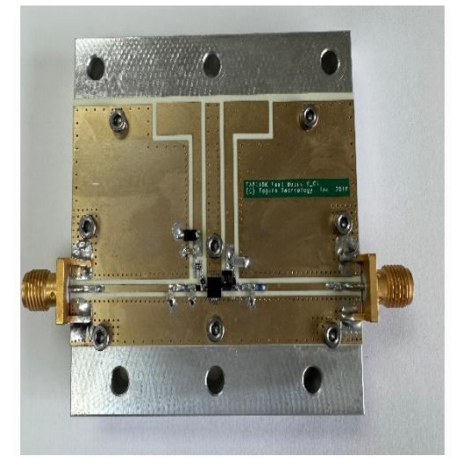
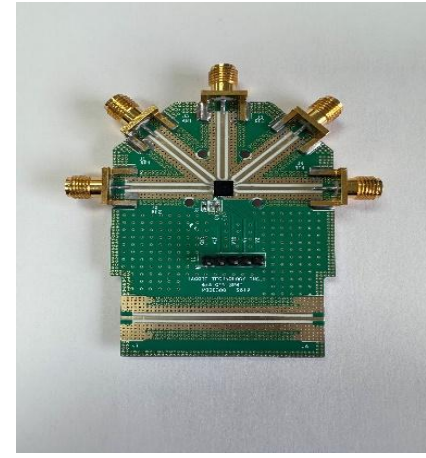
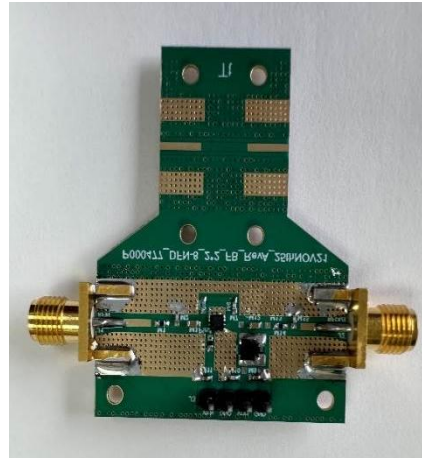
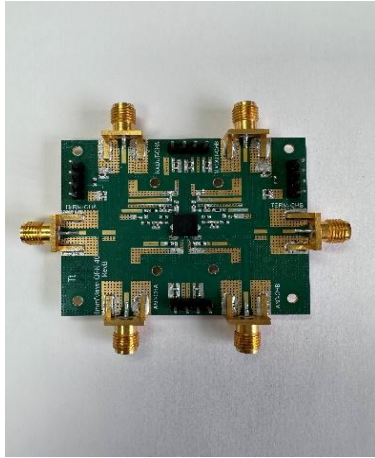
Please contact sales if you seek a different frequency band Data Sheets & Applications information at <https://tagoretech.com/page.php?page-id=12>

Connectorized Tuned LNA & Driver – Existing Designs



Part Number	Package	Frequency	Gain	NF (De-embedded)	OP1	OIP3	Bias	Test Signal	Notes
TL0301H	1.5x1.5 DFN	5.125-5.925GHz	17dB @5.5GHz	0.8dB @5.5GHz	11dBm @5.5GHz	21dBm @5.5GHz	3.3V, 15mA	CW	Datasheet
TL0302H		5.925-7.125GHz	15dB @6.5GHz	1dB @6.5GHz	7dBm @6.5GHz	18dBm @6.5GHz	3.3V, 15mA	CW	Datasheet
TR0329M	3.5x3.5 QFN	2.4-4.2GHz							
TR0329M EVB-A		3.3-4.0GHz	34dB(HG) & 15dB(LG) @3.6GHz	0.5dB(HG) & 0.5dB(LG) @3.6GHz	20dBm(HG) & 10.5dBm(LG) @3.6GHz	35dBm(HG) & 23.5dBm(LG) @3.6GHz	5V ,90mA-HG 5V 45mA-LG	CW	See TR0329M Datasheet
TR0329M EVB-B		2.3-2.7GHz	37dB(HG) & 17dB(LG) @2.5GHz	0.6dB(HG) & 0.5dB(LG) @2.5GHz	18dBm(HG) & 11dBm(LG) @2.5GHz	31dBm(HG) & 22dBm(LG) @2.5GHz	5V ,90mA-HG 5V 45mA-LG	CW	See TR0329M Datasheet
TSL8329M	6x6 QFN	2.0-4.2GHz							
TSL8329M EVB-A		3.3-4GHz	32dB(HG) & 13dB(LG) @3.6GHz	1dB(HG) & 0.9dB(LG) @3.6GHz	20dBm(HG) & 10.5dBm(LG) @3.6GHz	35dBm(HG) & 18dBm(LG) @3.6GHz	5V,400uA-TX 5V ,90mA-RXHG 5V 45mA-RXLG	CW	See TSL8329M Datasheet
TSL8329M EVB-B		2.9-3.3GHz	37dB(HG) & 14dB(LG) @3.1GHz	0.95dB(HG) & 0.9dB(LG) @3.1GHz	20dBm(HG) & 10.5dBm(LG) @3.1GHz	35dBm(HG) & 18dBm(LG) @3.1GHz	5V,400uA-TX 5V ,90mA-RXHG 5V 45mA-RXLG	CW	See TSL8329M Datasheet
TSL8329M EVB-C		2-4GHz	37dB(HG) & 14.5dB(LG) @3GHz	0.85dB(HG) & 0.8dB(LG) @3GHz	19dBm(HG) & 10dBm(LG) @3GHz	31dBm(HG) & 21dBm(LG) @3GHz	5V,400uA-TX 5V ,90mA-RXHG 5V 45mA-RXLG	CW	See TSL8329M Datasheet

