

# FETs, IPD, IGBTs, GaAs MMICs

## ■ GaAs MMICs

### ● GaAs MMICs for Mobile Communication Use

Block	Part No.	Functions	RF Characteristics (typ.)	Applications	Package	No.	
Low-Noise Amp.	GN01087B	Single-chip front end $V_{DD} = 3.4 \text{ V}$ , $I_{DD} = 5.0 \text{ mA}$ , $f = 1.9 \text{ GHz}$	CG: 20 dB NF: 4.0 dB	PHS	Mini6-G1	D31	
	GN01096B	Gain Control LNA $V_{DD} = 2.9 \text{ V}$ , $I_{DD} = 6.5 \text{ mA}$ , $f = 0.8 \text{ GHz}$	PG: 15 dB NF: 1.4 dB	CDMA	SMini6-G1	D22	
	GN01121B	Through pass switch LNA $V_{DD} = 2.9 \text{ V}$ , $I_{DD} = 10.0 \text{ mA}$ , $f = 0.8 \text{ GHz}$	IIP3: 7.5 dBm NF: 0.9 dB	CDMA			
	GN01154B	3-stage LNA with 2-stage Down-mixer $V_{DD} = 2.8 \text{ V}$ , $I_{DD} = 8.0 \text{ mA}$ , $f = 0.8\&1.5 \text{ GHz}$	CG: 27.5 dB NF: 1.6 dB	PDC	QFN-20JP0304-N2	D53	
Mixer	GN02029B	Down-Mixer with local amplifier $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 4.4 \text{ mA}$ , $f = 0.8/1.5 \text{ GHz}$	CG: 13 dB/12 dB OIP3: 10 dBm	PDC	SMini6-G1	D22	
	GN02034B	2-Input/1-Output Mixer + Lo Amp. $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 4 \text{ mA}$ , $f = 0.8 \text{ GHz}$	CG: 12.5 dB IIP3: 1 dBm				
	GN02037B	Down-Mixer with local amplifier $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 7.5 \text{ mA}$ , $f = 0.8 \text{ GHz}$	CG: 10 dB IIP3: 5.3 dBm	CDMA			
	GN02039B	Down-Mixer with local amplifier $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 8.0 \text{ mA}$ , $f = 0.8 \text{ GHz}$	CG: 10 dB IIP3: 5.8 dBm				
Driver Amp.	GN01081B	2-stage amplifier $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 50.0 \text{ mA}$ , $f = 1.9 \text{ GHz}$	PG: 25 dB ( $P_{OUT} = 11 \text{ dBm}$ )	PCS	ESOF10D-G1	D47	
	GN01105B	2-stage Driver amplifier (Matching Circuit Built-in) $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 25.0 \text{ mA}$ , $f = 1.5 \text{ GHz}$	PG: 30.5 dB	PDC	SMini6-G1	D22	
	GN01106B	2-stage amplifier with AGC $V_{DD} = 2.8 \text{ V}$ , $I_{DD} = 30.0 \text{ mA}$ , $f = 0.8 \text{ GHz}$	PG: 29 dB DR: 48 dB	CDMA			
	GN01125B	1-stage Driver amplifier [Matching Circuit Built-in (Input-side, Output-side)] $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 15.0 \text{ mA}$ , $f = 0.8 \text{ GHz}$	PG: 18 dB	PDC			
	GN01140B	2-stage Driver amplifier with AGC $V_{DD} = 2.8/3.5 \text{ V}$ , $I_{DD} = 25.0 \text{ mA}$ , $f = 0.8 \text{ GHz}$	PG: 34 dB DR: 46 dB				
	GN01157S	1-stage AGC $V_{DD} = 2./3.58 \text{ V}$ , $I_{DD} = 35.0 \text{ mA}$ , $f = 1.5 \text{ GHz}$	PG: 30 dB DR: 48 dB				
	GN01165S	2-stage Driver amplifier with AGC $V_{DD} = 2.8/3.5 \text{ V}$ , $I_{DD} = 33 \text{ mA}$ , $f = 1.5 \text{ GHz}$	PG: 24 dB DR: 47 dB				
	GN01153S	2-stage AGC $V_{DD} = 2.8 \text{ V}$ , $I_{DD} = 30 \text{ mA}$ , $f = 2.0 \text{ GHz}$	PG: 24.5 dB ( $A_{CLR} = -53 \text{ dB}$ ) DR: 47 dB	W-CDMA			ESONF10D-G1
Antenna Switch	GN04017N	High power SPDT ANT-SW $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 0.01 \text{ mA}$ , $f = 0.8 \text{ GHz}$	LOSS: 0.2 dB ISOL: 23 dB	CDMA			SMini6-G1
	GN04022N	High power SPDT-SW $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 0.01 \text{ mA}$ , $f = 2.0 \text{ GHz}$		W-CDMA			
	GN04028N	High power SPDT-SW $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 0.01 \text{ mA}$ , $f = 0.8 \text{ GHz}$	LOSS: 0.25 dB ISOL: 23 dB	CDMA			
	GN04041N	High power SPDT-SW $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 0.01 \text{ mA}$ , $f = 2.0 \text{ GHz}$		W-CDMA /PCS			
	GN04033N	High power SPDT-SW $V_{DD} = 3.0 \text{ V}$ , $I_{DD} = 0.01 \text{ mA}$ , $f = 0.8/1.8 \text{ GHz}$	LOSS: 0.2 dB ISOL: 28 dB	PDC			