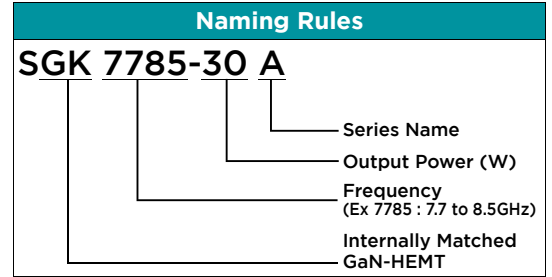


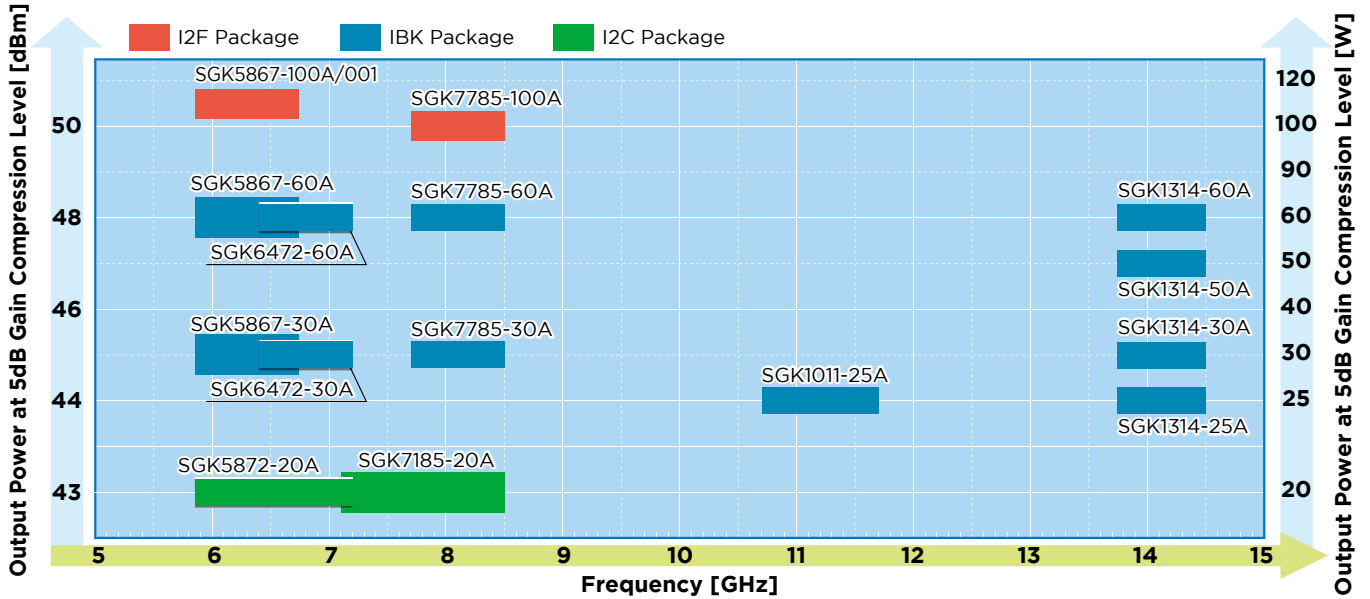
GaN HEMTs for Radio Link and SATCOM

Features

- High Output Power
- High Gain
- High Efficiency
- Internally Matched



GaN HEMTs for Satcom Lineup

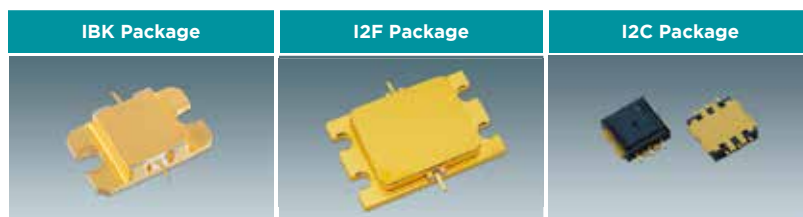


Specifications

Part Number	Freq. (GHz)	IM3 (dBc)	SCL Pout (dBm)	Pout (dBm)	GL (dB)	η_{add} (%)	VDS (V)	IDS(DC) (A)	IDS(RF) (A)	Rth ($^{\circ}$ C/W)	Condition	Package
SGK5867-30A	5.85-6.75	-45	29.5	45	13.5	45	24	1.75	2.7	2.2	CW Operation	IBK
SGK5867-60A	5.85-6.75	-	32	48	12.5	40	24	2.6	5.4	1.3		
SGK5867-100A/001	5.85-6.75	-25	44	50.5	13.5	45	24	4	10	0.55		I2F