Please contact sales if you seek a different frequency band. Data Sheets & Applications information at <https://tagoretech.com/page.php?page-id=12>

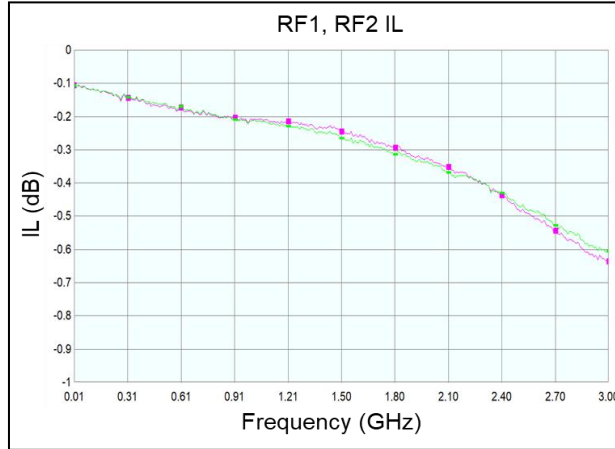


LNA EVALUATION BOARD LAYOUT

AMPLIFIER & SWITCH EVALUATION BOARD LAYOUT

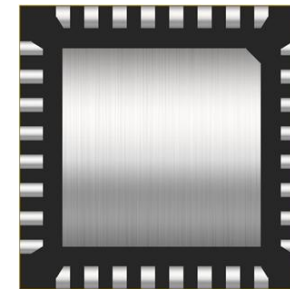
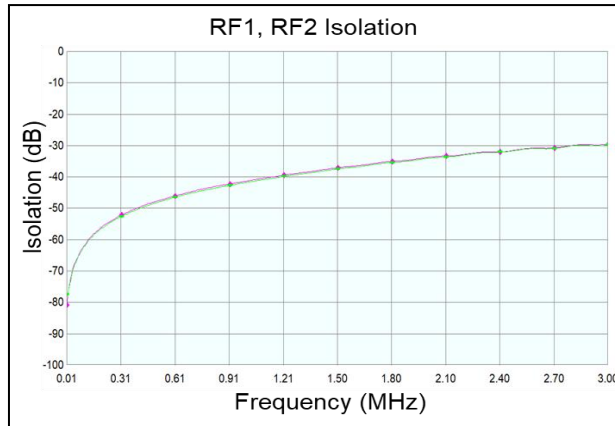
Evaluation boards of RF Amplifiers, Switches, and LNA for frequency-specific applications will be available from the engineering department.

TS8023N-2nd Generation 100W SP2T - Small Signal Performance



Frequency	IL(dB)	ISO(dB)
1GHz	0.2	41
2GHz	0.3	34
3GHz	0.6	29

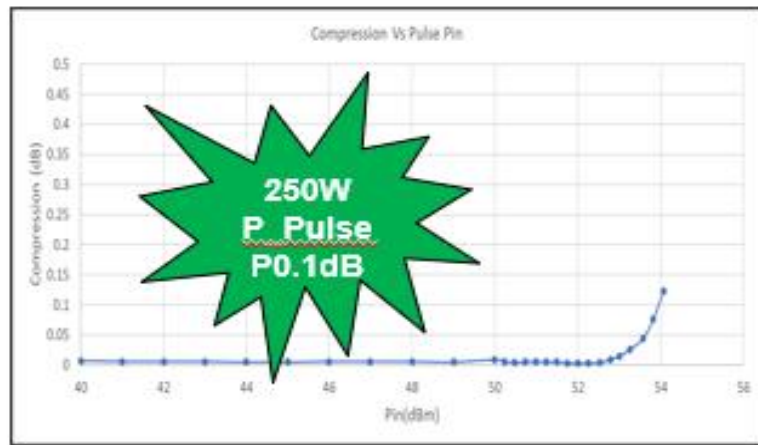
Results measured @ 25 °C



5x5mm QFN

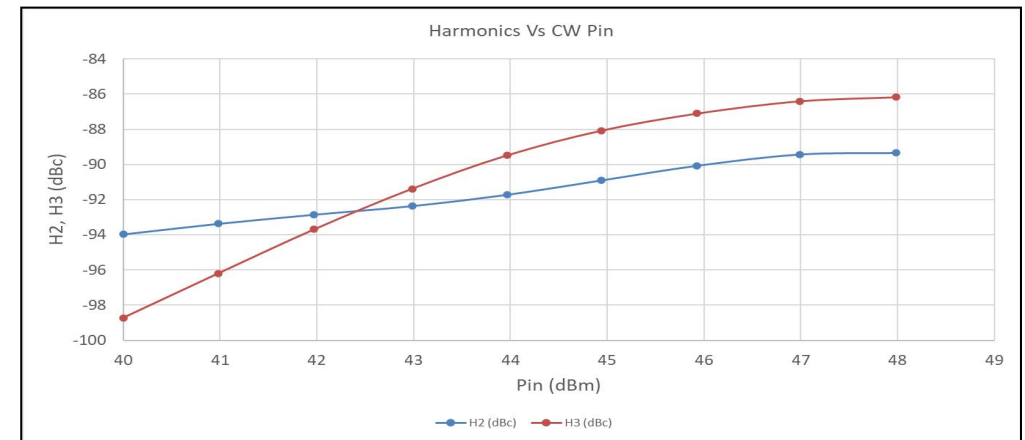
TS8023 is widely used in handheld LMR/PMR/Tactical Radio except trunk/dashboard mount higher power radios.

TS8023N Large Signal Performance

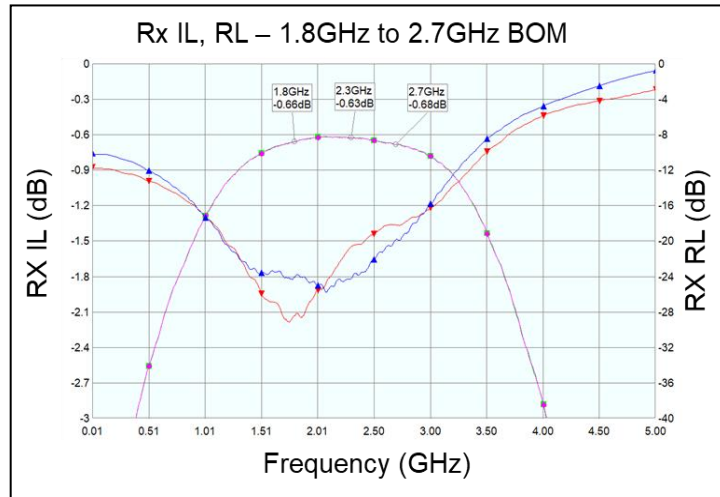


Parameter	Measured
P_CW_0.1dB	51dBm
P_pulse_0.1dB	54dBm
H2 @ Pin 47dBm	89dBc
H3 @ Pin 47dBm	86dBc

Results measured @ 25 °C, 800MHz

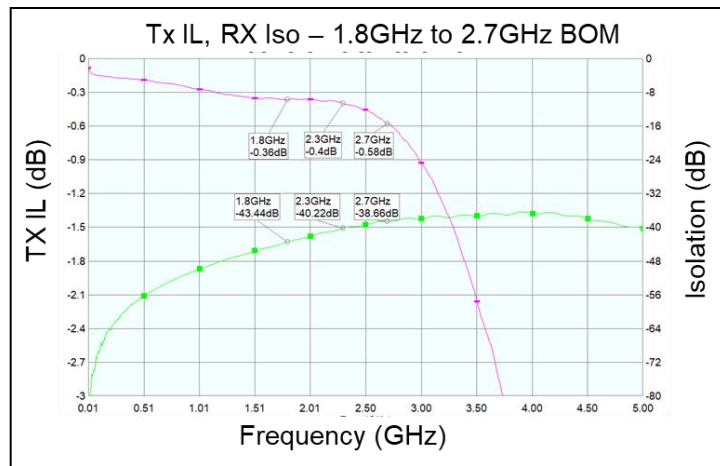


TS8029N 2nd Generation 600W Fail-Safe Switch Small Signal



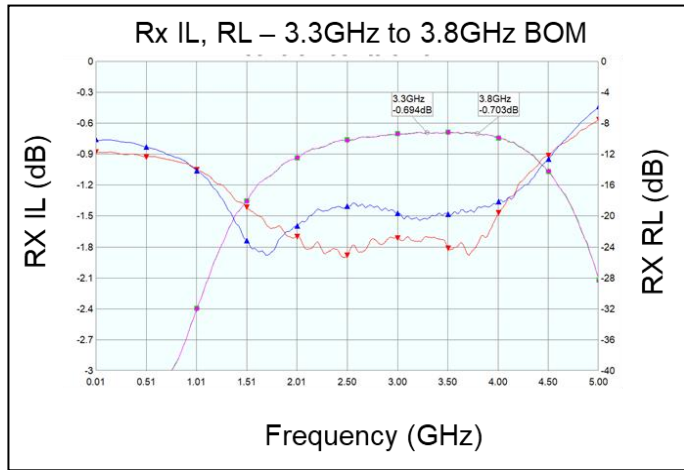
FREQUENCY	RX IL(DB)	ISO(DB)
1.8GHz	0.66	41
2.3GHz	0.63	34
2.7GHz	0.68	29