SGK5872-20A	5.85-7.2	-43	27.5	43	12	41	24	1.0	1.6	2.7		
SGK6472-30A	6.4-7.2	-45	29.5	45	12.5	40	24	1.75	2.7	2.2		IBK
SGK6472-60A	6.4-7.2	-	32	48	12	39	24	2.6	5.4	1.3		
SGK7185-20A	7.1-8.5	-43	27.5	43	11	39	24	1.0	1.7	2.7		I2C
SGK7785-30A	7.7-8.5	-45	29.5	45	12	39	24	1.75	2.7	2.2		
SGK7785-60A	7.7-8.5	-42	32	48	11	37	24	2.6	5.4	1.3		
SGK7785-100A	7.7-8.5	-25	44	50	12	42	24	4	10	0.55		I2F
SGK1011-25A	10.7-11.7	-42	29	44	10	33	24	1.2	2.7	1.9		
SGK1314-25A	13.75-14.5	-	-	44	8	29	24	0.75	2.5	1.8		
SGK1314-30A	13.75-14.5	-	-	45	8.5	32	24	0.9	3.3	1.5		
SGK1314-50A	13.75-14.5	-	-	47	8	29	24	1.5	5	1.3		
SGK1314-60A	13.75-14.5	-	-	48	8.5	32	24	1.8	6.6	0.8		