Results measured @ 25 °C



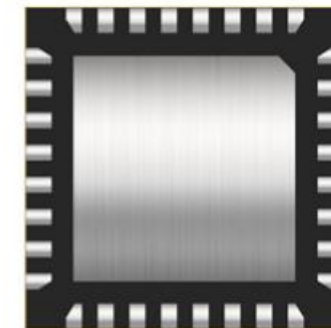
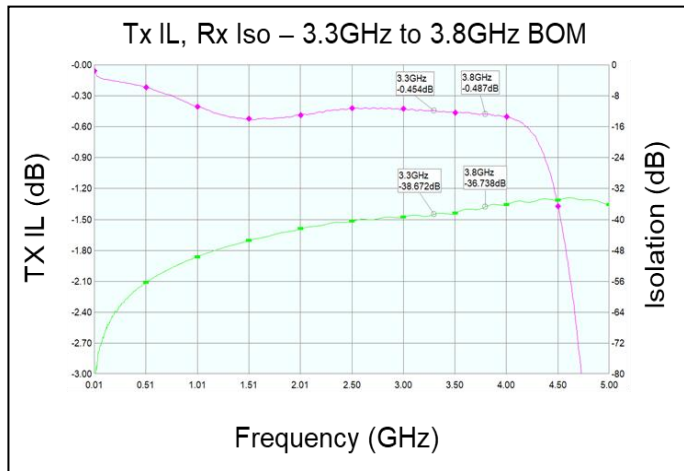
TS8029N is for higher power Macro base station or Radar Fail-safe applications.

TS8029N Small Signal 3.3GHz – 3.8GHz BOM

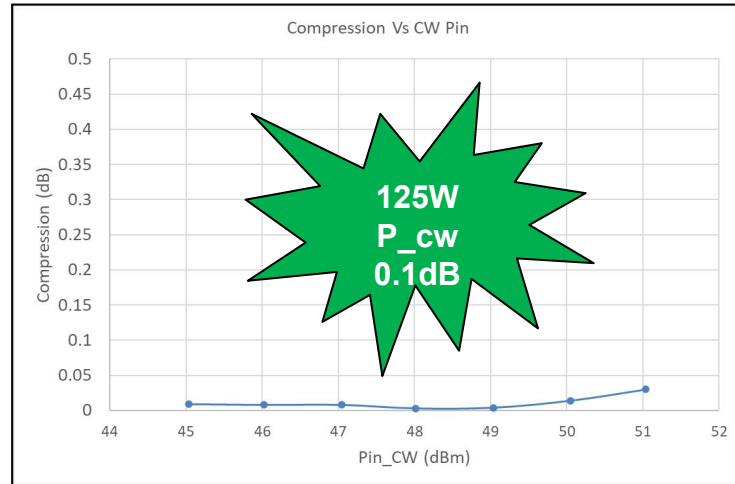


Frequency	RX IL(dB)	ISO(dB)
3.3GHz	0.67	38
3.6GHz	0.70	37
3.8GHz	0.70	36

Results measured @ 25 °C

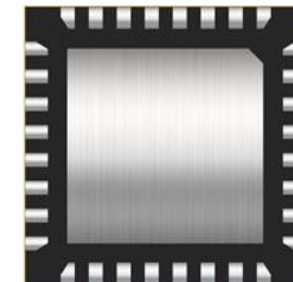
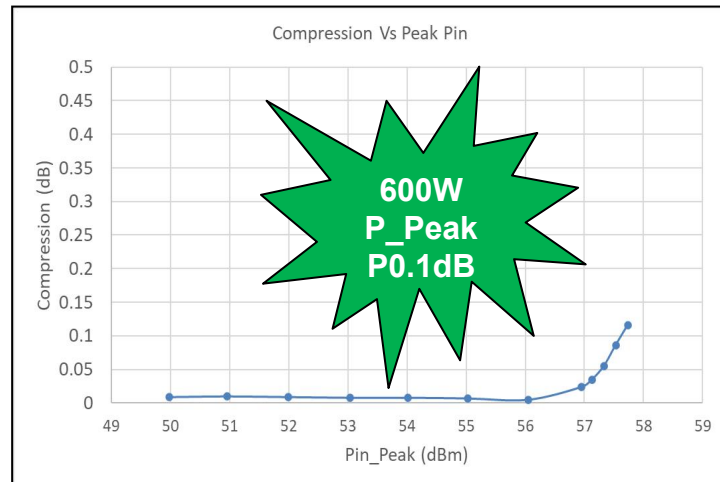


TS8029N Large Signal Performance



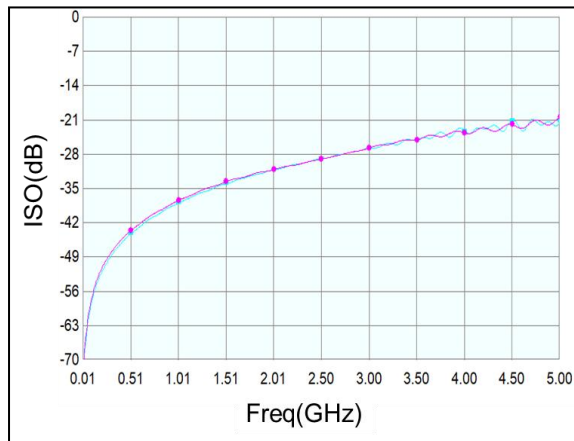
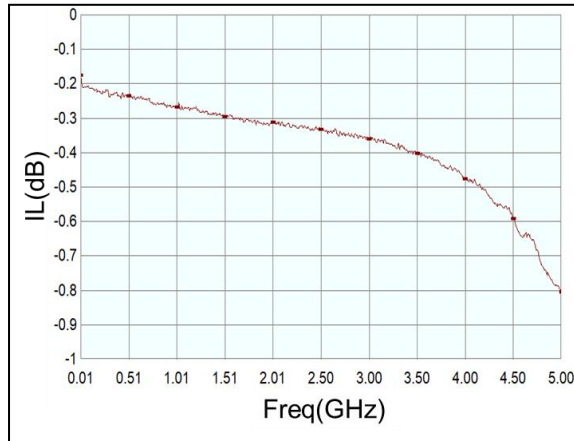
Parameter	Measured
P_CW_0.1dB	>51dBm
P_peak_0.1dB	57.8dBm