Note: Tc (op)=+25°C
IM3: 3rd Order Intermodulation Distortion

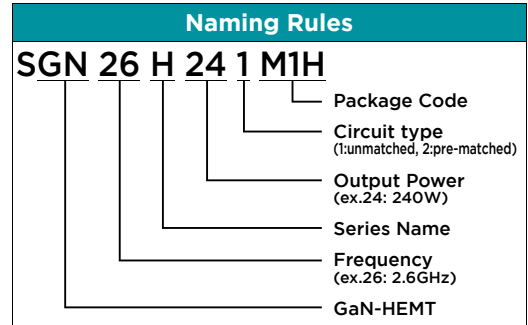
Product Photo



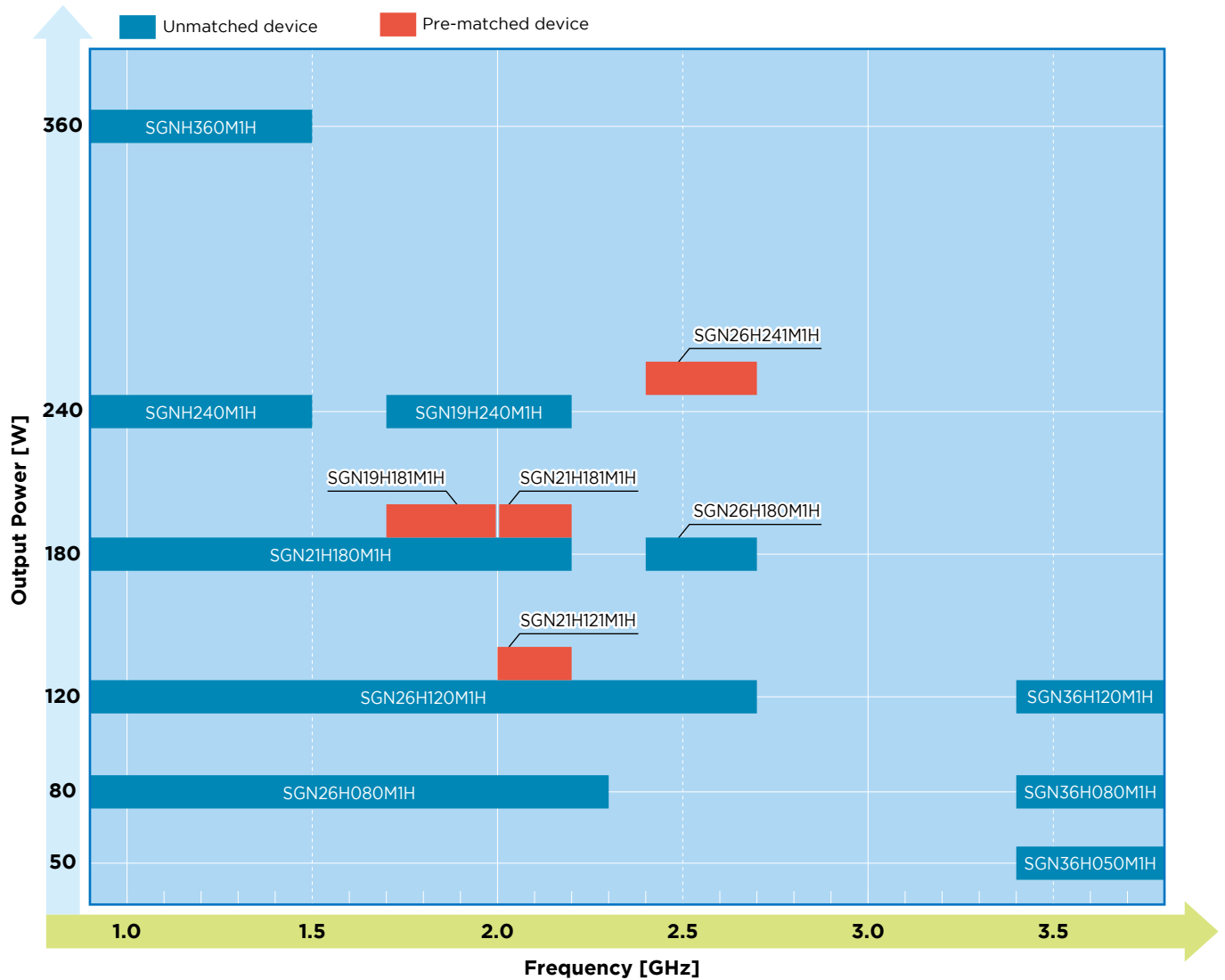
GaN HEMTs for Base Station

Features

- Designed for 3G/LTE/WiMAX Base Station
- Optimized for Doherty Architecture
- Higher Load Impedance: 15 to 20Ω @Final Stage (Easy Match, Wide Band)
- High Operating Voltage: 50V
- High Power: Up to 360W Psat Single Ended
- High Gain: Gp=16.5dB @f=2.6GHz, 210W Device
- High Efficiency: 60-70% with Internal Class F Matching



“H Series” Lineup



Specifications (Final Stage)