Results measured @ 25 °C, 800MHz



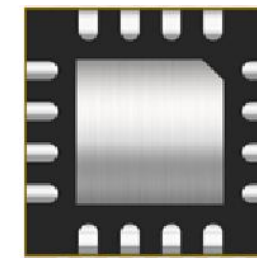
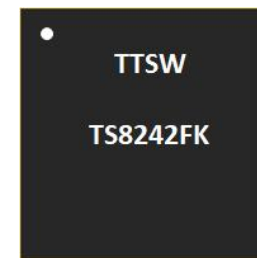
5x5mm QFN

TS8242FK 10W SP4T Small Signal Performance



Frequency	IL(dB)	ISO(dB)
1GHz	0.27	37
2GHz	0.3	31
3GHz	0.35	27
4GHz	0.48	23

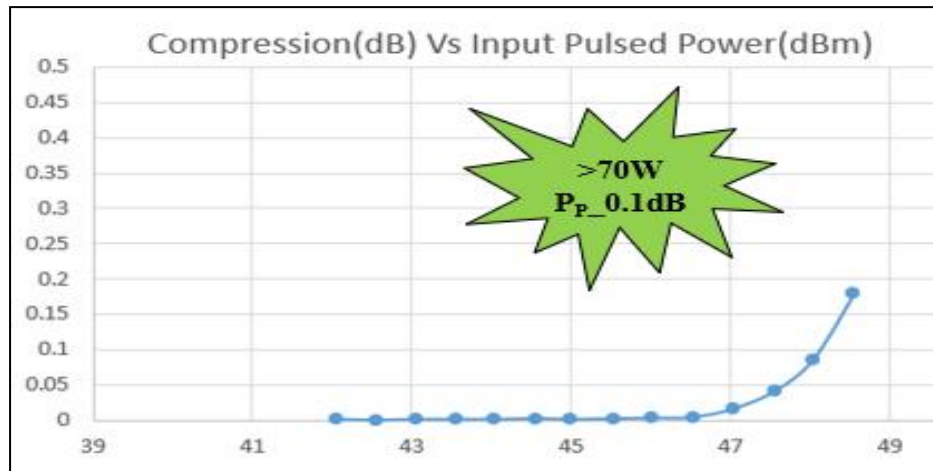
Results measured @ 25 °C



3x3mm QFN

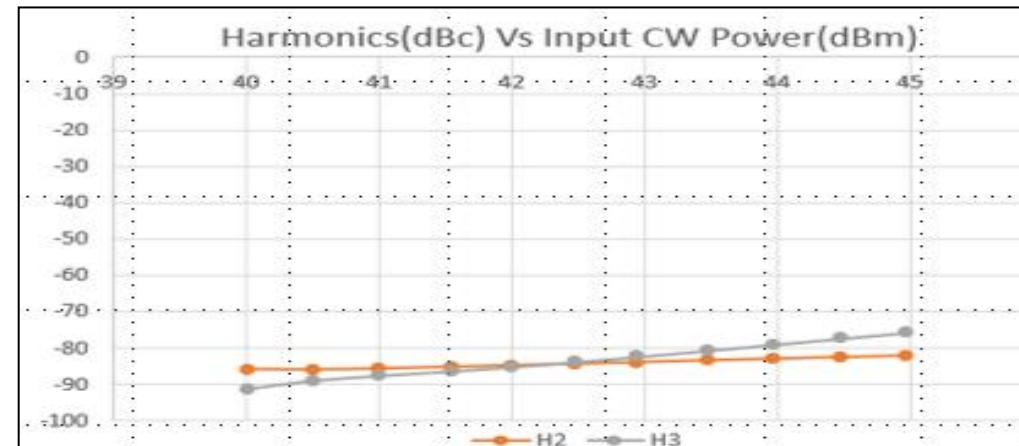
TS8242 is widely used in handheld LMR/PMR/Tactical Radio