Part Number	Freq. (GHz)	Psat ^{*1} (dBm)	Pout (dBm)	Gp ^{*2} (dB)	VDS (V)	IDS (DC) (mA)	Rth (°C/W)	Package
SGNH240M1H	0.9	54.6	46.0	17.5	50	800	1.2	M1H
SGN19H181M1H	1.88	52.6	44.5	16.5	50	600	1.4	
SGN19H240M1H	1.88	53.8	46.0	16.5	50	800	1.2	
SGN21H121M1H	2.17	50.8	43.0	16.0	50	400	1.7	
SGN21H180M1H	2.14	52.8	44.5	16.5	50	600	1.4	
SGN21H181M1H	2.17	52.6	44.5	16.0	50	600	1.4	
SGN26H080M1H	2.65	49.3	41.0	17.5	50	250	2.0	
SGN26H120M1H	2.65	50.8	43.0	17.0	50	400	1.7	
SGN26H180M1H	2.65	52.5	44.5	16.5	50	600	1.4	
SGN26H241M1H	2.65	54.0	46.0	15.0	50	800	1.2	
SGN36H050M1H	3.6	47.0	39.0	17.0	50	180	2.6	
SGN36H080M1H	3.6	49.1	41.0	16.0	50	250	2.0	
SGN36H120M1H	3.6	50.8	43.0	15.0	50	400	1.7	

*1: 10%-duty RF pulse(DC supply constant)

*2: Pout(ave), CW modulation Signal (W-CDMA)

Specifications (Peak Stage of Doherty Amplifier)

Part Number	Freq. (GHz)	Psat ^{*1} (dBm)	Gp ^{*2} (dB)	VDS (V)	Rth (°C/W)	Package
SGNH360M1H	0.9	55.6	18.5	50	1.2	M1H

*1: 10%-duty RF pulse(DC supply constant)

*2: Pout=51.5dBm, 10%-duty RF Pulse

Product Photo

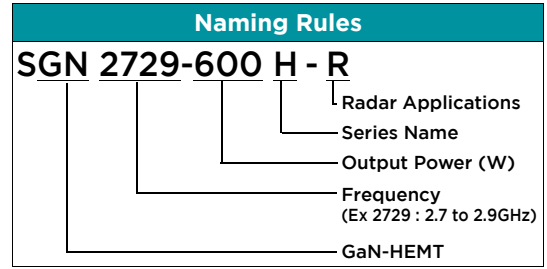
M1H Package



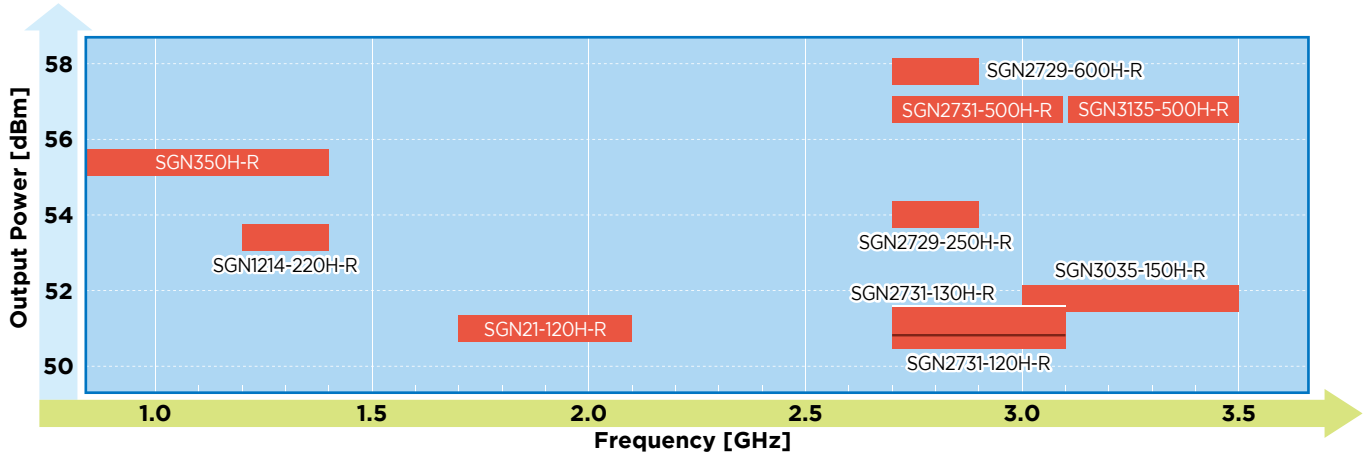
GaN HEMTs for Radar

Features

- Designed for S-band Radar Applications
- 50 ohm matched
- High Power: Up to 600W
- High Efficiency: 65%
- High Operating Voltage: 50V
- Broadband Operation
- High Gain
- Low Thermal Resistance (Rth)



GaN HEMTs for Radar L/S Lineup



Specifications

Part Number	Freq. (GHz)	Pout Min. (dBm)	Gp Min. (dB)	η_D Typ. (%)	VDS (V)	IDS (DC) (A)	Rth ($^{\circ}\text{C}/\text{W}$)	Condition	Package
SGN350H-R	DC-1.4	55.4	15.4	70	50	0.5	0.55	Pulse width: 150 μsec , Duty 10%	M1H
SGN1214-220H-R	1.2-1.4	53.4	16.9	65	50	1	0.55	Pulse width: 200 μsec , Duty 10%	IV
SGN21-120H-R	1.7-2.5	51	14.5	67.5	50	0.5	1.1		
SGN2729-250H-R	2.7-2.9	54	13	65	50	0.75	1.1	Pulse width: 120 μsec , Duty 10%	I2D
SGN2729-600H-R	2.7-2.9	57.8	12.8	60	50	1.5	0.55	Pulse width: 200 μsec , Duty 10%	
SGN2731-120H-R	2.7-3.1	50.8	11.8	63	50	0.5	1.1	Pulse width: 200 μsec , Duty 10%	IV
SGN2731-130H-R	2.7-3.1	51.2	13.2	62	50	0.5	1.1	Pulse width: 400 μsec , Duty 25%	
SGN2731-500H-R	2.7-3.1	56.8	11.8	57	50	1.5	0.55	Pulse width: 120 μsec , Duty 10%	
SGN3035-150H-R	3.0-3.5	51.8	12.8	62	50	0.5	1.1	Pulse width: 200 μsec , Duty 10%	IV
SGN3135-500H-R	3.1-3.5	56.8	10.8	58	50	1.5	0.55		

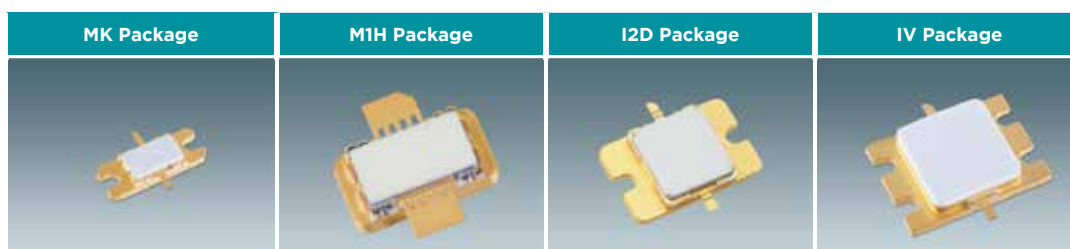
*: Test Frequency 2.1GHz
 Note: Tc (op)=+25 $^{\circ}\text{C}$

Specifications (Driver Stage)

Part Number	Freq. (GHz)	P3dB (dBm)	GL (dB)	η_{add} (%)	VDS (V)	IDS (DC) (mA)	Rth ($^{\circ}\text{C}/\text{W}$)	Condition	Package
SGN31E030MK	3.1	46	15	40	50	200	2	CW	MK