Large Signal Performance

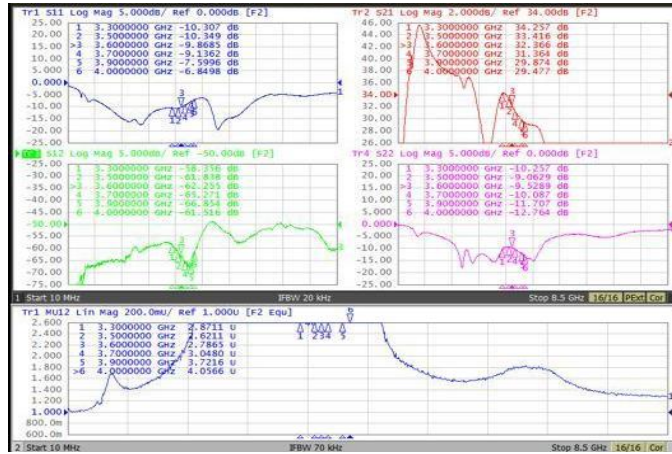


Parameter	Measured
P_CW_0.1dB	>45dBm
P_peak_0.1dB	48dBm
H2 @ Pin 40dBm	82dBc
H3 @ Pin 40dBm	83dBc
IIP3	75dBm
IIP2	122dBm

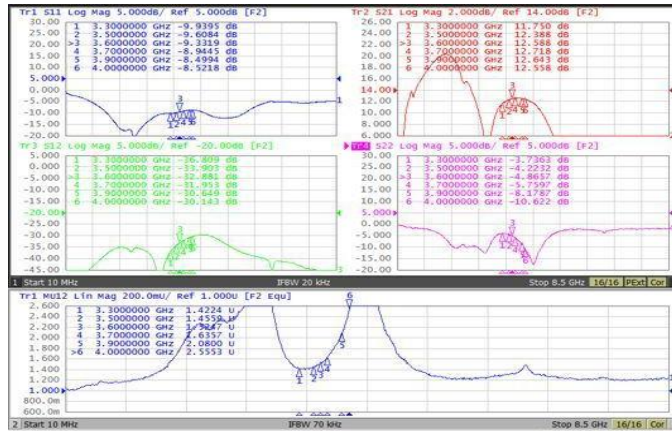
Results measured @ 25 °C, 800MHz



TSL8329M - Small Signal S Parameters 3.3GHz – 4.0GHz



RXOUT-CHA -HG SP



RXOUT-CHA -LG SP TX-CHA SP

Frequency	TX gain(dB)	RX-HG Gain(dB)	RX-LG Gain(dB)
3.3GHz	-0.82	34.2	11.8
3.6GHz	-0.94	32.4	12.6
4.0GHz	-1.1	29.5	12.5

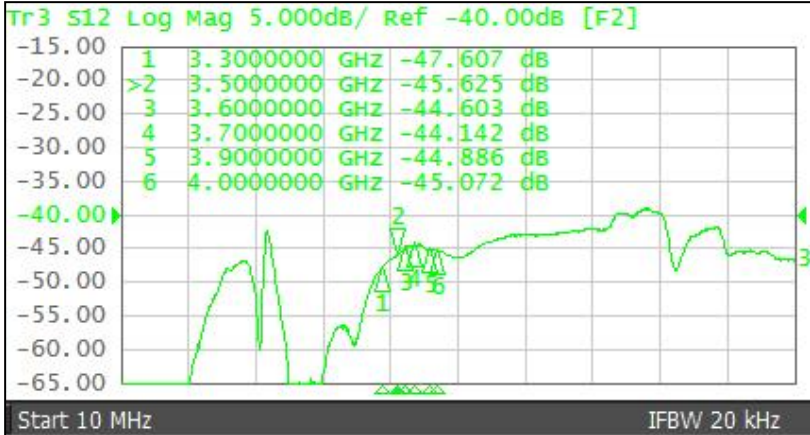
Results measured @ 25 °C



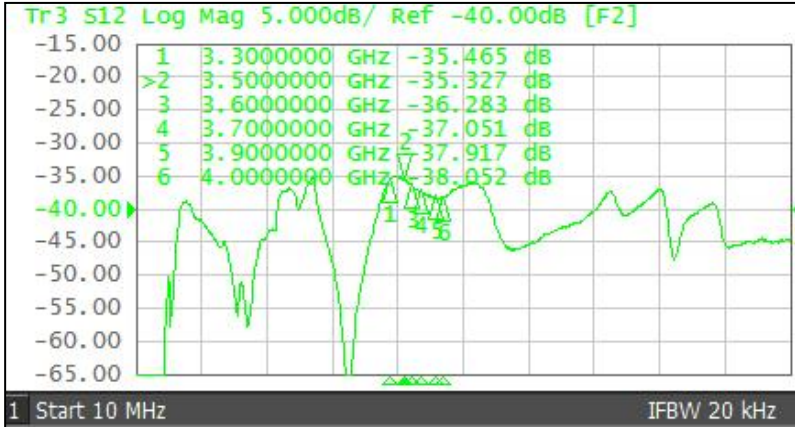
Note: TX loss is SMA to SMA

TSL8329 is for the Massive MIMO base station application.