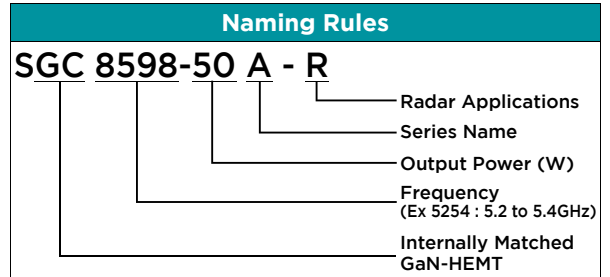
Note: Tc (op)=+25 $^{\circ}\text{C}$

Product Photo

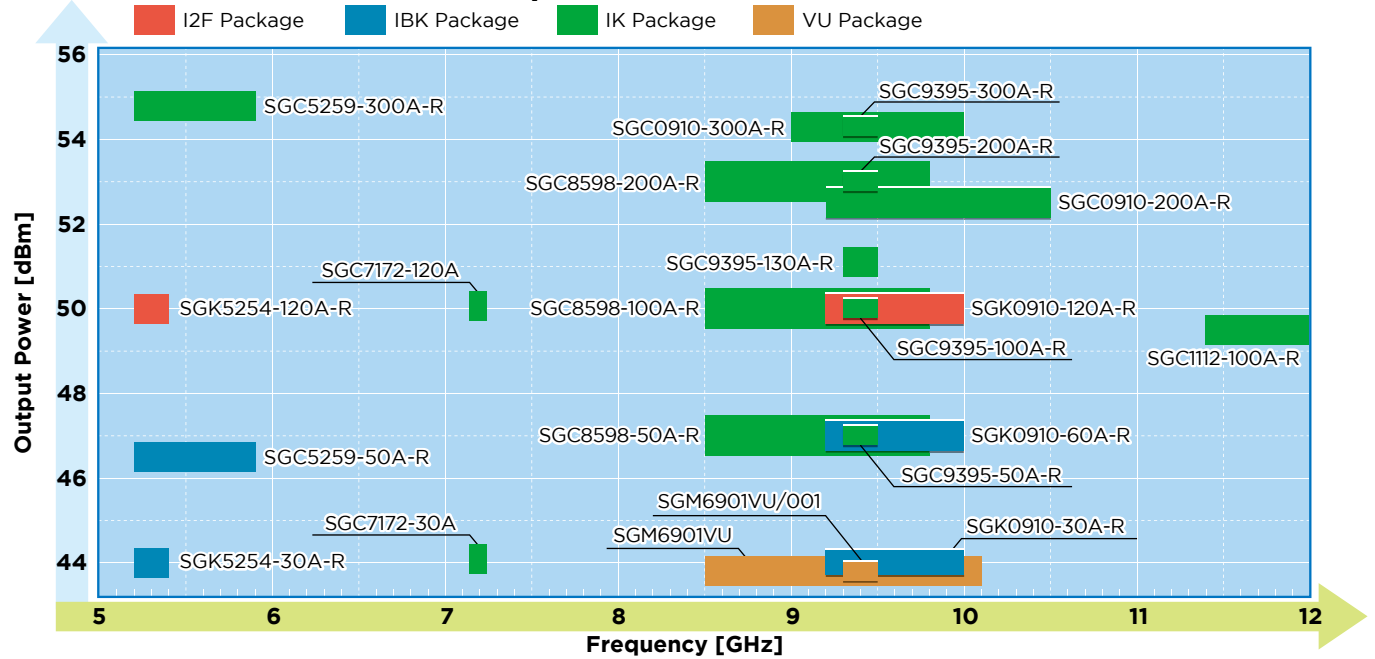


Features

- High Output Power
- High Gain
- High Efficiency
- Internally Matched



GaN HEMTs for Radar C/X Lineup

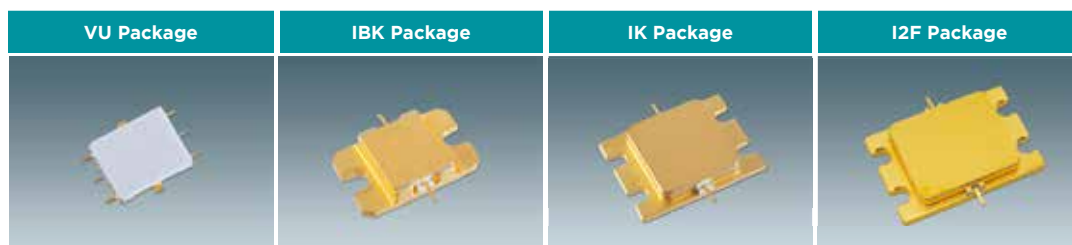


Specifications (C/X)

Part Number	Freq. (GHz)	Pout Min. (dBm)	Gp Min. (dB)	η_{add} Typ. (%)	VDS (V)	IDS(DC) (A)	Rth (°C/W)	Condition	Package
SGK5254-30A-R	5.2-5.4	44	11.5	49	24	1.3	2.2	Pulse Width:100µsec,Duty:10%	IBK
SGK5254-120A-R	5.2-5.4	50	11.5	47	24	5.3	0.65		I2F
SGC5259-50A-R	5.2-5.9	46.5	11.5	50	50	0.17	2.4		IBK
SGC5259-300A-R	5.2-5.9	54.8	13.8	50	50	1	0.7	CW	IK
SGC7172-30A	7.14-7.24	44.15	11.15	45	50	0.2	2.3		
SGC7172-120A	7.14-7.24	50.35	11.35	43	50	1.3	0.65	Pulse Width:100µsec,Duty:10%	IK
SGC8598-50A-R	8.5-9.8	47	10	40	50	0.17	2.4		
SGC8598-100A-R	8.5-9.8	50	9	40	50	0.33	1.4		
SGC8598-200A-R	8.5-9.8	53	9	38	50	0.66	0.6		
SGK0910-30A-R	9.2-10	44	11.5	35	24	1.3	2.2		
SGK0910-60A-R	9.2-10	47	11.5	35	24	2.6	1.1		
SGK0910-120A-R	9.2-10	50	11.5	35	24	5.3	0.65		
SGC0910-200A-R	9.2-10.5	52.5	8.5	38	50	0.66	0.6		
SGC0910-300A-R	9.0-10.0	54.3	8.3	35	50	1	0.7		
SGC9395-50A-R	9.3-9.5	47	10	40	50	0.17	2.4		
SGC9395-100A-R	9.3-9.5	50	9	40	50	0.33	1.4		
SGC9395-130A-R	9.3-9.5	51.1	9.1	38	50	0.5	1.2		
SGC9395-200A-R	9.3-9.5	53	9	38	50	0.66	0.6		
SGC9395-300A-R	9.3-9.5	54.3	8.3	35	50	1	0.7		
SGC1112-100A-R	11.4-12.0	49.5	7.5	36	50	1	1.4		
SGM6901VU	8.5-10.1	43.8	21.8	38	50	0.2	2.1	VU	
SGM6901VU/001	9.3-9.5	43.8	21.8	38	50	0.2	2.1		