TSL8329M Isolation 3.3GHz – 4.0GHz



RXOUT-CHA & RXOUT-CHB isolation in LG



TERM-CHA and TERM-CHB isolation

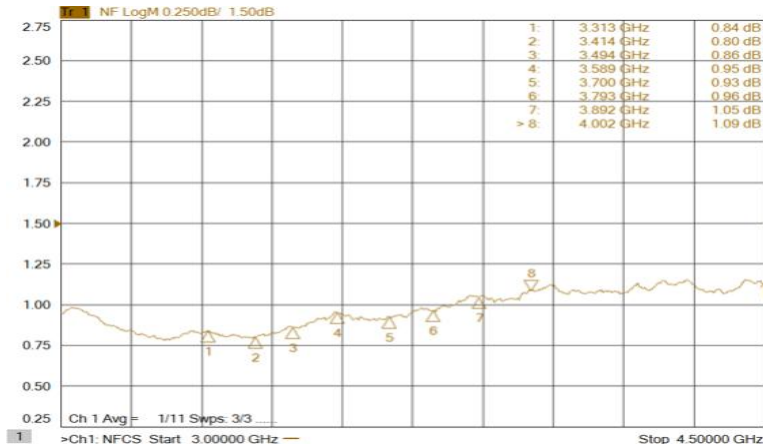
Frequency	TX-TX Iso (dB)	RX-RX ISO (dB) LG mode	RX-RX ISO (dB) HG mode
3.3GHz	-55	-47	-35
3.6GHz	-54.7	-44.6	-36
4.0GHz	-53.4	-45	-38

Results measured @ 25 °C

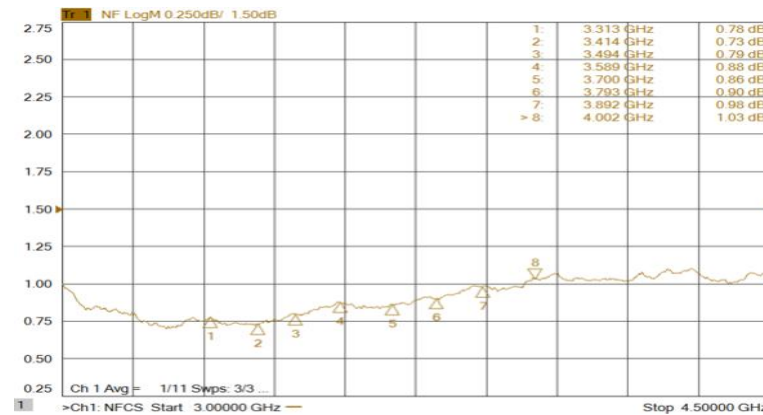


RXOUT-CHA & RXOUT-CHB isolation in HG

TSL8329M Noise Figure 3.3GHz – 4.0GHz



RXOUT-CHA -HG NF



RXOUT-CHA -LG NF

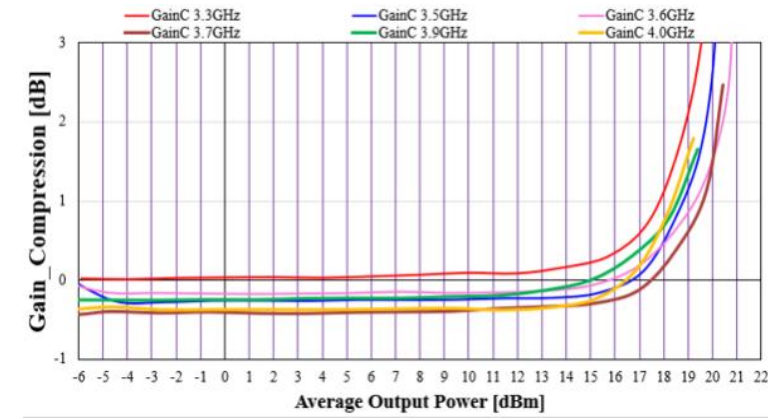
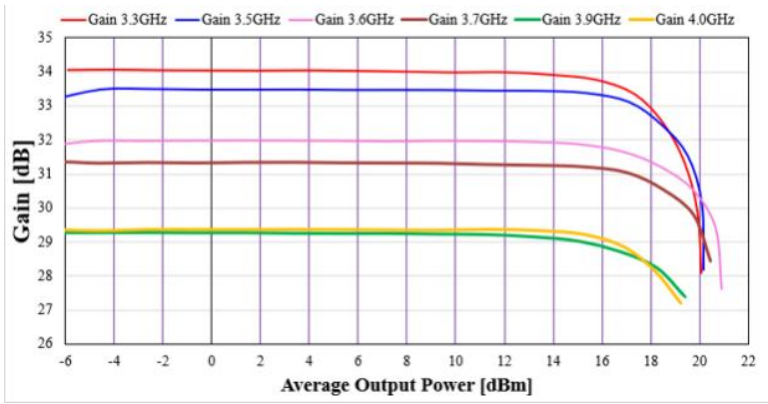
Note: NF data is de-embedded data

Frequency	LG mode (dB)	HG mode (dB)
3.3GHz	0.8	0.84
3.6GHz	0.9	0.95
4.0GHz	1.0	1.1