Note: Tc (op)=+25°C

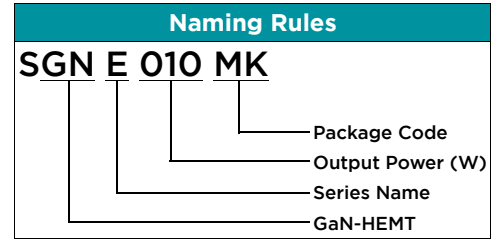
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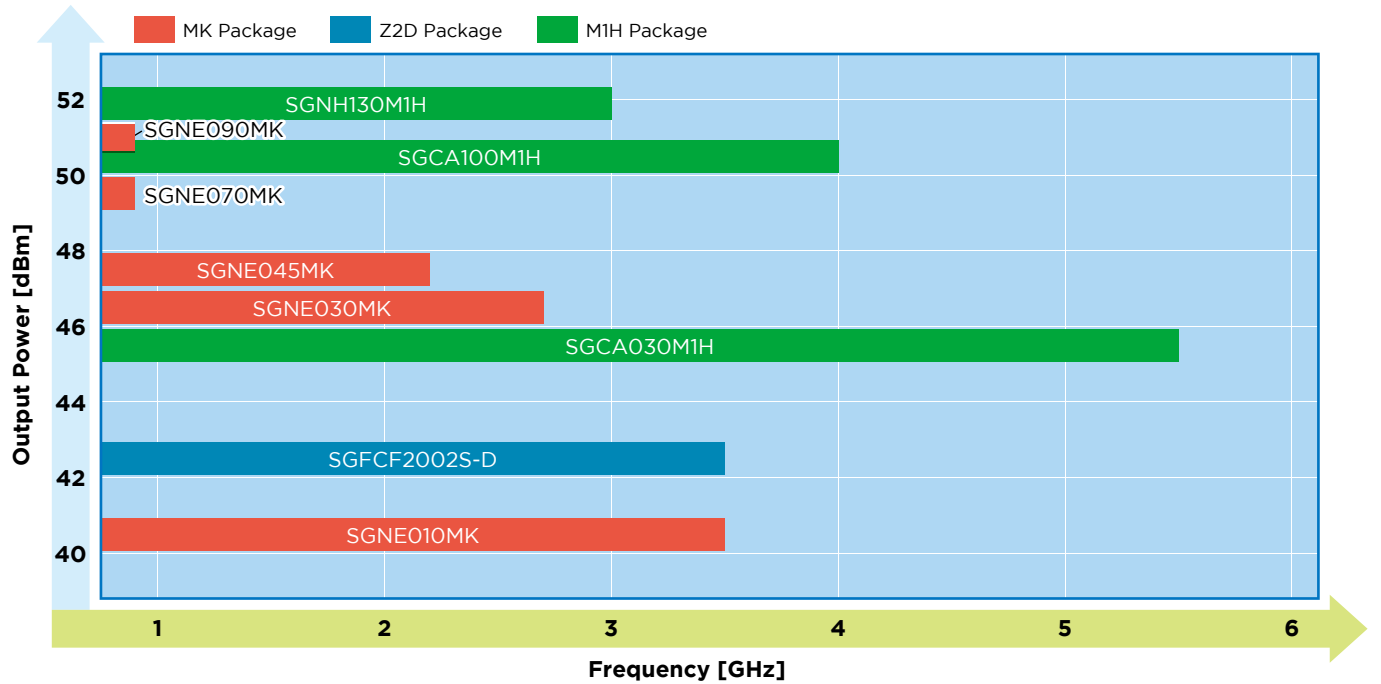
GaN HEMTs for General Purpose

Features

- Unmatched Broadband Operation up to 5.5GHz
- High Efficiency
- 50V Operation
- Low Thermal Resistance (Rth)



Lineup



Specifications

Part Number	Freq. (GHz)	Psat Typ. (dBm)	GL Typ. (dB)	η_D (%)	IDS (DC) (mA)	Rth ($^{\circ}\text{C}/\text{W}$)	Condition	Package
SGFCF2002S-D	3	42.5	25.5	44	135	3.8	CW	Z2D
SGNE010MK	3.5	40.5	16	55	100	4.5		MK
SGNE030MK	2.7	46.5	16	55	200	2		
SGNE045MK	2.2	47.5	15	55	250	1.4		
SGNE070MK	0.9	49.5	20	70	400	1.5		
SGNE090MK	0.9	51	20	70	500	1.2	Pulse	M1H
SGCA030M1H	5	45.5	9.5 ^{*1}	53	200	2		
SGCA100M1H	3.9	50.5	14.5 ^{*1}	48	650	1.2		
SGNH130M1H	3	51.9	13.9 ^{*1}	56.5	500	1.1		

*1: Gp
Note: Tc=+25°C

Product Photo