Results measured @ 25 °C

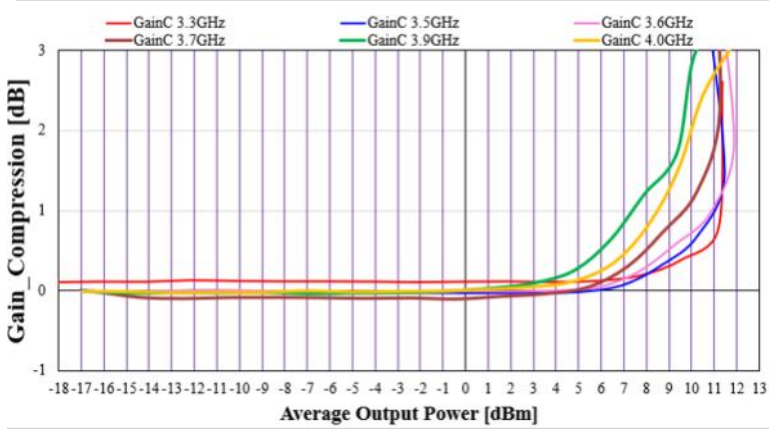
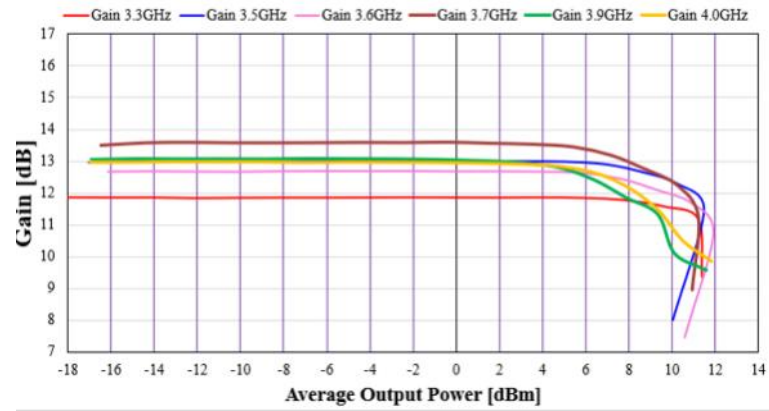


TSL8329M Large Signal Performance



Frequency	LG mode (dBm)	HG mode (dBm)
3.3GHz	11	18.0
3.6GHz	11	19.5
4.0GHz	8.5	18.5

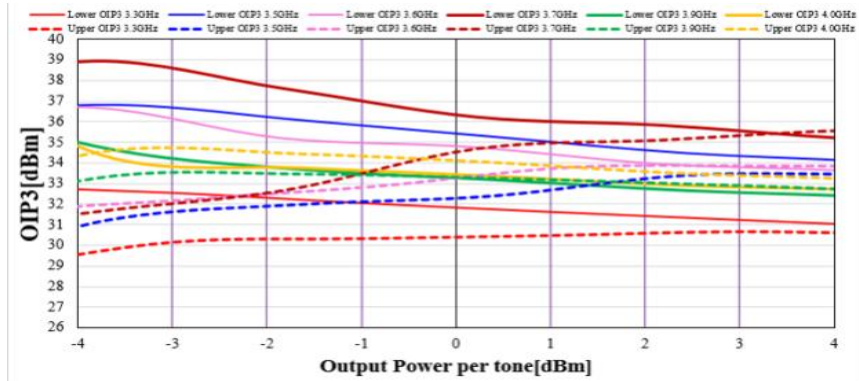
Results measured @ 25 °C



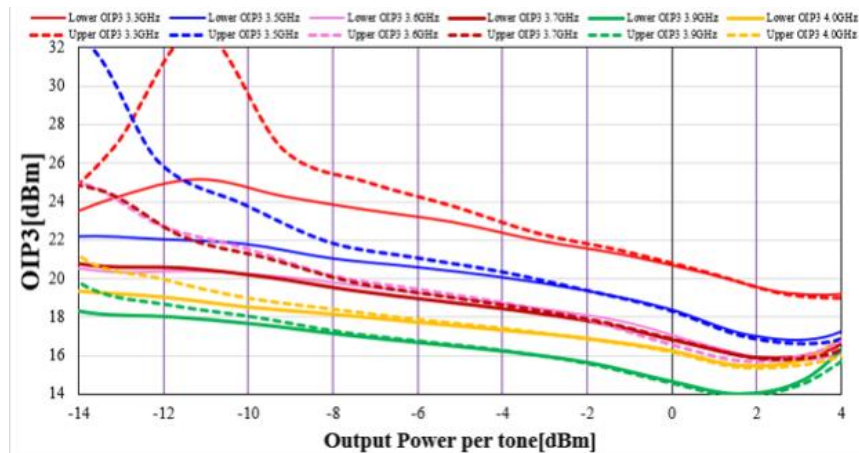
RXOUT-CHA-HG
OP1dBm & Gain compression

RXOUT-CHA-LG
OP1dBm & Gain compression

TSL8329M Large Signal Performance



RXOUT-CHA -HG OIP3dBm

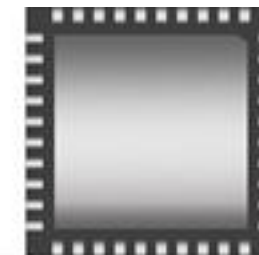


RXOUT-CHA -LG OIP3dBm

Frequency	LG mode (dBm)	HG mode (dBm)
3.3GHz	22	30
3.6GHz	19	33
4.0GHz	17.5	33.5

Results measured @ 25 °C

Note: HG OIP3 condition: 0dBm Pout./tone and 1MHz spacing
 LG OIP3 condition: -2dBm Pout./tone and 1MHz spacing



6mm*6mm QFN-40



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